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RETHINKING METROPOLIS

Addressing modern issues through classical urban sociology: recommendations for sustainable cities

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Relatore	**Candidato**
Kristina Stoeckl	Andrea Rivieccio
	ID: 098652

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Introduction

The rapid urbanization of the 21st century has brought about profound changes in the way cities are structured, lived in, and governed. As more than half of the world's population now resides in urban areas, the challenges of managing these dense, dynamic environments have become increasingly complex. Among the most pressing issues are the environmental and social impacts of urban life, including pollution, loss of green spaces, and the fragmentation of communities. These challenges call for innovative approaches to urban planning and policy-making that can promote sustainability, enhance the quality of life, and foster social cohesion. This thesis seeks to explore how classical sociological theories can inform contemporary strategies for creating sustainable and socially cohesive urban environments, leveraging green infrastructures and European Union policies.

Theoretical framework

The theoretical foundation of this thesis is built upon the seminal works of urban sociologists Georg Simmel, Robert E. Park, and Louis Wirth. Their pioneering studies offer valuable insights into the nature of urban life and the psychological and social dynamics that characterize metropolitan environments. Simmel's concept of the "blasé attitude" highlights the mental strain caused by the overwhelming stimuli of city life, while Park's ecological approach views the city as a social organism where human relationships are tested, and social structures evolve. Wirth extends these ideas by examining how the size, density, and heterogeneity of urban populations lead to distinctive forms of social organization and individual behaviour.

By revisiting these classical theories, this thesis aims to understand how they relate to modern urban challenges, and how green infrastructure development can be a driver of change in urban areas. Green infrastructures such as parks, green roofs, and urban forests, are increasingly recognized as essential components of sustainable cities, offering solutions to environmental issues like air pollution and heat islands, as well as social benefits, including improved mental health and strengthened community ties. The effective integration of green infrastructures into urban planning requires understanding of the social and psychological dynamics at play in contemporary cities, as well as a policy and regulatory frameworks that support such developments.

Research focus

The central research question of this thesis is how classical urban sociological theories can inform the design and implementation of green infrastructure policies in European cities, with the goal of enhancing both environmental sustainability and social cohesion. To address this question, the thesis conducts a detailed semi structured interview grounded in both theoretical analysis and empirical research. The interview examines the role of urban green infrastructures as response to the multifaceted issues arising in moder cities, based on insights from an expert in green infrastructure and EU policy.

Methodological approach

The second chapter of the thesis outlines the methodological approach for the empirical research, which involves conducting an interview with a specialist in green infrastructures and EU policy. The interview is designed to bridge the theoretical concepts discussed in the first chapter with practical applications in contemporary urban planning and policymaking. In summary, this thesis seeks to contribute to the ongoing discourse on sustainable urban development by demonstrating the relevance of classical urban sociology in addressing modern challenges. Through a synthesis of theoretical analysis and empirical research, the thesis aims to offer recommendations for integrating green infrastructures into urban planning, with a focus on enhancing social cohesion and environmental sustainability in European cities. The findings of this research are intended to inform policymakers, urban planners, and scholars interested in transforming cities and ensure that they are not only liveable but also resilient and inclusive.

Chapter 1- Theoretical groundwork

Starting from the works of sociologists Simmel, Park and Wirth, by reviewing their work and comparing it with the reality of the modern world, my aim is to bring out the necessary evidence needed to have a complete look at the nature of urban environments. A comparative analysis is necessary to actualize, where needed, the classical theories of urban sociology and have a clear picture of the critical issues that need to be addressed. Once achieved, this knowledge is what needed to proceed with the expert interview case study.

1.1 Simmel's "The metropolis and mental life"

Every sociological observation of how modern cities are shaped, how they work and define the lives of city dwellers should look at the historical relevance of studies by sociologists of the past. Pioneer Georg Simmel has undoubtedly laid down the groundwork of urban sociology for fellow colleagues to follow. His work in "The Metropolis and Mental Life" published in 1903, still provides as of today some useful insights for everyone in need of the right lens through which observe the urban environment in its primitive nature and shape. We have a first glance at his theorical influence right from the first pages of his work. In the search for the correct way to describe the psychological response that individuals manifest answering to the excessive pace, noise, and all-around stimuli of metropolitan life, Simmel introduced the concept of "blasé attitude". Trending topics such as stress and mental health, are matters intensively discussed in recent years, and do not fall far at all from Simmel's thematic focus. Simmel's theory gives us the first conceptual base from which to develop the theory behind the questions that will inspire the interview from chapter three. Simmel is also particularly present, behind both Park and Wirth's theory, as even if their understanding of metropolis may in some aspects be divergent from Simmel's perspective, his influence in their work is undeniable.

Urban Individuality and Mental life

"*The deepest problems of modern life derive from the claim of the individual to preserve the autonomy and individuality of his existence in the face of overwhelming social forces, of historical heritage, of external culture, and of the technique of life*"[1].
Simmel searches for the causes behind individuals' "blasé attitude"[2], he understands that the non-stopping wave of sensory inputs, along with the intensification of nervous stimulation, forces an alteration of people social identity towards a very clear, distinctive and rational urban personality. In the passage above, we have a first look through at the tension that exists within people's necessity to maintain individuality and the parallel need to adjust their personalities to the overwhelming stimuli of urban life. The struggle here is strong, in Simmel, the nature of the human being is clearly threatened by the deafening, confusing metropolitan environment. The human-metropolis relationship here gives a rather topical picture even for modern times; for the sake of this work, it will not be necessary to look much further from what is being pointed out here. Simmel's observations pay the price of time, belonging to the first decade of 1900, they could be criticized for being not accurate enough to properly describe the dynamics of present time. The aim of this, as well as of following sections, is to show that Simmel's findings are not specific to a particular historical and cultural context, and are therefore suitable for a contemporary analysis.

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[1] Simmel, Georg: "The Metropolis and Mental Life", in: Giddens, Anthony & Sutton, Philip W. Sociology. Introductory Readings. 4th Edition. London: Polity, 2022, p.1
[2] Ibid.

Human nature and metropolitan personality

Much of what is necessary to point out here lies behind the antagonism that exists both between the man and the urban area that he occupies, and, more importantly, in the man himself, as "*the most modern form of conflict that primitive man must carry on with nature for his own bodily experience*"[3]. The internal brawl introduced here depicts a rather simple reality. It is in this dualism of man that resides the core of Simmel's theory. The man of the metropolis against the man of the small village, the incompatibility of their lives reflects the struggle of the former against the equilibrium of the latter. The village is referred to as *"a more peaceful and stable milieu"*[4], where the soul is not shattered by the continuous noise and stimuli, and individuals can preserve their nature, hence, not being forced to reshape their character.

"The development of modern culture is characterized by the preponderance of what one could call the 'objective spirit' over the 'subjective spirit' – that is, the extension of societal and cultural objects, whose importance for the development of personality is obvious, over the personal and unique character of the individual."[5]

It is this antagonism then, that shall be addressed to find an equilibrium in the life of city dwellers. This comes as a necessity for society, especially if we consider the results of modern studies providing evidence, supporting the existence and implications of, within other diseases, proper psychological response protecting individuals from feeling overwhelmed by the urban environment. A study published in 2022 by the UN Frontiers' report for the United Nations environment programme (UNEP)[6], explores how environmental factors in urban areas directly affect and impact the health of individuals. Findings from the article "Noise, Blazes and Mismatches"[7] expose the issue of environmental noise pollution. The report explains how noise exposure in urban areas can lead to sleep disturbances, cardiovascular diseases and psychological stress.

The adverse effects of noise on public health are manifold and are a growing global concern. They cover a broad spectrum of outcomes, ranging from mild and temporary distress to severe and chronic physical impairment."[8]

Classical sociological arguments find new life in the result of present studies, what could be perceived as a primitive theoretical exercise stands now as a present-day reality. In Simmel's terms, one could look at the modern pressing necessity to rethink the urban planning of cities towards a more sustainable environment as a proof of the ever-existing conflict within city and rural areas.

