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Awareness of Green Gentrification amongst planners in the Municipality of Oslo.

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ABSTRACT

In the Norwegian context of developing greener cities and adapting to climate change, the social aspect of green gentrification has been neglected. The purpose of this investigation is to fill the knowledge gap of awareness of green gentrification amongst urban planners in Oslo. The thesis explores the perceived green gentrification in Oslo overall, but also look specifically at three example areas: Hovinbyen, Grønland/Tøyen and Linderud.

A selection of planners representing different departments in the municipality of Oslo functioned as informants for the current investigation of awareness of green gentrification. Furthermore, the investigation focuses on whether Oslo Municipality consider the risk of green gentrification while developing the city. What tools can be implemented to prevent green gentrification in Oslo, introducing the 'just green enough' approach and 'soft urban renewal' as alternatives and investigating possible barriers to implement similar tools in Oslo.

The thesis reveals a lack of awareness amongst planners in Oslo, high levels of citizen participation and smaller greening initiatives, but no correlating housing policies. The Just Green Enough approach was viewed as a possible alternative, similar to existing initiatives in Oslo. However, Soft Urban Renewal understood as more challenging due to lack a of tools and ultimately in the hands of a political mandate.

Keywords: Gentrification, Green Gentrification, Ecological Gentrification, Awareness, Just Green Enough, Soft Urban Renewal.

LIST OF CONTENTS

1	IN	TRODUCTION6
	1.1	Research Questions and Aim of Thesis
2	TF	HEORETICAL FRAMEWORK
	2.1	The origin of Green Gentrification Social sustainability, Social Equity and
		Environmental Justice
	2.2	Defining Green Gentrification
	2.3	Contextual dynamics
	2.4	Strategies
3	RF	ESEARCH METHODS
	3.1	Thematic Analysis – Coding and theme development
4	RE	ESULTS
	4.1	Awareness
	4.2	Current policies and strategies
	4.3	Implementing policy innovations: Barriers and Opportunities
	4.4	Context sensitivity
	4.5	Summary of Results
5	DI	SCUSSION41
	5.1	Research Question 1
	5.2	Research Question 2
	5.3	Research Question 3
	5.4	Summary of Discussion
	5.	4.1 Concluding remarks50
6		ONCLUSION52
	6.1	Future research54
7	DI	EEDENCES 55

APPENDICES	I
Appendix A: sample of Interview guide English version	II
Appendix B: Sample of Interview guide Norwegian version	IV
Appendix C: Consent form	VI

LIST OF TABLES

Table 1: Research Questions	10
Table 2: Summary of Results	39
Table 3: Summary of Discussion	50

List of Figures

Figure 1: Overview of Oslo with the example areas of Hovinbyen, Grønland/Te	øyen
including the botanical gardens	8
Figure 2: Bylivsgata Grønland. Photo: Private	32
Figure 3: Linderud Nærmiljøhage (Community Garden). Photo: private	36
Figure 4 Left: Ulvenhagen, a part of "Den Grønne Ringen" and Situated in Hov	inbyen.
Right: Bylivsgate Grønland. Photos: Private	37

ABBREVATIONS

GHG Greenhouse Gas

GRI Green Resilient Infrastructure

JGE Just Green Enough Approach

LULUS Locally unwanted land use

NBS Nature-based Solutions

RQ Research Question

SDG United Nations Sustainability Goal

SUR Soft Urban Renewal

UA Urban Agriculture

UNCED United Nation Conference on Environment and Development

WCED World Commission on Environment and Development

1 INTRODUCTION

There is a worldwide call for and initiative, to make cities greener and more sustainable, cities are responding to the ecological crisis and climate changes by "going green" and enhancing their climate resilience (Gould and Lewis, 2017, Anguelovski et al., 2019). "Make cities and human settlements inclusive, safe, resilient and sustainable" reads United Nations Sustainability Goal (SDG) 11. Target 11.7 details that by 2030 we should "provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities" (United Nations, nd).

Urban planning Oslo is no exception "The climate strategy for Oslo towards 2030" was adopted by the City Council in May 2020 with the main objective – for Oslo to have close to zero emissions. This includes reducing emissions, strengthen Oslo's ability to endure the climate changes coming its way as well as managing Oslo's nature in a way that preserve the natural carbon stored in soil and trees as well as increase storing of carbon in vegetation towards 2030 (Oslo Municipality, 2020, Solli and Andresen, 2020).

Urban greening and the development of greener cities, green interventions and climate adaptions are portrayed as a win-win, as well as both urgent and necessary (Shokry et al., 2022). In the case of Oslo, the climate strategy promises climate change adaptions preparing for surface water and flooding, something that "requires solutions such as green roof and space for water runoff in the city" (Oslo Municipality, 2020, Solli and Andresen, 2020) as well as retaining and increasing the carbon stored in trees and soil, that "makes it all the more necessary to protect the green areas in the city and in Marka." (Oslo Municipality, 2020, Solli and Andresen, 2020). "Marka" or "Oslo Marka" refers to the forested area surrounding Oslo, it is a popular recreation area for a lot of outdoor activities for the citizens of Oslo (Solli and Andresen, 2020). The strategy also highlights how green areas are important for biodiversity, recreation and quality of air (Oslo Municipality, 2020, Solli and Andresen, 2020). These kinds of climate adaptions, often referred to as Green Resilient Infrastructure (GRI) Nature-Based Solution (NBS) and urban greening (Gould and Lewis, 2017, Anguelovski et al., 2019, Cucca, 2019). While also functioning as an adaptation measure, urban greening is being painted as increasing both social and economic value and benefits (Anguelovski et al., 2019). For example, establishing new greenspaces are a contributing factor to enhancing property values,

fostering a growing economy as well as attracting business investment. In addition, it creates opportunities for recreation, environmental learning, stronger social ties, improved civic networks and social capital, and general improved overall health (Anguelovski et al., 2019). Although climate adaptation, GRI's and other aspects of urban greening as seen above are contributing to have rather positive and necessary outcomes, they have however been criticised by social scientists who specializes in environmental justice. They would argue that some urban greening initiatives or GRI's either ignore or downplay the "..negative impacts for socially vulnerable residents while selling a new urban brand of green and environmentally resilient 21st century city to investors, real estate developers, and new sustainability-class residents" (Anguelovski et al., 2019).

This process explains the phenomena of Green Gentrification (GG) (Gould and Lewis, 2017). The term is used as an umbrella term with variations of similar phenomena "Ecological Gentrification" (Dooling, 2009, Beretta and Cucca, 2019) and "Environmental Gentrification" (Checker, 2011). It is used to describe a part of gentrification where green interventions can lead to the process of gentrification (Gould and Lewis, 2017). 'Classical' gentrification describes a process where new, often young, white, well-educated residents of higher incomes displace the more typically low-income, minority, and elderly residents from their original, often central yet tarnished and spatially dense neighbourhoods. It is driven by economic and social shifts, leading to physical changes in the neighbourhoods, but can differ greatly from the overall level of change in the region (Marcuse, 1985). Gentrification can have several drivers that instigates the process, such as tourism, commercial development, residential construction, or urban greening (Emilia Oscilowicz et al., 2021). Following up on the aspect of urban greening as a driver of gentrification, GG can be understood as introducing greening initiatives in urban spaces to create or revitalize environmental amenities. It can in turn become attractive to wealthier residents, something that might increase the housing prices in the area and thus displace the original less affluent residents (Gould and Lewis, 2017).

1.1 Research Questions and Aim of Thesis

In the Norwegian context of developing greener cities and adapting to climate change, the social aspect of GG seems to have been neglected. There is little to no research of the topic of GG in Oslo to be found, which begs the question why? The contribution and the purpose of the current investigation and the master thesis is to fill in the knowledge gap of the

perception and to uncover the awareness of GG amongst urban planners in the context of Oslo.

The thesis will explore the perceived GG in Oslo overall with a closer look at three specific areas, namely: Hovinbyen, Grønland/Tøyen and Linderud. Table 1 demonstrates an overview of Hovinbyen, Grønland/Tøyen and Linderud.

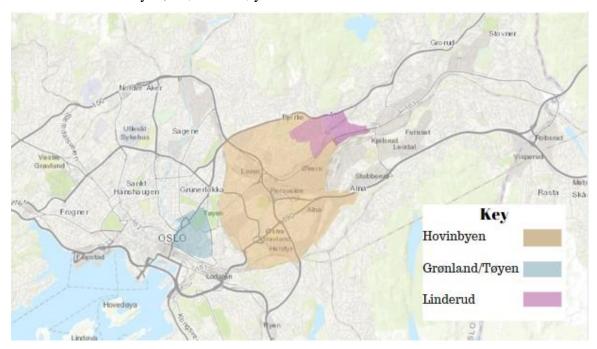


Figure 1: Overview of Oslo with the example areas of Hovinbyen, Grønland/Tøyen including the botanical gardens

"The risk of green gentrification is likely to increase globally, the social impacts of adapting urban spaces to climate change are and will be different from city to city and even within cities" (Anguelovski and Connolly, 2022, sited from Friesenecker et al., 2023, p. 2) Therefore, further looking into these three areas in Oslo makes sense methodologically as Oslo is a diverse city with different areas in different stages of development as presented below.

Hovinbyen comprises several sub-districts, each with its own district identity, historically large parts of the area of Hovinbyen have been an industrial site or overall brownfield, with no housing or residents. In later years it has become Oslo's largest urban development area, with a goal of accommodating up to 30,000-40,000 new homes and 50,000-100,000 workplaces, and is marketed as a new green district (Oslo Municipality, nd-c). The second example area combining the neighbourhoods of Grønland and Tøyen situated

in a central area just east of the city centre in Oslo, historically Grønland and Tøyen has been a diverse district where people with different ethnic origin resides, however due to the ever-increasing population pressure the district is experiencing an influx of new residents (Oslo Municipality, nd.-b). Lastly the final area is Linderud a residential neighbourhood in the District of Bjerke northeast in Oslo. It is surrounded by a great amount of green space, is expected to have an increase of residents in the years to come and is of high social vulnerability as the current demographic consist of a social mix of residents with different ethnic and socio-economic backgrounds (Oslo Municipality, nd.-a). To summarise the differences in the example areas are presented in Table 1 'Summary of differences in example areas' below.

Table 1: Summary of differences in example areas

	Position	Population	Presence of green
Linderud	Northeast in Oslo.	High percentage of	Highly green
	Peripheral	vulnerable residents.	
Hovinbyen	Several sub-districts	Overall middle-	Highly green in
	connecting the inner	class.	some areas, densely
	city to Groruddalen.		built in other areas.
Grønland/Tøyen	Central, just east of	Mixed population, a	Highly in need of
	the city centre.	high percentage of	green
		vulnerable residents	
		and gentrifiers.	

The overall aim of the thesis is concerned with the awareness and perception of risk of green gentrification amongst planners of Oslo Municipality. The decision of focusing on awareness as a relevant topic in the green gentrification debate in Oslo, stems from the notion that urban planners associated with urban greening are the ones most likely to impact the greening on public property and other intersecting aspects of urban greening in gentrification processes, such as housing policies (Nesbitt et al., 2023).

As the research discourse of GG often includes criticism, we can see if these criticisms are being considered in policies and actions by interviewing the urban planners working in the climate departments (Nesbitt et al., 2023). In terms of the social impacts of climate adaptation and the contextual makeup of the environment, planners associated with

urban greening have the opportunity to contribute to preventing GG. However they might also end up unintentionally instigating GG processes (Nesbitt et al., 2023). Due to different public policies at different levels and their awareness of these processes (Beretta and Cucca, 2019, Shokry et al., 2022, Friesenecker et al., 2023). Given the lack of research on GG in Oslo, examining the awareness of the amongst planners in Oslo appeared a natural starting point.

Exploring the awareness will be done by interviewing urban planners and other informants with relevant competence in urban planning from Oslo Municipality, focusing on the climate departments. Including proposing two strategies or tools suggested by international literature that might affect the development of GG (Cucca et al., 2023, Emilia Oscilowicz et al., 2021, Friesenecker et al., 2023).