Every finding from the report supports Simmel's argument about the consequences of the overwhelming stimuli of urban environments. The contrast that exists in Simmel within city and village life, materializes from the proof that green areas we normally find in small towns, represent a proper medicine for the stressed and dissociated city dweller, whom mental health will highly benefit from the presence of such a place.

"Urban green space and vegetation produce positive psychological effects - Quiet urban areas offer acoustic relief to city inhabitants from noisy surroundings, a prerequisite for mental restoration and well-being."[9]

It is deep and rooted in Simmel a feeling of aversion with respect to unhealthy aspects of urban living. As the contrast within village and city life grows even stronger from the findings of modern studies, the necessity for targeted urban policy making occurs; we will explore more of this in chapter three.

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[3] Simmel, Georg: "The Metropolis and Mental Life", in: Giddens, Anthony & Sutton, Philip W. Sociology. Introductory Readings. 4th Edition. London: Polity, 2022

[4] Ibid.

[5] Ibid.

[6] United Nations Environment Programme (2022). *Frontiers 2022: Noise, Blazes and Mismatches – Emerging Issues of Environmental Concern*.

[7] Ibid.

[8] Ibid.

[9] Ibid.

1.2 Park's "The City"

Park's original understanding of urban areas stands rather clear right from the first chapters of his work in "The City", suggesting, like Simmel before him, his very own perception of the place. More than "*a mere constellation of institutions and administrative devices-courts, hospital, schools, police, and civil functionaries of various sorts*"[10], Park's city is, "*rather, a state of mind, a body of customs and traditions ... a product of nature.*"[11]

Park's effort in this essay is focused on studying the city as the habitat of the man, and in the description of the man itself as the creature that built it and now inhabits it. The transports and communication system, as well as the infrastructures meant to enhance greater mobility and concentration of the urban populations are all relevant sociological factors "*in the ecological organization of the city.*"[12] I may come back on this definition of the city and its "ecological nature" when explaining in the analysis of the interview in chapter three, how well-fitting this perspective is when addressing issues of modern metropolis. The interest in Park in this broader dimension of urban ecosystems is what makes his studies relevant to the purpose of this thesis, we explored in the previous sections the consequences of non-sustainable urban environments on individuals, it is now necessary to explore the role that people as a urban community play in this picture.

Urban ecology, the city as a social organism

Through all of Park's urban sociology, community life stands as a pivotal point for everything which lives and comes out of the city, that here itself functions very much like a living organism, with his very own social norms and culture. The result of the union of the shared values of his inhabitants' results in an almost independent collective identity. Simmel put much effort in addressing the necessity for individuals to preserve their uniqueness and personality, in response to the external influence of the metropolis. While Park does not stand far from Simmel's position, he thinks of the city as a "state of mind", where perception and mental attitudes can actively shape the whole urban experience. Both sociologists would agree that the very well-being of humans in metropolis is significantly affected by the way they perceive the city itself, Parks suggests that "*The city, and particularly the great city, in which more than elsewhere human relations are likely to be impersonal and rational, defined in terms of interest and in terms of cash, is in a very real sense a laboratory for the investigation of collective behaviour.*[13]. Here the research goes beyond the study of the individual, instead of what we saw from Simmel, the focus is aimed at the study of the city as a social laboratory. The main actors are the social structures and human relationships, the interdependence between the social environments and individuals shapes the character of the city and it is what Park's ecological approach studies. *"The observations which follow are intended to define a point of view and to indicate a program for the study of urban life: its physical organization, its occupations, and its culture."[14]*. What strikes most out of this definition is the importance that Park gives to everything which comes out of the city. Its cultural products, artists, intellectuals, pretty much every creative act is the result of the city being the place where the conditions for it to happen are set. Individuals, carrying the uniqueness that Simmel insisted to preserve, with their different personalities and from different backgrounds meet in the city, nourishing a dense and heterogeneous population. City dwellers can try different jobs, make new experiences, open themselves to unexplored lifestyles and in doing so explore their identities. Park's interest in these aspects of urban living shows what could

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[10] **"The City"** – Robert E. Park and Ernest W. Burgess, *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment* (Chicago: University of Chicago Press, 1925)
[11] Ibid. (Park, 1925, p. 1)
[12] Ibid.
[13] Ibid. (Park, 1925, p. 22)
[14] Ibid. (Park, 1925, p. 3)

look like a more positive sociological view on the subject, with respect to what we saw in "The metropolis and mental life", where Simmel manifests a rather sceptical look on urban life, in reason of the consequences that it could have on individuals' mental health and well-being. While Park does not put much effort in exploring the individual, he shows interest instead of fear and is devoted to understand and show the value of the city as a place for community and people to thrive. Now, given this difference within the two approaches, one could unsurprisingly argue that Simmel's commitment in the protection of individual personalities, does not contrast but rather preserves Park's ideal of the city. This because as we know, Park's city exists and lives off the very uniqueness of its inhabitants. The cultural treasure and innovation that resides and comes from metropolis is not just the result of people geographically being there, but of them offering the precious value of their singularity. The two theories find themselves strongly intertwined here, as if the individual personality cannot be correctly protected as Simmel suggested, the whole ecological structure that Park studies, deprived of the matter that composes it, would collapse. Furthermore, the diversity of human types enhances the city's resilience and adaptability, as several sets of skills and different perspectives contribute to solve urban challenges. Park's insight into the city's role in fostering diversity and innovation also highlights the potential for social mobility. However, this potential is not evenly distributed, and structural barriers such as discrimination and economic inequality can limit access to these opportunities for certain groups.

Modern metropolis, the barriers to community living

"The processes of segregation establish moral distances which make the city a mosaic of little worlds which touch but do not interpenetrate."[15] Park now looks at the city as a "mosaic of little worlds", this is his way of portraying the inherent fragmentation that is characteristic of urban environments. It is the various singularities of individuals and the several ethnical, cultural as well as social and economics divides that creates the city in his multitude of communities and neighbourhoods. What Park tells us through this image of his city is of great importance to our pursuit of a future model for urban areas. Where reduced noise pollution, less traffic and an increased number of green areas meet a renewed sense of metropolitan community, we find ourselves closer to a more sustainable urban environment. Park's "little worlds" coexist next to each other, geographically, yet they tend to rarely interact, and almost never in meaningful ways. Now, if in Simmel the priority was to preserve individuals in their true nature, protecting their mental health and well-being, it is now of absolute importance to protect the community as a whole. An equilibrium must be found where every component of the metropolitan environment at stake is working correctly. Community life is shown to be as important and vulnerable as the lives of singular individuals. Wealth disparities, social segregation, are what hinders the well-functioning of urban communities, poorer neighbourhoods have access to less resources than richer ones, and often struggle with lack of proper infrastructures and services. Ethnic and cultural differences also increase divide, as immigrant communities are often confined to specific areas, being deprived the possibility of interacting with other groups. All this together produces the fragmentation that Park insisted to avoid, when people are not communicating the system suffers a lack of cohesion and falls apart. It does so in reason of a chain of events in which misconception and prejudice play a part too. *"This makes it possible for individuals to pass quickly and easily from one moral milieu to another and encourages the fascinating but dangerous experiment of living at the same time in several different contiguous, but otherwise widely separated, worlds."*[16]. Park moves through the study of what could be the practical consequences of a fragmented community in the lives of singular individuals, and again, just like in Simmel, we witness the city/village comparison. In small villages people tend to manifest a certain ease in developing strong, intimate and personal relationships, a sense of mutual accountability characterizes most of the social

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[15] Ibid. (Park, 1925, p. 40)
[16] Ibid. (Park, 1925, p. 40).

interactions, it prevents feelings of anonymity, of individual's indifference and social isolation that can occur in urban environments. The question of whether this peculiarity of villages can be brought and become a feature of urban areas too is another topic next sections aim to explore.