- 1. A possible urban planning approach to greening -namely, The Just Green Enough Approach (JGE) (Curran and Hamilton, 2018).
- 2. An integrated strategy of urban renewal and housing policy- namely Soft Urban Renewal (SUR) (Cucca, 2019).

In exploring the awareness of GG amongst planners in Oslo Municipality, the objective of the thesis is proposed in the research questions presented in Table 2: "Research Questions" below.

Table 1: Research Questions

RQ1: Is there awareness amongst planners about green gentrification in Oslo Municipality? RQ2: Does planners of Oslo Municipality consider the risk of green gentrification while further developing the city? RQ3: What tools can be implemented to prevent green gentrification in Oslo? Suggesting 'just green enough' approach and 'soft urban renewal', what are the barriers to implement similar tools in Oslo?

Having defined the research questions, objectives as well as the purpose of the study in Chapter 1– Introduction, theoretical framework is in next in line. Chapter 2 – Theoretical Framework will establish the key concepts and theories that demonstrate the research on GG and how the context matter, as well as suggesting strategies of prevention or limitations of

GG. Succeeding Chapter 2 – Theoretical Framework, the thesis is organized following the structure of: Chapter 3 – Research Methods which elaborates on the research design and methods used to collect and analyse data collected from the interviews. Chapter 4 – Results will be presenting the findings of the study through content analysis. Chapter 5 – Discussion the results will be examined by addressing the research questions and interpret the findings in the context of the research questions, Chapter 2 – Theoretical Background and other relevant existing literature enriching the discussion. Finally, Chapter 6 – Conclusion, will summarize the main take away from the discussion, by restating results with comprehensive answers and suggest research gaps with objectives of potential future research.

2 THEORETICAL FRAMEWORK

To understand GG and its implication, an examination of its historical origin in social sustainability, social equity and environmental justice is needed. The structure of Chapter 2 – Theoretical Framework follows the succession of themes of origin, defining the concept, why and how context matters and finally the suggested strategies. This to ensure conceptual clarity of the background of GG and to contextualize the thesis. Additionally, as the study reviews different example areas, context dynamics will be explored to illustrate how GG can manifest itself in various areas, such as in the American context, the European context and local urban compositions (Gould and Lewis, 2017, Beretta and Cucca, 2019, Anguelovski et al., 2022). Finally, as mentioned in Chapter 1 – Introduction the two strategies of a possible urban planning approach to greening, JGE (Curran and Hamilton, 2018) and the integrated urban renewal and housing policy tool of SUR (Cucca, 2019), suggested by international literature as effective measures to prevent or lessen the effect of GG developing, will be presented. Before moving on to Chapter 3 – Research Methods where the chosen methodological approach will be presented.

The literature explored in Chapter 2 – Theoretical Framework, was selected based on leading research within the field of GG focusing on works that have shaped the discourse of GG, in addition recommendations from the thesis' supervisor as she is a researcher herself in the field of GG and highly knowledgeable of the topic. Also, the snowballing method (Clark et al., 2021) was used, were key sources from leading research within the field of GG navigated the discovery of related literature.

2.1 The origin of Green Gentrification

Social sustainability, Social Equity and Environmental Justice

The origin of the phenomena of GG can be understood through Social Sustainability, Social Equity (Gould and Lewis, 2017) and Environmental Justice (Cucca et al., 2023)

Beginning with Social Sustainability, according to Gould and Lewis (2017) the way we are assessing urban greening in relations to whether they are sustainable, is very broad. They explain that sustainability comes from the concept of "sustainable development" which grew in popularity after the United Nations Conference on Environment and Development (UNCED) in Rio in 1992, also known as Earth Summit (United Nations, 1992). Up until that point, the "development" of poorer nations was viewed through a lens of economic

development, even if it came at the cost of the environment. Meaning that for example, industrial incentives would be put in force as it would increase the nations income, however the pollution that came with the territory would be viewed as a cost of economic development (Gould and Lewis, 2017). Yet in the 1987 United Nations Conference on Environment and Development, also referred to as the Brundtland commission (United Nations, 1987), defined sustainable development as "development that meets the need of the present without compromising the ability of future generations to meet their own needs" (Gould and Lewis, 2017). The report overtly claims that; central to sustainability is the reduction of inequality. Sustainability and sustainable development have since been defined as having three pillars: 1) economic growth, 2) environmental protection, and 3) social equity (Gould and Lewis, 2017). Also referred to as the "three E's" (Newell et al., 2013).

Further, Social Equity is defined as "a measure of justice where all can thrive and prosper, taking into account the impacts of historic and ongoing oppression" (Emilia Oscilowicz et al., 2021). Gould and Lewis (2017) continue to explain that there are two parts of social equity, one part focuses on process: who gets to participate, who has a say in development and who makes the decisions. The second part focuses on the outcome: the equitable distribution of environmental goods and bads. In the case of New York, the development plans have been heavily weighed by a focus on the environmental and economic aspect, whereas the social equity aspect has not received the same focus, even though it is a crucial dimension of sustainability as a whole (Gould and Lewis, 2017).

According to Gould and Lewis (2017), who conducted a comparative study of five areas in Brooklyn, New York, the outcomes of urban greening initiatives, although positive for the environmental sustainability, also has a tendency to be socially unsustainable. Further they are pointing out that urban greening initiatives changes the demography of an area. They highlight the irony that even though the intention of urban greening measures in working-class areas and neighbourhoods where most residents are people of colour is to improve environmental conditions, post observations show that "greening whitens" and concurrently leads to replacing the lower-income and minority residents with wealthier white residents (Gould and Lewis, 2017). They state that the eventual outcome of urban greening, without policy interventions, is an increased inequality between the privileged and marginalized communities regarding access to environmental amenities (Gould and Lewis, 2017).

Finally, the phenomena of GG is in addition to its origin of social sustainability, grounded in environmental (in)justice (Gould and Lewis, 2017). Especially in the North American context as the "concept of green gentrification has strong roots within the environmental justice debate in the US" (Cucca et al., 2023).

Environmental justice is defined as a "movement that came out of Black struggle against disproportionate environmental burdens. Environmental justice understands that environmental conditions interact with and reflect systems of oppression" (Emilia Oscilowicz et al., 2021). It refers to environmental 'goods' and 'bads' in society. "Bads' referring to toxic pollutant and 'locally unwanted land uses' and the public health consequences brought on by such environmental "bads" (Gould and Lewis, 2017), as well as lack of green spaces (Emilia Oscilowicz et al., 2021). On the other side, environmental (in)justice also covers environmental 'goods' referring to parks, clean air and water, access to waterfront resources (Gould and Lewis, 2017) and equitable access to green amenities (Emilia Oscilowicz et al., 2021), the injustice lies in who gets access to those environmental goods and bads (Gould and Lewis, 2017). Defined as "Fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (US Environmental Protection Agency, 2020, sited in Emilia Oscilowicz et al., 2021, p. 15). Emilia Oscilowicz et al. (2021) enriches this definition by calling for it to include "consideration for gender, disabled people, orientation, or religion.".

2.2 Defining Green Gentrification

To grasp the concept of GG, it is valuable to understand the concept of 'classical' gentrification. As introduced in Chapter 1 – Introduction, classical gentrification is understood as a process where new, often young, white, well-educated residents of higher incomes displace the more typically low-income, minority, and elderly residents from their original, often central yet tarnished and spatially dense neighbourhoods. It is driven by economic and social shifts, leading to physical changes in the neighbourhoods, but can differ greatly from the overall level of change in the region (Marcuse, 1985). As previously mentioned gentrification can have several driver instigating processes, such as tourism, commercial development, residential construction, or urban greening (Emilia Oscilowicz et al., 2021).

"Tourism gentrification refers to the transformation of a middle-class neighbourhood into a relatively affluent and exclusive enclave marked by a proliferation of corporate entertainment and tourism venues." (Gotham, 2005).

Commercial development can be a driver of gentrification and lead to 'commercial gentrification', witch "entails the perceived and involuntary displacement of locally anchored businesses by an invasion of 'hipster' activities and/or an absorption in homogenised 'commercial' landscapes' (Friesenecker and Lagendijk, 2021)

Residential construction is also referring to 'new-build gentrification' which is describing the gentrification processes in newly developed residential areas, where only the affluent have access (Rérat, 2012, Rérat et al., 2010, read in Cavicchia, 2023, p. 2). An argument based on Marcuse's definitions of displacement, who's arguing that sky-high housing and rental prices can cause less affluent people of being "indirectly displaced" from, recent developed, centrally situated or redeveloped areas (Davidson and Lees, 2005, read in Cavicchia, 2023, p. 2).

With urban greening as a driver of gentrification, the phenomena of GG can occur (Emilia Oscilowicz et al., 2021). Gould and Lewis (2017) points out that Marcuse's interpretation focuses heavily on the displacement process of gentrification.

"Displacement is the forced physical, cultural, or emotional severance that an individual or group might experience from an area where they historically found home and community. The "force" here is not necessarily direct, but rather refers to the conditions that lay the groundwork for displacement to take place." (Emilia Oscilowicz et al., 2021, p. 250)

Gould and Lewis (2017) adds emphasis on the distributional impacts of gentrification and shows to Angotti (2008) definition of classical gentrification.

"Throughout the city's history, working people without wealth, have been shunted from one city tenement to another, especially after they make improvements to their housing and neighbourhood. As tenants and small business owners invest their time and money to gradually upgrade their neighbourhoods, real estate investors become attracted to these areas and anxious to capitalize on the improvements. As investors large and small move in, they effectively appropriate the value generated by others. This is what is now known as gentrification. It is not simply a change in demographics. *It is the appropriation of economic value by one class from another*" (Angotti, 2008, italics in original, sited in Gould and Lewis, 2017, p. 25)

Explaining that GG differs from Angotti's definition in the sense that the greening aspect is not due to tenants and small business owners' gradual improvements, instead the greening aspect is often introduced by outside investors that can both be public and private investors. "They appropriate the value of an un-revitalized environmental resource." (Gould and Lewis, 2017) and conclude that GG is the "appropriation of the economic values of an environmental resource by one class from another" (Gould and Lewis, 2017).

GG, environmental gentrification and ecological gentrification are all variations of the same origin, ecological gentrification is "defined as new or intensified socio-spatial inequalities produced by urban greening agendas and environmental policies fostered at a local level." (Beretta and Cucca, 2019), while environmental gentrification is defined as

"The convergence of urban redevelopment, ecologically minded initiatives, and environmental justice activism in an era of advanced capitalism. Operating under the seemingly a-political rubric of sustainability, environmental gentrification builds on the material and discursive successes of the urban environmental justice movement and appropriates them to serve highend redevelopment that displaces low income residents" (Checker, 2011)

In this thesis GG is understood as an umbrella term for all gentrification processes led by any form of greening. Gould and Lewis (2017) places GG "within broad social processes that produce and reproduce inequality in society". They see GG as a subset of urban gentrification, that GG is started by greening initiatives that create or restore environmental amenities, that in turn attracts wealthier residents and displaces the less affluent residents, and by doing so creating gentrification (Gould and Lewis, 2017).

There are cases where one can argue "already gentrified neighbourhoods develop constituencies for local environmental, (where gentrification leads to greening)" (Gould and Lewis, 2017). "In cases where which the gentrification process may be in the earliest stage, it is often difficult to tease out the casual direction (i.e. whether gentrification leads to greening or greening leads to gentrification)" (Gould and Lewis, 2017). They go on to explain that they "do not doubt that gentrification can lead to greening" (Gould and Lewis, 2017) and that it can be difficult to distinguish what came first of the constituency for greening or the greening initiatives that lead to gentrification in certain cases, but that ultimately, in both of those incidences, there are the distributional consequences of providing more access to green amenities to more affluent groups (Gould and Lewis, 2017) – something that leads to the topic of context sensitivity of GG. In the following context dynamics, it will be illustrated how GG

might appear in various areas, such as in the American context, the European context and local urban compositions (Gould and Lewis, 2017, Beretta and Cucca, 2019, Anguelovski et al., 2022).

2.3 Contextual dynamics

The "greening whitens" hypothesis previously mentioned and described further below, is the origin of GG and refers to the aspect of urban greening being a discriminatory race issue, something that is more so relevant and prevalent in the American context (Cucca et al., 2023). There are two different approaches in the research traditions of GG, in the North American context social scientist and environmental justice scholars have a perspective on injustices that is connected to race, income, and minority groups, where the injustice is a result of racial discrimination and exclusion from the decision-making progress. Whereas in the European context, the relational perspective of social class and social conditions are viewed as the source of these injustices (Cucca et al., 2023). This is likely due to the fact that the first studies investigating environmental injustices were done within communities of ethnic minorities, GG has since expanded from that perspective and is exploring the same processes of discrimination to be happening in 'standard' communities because of urban greening initiatives (Cucca et al., 2023).

Beretta and Cucca (2019) introduces the European perspective to the discourse. They explain that GG has been studied far more in North America than in Europe, still it is becoming more prevalent in the European context as well. They emphasises that there is some differences between North America and Europe to consider, and highlights two contextual aspect of how GG has been developed in Europe: The first one being the "relevance of public policies in Europe, both eventually promoting and containing processes of ecological gentrification" (Beretta and Cucca, 2019). Further on multiple integrated and sectoral policies in Europe driven and managed by different levels of government have been developing public interventions to improve urban greening and ecological preservation(Beretta and Cucca, 2019). They continue explaining that European cities often are exceptionally innovative in regards to enhancing quality of life and the ecological standards of living(Beretta and Cucca, 2019). Europe, in a larger sense than in the rest of the world, seem to have gentrification linked to additional aspects of environmental policy. As there are policies in place of specific strategies targeting climate change, resulting in interventions supporting urban densification strategies and energy saving technology to reach "zero-consumption" (Beretta and Cucca,

2019). Cities growing rapidly have become far more densified, as former urbanised areas have been used for commercial and residential uses. It is hard to imagine the development of more greenspace in the central areas of cities, whereas expansion of green belts or peri-urban belts seems more likely (Beretta and Cucca, 2019). An interesting aspect relating to ecological aspect of GG is the gentrification processes related to climate adaptations: GRI or NBS especially in light of the European perspective.

The second aspect of green gentrification in the European context, is "related to the territorial dimensions and the most recent regional dynamics in Europe" (Beretta and Cucca, 2019). A key difference between North America and Europe, will be the size of the average city. There are very few global cities in Europe, but it holds a network of many mid-sized cities. The implication of gentrification in medium sized cities means that there is a lot of context variables that might be different from global cities (Beretta and Cucca, 2019). In small and medium-sized cities, large scale urban transformations are unusual because they do not attract the same investment initiatives such as green interventions, or the interest of groups dedicated to advancing ecological interventions, as larger cities do. This because the return on those investments may be a lot less significant in medium-sized cities (Beretta and Cucca, 2019).

In big cities where there is real estate and residential development built by developers with a lot of investment capital, includes grand upgrades by the likes of swimming pools and gyms in addition to development or redevelopment of parks and green areas. Something that often gets overlooked is that these upgrades, especially the greening initiatives, becomes almost exclusively for those who resides in that area. All of the surrounding areas, in response to this development, also goes through an upgrade, the economic value thus increases leading to inaccessibility for the less affluent residents (Beretta and Cucca, 2019). This is describing the broad interpretation of GG appearing in literature. Yet as mentioned, this process might look a bit different in the European perspective opposed to the American, there are at least other contextual elements to consider that might lead to environmental injustice other than the process of GG described above. Smaller and medium-sized cities are not as susceptible to experiencing these large-scale urban transformations and they consider it unlikely that development or "redevelopment of a park or green area alone will lead to an increase in the average economic profile of the residents" in the area (Beretta and Cucca, 2019). "European cities and especially in medium or small sized cities, urban green spaces, if separated from

broader redevelopment interventions, do not represent sufficient leverages to cause the displacement of the less affluent social classes" (Beretta and Cucca, 2019). Beretta and Cucca (2019) summarizes that

"European cities seem to present a variety of characteristics and dynamics that, on one hand require precaution when it comes to identifying possible processes of green or environmental gentrification, but on the other hand indicate new challenges and tensions as far as the relation between ecological innovation (both technological and bottom-up driven) socio-spatial inequalities are concerned." (Beretta and Cucca, 2019, p. 4)

The two elements of this summary are especially relevant for the thesis, the first one regarding the precaution that is required to identify these possible processes of green or environmental gentrification due to the contextual dynamics of the given city (Beretta and Cucca, 2019). Based on this the topic of required precaution aligns with the topic of awareness, functioning as a core element to the research of the thesis.

Further, the second element is the new tension emerging as an extension of the GG debate especially in the context of European cities, "regarding the challenges and tensions between ecological innovation, technological and bottom-up driven alike, and socio-spatial inequalities." (Beretta and Cucca, 2019). Showcasing that GG is a relevant aspect to understand if climate adaptation policy at an urban level is affecting social justice. As mentioned earlier the aspect of climate change adaptations, GRIs or NBS are such elements of ecological innovations that might affect socio spatial inequalities, especially in the European context where such innovations are very much present in the urban development of many European cities, including Oslo who also has rather ambitious climate goals (Oslo Municipality, 2020).

GRI or NBS as different climate adaptations is understood by the European Commission, as "taking action to prepare for and adjust to both the current effects of climate change [and] the predicted impacts in the future." (European Commission, 2022, read in Cucca et al., 2023, p. 2). Their understanding of climate change mitigation referring to the United Nations Environment Programme definition, as "efforts to reduce or prevent [the] emission of green- house gases" (United Nations Environment Programme, 2022, read in Cucca et al., 2023, p. 2).

These climate adaptation measures are common in the European context (Beretta and Cucca, 2019). The adaptions are interventions such as, green roofs, rain gardens, urban

agriculture, resilient parks and greenways and overall green and blue infrastructure. These resilience interventions are developed to protect cities and make them more robust against climate change, that can increase urban heat, flooding, landslides and storm water management. (Anguelovski et al., 2019, Shokry et al., 2022). They are also prevalent in the current climate strategy of Oslo Municipality (Oslo Municipality, 2020). However, Shokry et al. (2022) explains GG processes as a result of GRI's and

"points to a 'green resilience paradox' in that green resilience measures that are meant to reduce vulnerability to climate risks and impacts may do so for some even while exacerbating vulnerability to gentrification and displacement to areas at greater risk for other, socially vulnerable residents" (Anguelovski et al., 2019, Gould and Lewis, 2018, Shokry et al., 2020, sited fromShokry et al., 2022, p. 1)

This process of GG as an outcome of GRIs has been coined climate gentrification (Shokry et al., 2022) where "Vulnerable residents face a perpetual double insecurity and displacement risk – one from climate risks and impacts and the other from green (climate) resilience gentrification" (Shokry et al., 2022). Further that these kinds of climate adaptations installed to make us robust in the face of climate change might be associated with future climate gentrification in areas of vulnerable factors in addition to other contextual factors of neighbourhoods.

These kind of contextual factors of neighbourhoods or local urban compositions, greening as a driver for gentrification might not be an isolated occurrence. Other growth-oriented factors, such as for example commercial or new-built gentrification might be embedded factors (Shokry et al., 2022). Divided into three categories of 'Lead Green Gentrification', 'Integrated Green Gentrification' and 'Subsidiary Green Gentrification'. As the names suggest, 'Lead Green Gentrification' is referring to the circumstances where greening is the driver of gentrification, and the occurrence of GG can be most easily recognised. As a greening intervention is main and only factor driving gentrification in the area. 'Integrated Green Gentrification' is referring to an occurrence of GG where green is present but not responsible for the gentrification on its own, rather greening is embedded in other local interventions often other sustainability interventions contributing to gentrification. Lastly 'Subsidiary Green Gentrification' is the occurrence where greening has a relevant factor in gentrification, but plays a lot more secondary or budding role, as other growth factors are far more prominent in driving the gentrification such as for example 'New-Built Gentrification' (Anguelovski et al., 2022).

2.4 Strategies

Urban greening or ecological interventions are not synonymous with inequality. In terms of green (climate) gentrification, the climate adaptions such as NSB and GRI's and changes in housing markets might further the imbalance and vulnerability to gentrification. However, if there are policies and strategies in place to support communities and prevent displacement, they could reduce the vulnerability to gentrification. In other words, climate adaptation interventions must address both the climate risks and the potential for GG preventing vulnerable residents from being displaced (Shokry et al., 2022).

Following the previous paragraph, scholars have started to develop policies, strategies or tools to limit GG. One being JGE which is describing an approach where one focuses on small green interventions instead of big spectacular ones (Curran and Hamilton, 2018). The double entendre of the phrase lends itself to the notion of there both being the right amount of greening, but also the justice served in relation to said greening. The JGE "is a park revitalization framework from the green gentrification academic literature. It suggests countering gentrification through community centred park development rather than splashy large-scale remodels. Some critique this theory as one that promotes lower quality parks for communities of colour and low-in- come neighbourhoods" (Emilia Oscilowicz et al., 2021).

The GG discourse has also called for housing policies, such as rent control or social housing implementation to be inducted in greening strategies (Cucca et al., 2023). "Green infrastructure planning for climate adaptation needs to incorporate financing schemes that will ensure the protection of social and public housing stocks and build new permanent affordable" (Anguelovski et al., 2019).

Europe has a history of heavy involvement of public institutions in urban development through urban planning, welfare and housing policies that has contributed to the local context of lower levels of social inequality and special segregation compared to the rest of the world (Beretta and Cucca, 2019). Vienna in Austria is a great example of how housing policies and urban renewal strategies together has limited the potential GG in the city (Beretta and Cucca, 2019). SUR was introduced to the city of Vienna in Austria many years ago and has proven itself successful in limiting gentrification (Cucca, 2019). It refers to 'soft' urban renewal programs that are put in place to reduce or minimize the risk of GG to be happening in relation to neighbourhood revivals. The programs receive financial supports from the city,

aiming to enhance urban quality all while preventing displacement and providing affordable housing in apartment complexes that have been renewed (Cucca, 2019).

Exemplified by "Gebietsbetreuungen" in Vienna, which is specific offices working on area renewals, they have since the mid-seventies been run by architects or housing developers appointed by the city of Vienna, to coordinate and promote rehabilitation efforts, primarily focusing on private housing stock. Operating on the principles of a 'soft' urban renewal strategy, emphasizing social and resident-oriented approaches. These offices keep a neutral stance amongst all the stakeholders involved and are prohibited from involving their own planning business in the given area, something that differs greatly from rehabilitation commissioners in other cities in Europe (Cucca, 2019). Even though "Despite aiming at social sustainability, it cannot be denied that gentrification by 'gentle urban renewal' is triggered by complex mechanisms of selection. What cannot be confirmed by the study are the replacements of sitting 'low income' tenants" (Hatz, 2021), implying that SUR itself does not prevent GG, but rather slows down the process significantly as it does not consequence a major displacement of residents (Hatz, 2021).

Having explored Chapter 2 – Theoretical framework, where historical origin in social sustainability, social equity and environmental justice were presented along with the contextual implications of GG, and finally some strategies of prevention or tools of limitation for GG. The knowledge will be applicated in the context of Oslo and so the stage is set for exploring Chapter 3 – Research Methods.

3 RESEARCH METHODS

Chapter 3 – Research Methods, explains the research methods used in the thesis, presenting the chosen method, data collection, and analytical approaches. Followed by Chapter 4 – Results, presenting the analysed data.

According to the book "Bryman's social research methods" The individual interview are usually associated with qualitative research (Clark et al., 2021). The thesis relies on the "semi-structured interview approach as its method, the format was chosen because the premiss of the research is concerned with qualitative traits, i.e. the informants' thoughts and feelings around the issue that is being explored (Clark et al., 2021). Namely awareness and perception of green gentrification in Oslo. In collaboration with the supervisor of the master thesis, an interview guide reflecting the topic was developed.