The implications of social isolation

Even if of more recent publication, even Park studies pay the price of the time and may require some recent proof in order to be academically suitable for a study of present time issues such as this one. This section will look through the implication of social isolation to check how far we currently are from what Park and Simmel stood for. The vast number of people that occupies the metropolis makes it not easy to develop the same kind of relationships one can build in small towns; in big cities individuals develop a sense of indifference towards those around them, a response similar to what Simmel introduces in "The metropolis and mental life". Anonymity on the one hand, allows individuals the freedom to express themselves without the constraints of close-knit community scrutiny, on the other hand, it can lead to feelings of loneliness and disconnection. This indifference is a coping mechanism to manage the overwhelming number of social interactions and to protect oneself from the emotional strain of constant engagement. The loss of participation in group life further exacerbates feelings of isolation. This isolation has profound implications for mental health and well-being. The lack of social support can make it challenging for individuals to cope with the stresses of urban life, leading to a vicious cycle of isolation and mental health decline. A study conducted in 2003 highlights how social isolation can have profound psychological and physical health consequences, including increased stress, depression, and reduced physiological functioning[17]. The research shows that individuals experiencing isolation not only report higher levels of stress but also display passive coping mechanisms, which can contribute to hypertension and other cardiovascular issues. Furthermore, the study found that isolation impairs the body's ability to repair itself, resulting in slower wound healing and poorer sleep efficiency. This gives us a perspective on the consequences that Park's seemingly outdated "little worlds" can have on individuals, where the lack of social cohesion and understanding within all parts of society, inherent in city life, can exacerbate feelings of loneliness and disconnection, leading to a vicious cycle of isolation and mental health decline. Park's research, now reinforced by the results of modern studies shows how important it is to foster greater social cohesion to mitigate these negative effects. Park's city is an evolving social organism, targeted policy making, and institutional work aimed at enhancing community life and avoid isolation could be the next step needed for the evolution of such complex system. I delve further into this in chapter three.

Overcrowding and Cultural Homogenization

Overcrowding is a common feature of urban environments, it leads to competition for space and resources. This can manifest in crowded public transportation, long lines for services, and limited access to green spaces. More importantly, the lack of personal space and the constant jostling for room can lead to increased stress and a sense of frustration among city dwellers. Paradoxically the more individuals gather in overcrowded urban areas the less it is possible for them to develop strong social ties as they would normally do in rural areas and small villages. *"In view of the fact that man is so manifestly-as Aristotle described him-a political animal, predestined to live in association with, and dependence upon, his fellows, it is strange and interesting to discover, as we are compelled to do, now and again, how utterly unfitted by nature man is for life in society. "[18]*. Park's insight into the city's tendency to break down individuals' associations in favour of larger, more general types of uninterested meaningless connections speaks in fact to the phenomenon of cultural homogenization in urban environments. This process involves the erosion of local cultural identities and traditions as

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[17] Cacioppo, John T., and Louise C. Hawkley. "Social Isolation and Health, with an Emphasis on Underlying Mechanisms." *Perspectives in Biology and Medicine* 46, no. 3 (2003): S39-S52

[18] "The City" – Robert E. Park and Ernest W. Burgess, *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment* (Chicago: University of Chicago Press, 1925, p 99).

they are replaced by more standardized and uniform cultural forms. One of the driving forces behind cultural homogenization in cities is globalization. More than the influx of people, the issue revolves around global brands, corporate chains, and international media that overflowing into urban areas leads to the spread of a standardized global culture. This can be seen in the proliferation of similar retail stores, restaurants, and entertainment options across different cities, making urban landscapes increasingly uniform. What Park makes is nothing less than an anticipation of a more modern consequence of overcrowding in cities, better known as "gentrification". The meaning of the world is explained in a brief article published by National Geographic in 2023, "Gentrification"[19], which explains that the term refers to the transformation of urban neighbourhoods when wealthier people move in, leading to rising property values and rents. This often displaces long-term, lower-income residents. The origins of gentrification can be traced back to discriminatory practices like redlining, which kept certain areas underdeveloped and segregated. In recent decades, government programs and incentives have encouraged developers to invest in these areas, which in turn attract affluent residents. While gentrification can improve infrastructure and increase economic activity, it also alters the social and cultural dynamics of neighbourhoods. Long-standing businesses that catered to the original community may be replaced by more upscale ones, which diminishes the area's cultural diversity. Some cities are now exploring strategies to ensure development does not displace existing residents, aiming to balance neighbourhood improvement with inclusivity. The implications of gentrification are not different from what Park feared in his theory. The dominance of corporate culture marginalizes local businesses and cultural practices and leads to a loss of unique cultural identities. Urban development and gentrification also contribute to cultural homogenization. As cities undergo redevelopment, traditional neighbourhoods and communities are often displaced by new developments that cater to higher-income residents and tourists. This process can cause to the erasure of historical and cultural landmarks, as well as the displacement of long-standing residents and their cultural practices. In gentrified neighbourhoods, you can often see similar building styles, stores, and amenities, which adds to the uniform look of urban areas. Digital media and technology have also played a big part in making cultures more alike. According to Park, this shift from smaller, close-knit groups to broader, less personal interactions can cause people to lose their sense of community and identity. The traditional connections that gave people a feeling of belonging are often weakened in modern cities, leaving residents feeling isolated and disconnected. This loss of local identity creates tension between the potential of cities to celebrate diversity and the forces pushing for resemblance through global influences and development. Urban planners now also face the challenge of protecting local culture while also meeting the demands of modernization and economic growth.

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[19] *National Geographic, Education, "Gentrification" (2023)*

1.3 Wirth, "Urbanism as a way of life"

Urban sociology, as a field, has evolved through the contributions of key thinkers who have sought to understand the complexities of life in the metropolis. Simmel and Park laid the groundwork for urban sociology, Louis Wirth's work added crucial dimensions that expanded the scope of understanding urban life. Wirth writes, "*As long as we identify urbanism with the physical entity of the city, viewing it merely as rigidly delimited in space, and proceed as if urban attributes abruptly ceased to be manifested beyond an arbitrary boundary line, we are not likely to arrive at any adequate, conception of urbanism as a mode of life*"[20]. Wirth's theory and ideas extend and complement the observations made by Simmel and Park providing a systematic theoretical framework that explains how urban life influences individual behaviour and social structures. Indeed, while Simmel and Park's works respectively focused on different aspects of urban life, with the former focused on the psychological aspects of the metropolis and the latter on the social aspects of the city as sort of laboratory for human behaviour, Wirth offered a synthesis of these approaches into a more comprehensive analysis of urbanism, exploring broader implications of urban living, offering insights that are more easily applicable to contemporary cities. As urbanization growth trends do not show signs of slowing, Wirth's theories provide essential tools for analysing what could be consequent social implications of such a growth.

His theory of urbanism is grounded in the idea that size, density, and heterogeneity of urban populations are all features that can alter the nature of social life. In his essay "Urbanism as a Way of Life," Wirth argues that the sheer size of urban populations leads to the segmentation of social life. In a metropolis, individuals encounter a vast number of people, but like Simmel before him Wirth points point how these interactions tend to be superficial and impersonal. *The larger, the more densely populated, and the more heterogenous a community, the more accentuated the characteristics associated with urbanism will be…large numbers involve, as has been pointed out, a greater range of individual variation"[21]*. This differentiation results in the compartmentalization of social relationships, where people engage with others based on specific roles and functions rather than forming deep, holistic connections.

Density, according to Wirth, amplifies the effects of size by intensifying social contacts. The high density of urban areas forces individuals into closer proximity, which can lead to both social friction and a greater need for formal social control mechanisms. Wirth explains, "*The multiplication of persons in a state of interaction…produces that segmentalization of human relationships…the superficiality, the anonymity, and the transitory character of urban-social relations make intelligible, also, the rationality generally ascribed to city dwellers* "[22]. These dynamics ultimately lead to an increased sense of anonymity and a reliance on formal institutions to regulate behaviour, which contrasts sharply with the more personal, informal social controls found in rural settings.