The format of semi-structured interview allows for some flexibility, like following up on both digressions and elaborations and not being bound to neither the structure of the interview guide, the exact way the questions were outlined nor the exact questions in the interview guide (Clark et al., 2021). Some questions were added throughout the interview to clarify the informants' answers, the questions were also asked in an open matter so that in turn hopefully encouraged the informants to answer in depth the way they understand the questions being asked. Yet, circling back to the main themes in other to uncover the interviewees position in regards to their awareness of GG (Clark et al., 2021).

By using this method of interview, the thesis is utilizing the informants' own life experience and professional capacity as experts in the field of urban planning. Thus, they have the freedom to reply in a way that feels authentic to them (Clark et al., 2021). The interview guide consisted of firstly some general questions such as their familiarity with gentrification, further GG and some questions about how or whether they perceived gentrification in the context of Oslo. Following some questions about whether they were familiar with the two policies/strategies "The just green enough approach" and "Soft urban renewal" as introduced in the previous chapters. Finally, the more area specific questions about the example areas Hovinben, Grønland/Tøyen and Linderud regarding the same theme of green gentrification where asked.

The dissertation explores the research questions presented in the introduction (Table 1), in total the sample group consisted of five (5) interviews with five (5) planners from five

(5) different departments in Oslo Municipality, focusing on the climate departments were completed. Throughout the thesis the informants will be referred to as Informants A, B, C, and D to ensure anonymity. The municipal departments the sample group of informants are representing are from "Klimaetaten" which is the Climate Government Agency in Oslo, from "Bymiljøetaten" which is the Urban Environment Government Agency in Oslo, The Community Development Sector in city District of Bjerke in Oslo municipality, as well as "Bykuben" which is Oslo municipality's Centre for Urban Ecology. The fact that there only was one informant from one of the example areas can be justified by how the informants displayed complementary knowledge about all the three focus areas of Hovinbyen, Grønland/Tøyen and Linderud. Due to the scope and limitations of the research, the thesis has a smaller sample size that in turn might not fully represent the diversity of views of the targeted demographic of urban planners in climate departments in Oslo, still the interviews felt saturated as there were many overlapping opinions and perceptions of the topic of GG.

The planners were selected by emailing the different departments or specific planners with information about the thesis, asking if they would be interested in participating in an interview and/or if they could recommend anyone in their network that could be contacted as well. This type of sampling is known as snowball sampling (Clark et al., 2021). The interviews lasted between 30 and 60 minutes that resulted in roughly 3,5 hours of recorded interviews. The informants were provided with a consent form beforehand (Appendix C), and all were given the option to remain anonymous.

All interviews were recorded with the consent of the informants either by a voice recorder provided by the university or on Microsoft Teams. All the interviews were saved on a university server and deleted according to SIKT regulations. The interview guide (Appendix A) was developed in collaboration with the thesis's supervisor in English, (Appendix A) then the researcher it translated to Norwegian (Appendix B). All the interviews were conducted in Norwegian; they were then first transcribed by either Microsoft teams for the interviews that were conducted through video call, or "autotekst.uio.no" (University of Oslo and Whisper from OpenAI, nd) a speech to text transcription program developed by the University of Oslo and OpenAI, for the interviews conducted in person with a voice recorder. Then they were listened through, the transcriptions were successively corrected manually where needed, as a part of the initial preparation of the data for analysis of the interviews.

3.1 Thematic Analysis – Coding and theme development.

After listening, reading through and manually editing and correcting the transcripts multiple times, as well as taking notes in the index, coding according to what each informant replied on each question of the interview guide, some re-accruing themes became present relating to the interview guide (Appendix A) and research questions. After an iterative process and narrowing down the material to the key findings, four main themes most relevant for the research questions emerged:

- 1. Awareness
- 2. Current policies/strategies
- 3. Implementing policy innovations: Barriers and opportunities
- 4. Context sensitivity (different neighbourhoods)

4 RESULTS

Chapter 4 – Results, presents the findings from the data collected through the interviews. The results are set up to address the objectives and research questions presented in Chapter 1 – Introduction, organized and presented through the four themes identified through the content analysis of Chapter 3 – Research Methods. Additionally visual aids in the form of tables, and photos of example areas are applied to illustrate the results in a readily understood matter. Through this systematically presentation of the result, Chapter 4 – Results, aim to lay the groundwork for the succeeding discussion and interpretation of the results aligning or diverging from the content of Chapter 2 – Theoretical framework as well as complimentary existing literature, to be presented and discussed in Chapter 5 – Discussion.

4.1 Awareness

In this section the theme of awareness will be presented, awareness amongst the planners, their knowledge about gentrification, green gentrification in the world but also more specifically in Oslo.

Out of five informants all were familiar with gentrification in a general sense, with some varying degree, two of the informants revealed that they had knowledge about gentrification mainly from their time as a student, or very early on in their working career. All the informants could explain the process of gentrification and highlight both negative and positive aspect of gentrification. They described a process where an area goes through a process from physically and socially unattractive to attractive by experiencing an upgrade, either by capital or cultural investment. That leads to the value of the surrounding housing market increasing, thus making it difficult for the current residents to keep living there, leading to displacement. The informants highlighted the positive outcomes of gentrification being "areas in need of change" but also negative aspects such as "displacement" and "losing a sense of belonging". (Informant A, B, C, D, E) By contrast one informant did not subscribe to the idea that gentrification is inherently negative, and rather would highlight the positive aspects of gentrification. When the potential outcome of displacement was mentioned by the researcher, they responded that displacement was a "loaded term", that there is not necessarily a conscious act to displace, but that one cannot solve overcrowding without many people having to move. That displacement refers to a forced negative, but it might not be negative,

keeping the perspective of where these residents would have to move, it might be to a nicer place than where they lived before (Informant D).

In terms of Green Gentrification, the informants were less familiar, out of five informants three of them stated that either this interview was the first time they had heard about green gentrification expressing "Today was the first time I heard about the term" (Informant B) or they had just heard about it very recently. One informant said they knew about the term on a surface level while another informant said they could understand the term through knowing about gentrification (Informant A, B, C, D, E). Three of the informants asked for clarification and to explain what is meant by green gentrification, before we started the interview. On the topic of GG one the informant commented that the goal in Oslo Municipality is for everyone to have access to green infrastructure, near their residence as green areas are important on so many levels, such as being robust in meeting climate change and access to shade, amongst others. They found it to be a question regarding health and not gentrification. They elaborated that green gentrification is relevant when discussing green development, as one wants everyone experience increased standard of living, yet it is complex and difficult. They reflected upon whether when upgrading an area can lead to someone getting displaced but stated that, admittingly to exaggerate the point, "it is not an option to let part of the city remain really bad so it remains cheap to live there" (Informant A) they concluded that there is a risk that when working with upgrading areas that it leads to a rise in housing prices and displacement, however it is not an option not to upgrade (Informant A).

When discussing whether they thought it is possible to limit green gentrification in any way one informant meant that it wasn't possible to limit gentrification driven by culture but that the economically it is possible to do so through regulating the housing marked or provide economically support for residents. Two other informants also referred to the possibility for the municipality to buy many apartments and then rent them out cheaper, but that this also would create dilemmas, as to where the cut off is, who would get included in that and who would not (Informant A, D).

The theme of awareness is exemplified by one of the informants who states while reflecting on gentrification "I think that us in the municipality talks a little bit about it. Yes, it is a part of the framework we consider and in Grønland/Tøyen we talk about it quite a bit, but often you know it ends up with us talking more about concrete projects, sometimes the bigger picture doesn't come up" [in discussion] (Informant E).

Further on awareness, when asked about whether Green Gentrification is present in Oslo, informants had slightly varied responses. Out of five one stated that would be an empirical question, three out of five informants thought that introducing green development could lead to green gentrification and could be happening in specific areas in Oslo. One of the two stated that they had seen how improvements to urban green have made areas more attractive to reside to, such as the improvements in Bjerkedalen has made Risløkka more attractive, but not necessarily lead to displacement (Informant A, B, C, D, E). Second of the four although they thought that a green transformation would make the area in question more attractive and raise housing prices, was not worried that if an area got a very green profile, it would attract people of higher affluence and in turn people of low affluence would pull away (Informant B). They were more concerned about a densely populated city, without enough green.

"If we get some areas that are very green, with good public transportation, cultivation areas and parks. Then of course that will be very attractive, but that is not the problem. The problem is that other areas get built very densely, very high, very grey. And with a form of housing that stimulates for a lot of rentals that becomes areas that accumulates people with lower solvency." (Informant B)

By contrast one of the five informants, stated that they hoped Oslo succeeded in creating GG and explained that

"...we want people to break free of the cemented patterns and groups their used to belong to. That a bit of the problem we have in Oslo is that we have cemented social groups. Loads of measures, whether purposeful or unconscious that contributes to that cementing – such as owning vs. renting"

They meant one could say that one wants to achieve gentrification, to break down those cementations. Following that up with, stating that there is social migration going from east till west in Oslo, when living conditions increases. That this is a constant social migration that needs to be broken down and so to say, "needs gentrification the other way around" (Informant D).

4.2 Current policies and strategies

In this section the themes of current policies and strategies will be presented, as a continuation of awareness, the section is concerned with what the planners experience as to what strategies or policies Oslo currently does to prevent green gentrification, if any at all.

The informants differed in their perspective on whether they thought Oslo had any current strategies or policies already put in place to limit or prevent green gentrification. Out of five, two of the informants regarded it a housing question, one of them informed that the Norwegian model relays on people owning their housing and thus housing prices has become very high, something that is difficult to meet on a municipal level without using a lot of money. The other informants that meant prevention of green gentrification was a housing problem, said that they thought there was an awareness about gentrification in general, but that it often fell victim for quite powerful mechanisms.

By bringing up the Bjørvika development as an example (spectacular waterfront development including luxury housing in the harbour of Oslo) they said that

"Bjørvika is saturated with very wealthy resident, that there has been invested a lot of municipal funds and contributions to make it an attractive public space and completely new area for the benefit for a large portion of the city's public, yet it hasn't succeeded in creating a social mix at all." [in terms of housing] (Informant E).

Furthermore, two informants did not think there was clear awareness from Oslo Municipality of policies or strategies to prevent green gentrification for Oslo's residents (Informant B, C), as stated by Informant B

"The last city council was interested in politically enforcing possibilities to make it attractive for people to have an ecofriendly way of living. To live in central Oslo, you might see a form of green gentrification, in that sense that you'll get highly educated people cycling on bicycles and those cargo bikes, while in the outer parts of the city you'll see more families with children and people of immigrant background, that might need to have a car."

One informant mentioned that they thought one could prevent GG by working on development all over Oslo, not just the already attractive areas. That "there has been done many area lifts regarding upgrading green infrastructure – for example the development related to the Alna River and Verdensparken at Furuset. I am not under the impression that those areas had led to green gentrification" (Informant A). Verdensparken is referencing a park in the outskirts of Oslo(Oslo Municipality, nd-d). They also signified the importance of inclusion or residents' participation and highlighted. that inclusion is done well at Grønland/Tøyen (Informant A). In fact, three planners mentioned the importance of inclusion of the locals in the planning process, two especially shedding light on Grønland and Tøyen as exemplary of involvement of residents in the context of Oslo Municipality (Informant A, C,

E). A final policy mentioned by multiple of the informants was the existence of green funds locals could apply for to their city district to upgrade their neighbourhoods (Informant A, B, C, D).

Overall, the findings from "Awareness" and "Implementing Policy innovations" suggest that there is some varying degree of awareness of green gentrification amongst the sample group of informants, although the indication were that informants had little knowledge about the term green gentrification, there was some clear policies of involvement of residents in the planning process, which is considered prevention of green gentrification. There was also indication of some awareness of gentrification, in relation to the area of Grønland/Tøyen, which due to its combination of typology, geographical placement and demography might be under the biggest risk of gentrification, if we were to compare the example areas. But that even with the overall framework of considering gentrification, when working on concrete projects that perspective could get lost, even with municipal funds and contributions to create inclusive public spaces, areas still fall victim to powerful gentrifying mechanisms.