Heterogeneity, or the diversity of urban populations, further complicates social life by bringing together people of different backgrounds, beliefs, and lifestyles. On the good side, if supplemented by social tolerance this diversity can foster overall innovation and culture, but it can also contribute to social disorganization and fragmentation. Wirth notes, "*The juxtaposition of divergent personalities and models modes of life tends to produce a relativistic perspective…and tolerance of diversity…the necessary frequent movement of great numbers of individuals in a congested habitat gives occasion to friction and irritation*"[23]. This dual effect of urban heterogeneity highlights both the creative potential of cities and the challenges they pose to social cohesion.

It is clear just from these early insights how Simmel and Park's ideas and theoretical framework strongly influence Wirth's writings, we will look through this and more on this new theory of urbanization in the following sections.

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[20] Wirth, Louis. *Urbanism as a Way of Life*. American Journal of Sociology 44, no. 1 (1938). p. 4
[21] Ibid. (Wirth, 1938, p. 11)
[22] Ibid. (Wirth, 1938, p. 12)
[23] Ibid. (Wirth, 1938, p. 15-16)

Building upon the Insights of Simmel and Park

Strongly reminding of Simmel's insights from "Metropolis and mental life" Wirth's theory emphasizes the impact of urbanism on social structures and individual behaviour. He argues that urban life encourages a rational, calculative approach to social interactions. In the urban environment, where personal relationships are often secondary to economic transactions and functional roles, individuals are more likely to adopt a utilitarian attitude.

Taking up Park, Wirth posits that urbanism leads to a weakening of traditional social institutions, such as the family and the community. In the city, individuals are less likely to be bound by the norms and values of close-knit social groups, leading to a greater sense of individualism but also to potential social isolation. This transformation of social life is a central concern of Wirth's theory, as it highlights the paradox of urbanism: the city provides opportunities for individual freedom and innovation, but it also creates conditions that can undermine social solidarity and personal well-being.

As the similarities within all the authors mentioned stands now ultimately clear, it is also quite evident that Wirth does not build indeed much on the theories by Simmel and Park, it does nonetheless revisit them quite often throughout his paper.

Wirth insights underscore the importance of creating public spaces and institutions that foster social integration, rather than merely accommodating diversity. I will come back on Wirth as well as on Park and Simmel, in the analysis of the interview and case study in chapter four. Throughout this theoretical chapter, my aim has been to lay down the right conceptual framework from which to develop the rest of the research. Every concept derived from these theories, will be addressed and explored in depth thanks to the insights from articles and academic essays, as I also did previously in this chapter, and most importantly, in reason of the result of the interview of chapter three. Thanks to this means, both the interview and the papers, my aim will be to give empirical validity to the arguments and issues discussed in this chapter. Rationalizing the concepts will be crucial to complete the research, through the interview I will then be able to use what I learned in order to outline, at the end of the thesis, guidelines and policy recommendations for the future of urban ecosystems.

In the next chapter I define the method I will use to conduct the interview; I will review what has been said so far in order to derive the questions.

Chapter 2-Method Outline

The theoretical insights from Chapter one has laid down the basis for us to now move on in the process of understanding the reality of modern time metropolis, aiming to clear the path towards socially and ecologically sustainable cities, both for individuals and the environment. What we learned from the authors, given the proved reliability of their ideas with respect to modern day issues, will be the standing ground for the rest of this work. The next step in this research is a semi structured expert interview, that will have a critical role in bridging our theoretical insights with practical applications. I am interviewing Luigi Petito, an expert in public affairs, -currently serving as Head of secretariat at European Alliance to Save Energy, Head of Secretariat at European chapter of World Green Infrastructure Network; his expertise in sustainability and in particular in the field of green infrastructures and European Union policy making makes him an interesting candidate for this case study. Drawing on the foundational work from chapter one, this interview is designed to extract nuanced, expert perspectives on challenges and opportunities within urban environments, especially as they relate to sustainable development and policy making. The purpose is not only be to gather general opinions but to critically engage with these insights considering a possible framework for policy ideas, to address and tackle the critical aspects of metropolis we learned from classical urban sociology.

2.1 Methodological Framework

Before moving on with the case study, it will be necessary to have a look on the guidelines I followed in the interview process. The method I followed to conduct the interview here is inspired from Bogner et al.'s[24] approach to expert interviews, as well as Merriam et al.'s[25] guidance on qualitative research methods. The aim is to clarify and generalize the questions, maintaining the sociological background behind them, but avoid confusing the expert with unrelated information with respect to his competences. This approach offers a structured yet flexible strategy, ideal for technical in-depth responses from an expert in green infrastructures and EU policy. The method issue arises mainly because of the contrast within the intangible theory behind the questions and the rather practical nature of the answers the interviewed expert could give. This method is particularly well-suited to answer to that problem as it allows for the exploration of predefined themes while remaining open to new, emergent topics that may arise during the interview. An extensive preparation to the interview is essential. This includes a comprehensive review of both the theoretical insights gathered in Chapter one and the professional background of the interviewee. The theoretical chapter emphasized key urban sociological concepts, such as Simmel's notion of the "blasé attitude,"[26] Park's idea of the city as a "social organism,"[27] and Wirth's analysis of urbanism's impact on social structures. Understanding these concepts is crucial in order to formulate questions that show how these sociological ideas manifest in contemporary urban planning and policymaking, and at the same time find an equilibrium within theory and practice while communicating with the expert. Moreover, the interview preparation also involves contextualizing the subject's expertise within the broader EU policy framework, which plays a significant role in shaping green infrastructure strategies across member states. This dual focus on theory and policy ensures that the interview can yield insights that are both practically relevant and theoretically informed.

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[24] Bogner, A., Littig, B., & Menz, W. (2009). *Interviewing experts*. Palgrave Macmillan UK.

[25] Merriam, S., Tisdell, E., & Gavin, M. (2015). *Qualitative Research Merriam, Sharan*. Ascent Audio.

[26] Simmel, Georg: "The Metropolis and Mental Life", in: Giddens, Anthony & Sutton, Philip W. Sociology. Introductory Readings. 4th Edition. London: Polity, 2022

[27] **"The City"** – Robert E. Park and Ernest W. Burgess, *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment* (Chicago: University of Chicago Press, 1925)

2.2 Interview Guide Development and Interaction Dynamics

The development of the interview guide is an essential part of ensuring that the interview process yields rich and insightful data. The guide is structured around key themes drawn from the theoretical frameworks discussed in Chapter 1, considering the scientific articles used while proving the validity of such theories, with a focus on how they can be applied to the context of green infrastructures and EU policy.

2.3 Key Themes

The final questions for the interview outlined in section 2.4 are developed with several key themes in mind:

1. Urban Fragmentation and Green Infrastructures: Drawing on Simmel's concept of the "blasé attitude"[28] and Park's idea of the city as a "social organism,"[29] questions explore how green infrastructures can mitigate the psychological stressors and enhance community cohesion within diverse urban environments. This point comes from the findings from the first part of the theoretical chapter where we looked through the influence of the urban environment on individuals. The aim of the question is to understand if modern institutions and policy makers recognize noise pollution, lack of green areas as "social stressors", and if they do, if they are moving in the right direction in tackling the damage they cause in the lives of individuals.

2. Community Cohesion and Social Dynamics: Inspired by Park's notion of the city as a mosaic of "little worlds,"[30] the interview investigates the role of green infrastructures in bridging social and economic divides, fostering interactions across fragmented urban communities. The aim of this question is to discover if through policy making aimed at enhancing greener urban ecosystems, it could be possible to both act in response to the social stressors, and at the same time encourage some kind of social cohesion. This could facilitate the creation of a stronger and well-integrated social structure in metropolis for the citizens to profit from and avoid the consequences of a fragmented community we looked through in previous chapter.

3. EU Policy and Sustainable Urban Development, The Future of Urban Planning: Given the interviewee's expertise in EU policy, questions focus on how current policies support or hinder green infrastructure development, and what improvements could be made to better integrate environmental sustainability with social cohesion in urban planning. This question is of a more practical nature, as it focuses on the actual policy making process taking place at the moment in Europe. The interview also addresses future-oriented questions, seeking the expert's views on the evolving role of green infrastructures in urban planning and the challenges of preserving local cultural identities in the face of urban homogenization. It addresses, what possible changes could be made in policy making to improve its effectiveness in targeting aforementioned critical aspects of urban environments.