4.3 Implementing policy innovations: Barriers and Opportunities

As previously mentioned, the thesis is introducing two prominent policies that emerged from international literature as means to limit or prevent green gentrification. This following section is concerned with the informant's perspective of whether they would find these policies suitable for Oslo, if not, what the informants perceive the barriers to be for implementing said policies and strategies to Oslo.

None of the five informants were familiar with JGE, four of the informants found it to be interesting one of the informants interpreted it as "focusing on everyday infrastructure" (Informant B), while another uttered "well I think, that small is beautiful" (Informant B) and was very much concerned with neighbourhoods and preserving existing nature and buildings as key in green urban development. Regarding the "Just Green Enough' approach, instead of building spectacular green interventions, they meant that "To build a tall flashy, green vertical forest on a facade. Then that is just greenwashing, I believe that for a green urban development, we first and foremost need to look after/take care of what we already have." (Informant B). Taking care of what we already have, could be "keeping brushwood and ridges, and if there is big green lawns of sorts, one could activate them by cultivating or

planting, or by turning them into meadows of native flowers" (Informant B) they also mentioned preservation and caring for existing buildings is some the most ecofriendly perspective to keep in mind, as there extreme amounts of emissions connected to demolishing buildings and building new. Effectively foreshadowing the second policy, soft urban renewal that will be presented later in this section.

One of the informants was more critical than their fellow informants of comparing any strategies done in other cities to Oslo, commenting that it is difficult to "put Oslo into a context in which they are not familiar with" (Informant A). But did suggest that "Gatenormal" and "Treprosjektet" might be examples similar to "the just green enough approach" in the sense that Oslo have an overreaching goal of climate adjusting, but that those two examples are small interventions and the latter a bottom up intensive.

Another informant, although not familiar with the just green enough approach, perceived the approach in a way where if spectacular green interventions increasing the value of an area, perhaps that would be 'something we should do in areas where one wants increased value' (Informant D). Reasoning it with their perception of green initiatives to often be based on municipal funding and managing, and thus one has a lot more power over where those initiatives are installed, while a lot of other qualities that kickstart gentrification is introduced by the developer themselves and thus the municipal doesn't have any control over where the gentrifying factors takes place. In that sense they found it interesting if one could introduce those spectacular greening interventions more east so it in turn would strengthen the social mobility from west to east, as the economic interest to introduce said qualities are more prominent the further west you go where the ability to pay is higher. They also reflected on whether introducing spectacular green in an area that might be perceived as unsafe, might attract people to go there (Informant D)

The example of 'Bylivsgate' as illustrated in Figure 2, came up in conversation with three of the informants an example in Oslo that can resemble the JGE as it is "smaller" green interventions, that are also temporary (Informant C, D, E).



Figure 2: Bylivsgata Grønland. Photo: Private

According to Oslo Municipality Oslo Municipality (nd-b) a 'Bylivsgate' is a urban green city-life street that is designed to facilitate urban life by transforming road areas with temporary measures. The streets are developed with input from residents and businesses to identify their wishes and needs." (Oslo Municipality, nd-b) Different versions of 'Bylivsgate' have been installed in different neighbourhoods in Oslo, to "test how critical infrastructure, such as accessibility for emergency services, goods delivery, and property access, can be ensured while reducing traffic and creating more space for nature and urban life." (Oslo Municipality, nd-b) The 'Bylivsgate' at Grønland is designed as an activity street in a traditional urban street with an established square, businesses with shops and restaurants. Green, environment-creating areas have been added to enhance the well-being for everyone." (Oslo Municipality, nd-b) it includes "600 square meters filled with seating areas and urban nature, including benches, logs, and planted beds. 80 square meters have been

allocated for businesses that have moved their serving or sales areas out into the street." (Oslo Municipality, nd-b).

One of the informants when speaking about "bylivsgater" brought up the context sensitivity of those installations, that can be found in different neighbourhoods in Oslo. That in the context of Grønland, "Grønland is perceived as a challenging area begin with, due to being an area where one can find a lot of drug use." (Informant C). However, they did perceive Grønland to be very much accessible, that there are many places there where one can take a seat without having to purchase anything or without there being any limitation to how long one can stay (Informant C). further they explain that

"In comparison at Torshov, another neighbourhood where there has been installed a 'bylivsgate' installation outside the old tram stables, the intention is that this new intervention is to be accessible for all, but it has created a debate amongst the locals of Torshov of who should get access. As some worry it would become a hangout spot for rowdy youth or that the area would attract drug users." (Informant C).

The informant goes on to comment that the differences between Grønland and Torshov is that Grønland is viewed as socially burdened as there are many who resides there with different ethnic backgrounds, few families with children. There is a wish for making the public spaces there "safer". That it is

"not yet gentrified, but probably undergoing gentrification. Whereas Torshov was already done gentrified in the 1990s, where the working class left, and the economists and engineers took up residence. It went from being working class to being the upper middle, or at least middle class." (Informant C).

All this to exemplify that two cases can look similar, by having similar qualities introduced, in this case 'Bylivsgate', yet experience very different effects of said urban greening (Informant C).

On the contrary, another informant did not perceive 'Bylivsgate' as small interventions, due to how expensive they were to install, and questioned whether they ever would be able to recreate them due to the cost. Commenting a real estate agent had mentioned that the 'Bylivsgate' would contribute to increased value, that the urban greening initiative could lead to the restaurants on floor level would be getting more business and subsequently must hire more people. "In principle that would increase the restaurant owner's ability to pay the houseowner more, over time." Key to this is that if the process of which this happens is

slow enough for the restaurant owner to keep up with the rent, they might not move their business. If said (greening) quality were to be introduced very quickly and the owner of the buildings benefiting from this new green quality suddenly expects a lot more rent income, the restaurant tenant might not feel like their business can pay the new asking price and thus must move. But if this process happens at a slow enough rate, the restaurant tenant might feel secure enough in their increased income to pay the raised rent prises and not move their business (Informant D). This argument along with the argument of Informant B's keeping existing buildings lends itself to the possible solution of Soft Urban Renewal.

While talking about JGE with the informants, elements such as what keeping existing buildings and the previous paragraph concerning the speed of how greening initiatives are installed came up in conversation, these elements are key in the next strategy the informants were introduced to, Soft Urban Renewal. None of the informants were familiar with the concept of soft urban renewal, yet all the informants knew about similar examples throughout Europe, referring to Vienna as exemplary in terms of how it is possible to regulate a city regarding social housing (Informant A, B, C, D).

Out of five, four of the informants mentioned lack of tools as a barrier for implementing SUR as a strategy in Oslo (Informant A, B, C, D). Varying from commenting that the housing market in Vienna is completely different from Oslo and that "One does not think in that way in Oslo and does not have the tools to do so eighter" (Informant A). Another informant second that statement with commenting that

"Throughout Europe, there is much emphasis on public engagement and the public sector are being more proactive in terms of governance actually, while Norway has a way more "laid back" approach to urban planning, that the planning authority in Oslo has "given up the right to decide what is getting built" (Informant B).

A third planner added that as they knew Vienna, the municipal owns entire apartment buildings, while in Oslo the strategy has had a more scattered approach to where they have bought apartments and ultimately it boils down to who is politically in power.

Out of five, three of the informants commented that the housing model in Norway has leaned towards owning, that we have a special position in Norway of ownership compared to other European cities where it is more common to rent, yet also recognising that there are many people who do rent, especially from lower socio-economic classes. Two of the

informants also brought up, as mentioned under 'current policies and strategies', that if Oslo were to include more social housing policies it would create the discussion of who gets the access to the social housing in the market, and where the cut off is. Stating it might be the source for a lot of disagreements and inequalities. Finally, one informant refrained from answering anything other than that there is a big housing problem in Oslo, but they did not feel like they were in a professional position to answer to it (Informant A, B, C, D, E).

4.4 Context sensitivity

Exemplified previously by one of the planners regarding how a similar green intervention "Bylivsgater" looked different in the neighbourhood of Grønland and in the neighbourhood of Torshov due contextual differences. As the thesis was introduced three different example areas was included, Linderud, Hovinbyen and Tøyen/Grønland for this exact purpose of highlighting the context sensitivity of how green gentrification might look different or have different levels of relevancy depending on where the area is situated both geographically and socially.

Out of five, one of the informants answered more generally when asked about whether they thought green gentrification was happening in the example neighbourhoods, stating that

"Many things lead to a rise in housing prices, in addition Green Gentrification. With such a market-oriented mindset, Oslo is experiencing a continuously growing population. I believe it's not just about... It's certainly about that, and not just about these pure processes of gentrification in themselves." (Informant A).

Linderud: When referring to Linderud and its potential for being undergoing green gentrification four of the informants that choose to answer, seemed to not be under the impression that Linderud is undergoing a threat of green gentrification, there was a general consensus that it was not undergoing any threat of green gentrification, with arguments such as it is not highly attractive, due to being more peripheral and it is already surrounded by a lot of green (Informant A, B, C, D). One of the informants commented that the area is seen as less socioeconomic fortunate due to statistics of health, education, and income etc. That there is being built new apartments in the years to come, but views it as a positive for the area to achieve a higher social mix. Another informant meant that there were some challenges in the area, where it looked very green from the outside, yet the green was not accessible to all. For example, that the area around Linderud Gård children were not allowed to play after a set time on weekdays and not at all on Saturdays. However, that Linderud Nærmiljøhage (an urban

agriculture community garden), see Figure 3 had created a meeting place for schools and kindergartens as well as children, youth, and people of immigrant background to partake in green activities on their grounds.

Hovinbyen: Out of five, three of the informants chose comment on Hovinbyen and whether they found green gentrification to be happening in the area. Informant A answered



Figure 3: Linderud Nærmiljøhage (Community Garden). Photo: private

more generally for all the example areas, as mentioned previously but did add that densification holds an obvious climate argument, Two of the informants commented that as Hovinbyen is mainly transforming brownfield into residential areas, they don't think it leads to gentrification in the sense that no one gets displaced, as there were no one living there in the first place. Yet recognises that the surrounding areas of Hovinbyen will maintain and perhaps experience gentrification (Informant B, C). One of the two informants brought up that many seem to move from Grünerløkka to Hasle and Løren, (both part of Hovinbyen) further they also mentioned that the area between Carl Berner and Hovinbyen as an example that they believed was under gentrification. Both informants were more so concerned with the lack of green space due to the densification policy of Hovinbyen, for it to become too grey and unattractive (Informant B, C). One of the informants calls for green structures to be put in place before or at least parallel to housing is being built and mentioned City district Sagene as an example of development of 'areas not meant for housing'. How the need for green spaces

then manifests itself, as parents with children are moving out of the area due to the lack of space for them to play. Viewing transformation of industrial areas to residential areas not followed with parallel development of greening as comparable to the development of Hovinbyen (Informant C).

The topic of "Den Grønne Ringen" came up in the interviews, a strategically planned bottom up incentive, for developers and locals to create a green circle of bicycle and pedestrian walkway connecting the different parts of the new city district of Hovinbyen (Oslo Municipality, 2018, Oslo Municipality Bydel Grünerløkka Bydelsadministrasjonen, 2018). See figure 4. Through the interviews mainly two differing opinions emerged of how they perceived "Den Grønne Ringen" on the one hand it was mentioned that Hovinbyen is marketed as green, but when it comes to "Den Grønne Ringen" it is just visible on the strategic plan so far, although it is supposed to be developed parallel to the rest of the development process of Hovinbyen.



Figure 4 Left: Ulvenhagen, a part of "Den Grønne Ringen" and Situated in Hovinbyen. Right: Bylivsgate Grønland. Photos: Private

In contrast to the likes of Tøyen and Grünerløkka which was developed 130 odd years ago, those developers gave relatively a lot of area to the city, such as all the parks in the likes

of the Tøyen park, the botanical garden, Birkelunden, Schouss plass, all set aside for the residents when planning these areas and was being built simultaneously. While in the case of Hovinbyen the housing gets built by developers then the municipality developed the parks after the fact. Highlighting that although it was crowded at Grünerløkka and Tøyen around year 1900, there was still plenty of green spaces around (Informant C).

On the other hand, another outlook on Hovinbyen and "Den Grønne Ringen" commented on by another informant was the notion that historically gentrification has been affecting areas with a larger population being replaced with a smaller population from a richer segment, whereas Hovinbyen is to go from lower population to a lot larger population, and thus one have to make sure that the standard of living is up to part for the local residents and the rest of Oslo. In terms of "Den Grønne Ringen" they had a more positive outlook on it than the previous informants, stating that they hoped that it would be successful, that the public sector didn't provide lots of funding and therefore it is based on voluntary entry from the developers, continuing "if 'Den Grønne Ringen' succeeds, it will be the most spectacular green quality we have in Oslo". Following that line of thoughts, that one also 'succeeds' with green gentrification and that Hovinbyen becomes an attractive area to reside (Informant D).

Grønland/Tøyen: Out of five one of the informants said they saw more of a danger for Green Gentrification to be happening in Grønland/Tøyen, but also gentrification in general, mentioning that with 'ordinary' gentrification a greener profile might be a result of that, than greening of itself being the driver of gentrification. Or both ways at least (Informant B). As mentioned under "Implementing policy innovations: Barriers and Opportunities" As mentioned previously another informant used Grønland as an example to highlight the different outcomes of similar green interventions in Torshov and Grønland, mentioning that Grønland is probably currently at risk of undergoing gentrification (Informant C). Another informant said that Tøyen and Grønland has been undergoing multiple smaller interventions and more are in the planning process, (mentions Klosterenga Syd as an example of getting a big lift) does think it can contribute to gentrification but views it as positive (Informant D).

A final informant commented that

"we care about the public areas looking good and, in that way, I think we are contributing to making the areas more attractive. We play a part in that. I do not really think that leads to gentrification. But maybe a little bit" (Informant E)

Continuing stating that there has been done simple upgrades such as Lakkegata pocket park as mentioned earlier as well as others, but also referring to photos of these upgrades being included in real estate advertisement and acknowledging its significance in that. Although mentioning that the intention is always to include the local residents in the planning as well as the development is intended for the current residents and is in no way developing these areas for an expected new group of buyers (Informant E). Other informants also throughout the interviews brought up how planners of Grønland/Tøyen were particularly concerned with citizen' participation (Informant A, C, E).

A summary of the combined results of chapter 4 results is presented in Table 4 Summary of results below.

4.5 Summary of Results

Table 2: Summary of Results

Theme	Key findings	
Theme 1:	General knowledge about classical gentrification, limiting awareness of GG, rejects	
Awareness	GGs relevance in the context of Oslo, focus on gentrification as a positive, believed	
	greening could lead to gentrification but not necessarily displacement. More worried	
	about lack of urban green. Hoped for GG to happen. Oslo in need of more housing,	
	by default people must move.	
Theme 2:	Little knowledge about GG, Existing policies of resident participation. Green funds to	
Current	upgrade neighbourhoods available for locals. Norwegian model relies on home	
policies and	ownership. Even with municipal funds areas falls victim to gentrifying mechanisms.	
Strategies		
Theme 3:	Unfamiliar with SUR and JGE, Familiar with similar housing policies.	
Implementing	Difficult to put Oslo into an unfamiliar context. Lack of tools to implement SUR.	
policy	Norway in a special position of home ownership compared to European cities. Oslo	
innovations:	has few and it is far between municipal housing. Positive to SUR as a concept but	
Barriers and	boils down to who is in political power. 'Bylivsgater' might have similarities to JGE,	
Opportunities	smaller greening interventions are happening. Concerned with neighbourhoods.	
	Overall positive to JGE. Introducing spectacular green as a tool to increase	
	attractivity.	
Theme 4:	<u>Linderud:</u> Perceived to not be undergoing GG, lots of green space, peripheral.	
Context	Appears green but with a lack of access.	
sensitivity		

Theme	Key findings
	Hovinbyen: Perceived not to be under GG as no one lived there in the first place,
	recognises that surrounding areas might be affected. Worried about densification and
	lack of green, only marketed as green. Densification holds an obvious climate
	argument.
	"Den Grønne Ringen" can become the most spectacular green intervention of Oslo
	Grønland/Tøyen: More in risk of GG, yet high in citizen participation, many smaller
	interventions, "pocket parks". Developed for the existing residents yet recognize that
	it is attractive.

5 DISCUSSION

This study explores and investigate the awareness of green gentrification amongst urban planners in the context of Oslo Municipality. In this chapter of discussion, the implications of the results will be examined by addressing the research questions and theoretical background. For each research question, the corresponding findings will be analysed and discussed considering whether they align or diverge from the existing theoretical framework presented in Chapter 2 – Theoretical Framework. The interviews provided profound information on several topics that has been presented in Chapter 4 – Results. In Chapter 5 – Discussion, all will not be rediscussed, but identified topics will be discussed within the frame of the research questions. Therefore, the discussion of the current master thesis is presented as a combination of the Chapter 4 – Results and Chapter 5 - Discussion.

5.1 Research Question 1

"Is there awareness amongst planners about green gentrification in Oslo Municipality?"

The answer to RQ1 as presented in Chapter 4 – Results, all informants were familiar with the concept of classical gentrification, based on displacement, and expressed similar versions of Marcuse's definition introduced in the background chapter (Marcuse, 1985). However, they did not mention or recognize gentrification in other forms when asked to describe the process of gentrification. Such as for example 'new build gentrification' that do not imply direct displacement but create exclusionary housing markets (Cavicchia, 2023, Friesenecker et al., 2023), or commercial gentrification witch "entails the perceived and involuntary displacement of locally anchored businesses by an invasion of 'hipster' activities and/or an absorption in homogenised 'commercial' landscapes" (Friesenecker and Lagendijk, 2021). In some ways, it can be argued that the informants were not familiar or updated on the newer debates of gentrification. This also became apparent in relation to GG, as the informants had limiting or no knowledge of GG before the interview. Some commented that they could understand the meaning of GG based on their knowledge about classical gentrification, or that they had a cursory understanding of the term. However, most of them were not familiar with the term until it was introduced during the interview. Exemplified by Informant B who expressed "Today was the first time I heard about the term". The results shows that some of the informants was keen on framing gentrification as a positive if the

displacement doesn't lead to displacing the original residents to a "lesser area", than where they originally lived. Another rejects the relevancy of gentrification in the context of Oslo, which appeared to the researcher to stem from how the city priorities. Exemplified by another of the informants who stated

"I think that us in the municipality talks a little bit about it [classical gentrification]. Yes, it is a part of the framework we consider, and in Grønland/Tøyen we talk about it quite a bit, but often you know it ends up with us talking more about concrete projects, sometimes the bigger picture doesn't come up" [in discussion] (Informant E)

Based on the research that has been conducted in the master thesis it has answered the first Research Question (RQ1) and identified that the awareness amongst the sample group of planners about GG in Oslo Municipality lacks profound knowledge and it can be argued that the awareness among the planners is rather limited, while most of the planners initially rejected to a large degree the existence of gentrification and by extension GG in Oslo, partially due to the high homeownership rate of Oslo. Multiple of the informants did become more comfortable in reviewing if GG was an occurrence throughout the interview but were initially critical and unfamiliar. Except for one informant who did recognise in a larger degree the occurrence of gentrification in general (Informant A, B, C, D, E).

5.2 Research Question 2

"Do planners of Oslo municipality consider the risk of green gentrification while further developing the city?"

The results show in response to (RQ2) that there does not seem to be any consideration of GG while further planning the city, However, even though there was no clear awareness of preventing GG in planning the city, multiple of the informants' provided thoughts about measures that they thought would prevent GG. Exemplified by Informant A who expressed that one could prevent GG by working on development all over Oslo, not just the already attractive areas. That "there has been done many area lifts regarding upgrading green infrastructure – for example the development related to the Alna River and Verdensparken at Furuset (an activity park in Oslo (Oslo Municipality, nd-d). I am not under the impression that those areas had led to green gentrification" (Informant A), similar most of the informants answered that the example area of Linderud were not under risk of GG due to it being both peripheral and already surrounded by a lot of green space. These observations of the informants, alignes with existing literature of gentrification, that states that central areas

are more under risk of gentrification due to their geographical position becoming attractive areas when the city expand or experience an influx in residents (Lees et al., 2008, read in Emilia Oscilowicz et al., 2021, p.13). The other observation of the informants being that they did not find areas already situated in largely green areas to be at risk of GG, something that aligns with the understanding that there is a lesser risk of GG happening by introducing green qualities into areas that are already saturated with green (Cucca and Røe, 2024). However, there is little literature supporting or dismantling that claim, which highlights a potential knowledge gap of to understand GG in already green spaces in Europe, recommended for future research.

Rather, instead of considering the risk of GG while further planning the city, comments about greening initiatives promoted by the municipality of Oslo is exemplified by Informant B's comment:

"The last city council was interested in politically enforcing possibilities to make it attractive for people to have an ecofriendly way of living. To live in central Oslo, you might see a form of green gentrification, in that sense that you will get highly educated people cycling on bicycles and those cargo bikes, while in the outer parts of the city you'll see more families with children and people of immigrant background, that might need to have a car."

The comment references a political initiative seen in Oslo in later years, concerned with reducing the number of cars and traffic there is in the centre (Oslo Municipality, nd-a). The overall comment supports the discourse pointing out an emerging sustainability-class in cities that integrates nature-driven solutions as green infrastructure, braced for climate change, into urban sustainability policy. Further creating a green and resilient city orthodoxy' by overlooking or downplaying problems faced by vulnerable residents while promoting the city as a green and modern place to investors, developers, and the more affluent class (Anguelovski et al., 2019). Keeping Oslo's climate strategy (2020) in mind, in addition to Informant B's comment, Oslo could very well be placed within this green and resilient city orthodoxy, as the findings relating to (RQ2) indicates they do not consider GG while further developing the city, but rather overlooks the negative effects GRI, NBS or other climate adaptions and overall urban greening, might have for more vulnerable residents. Eventually leading to the potential outcome of GG (Anguelovski et al., 2019). Although not explicitly stated by any of the informants, there was an underlaying notion of, from a green urban planner's point of view, green implementations are vital to climate adaption and since there now was a political leeway and permission to build and install green, increase green amenities

etc, they had to act on it and could not stop to dwell on potential negative aspects, in case of the political permission to install greening initiatives were to be retracted. Further positioned themselves as critical to the potential of Oslo being at risk of gentrification or GG at all, with statements such as

"Many things lead to a rise in housing prices, in addition green gentrification. With such a market-oriented mindset, Oslo is experiencing a continuously growing population. I believe it's not just about... It's certainly about that, and not just about these pure processes of gentrification in themselves." (Informant A).

Both two previous paragraphs might indicate that there is a general lack of awareness of GG in Oslo, thus the phenomena become overlooked in the planning process and, to answer RQ2, is not considered while further planning the city.

5.3 Research Question 3

"What tools can be implemented to prevent green gentrification in Oslo? Suggesting 'just green enough' approach and 'soft urban renewal', what are the barriers to implement similar tools in Oslo?"

The findings for RQ3 will be divided between what the informants find to be effective measures and what the constrains are in the discussion of implementing tools like JGE and SUR in Oslo.

Effective measures:

In terms of effective measures, Citizen participation and inclusion of residents in the planning processes of the neighbourhoods, especially in Grønland/Tøyen, were repeatedly mentioned by most informants. This is a tool that planners already use to aim at meeting the needs of the community they are serving (Oslo Municipality, nd-b). Although it did not come across as a conscious tool for preventing GG. The aspect of involvement from the residents in decision-making processes of urban green spaces is a crucial factor in the green urban planning strategy JGE (Curran and Hamilton, 2018). It is also showcasing a commitment to the first of two parts of social equity, that focuses on process: who gets to participate, who has a say in development and who makes the decisions. It seemed to stop there as there was no mention of the second part that focuses on the outcome: the equitable distribution of environmental goods and bads (Gould and Lewis, 2017). Other than stating that the

development [in Grønland/Tøyen] is intended for the current residents and in no way developed for an expected new group of buyers. Yet acknowledging how these greening installations have been included in real estate advertisement (Informant E). It can be argued this is showcasing lacking social protection and housing affordability policies (Anguelovski et al., 2022).