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[28] Simmel, Georg: "The Metropolis and Mental Life", in: Giddens, Anthony & Sutton, Philip W. Sociology. Introductory Readings. 4th Edition. London: Polity, 2022
[29] "The City" – Robert E. Park and Ernest W. Burgess, *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment* (Chicago: University of Chicago Press, 1925)
[30] Ibid.

2.3 Final Interview Questions

Based on the themes and methodological considerations outlined above, these are the final questions I submitted to the expert:

1. Integration of Green Infrastructures, cultural identity:

   o Sociological studies and scientific articles have highlighted the damaging influence that noise polluted cities have on individuals' health, can you confirm that this applies to modern urban areas? If yes, do you think green infrastructures can play a part in mitigation and adaptation strategies to address cities sensory overload in urban environments, fostering mental well-being among city dwellers?

   o Sociological studies have also shown that as globalization spreads, the risks of fragmented societies and of feelings of alienation in individuals grow stronger too. In your view, can urban planners have a role in balancing the need for sustainable development with the preservation of local cultural identities, maybe imagining cities that foster stronger community ties?

2. Policy Implementation, future directions:

   o Does the European Union actively recognize the necessity of rethinking cities in light of a more sustainable future? If yes, are there current EU policies at work to support the development of green infrastructures and address urban social and environmental challenges? What improvements could be made to enhance their effectiveness?

   o What do you see in the future of policy making in this field? Do you think the Union is moving towards the right direction? If not, what do you think are the barriers to sustainable development in this field, and what could be done to avoid reaching a point where social stressors in urban areas irreversibly hinder wellbeing in city life?

Instead of a rigid Q&A format, the interview should encourage reflection on these topics, allowing the expert to share real-world insights and experiences that highlight the importance of integrating nature into urban environments. I aim to create a conversational atmosphere, where the expert feels comfortable elaborating on his experiences and perspectives. As I dive into his understanding of the complexities of urban development and policy implementation, particularly in relation to the European Green Deal[31] and other recent legislative initiatives, I can explore how these efforts are shaping the future of urban planning. Ultimately, this approach allows us to gather nuanced information, providing deeper insight into the practical steps needed to promote green infrastructures as a cornerstone of sustainable and liveable cities.

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[31] Fetting, C. (2020). "The European Green Deal", ESDN Report, December 2020, ESDN Office, Vienna

Chapter 3 - Case study, interview

Moving on with the breakdown of the interview I had with expert Luigi Petito, in the following sections I will look through the answers he gave to the questions I drafted in the previous chapter. During the interview the expert invited me, for the sake of validating his answers and clarifying some technical information, to have a look at some useful material. He pointed out some articles, of which he his author as part of a quarterly column published on Living Architecture Monitor magazine)[32] and suggested to me the reading of a recent report published in the month of July by the European Chapter of (World Green Infrastructure Network)[33]. A table included in an annex of this report is a summary of some binding and non-binding policy and legislative initiatives produced by the European Union in the period from 2019-2024. I will refer to it later in this chapter. Links to this paper and other articles I reference to in this section are available in the appendix following chapter four, along with a transcript of the interview with the answers of the expert[34].

3.1 Social stressors, the role of Green Infrastructures

As I expected and could gladly notice, the position of the expert with respect to the existence of social stressors in urban areas, as well as the impact of such stressors on individuals' health and well-being, showed great understanding and concern on his part. When asked about health implications of modern metropolitan life, his answer confirmed the result of the findings from previous chapters, and indeed of what led to the questions before all. Among the stressors, he confirmed the negative impact of noise pollution, of its role as a cause of various health problems, ranging from elevated stress levels and sleep disorders to more severe cognitive impairments, cardiovascular issues, and mental health problems. We did not get into more scientific reasons and specifics behind these conditions, but the result I got from this answer seems enough to ultimately validate what has been said here until now on this topic. Additionally, unambiguously, he acknowledged how modern urban environments, characterized by dense populations, constant movement, and an overabundance of sensory stimuli, exacerbate these problems; and of how these conditions make it difficult for residents to find relief from the constant barrage of noise, light, and activity. Once tested the convergence of our views on these aspects of modern metropolis, I could move on with the second part of the first question to discover how much of a difference can green infrastructure make in fixing environmental flaws of cities. I could then learn that green and blue infrastructures, defined as a network of natural and semi-natural spaces in urban areas, do offer a solution that can both mitigate noise pollution and promote mental well-being. Vegetated surfaces such as green roofs, vertical gardens, parks, and urban forests are not just aesthetically pleasing but also serve a functional purpose in absorbing sound, acting as natural noise buffers. The features of vertical barriers for example, are explored in *Urban Green Up[35] Catalogue for Nature Based Solutions (NBS)*, an EU funded project which aims at renaturing urban plans to mitigate the effects of climate change. "*Green noise barriers are natural air-filters, creating a cleaner environment. The vegetation metabolizes harmful toxins while releasing oxygen.*"[36] These barriers not only reflect and absorb traffic toxins but also contribute to urban biodiversity and sustainability. Designed to fit varying urban spaces, these green walls are proved to be particularly effective in reducing noise pollution, as they diffuse sound waves and lower decibel levels.

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[32] *Ten Design and Engineering Strategies for Managing Stormwater on Green Roofs - Living architecture monitor magazine - 2024*
[33] Making Europe's built environment greener, healthier and more resilient – World Infrastructure network – July 2024
[34] *Interview transcript – WGIN expert Luigi Petito -*
[35] Catalogue for Nature Based Solutions NBS, "Green Noise Barriers." *Urban Green Up*.
[36] Ibid. (p. 125-126)

"Views of green have several positive effects on human health and this NBS is able to reduce noise thanks to the absorption of the substrate and the reflection of its leaves"[37]. By creating more likewise structures within cities, we can address the growing problem of noise pollution and help create more peaceful environments. Once proved the efficiency of green infrastructures as a tool to tackle the effects of urban social stressors, we can consider achieved the purpose of the first question. I was left particularly satisfied with this part of the interview, as I came to learn that the theoretical findings from the first part of chapter one could now find practical validation in the answers of the expert.

3.2 Mental well-being, social and community life

Once given an answer to the problem of social stressors, I asked the expert his view on the role that urban planning could have in fostering the sense of community in cities and avoid the risks of social fragmentation we explored in the second section of chapter one. With respect to the expectations I had with the first question, I approached this part of the interview with a more sceptical attitude, considering that the theory supporting this question was of less empirical nature than the one concerning the first one. Moreover, I doubted the possibility that green infrastructures could be as effective in solving complex social questions as they proved to be in solving practical problems such as noise pollution. I was happily proven wrong by the answer I received from the expert, as I learned that green infrastructures can not only contribute to mental well-being by providing a much-needed connection to nature, but also offer for a unique opportunity, especially for marginalized people, to socialize and undertake social relationships. This point is of particular importance, since in our theoretical analysis, the social fragmentation causing alienation and disparities in social groups was proved to be in turn triggered by a lack of communication and social cohesion within people. As confirmed by the expert, research consistently demonstrates the positive effects that exposure to nature has on mental health. People living in urban areas, especially those with limited access to green spaces, are at a higher risk of developing mental health disorders such as anxiety and depression. Proximity and Regular contact with nature, even in small doses, can help mitigate these risks by offering psychological and emotional relief. Green spaces in cities foster a sense of calm, reduce mental fatigue, and enhance cognitive function, which in turn leads to improved mental well-being.