Although not familiar with the term 'Just Green Enough' approach, the informants did in addition to citizen participation provide organic expressions of smaller green community incentives to be happening across different areas in Oslo, such as Linderud Nærmiljøhage (urban agriculture community garden) or the vast variety of smaller green interventions happening in Grønland, such as Lakkegata pocket park aligning with some of the principles of the JGE of smaller community centred park development rather than spectacular large-scale greening interventions (Emilia Oscilowicz et al., 2021). Differing in the sense that they are not presented as explicitly developed in the light of keeping social justice as a central principle of the development the way JGE does (Curran and Hamilton, 2018). The planners were overall positive to JGE, as they identified that they already were executing elements of JGE, even the ones that initially were critical of "put[ing] Oslo into a context in which they are not familiar with" (Informant A).

As seen in Chapter 4– Results, 'Bylivsgater' came up in conversation when speaking about smaller less spectacular greening interventions, and the topic of how seemingly the same greening intervention had quite different affect relation to these interventions, depending on geographical placement and demography. Exemplified by the comments from Informant B who had observed the installation of 'Bylivsgater' in Grønland and Torshov, saying "Grønland is perceived as a challenging area to begin with, due to being an area where one can find a lot of drug use." (Informant C). Yet they found it to be very accessible

"In comparison at Torshov, a more affluent neighbourhood where there also has been installed a "Bylivsgate" outside the old tram stables, the intention is that this new intervention is to be accessible for all, but it has created a debate amongst the locals of Torshov of who should get access. As some worry it would become a hangout spot for rowdy youth or that the area would attract drug users." (Informant C).

The informant continued to comment that the main differences between Grønland and Torshov is that Grønland is viewed as socially burdened and likely undergoing gentrification, although not fully gentrified yet.

"Whereas Torshov was already done gentrified in the 1990s, where the working class left, and the economists and engineers took up residence. It went from being working class to being the upper middle, or at least middle class." (Informant C).

An observation that truly exemplifies how context matters. Whether Grønland/Tøyen is undergoing or at risk of GG is not explored under proper means during this thesis. However, due to the contextual status quo of the neighbourhood as being socioeconomically vulnerable, a large portion of the residents have immigrant backgrounds. As well as being an environment burdened by substance abuse and crime (Informant C, D). With the increasing housing demand present in Oslo, as multiple planners mentioned. Based on literature of gentrification, Grønland/Tøyen due to its central location, typology and demographic makeup, the neighbourhood could be considered under a higher risk of GG than the other example areas highlighted in the thesis (Lees et al., 2008, read in Emilia Oscilowicz et al., 2021, p. 15). There is also the case to be made, that the intersecting aspects of elements of JGE and social equity (smaller greening interventions, citizen participation) and lacking social protection and housing affordability policies, rooted in as this thesis argues, a lack of awareness amongst planners and policy makers of GG that might contribute to creating what Anguelovski et al. (2022) calls 'Integrated Green Gentrification'. Meaning referring to an occurrence of GG where green is present but not responsible for the gentrification on its own, rather greening is embedded in other local interventions often other sustainability interventions contributing to gentrification.(Anguelovski et al., 2022)

One of the informants stated that GG could be happening in Grønland/Tøyen, but also gentrification in general, mentioning that with [classical] gentrification, a greener profile might be a result of gentrification, than greening of itself being the driver of gentrification. "Or both ways at least" (Informant B) – something that correlates to Gould and Lewis (2017) take on gentrification leading to greening as there are cases where already gentrified neighbourhoods develop constituencies for local environments. Further explaining that in cases where gentrification is in the early stages, it can be challenging to determine the cause and effect. (Gould and Lewis, 2017). This aspect of whether gentrification leads to greening or greening leads to gentrification is still an open ongoing discussion in literature and shows a research gap that needs to be studied further (Rigolon et al., 2024).

Constrains: Constrains of implementing JGE and SUR identified in the results was exemplified by Informant E who meant there was awareness regarding classical gentrification

in general, yet "it often fell victim for quite powerful mechanism". Further on, the informant brought up Bjørvika development project as an example where they meant that

"Bjørvika is saturated with very wealthy residents, there has been invested a lot of municipal funds and contributions to make it an attractive public space and completely new area for the benefit for a large portion of the city's public, yet it hasn't succeeded in creating a social mix at all" (Informant E).

Stating they regard the lack of social mix a housing problem. This housing problem is confirmed in research done post construction in Bjørvika neighbourhood. "Bjørvika was initially meant to be a 'socially balanced' environment. In other words, the whole area was to be socially sustainable as defined by the municipality" (Oslo Municipality, 2015, sited in Andersen and Røe, 2017, p. 7). Bjørvika was supposed to be a diverse and vibrant area including people from all walks of life, people of different ethnicities, class, age and household compositions (Andersen and Røe, 2017). One way of achieving that social mix was the plan to allocate a portion of the dwellings for affordable housing, yet that is not what happened (Andersen and Røe, 2017). Rather the city councils called for ten percent affordable housing, met by the developers committing to five percent of affordable housing including the privilege to define on their own terms what affordable housing is (Andersen and Røe, 2017). As agreed upon a portion of the housing were then set aside for student housing and since it qualified for that five percent of affordable housing, the city government were pleased (Andersen and Røe, 2017).

The study further reads that even though students are not necessarily affluent, they do not reflect the diversity of Oslo's residents intended for the space, and thus the vision of social sustainability was not realized (Andersen and Røe, 2017). The notion of falling victim to powerful mechanisms are also pointed out by other informants, who in response to barriers of SUR being implemented in Norway said that:

"Throughout Europe, there is much emphasis on public engagement and the public sector are being more proactive in terms of governance, while Norway has a way more "laid back" approach to urban planning and the planning authority in Oslo has given up the right to decide what is getting built essentially." (Informant B)

According to (Anguelovski et al., 2022, sited in Friesenecker et al., 2023, p. 2) "Recent research suggests that processes of GG seem to be driven more substantially by the interplay of scaled-back or absent social protection and housing affordability policies and

investment oriented greening and liveability initiatives". Not only does Informant B's comments about Oslo giving up the power over what's gets built, track with the findings of the Bjørvika study, the comment about Norway having a "laid-back" approach to urban planning, has also been identified in European cities like Barcelona and Copenhagen, as being a factor for instigating GG (read in Anguelovski et al., 2022, p. 2, Friesenecker et al., 2023).

Further constrains for implementation of SUR as a strategy in Oslo expressed by informants was that "One does not think in that way in Oslo and does not have the tools to do so eighter" (Informant A). Even the ones that referred to Vienna or other European measures as exemplary, in terms of how it is possible to regulate a city regarding social housing said it came down to where the land lies politically (Informant C). Norway and Oslo having a strong model of house ownership, even though they did recognise the growing numbers of renters also came up in conversation several times. As Informant A mentioned, Oslo is "characterized by a marked-oriented housing policy", seemingly in which the planners had little influence over. Aligning with, the result of falling victim to the powerful gentrifying mechanisms of the developers (Andersen and Røe, 2017, Friesenecker et al., 2023, Informant B, E)

It can be argued that this indicates a lack of policy capacity, policy coordination between the different departments, as well as overall missing housing policies on the municipal level in Oslo. Lack of policy capacity has been identified in numerous European cities, where even urban policies of an innovative nature, defined by groundbreaking ideas and participatory designs have faced limitations due to the lack of policy capacity of urban governments, largely in terms of funding. As a result, these innovative policies typically benefit only certain groups, and local innovations have been moderated or prevented despite local political efforts and activism (Cucca and Ranci, 2022).

Continuing on the theme of lack of policy capacity, it was identified in the Bjørvika study that the Municipality may designate an area for development, but if private developers does not find it profitable, the plans will not lead to construction (Andersen and Røe, 2017). This notion of the developers being the ones at the helm, was also mentioned by two informants from two different perspectives regarding implementing greening. Informant B expressed their disdain for how in the case of Hovinbyen, housing gets built by developers, then the municipality install and develops the parks post construction of the residential buildings. They would have preferred it to be more of a collaborative and simultaneous effort. Another way of approaching the lack of policy capacity amongst the planners was brought to

light by Informant D who saw an opportunity of, by 'instigating GG' in the sense of installing spectacular green for increased popularity in areas developers might not find profitable. Explaining that green initiatives were often based on municipal funding and managing, and thus the planners have more power over where those initiatives are installed, while a lot of other qualities that might kickstart gentrification is introduced by the developer themselves and thus the municipal doesn't have any control over where the gentrifying factors takes place.

As referred to multiple times Oslo is characterized by a marked-oriented housing policy (Informant A), reflecting the neoliberal logic or grossly 'deregulated' urban planning practises Norway can be categorized to adhere to (Roe, 2014, , sited from Andersen and Røe, 2017, p. 6). Oslo is marketed as a green and sustainable city saturated with climate adaptations policies, as the climate strategy presents (Oslo Municipality, 2020).

As concluded in RO2 very well fits within the green and resilient city orthodoxy, something that in turn aligns with the discourse identified of GG in European cities. The discourse includes in European cities as opposed to American cities additional aspects of environmental policy, such as specific strategies targeting climate change, resulting in interventions that support urban densification strategies and energy saving technology to reach "zero-consumption" than just greening (Beretta and Cucca, 2019) also supported by Shokry et al. (2022) who expresses, as cities go green, they also create a green city image based on strategies targeting climate change, used as a neoliberal governance strategy to attract capital. Further in numerous European cities the occurrence of GG is linked to the weakening or removal of social housing policies and regulations. Something that happens alongside efforts to make neighbourhoods greener and more liveable, which often aim to boost the economy (Anguelovski et al., 2022, read in Friesenecker et al., 2023, p. 5). The constrains from implementing SUR in Oslo seem to be due to the lacking policy capacity at the municipal level, lacking policy coordination between the different departments, as well missing housing policies and overall poor regulation of housing with the municipal governance yielding for the investment of developers.

5.4 Summary of Discussion

Chapter 5 Discussion has addressed each of the research questions by discussing the corresponding key findings from Chapter 4 Results, see Table 3 Summary of Discussion.

Summary of Discussion

- Oslo Municipality lacked knowledge about GG and the case for limited awareness among the planners was made. While most of the planners rejected to a large degree the existence of gentrification and by extension GG in Oslo, partially due to the high homeownership rate. An increased perception where experienced throughout the interview. One informant who did recognise in a lager degree the occurrence of gentrification in general (Informant A, B, C, D, E).
- RQ2 Discovered that it does not appear as planners consider GG while further developing the city, but rather overlooks the negative effects GRI, NBS or other climate adaptions and overall urban greening, might have for more vulnerable residents.

 Potentially contributing to the known outcome of GG (Anguelovski et al., 2019).
- But the effective measures for implementing JGE and SUR recognized by the planners were: They were overall more positive to the implementation of JGE than SUR, as they recognized citizen participation and smaller greening initiatives, as practises they were already applying. However, the researcher argues that the intersecting aspects of elements of JGE and social equity (smaller greening interventions, citizen participation) and lacking social protection and housing affordability policies, rooted in as this thesis argues, a lack of awareness amongst planners and policy makers of GG that might contribute to creating 'Integrated Green Gentrification.' The constrains from implementing SUR in Oslo appear to be due to the lacking policy capacity at the municipal level, as well missing housing policies and overall poor regulation of housing with the municipal governance yielding for the investment of developers.

5.4.1 Concluding remarks

In Chapter 5 – Discussion, the research questions have been discussed in relation to Chapter 2 – Theoretical framework and the correlating findings of the investigation in Chapter

4-Results, as well as complimentary existing literature. It has been confirmed that the conducted investigation has presented an answer to the three research questions (Table 1).

6 CONCLUSION

In the Norwegian context of developing greener cities and adapting to climate change, the social aspect of GG seems to have been neglected. There is little to no research of the topic of GG in Oslo to be found, which begs the question why? The contribution and the purpose of the current investigation and the master thesis has been to fill in the knowledge gap of the perception and to uncover the awareness of GG amongst urban planners in the context of Oslo.