The influence of green space on community attachment

To further address this topic, the expert suggested me the reading of a study titled "The Influence of Green Space on Community Attachment of Urban and Suburban Residents"[38] by Arne Arnberger from the Institute of Landscape Development, Recreation and Conservation Planning of the University of Natural Resources and Life Sciences of Vienna. I dedicate a part of this interview to this article as it is particularly well-fitting in showing how the availability and quality of green spaces affects people's attachment to their communities. The study focuses on the Vienna region, including both urban and suburban areas, and the survey assessed various factors, including residents' perceptions of local green spaces, their recreational behaviours, community qualities, and their sense of attachment to their neighbourhoods. One of the key findings of the study is that urban residents displayed higher levels of community attachment than suburban residents. *"Although both samples were rather attached to their community, significant differences were found for all attachment items and the community attachment scale (Table 4) with suburban residents being less attached."[39]* This difference is attributed to several factors: urban residents placed greater value on

[37] Ibid. (p. 127)
[38] Arnberger, Arne, and Renate Eder. "The Influence of Green Space on Community Attachment of Urban and Suburban Residents." *Urban Forestry & Urban Greening* 11, no. 1 (2012): 41-49.
[39] Ibid. (p. 44)

public green spaces, perceived a higher quality of life in their communities, and generally felt safer compared to their suburban counterparts. In contrast, suburban residents, although more knowledgeable about their community, did not exhibit the same levels of emotional attachment. "*Compared to the suburban sample, the urban sample had more positive perceptions about the green-space supply and qualities and was more aware of their importance*"[40] The research found that the supply and perceived quality of green spaces, along with recreational behaviours, were significant predictors of community attachment. Specifically, individuals who believed that their community had abundant and well-maintained green spaces were more likely to feel a stronger emotional connection to their community. *"this research suggests that green space is relevant for community attachment. Increased community attachment, in turn, can have many positive effects on people and their communities"*[41]. Green spaces are thus seen as providing opportunities for relaxation, recreation, and social interaction, all of which enhance residents' satisfaction with their environment and, consequently, their attachment to the community. The findings of this article reveal indeed that the presence of parks, gardens, and other public green spaces in urban settings not only offers aesthetic and recreational benefits but also fosters stronger social ties and a sense of belonging. Just like shown by the content of the NBS catalogue discussed before for the relationship within green walls and noise pollution[42], green areas can also serve as vital hubs for social interaction, physical activity, and relaxation, which contribute to the residents' positive perceptions of their community and their emotional investment in it. The research highlights that the availability and perceived quality of green spaces are significant predictors of community attachment, with individuals in areas with abundant, well-maintained green spaces feeling more connected to their communities. The study furthermore suggest that green spaces are essential for fostering community bonds, enhancing quality of life, and promoting social interaction. Urban residents benefit from public green areas that contribute to stronger social ties and overall well-being. In contrast, the study has shown that suburban communities may lack these communal spaces, resulting in weaker emotional connections despite larger private spaces. What we are left with from the results of the study, is the need for urban planners to prioritize green infrastructure, not only for its value in countering noise pollution, but also for its role in strengthening community attachment. Suburban areas could profit of some targeted policy making and improve residents' emotional connections to their communities by increasing access to and the quality of public green spaces.

The biophilia hypothesis

Another consideration that emerged from my conversation with the expert brought me to reflect on the concept of biophilia. The biophilia hypothesis, popularized by renowned biologist Edward O. Wilson, suggests that humans have an innate affinity for nature and that our connection to other living systems is essential for our mental and emotional health. A paper from Eleonora Gullone explores Wilson's Biophilia Hypothesis, which posits that humans have an innate tendency to connect with nature, stemming from evolutionary processes. "*Wilson described his biophilia hypothesis as a human "innate tendency to focus on life and lifelike processes."*"[43] The hypothesis suggests that human well-being is intricately linked to natural environments, a view supported by evidence that exposure to nature enhances mental health. Gullone examines the disparity between this evolutionary predisposition and the rapid technological advancements of modern society, she suggests that modern urban living, which distances people from natural environments, may contribute to increasing rates of psychological disorders. "*The significance of biophilia has profound implications. According to this hypothesis, given our species' long history as subsistence*

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[40] Ibid. (p.45)

[41] Ibid. (p.46)

[42] Catalogue for Nature Based Solutions NBS, "Green Noise Barriers." *Urban Green Up*.

[43] *The Biophilia Hypothesis and Life in the 21st Century: Increasing Mental Health or Increasing Pathology? Springer Netherlands; 293-322, Eleonora Gullone (2000)*

hunters, gatherers, and farmers, it is inconceivable that the natural environment has not shaped our cognitive and emotional apparatus."[44] The paper delves into the idea that our ancestors, who lived in nature-rich environments, developed psychological and cognitive responses optimized for survival. Today, however, despite our technological progress, these responses remain embedded in our psychology, creating tension when we are removed from nature. This analysis furthermore stresses the importance of integrating natural elements into modern life to mitigate the negative psychological effects of our increasingly artificial environments. This idea has been supported by a growing body of evidence, which shows that urban environments devoid of natural elements, what the expert calls "grey cities"[45], tend to have higher levels of stress, anxiety, and social isolation among residents. The integration of green infrastructure into urban planning, as seen by previously cited studies suggested my by the expert, addresses both environmental and social challenges. It helps restore the natural balance that urbanization often disrupts. One of the most striking examples of how green infrastructure can improve mental well-being and mitigate sensory overload is its ability to lower urban noise pollution, as seen in the study published in the NBS catalogue on green walls[46]. Beyond these environmental benefits, green infrastructure plays a crucial role in promoting social cohesion and fostering a sense of community. Green spaces, especially those in close proximity to residential areas, offer opportunities for social interaction, recreation, and cultural activities. As demonstrated by the previously cited study from the University of Vienna[47], they become spaces where people gather, socialize, and form connections with one another, which is especially important in densely populated urban areas where social isolation can be a significant problem. By providing shared spaces for community engagement, green infrastructure strengthens social ties and creates a sense of belonging, which is fundamental to mental and emotional well-being.

Urban nature restoration

The concept of urban nature restoration is another key benefit of integrating green infrastructure. Vegetated surfaces in urban areas can serve as habitats for various species of insects and birds, including endangered pollinators. This reintroduction of nature into cities not only helps restore biodiversity but also enhances residents' quality of life. The presence of wildlife, such as birds and pollinators, can have a calming and restorative effect on individuals, creating a deeper connection to the natural world. It also promotes environmental awareness and encourages city dwellers to take an active interest in protecting urban biodiversity, I will come back on the NBS catalogue to explore three main positive aspects of integrating green infrastructures:

1."Pollinator walls provide much-needed food and habitat for pollinator species, enhancing biodiversity of both plant and animal species."[48] The catalogue highlights several Nature-Based Solutions (NBS) aimed at enhancing urban biodiversity through the creation of pollinator-friendly environments. Examples include pollinator verges, green roofs, and natural pollinator modules. These NBS not only contribute to biodiversity but also improve the resilience of urban ecosystems by supporting pollination services essential for both native plant species and urban agriculture.

2."Green façades reduce the heat island effect. They increase the thermal insulation in the building and therefore reduce the use of energy in air conditioning and heating"[49]. To address heat waves, NBS such as urban tree planting and cooling trees play a vital role. Trees selected for high evapotranspiration rates reduce the urban heat island effect by cooling the air through shade and

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[44] Ibid. (p. 295)

[45] *Interview transcript – WGIN expert Luigi Petito -*

[46] Catalogue for Nature Based Solutions NBS, "Green Noise Barriers." *Urban Green Up*.

[47] Arnberger, Arne, and Renate Eder. "The Influence of Green Space on Community Attachment of Urban and Suburban Residents." *Urban Forestry & Urban Greening* 11, no. 1 (2012): 41-49.

[48] Catalogue for Nature Based Solutions NBS, "Green Noise Barriers." *Urban Green Up*. (p. 126)

[49] Ibid.

transpiration. Strategic placement of shade trees and green roofs also provides cooling zones within cities, improving human comfort during extreme heat events.

"The retention layer and substrate of pollinator green roofs reduce urban run-off water"[50]. Water management is a critical element, with NBS like rain gardens, green filter areas, and floodable parks serving to retain and manage stormwater. These solutions enhance water infiltration, reduce runoff, and mitigate the risk of flooding in urban areas. The use of swales and retention ponds also supports long-term water management strategies while improving the quality of water by reducing pollutants.

3.3 Policy implementation

As cities continue to grow the importance of integrating green infrastructure into urban planning, as shown by previous sections, cannot be underestimated. The pace of urbanization, coupled with the climate crisis, necessitates proactive measures to create more resilient, sustainable, and liveable cities. The next research question I discussed with the expert, based on the previous findings from the first part of the interview, aims to discover how targeted policy making can deal with the challenges posed by climate change, including the increasing frequency of extreme weather events such as heatwaves, prolonged droughts, intense storms, and widespread flooding. Urban green infrastructure, as previously shown, offers a cost-effective and sustainable way to address these challenges while simultaneously improving public health and well-being. The expert did not refrain from emphasizing the necessity, in the upcoming years, to make green infrastructure a central priority in urban policy at all levels of government, European, national, regional, and local[51]. Decision-makers, according to him, must systematically assess the potential for integrating green infrastructure in urban development projects, as it is a critical strategy for boosting adaptation, enhancing urban resilience and improving the quality of life for city dwellers. For the new EU institutional term of 2024-2029, there are several key steps and policy suggestions that according to the expert should be taken to ensure the effective deployment of green infrastructure in cities.

- The expert suggests integrating an urban dimension into all European policies. This involves embedding the urban perspective into the framework of European policymaking, ensuring that green infrastructure becomes an integral part of these policies. It is not enough to focus solely on sector-specific areas; instead, an all-inclusive approach must be adopted that acknowledges the interconnections between green infrastructure and other crucial sectors such as biodiversity, water management, energy efficiency, public health, economic development, security and regional development[52]. By weaving the urban dimension into various policy areas, it will be possible to enhance the overall quality of urban environments and promote sustainable development across Europe.
- With cities experiencing rapid population growth and many urban areas suffering from a lack of access to green spaces, it is vital that EU policies emphasize the mental and physical health benefits that green infrastructure can provide[53]. The expert suggests prioritizing the health and well-being of urban residents in the EU's policy agenda. Urban planning initiatives should lead the charge in incorporating green spaces that foster physical activity, provide stress relief, and improve air quality, all of which are critical for the well-being of city dwellers. In this context, health should be a guiding principle in urban development,

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[50] Catalogue for Nature Based Solutions NBS, "Green Noise Barriers." *Urban Green Up*. (p. 168)
[51] *Interview transcript – WGIN expert Luigi Petito -*
[52] Catalogue for Nature Based Solutions NBS, "Green Noise Barriers." *Urban Green Up*.
[53] Eleonora Gullone (2000) "*The Biophilia Hypothesis and Life in the 21st Century: Increasing Mental Health or Increasing Pathology? Journal of Happiness Studies, Springer, vol. 1(3), pages 293-322*

with green spaces playing a central role in fostering healthier, more resilient urban communities.

- The expert furthermore stresses how improving existing legislation surrounding green infrastructure is crucial to effectively and in-time tackle issues of urban areas. While current policies have made progress in recognizing the importance of green infrastructure, many legal frameworks according to him remain limited in scope or lack enforceable obligations. To encourage a widespread adoption, it is essential to introduce more robust measures that emphasize the broad benefits of green infrastructure, such as its role in climate resilience, urban cooling, and improving biodiversity[54]. Specifically, these measures should focus on ensuring that green infrastructure is integrated into urban environments, particularly in cities that are heavily urbanized and lacking in green space. Binding obligations would ensure that green infrastructure is not only considered but actively implemented in urban planning efforts.

- The current policy framework needs to be fully enforced, with mechanisms in place to regularly track progress and adjust where necessary. The expert has highlighted the necessity to ensure the proper implementation and ongoing monitoring of policies supporting green infrastructure. This, in his words requires stronger governance at all levels, national, regional, and local, to gather detailed data on the implementation of green infrastructure projects[55]. Such monitoring is critical to understanding whether policies are being translated into tangible results on the ground and to define with clarity areas for investments and targeted incentives. Additionally, corrective actions should be taken when targets are not being met, ensuring that green infrastructure continues to develop in line with policy objectives.

- With respect to green infrastructure[56], the expert suggests providing financial support to encourage their adoption, especially for disadvantaged groups. By offering financial incentives, the EU can reduce the financial burden on residents and make it easier for them to adopt green solutions in their homes and neighbourhoods. Public funds should be used strategically to attract private investment, creating innovative financing schemes that combine public and private resources. This could involve subsidies, grants, or tax incentives that make green infrastructure more accessible, ultimately accelerating its adoption across urban areas.

- Finally, the expert insists on the necessity of investing in capacity-building, technical assistance, and skills development to ensure the successful deployment of green infrastructure[57]. This requires a concerted effort to build the capacity of municipal staff, urban planners, and developers, providing them with the tools and technical support needed to design and execute high-quality projects. In addition, there should be a focus on creating training programs and resources that enhance the skills of the workforce involved in green infrastructure, ensuring that cities have the capabilities to develop sustainable, innovative, and effective urban green spaces. By following these steps, according to the expert cities across Europe can transform into healthier, more sustainable, and more resilient environments that enhance the quality of life for all residents. Green infrastructure has the potential to reshape the future of urban living, offering solutions that address the complex challenges of noise pollution, mental well-being, and climate change. Through a collaborative effort between policymakers, urban planners, and communities, we can foster a new era of sustainable urban development.

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[54] *Making Europe's built environment greener, healthier and more resilient – World Infrastructure network – July 2024*
[55] *Interview transcript – WGIN expert Luigi Petito -*
[56] Ibid.
[57] Ibid.

Chapter 4 - Analysis and synthesis of the problem outlined

This chapter provides a comprehensive analysis of the findings from Chapter 3, synthesizing them with the theoretical insights from Chapter 1. The goal here is to assess whether the data gathered through the expert interview aligns with the expectations laid out in the theoretical framework, particularly in the works of Simmel, Park, and Wirth. Furthermore, a comparative analysis is conducted, drawing connections between the findings from recent studies discussed in Chapter 3 and the expert's insights regarding urban green infrastructures, social cohesion, and sustainable urban planning. Finally, this chapter will emphasize the policy suggestions that emerged from the case study interview, linking them with the overarching aim of fostering sustainable, socially cohesive urban environments. Throughout this chapter I refer to the expert, Luigi Petito, both in relation to the answers he gave and the articles and papers he suggested me to read to further enrich his answer. I will not mention the articles that have already been addressed in chapter three and will refer to Petito as, the source of the knowledge that led to the comparative analysis.

4.1 Findings from Chapter 3: The Expert Interview

The expert interview conducted in Chapter 3 revealed several critical insights into the role of green infrastructures in modern urban planning, particularly within the European Union's policy framework. The expert, Luigi Petito, provided valuable perspectives on how urban environments can be transformed to mitigate social stressors and foster a sense of community through green infrastructure.

Addressing Social Stressors in Urban Areas

The first significant finding from the interview was the expert's validation of the presence of social stressors in urban environments, aligning with the concerns raised in Chapter 1, particularly those in Simmel's work on the mental life of city dwellers. Petito confirmed that noise pollution, air pollution, and the constant sensory overload present in densely populated urban areas have adverse effects on mental and physical health. He particularly highlighted the role of noise pollution in exacerbating stress levels, leading to issues such as sleep disorders and cardiovascular diseases. These are findings that directly echo the concerns raised by Simmel regarding the overwhelming nature of the modern metropolis.

Simmel's concept of the "blasé attitude,"[58] which he attributes to the constant bombardment of sensory inputs, was reflected in Petito's analysis of contemporary urban life. According to the expert, many urban residents today exhibit symptoms of stress, anxiety, and emotional detachment as a coping mechanism in response to the overstimulating environment. This observation supports the classical argument made by Simmel, suggesting that urban life inherently strains the individual's psychological capacity, leading to a diminished sense of empathy and personal involvement with the surrounding community.