The study explored the perceived GG in Oslo overall, but also took into consideration specific example areas, namely: Hovinbyen, Grønland/Tøyen and Linderud in order to investigate context sensitivity. To investigate this topic, five planners from four different municipal departments were interviewed. A qualitative approach was used, to understand the perception of the selected informants.

The themes of 'awareness', 'current policies and strategies', 'implementing policy innovations: Barriers and Opportunities' and 'Context sensitivity' emerged from the content analysis of the interviews. The investigation has uncovered that 'awareness' amongst the informants are limited, which could indicate a similar limited awareness amongst planners in Oslo Municipality in general. A limitation of the current investigation is that the sample group of informants were on the smaller side, a bigger sample group could have provided a broader perception and improved the validity of this conclusion. 'Current policies and strategies' uncovered that there were high levels of citizen participation, and smaller greening initiatives, but with no correlating housing policies. Uncovering 'implementing policy innovations: Barriers and Opportunities' the Informants were overall positive to JGE, already implementing similar aspects in Oslo. The perception of the planners was that the barriers of implementing SUR was lack of tools and in the hands of a political mandate to implement. Uncovering 'Context sensitivity' the planners had different perception of whether the example areas was at risk of GG. Linderud was perceived not be due to its peripheral and already green placement. Grønland/Tøyen perceived to be under higher risk of GG due to its central placement and demographic components. Hovinbyen some perceived not to be under the risk of GG as it was uninhabited pre-development, while others recognised that "Den Grønne

ringen" can become the most spectacular green intervention of Oslo, if successful in implementation and not just marketed as such.

In Oslo a presumed green and sustainable city, do not seem to consider the potential negative social outcome of their identified neoliberal lead city governance, contributing to a city developed by developers. with a "scaled-back or absent social protection and housing affordability policies and investment oriented greening and liveability initiatives" (Anguelovski et al., 2022, sited in Friesenecker et al., 2023, p.3) Without awareness from planners and politicians alike the risk of green gentrification is indeed present.

6.1 Future research

The following research topics have been identified for future research studies:

- 1. Case studies investigating the risk of green gentrification in Oslo.
- 2. Comparative case studies of specific neighborhoods in Oslo (Hovinbyen, Linderud and Grønland/Tøyen) investigating whether green gentrification can be identified or not.
- 3. Comparative studies of awareness of green gentrification among planners in Oslo and other Norwegian cities.
- 4. Comparative studies of awareness of green gentrification among planners in Oslo and other European cities of an equivalent size (Gothenburg, Leipzig, Lisboa, or others).
- 5. Understanding GG in already green spaces in Europe
- 6. Exploring when gentrification leads to greening and when greening leads to gentrification.
- 7. If and where Urban Agriculture may increase the risk of gentrification or can be a driver of inclusion, participation, and climate adaptation/mitigation.

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APPENDICES

The following appendices are attached as separate documents:

Appendix A: Sample of Interview Guide English version.

Appendix B: Sample of the Interview Guide Norwegian version.

Appendix C: "Samtykkeerklæring" (Consent form)

Appendix A: sample of Interview guide English version

General Questions:

- 1. Are you familiar with the concept of gentrification and how would you describe the process of gentrification?
 - what do you consider the positive and negative aspect of gentrification.
- 2. Are you familiar with the concept of green gentrification?
 - what are different interventions that can drive green gentrification?
- 3. Do you think it is possible to limit or prevent green gentrification?

General questions about Oslo:

- 4. Do you think green gentrification is happening in Oslo?
 - If yes, can you describe some cases or present some examples?
- 5. Do you think Oslo is doing anything to prevent green gentrification?
 - If so, what do they do and how do they do it?
 - If they do not do anything to prevent green gentrification, what are the limitations or barriers for it to happen?

Questions about existing tools to prevent green gentrification:

- 6. In international literature, scholars have started to develop tools to limit green gentrification, such as the "just green enough" approach. Which is an approach where one focuses on small green interventions instead of big spectacular ones.
 - Are you familiar with this approach?
 - Do you think this could be implemented in Oslo, yes or no?
 - Why do you think it is possible/not possible?
 - What are the barriers or limitations if you think it cannot happen?
- 7. "Soft Urban renewal" has been implemented in Vienna with good success. It refers to a set of strategies and initiatives aimed at improving and revitalizing urban areas in a soft or gentle way, with a focus on renovation and preservation of existing buildings. In few words, when revitalizing urban green in an area potentially at

risk of gentrification, they also provide landlords with funding to renew the apartment under the condition of rent control for some years.

- Are you familiar with soft urban renewal?
- Do you think it could be a possible solution in Oslo?
- Why do you think its possible/not possible?
- If you consider it not possible, what are the barriers or limitations, for soft urban renewal in Oslo?

Area specific questions:

- 8. Do you think green gentrification is relevant in X area? (Hovinbyen, Linderud, Tøyen/Grünerløkka)
- 9. What interventions do you think drives green gentrification in X area?
- 10. What tool do you think could prevent green gentrification in X area?

Urban Agriculture specific question:

11. Do you think urban agriculture/urban gardens can drive green gentrification in X area?

Appendix B: Sample of Interview guide Norwegian version

Generelle spørsmål:

- 1. Er du kjent med konseptet gentrifisering, og hvordan vil du beskrive prosessen gentrifisering?
- Hva anser du som positive og negative aspekter ved gentrifisering?
- 2. Er du kjent med konseptet grønn gentrifisering?
- Hva er de forskjellige intervensjoner som kan drive grønn gentrifisering?
- 3. Tror du det er mulig å begrense eller forebygge grønn gentrifisering?

Generelle spørsmål om Oslo:

- 4. Tror du grønn gentrifisering er noe som skjer i Oslo?
- Hvis ja, kan du beskrive noen eksempler eller caser?
- 5. Synes du Oslo gjør noe for å forebygge/hindre at grønn gentrifisering finner sted?
- Hvis det er tilfelle, hva er det de gjør og hvordan gjør de det?
- Hvis det ikke er tilfelle, hva er som er begrensningene eller hindringene for at man ikke tar grep for å forhindre grønn gentrifisering?

Spørsmål om eksisterende verktøy for å forhindre grønn gentrifisering:

- 6. I International litteratur har forskere begynt å utvikle verktøy for å begrense/forhindre grønn gentrifisering. Sånn som "just green enough approach" Dette er kort fortalt en tilnærming hvor det fokuseres på mindre grønne intervensjoner i stedet for store spektakulære grønne intervensjoner.
 - Er denne tilnærmingen kjent for deg?
 - Tror du dette er noes om kan gjennomføres in Oslo, ja eller nei?
 - Hvorfor tror det er mulig/ikke mulig?
 - Hva er begrensingene eller hindringene for at det ikke kan implementeres i Oslo?

- 7. "Soft Urban renewal" Er et tiltak som har blitt iverksatt i Wien med god suksess. Den referer til en rekke strategier og initiativer som retter seg mot å forbedre og fornye urbane områder på en myk måte, de har et fokus på å renovere og bevare eksisterende bygg. Kort sagt, når de fornyer urbant grønt i områder som kanskje allerede står i risiko for å bli gentrifisert, så skaffer de (kommunen i Wien) finansiering til utleiere for å fornye/forbedre leiligheter med det forbehold at det vil være husleieregulering/kontroll i noen år, og sånn sett kan de kan de bremse et kjempehopp i markedet, som igjen kan føre til gentrifisering og tvangsforflytting av innbyggere.
 - Er du kjent med soft urban renewal?
 - Tror du det kunne vært en løsning i Oslo?
 - Hvorfor tror du det kunne en mulig løsning/ikke mulig løsning?
 - Hvis du anser det som ikke en mulig løsning, hva begrensingene eller hindringene for at soft urban renewal ikke er en løsning i Oslo?

Områdespesifikke spørsmål:

- 8. Tror du Grønn gentrifisering er relevant i in X område? (Hovinbyen, Linderud, Tøyen/Grünerløkka)
- 9. Hvilke intervensjoner eller form for grønnt driver grønn gentrifisering i X område?
- 10. Hvilke verktøy tror du kan forhindre grønn gentrifisering i X område?

Urban Agriculture specific question:

11. Tror du urbant landbruk/urbane hager kan drive grønn gentrifisering i X område?

Appendix C: Consent form

Vil du delta i en masteroppgave om

«Assessing the risk of green gentrification in Oslo»?

Dette er et spørsmål til deg om å delta i forskning knyttet til en masteroppgave i urbant landbruk, hvor formålet er å undersøke risikoen for grønn gentrifisering i Oslo. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formålet

Formålet med masteroppgaven er å undersøke risikoen for grønn gentrifisering i Oslo, med fokus på tre caseområder: Hovinbyen, Tøyen/Grønland og Linderud eller andre områder. Ved å intervjue byplanleggere i Oslo kommune og andre informanter med relevant kompetanse ønskes det å avdekke hvordan de forskjellige caseområdene er utsatt for grønn gentrifisering og eventuelle virkemidler som kan påvirke utviklingen av grønn gentrifisering. Samt en komparativ litteraturstudie til storbyen Wien i Østerrike med deres løsninger knyttet til temaet.

Hvem er ansvarlig for forskningsprosjektet?

Norges miljø- og biovitenskapelige universitet (NMBU) er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?

Du får spørsmål om å delta i studien fordi:

- 1. Du er byplanlegger i Oslo Kommune og kan bidra med viktig informasjon, om grønn gentrifisering i Oslo.
- 2. Du har relevant kompetanse innenfor byplanlegging kan bidra med viktig informasjon om grønn gentrifisering i Oslo.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg. Du kan trekke deg ved å ta kontakt med prosjektansvarlige.

Hva innebærer det for deg å delta?

Deltakelse i studien innebærer et intervju (30-60 minutter) Du vil få en intervjuguide eller en beskrivelse av intervjuet i forkant slik at du kan forberede deg på forhånd.

- Intervjuene vil foregå ansikt til ansikt eller digitalt. Lyd- og / eller notater fra intervju vil skje med tillatelse fra deg som deltar.
- Transkribert intervju eller notater vil gjøres tilgjengelig eller sendes til deg som deltaker for eventuell revisjon og godkjenning.

Kort om personvern - hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler personopplysningene konfidensielt og i samsvar med personvernregelverket.

- I arbeidet med innsamlet data vil Anna Konstanse Tuft Larsen, masterstudent i urbant landbruk, med veileder Roberta Cucca ha tilgang.
- Datamaterialet vil anonymiseres.
- Navn og kontaktinformasjon vil lagres separat.
- Informantene vil ikke kunne gjenkjennes i publikasjoner.

Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes?

Prosjektet vil etter planen avsluttes når oppgaven blir godkjent i løpet av juni 2024. Etter prosjektslutt vil datamaterialet med dine personopplysninger anonymiseres og lydopptak slettes.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke. På oppdrag fra NMBU har Personverntjenester vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter:

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg

- å sende klage til Datatilsynet om behandlingen av dine personopplysninger Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:
 - Anna Konstanse Tuft Larsen, masterstudent i urbant landbruk anna.konstanse.tuft.larsen@nmbu.no mobil: (+47) 46942750
 - Veileder Roberta Cucca, <u>roberta.cucca@nmbu.no</u>
 - Personvernombud Hanne Pernille Gulbrandsen, personvernombud@nmbu.no

Hvis du har spørsmål knyttet til Personverntjenester sin vurdering av prosjektet, kan du ta kontakt med:

• Personverntjenester på epost: personverntjenester@sikt.no eller på telefon: 53 21 15 00.

	Med vennlig hilsen				
	Prosjektansvarlig	Anna Konstanse Tuft Larsen			
	(Forsker/veileder)				
	Samtykkeerklæring				
	Jeg har mottatt og forstått informasjon om studien «Assessing the risk of green				
gentrification in Oslo», og har fått anledning til å stille spørsmål. Jeg samtykker til:					
	Jeg samtykker til å delta i intervju. Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet.				
	Dato, signatur				