The Role of Green Infrastructures in Mitigating Social Stressors

The expert's assertion that green infrastructures, such as parks, green roofs, and urban forests, can significantly mitigate the effects of sensory overload directly connects with the theoretical foundations discussed in the second part of Chapter 1. As highlighted in Park's ecological approach[59], the city functions as a social organism in which both the built and natural environments interact to shape human behaviour and well-being. Petito's endorsement that green infrastructures act as natural

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[58] Simmel, Georg: "The Metropolis and Mental Life", in: Giddens, Anthony & Sutton, Philip W. Sociology. Introductory Readings. 4th Edition. London: Polity, 2022

[59] **"The City"** – Robert E. Park and Ernest W. Burgess, *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment* (Chicago: University of Chicago Press, 1925)

noise buffers by absorbing sound and providing residents with a refuge from the hustle and bustle of urban life supports Park's vision of cities as dynamic ecosystems.

The expert also emphasized the psychological and physical benefits of green spaces. These spaces not only reduce noise pollution but also improve mental health by offering a peaceful environment that fosters relaxation and social interaction. This aligns with the biophilia hypothesis, which posits that humans have an innate connection to nature, and when that connection is disrupted in urban environments, it can lead to psychological distress. Petito confirmed that green spaces, when integrated effectively into urban design, can help restore this connection, providing residents with a sense of calm and enhancing their overall well-being.

Enhancing Social Cohesion through Green Infrastructures

Another finding from the interview was the potential of green infrastructures to bridge social divides and enhance community cohesion. In Chapter 1, we explored how Park viewed the city as a *"mosaic of little worlds, disparate communities that often live in close proximity but do not meaningfully interact"*[60]. Petito arguments showed that well-designed green infrastructures can serve as communal spaces where people from different social, economic, and ethnic backgrounds, especially more marginalized, come together, fostering interaction and reducing social fragmentation.

The idea of fostering social cohesion through urban planning is also supported by Wirth's theory of urbanism as a way of life[61]. Wirth highlighted how the size, density, and heterogeneity of urban populations can lead to social disorganization, creating challenges for maintaining strong communal bonds. Petito's insights suggest that green infrastructures provide a solution to this problem, offering spaces where informal social interactions can occur, thereby reinforcing social networks and contributing to a stronger sense of community attachment.

This finding was further supported by the literature discussed in Chapter 3, particularly the study by Arnberger on community attachment in the Vienna region[62]. The research showed that residents who had access to abundant and high-quality green spaces reported higher levels of community attachment and perceived a better quality of life. This evidence strongly reinforces Petito's argument that green infrastructures are not only environmental and economic assets but also critical social resources that promote community cohesion and enhance the quality of urban life.

4.2 Comparison with Theoretical Expectations

When comparing the findings from the expert interview and the recent articles with the theoretical expectations outlined in Chapter 1, it is clear that many of the classical insights from Simmel, Park, and Wirth remain relevant in contemporary urban sociology.

Simmel's "Blasé Attitude" and the Role of Green Spaces

Simmel's theory that city dwellers develop a "blasé attitude"[63] as a psychological defence mechanism against the overstimulation of urban life was directly supported by the expert's observations on sensory overload. Both Simmel's early 20th-century sociological analysis and Petito's contemporary practical oriented insights suggest that urban environments inherently create conditions that lead to mental exhaustion and emotional detachment. However, while Simmel largely viewed the city as a place that fosters alienation and mental strain, Petito now offers a more optimistic view, suggesting that the integration of green infrastructures can help mitigate these effects. This divergence highlights

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[60] **"The City"** – Robert E. Park and Ernest W. Burgess, *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment* (Chicago: University of Chicago Press, 1925)

[61] Wirth, Louis. *Urbanism as a Way of Life*. American Journal of Sociology 44, no. 1 (1938).

[62] Arnberger, Arne, and Renate Eder. "The Influence of Green Space on Community Attachment of Urban and Suburban Residents." *Urban Forestry & Urban Greening* 11, no. 1 (2012): 41-49.

[63] Simmel, Georg: "The Metropolis and Mental Life", in: Giddens, Anthony & Sutton, Philip W. Sociology. Introductory Readings. 4th Edition. London: Polity, 2022

the potential for modern urban planning to address the issues that Simmel identified, offering a more sustainable and mentally healthy model for city living.

Park's Ecological Approach and the Social Function of Green Infrastructures

Park's ecological approach[64] to the city, which emphasizes the interplay between social structures and the urban environment, was also validated by the findings of the expert interview. Petito's assertion that green infrastructures play a crucial role in shaping social behaviour and fostering community interaction is a direct extension of Park's idea that the city functions as a social organism. In this sense, green spaces act as the "lungs" of the city, providing essential resources for both physical and social well-being.

Moreover, Park's concern with the fragmentation of urban communities was addressed in the expert's discussion of social cohesion[65]. The expert's belief that green infrastructures can help reduce social fragmentation by providing communal spaces where people can interact resonates with Park's vision of the city as a place where social relationships are tested and developed. This finding also reinforces the idea that urban planning should prioritize the creation of spaces that encourage interaction and community-building, rather than simply focusing on economic development or infrastructure expansion.

Wirth's Urbanism and the Challenges of Social Cohesion

Wirth's analysis of urbanism as a way of life, particularly his concerns about the weakening of traditional social bonds in cities, was also echoed in the expert's interview. Wirth argued that the size, density, and heterogeneity of urban populations lead to a sense of anonymity and social isolation[66]. Petito's discussion of how green infrastructures can counteract this by fostering social interaction and creating a sense of community aligns with Wirth's concerns. However, like Park, Wirth focused more on the social dynamics of urban life, while Petito introduced the environmental dimension, emphasizing that green spaces are essential for both social and ecological resilience.

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[64] **"The City"** – Robert E. Park and Ernest W. Burgess, *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment* (Chicago: University of Chicago Press, 1925)
[65] Ibid.
[66] Wirth, Louis. *Urbanism as a Way of Life*. American Journal of Sociology 44, no. 1 (1938).

Chapter 5 – Summing up, recommendations and final thoughts

Synthesis of the Findings

This thesis has explored how classical sociological theories can inform the development of sustainable urban environments. The research builds on the seminal works of Georg Simmel, Robert E. Park, and Louis Wirth, whose theories offer insights into urban life's psychological and social dynamics. Simmel's "blasé attitude" described the mental strain caused by the overwhelming stimuli of city life, while Park viewed the city as a social organism that shapes human relationships and community structures. Wirth expanded these ideas by examining how urban populations' size, density, and heterogeneity lead to unique forms of social organization. These theories have served the specific purpose of laying the foundations for an informed understanding of urban ecosystems in their sociological nature. From this knowledge it has been possible, through a comparison with recent articles and studies, to identify the problems of modern urban areas. By applying the classical sociological theories to modern issues, the questions that led to the interview were formed. The outcome of the answers gathered from expert Luigi Petito then ultimately transformed the concepts developed up to that point into practical answers to the problems of cities.

Recommendations and final thoughts

The process that led to the policy recommendations was quite complex but made it possible to imagine some possible solutions to the problems highlighted in the previous chapters. The findings from both the expert interview and the literature reviewed in Chapter 3 suggest that the integration of green infrastructures into urban planning is a critical strategy for addressing the social, environmental, and psychological challenges of modern cities. The interview has shown how urban green infrastructures can improve environmental sustainability by reducing noise pollution, managing stormwater, and lowering urban temperatures but also enhance social cohesion by providing communal spaces where people can interact and build relationships. This dual function of green spaces, both environmental and social, makes them a powerful tool for creating more resilient and liveable cities. If green infrastructures are the instrument urban planners can use to tackle the problems of urban environments; right implementation, investment and policy making are the means through which they can finally make a difference. This thesis has shown that behind every aspect of life in cities, be it psychological, physical or social, there is a complex network of different factors, that together influence the urban ecosystem that shapes the lives of people. Noise pollution, poor air quality, lack of social cohesion and community life are intrinsically bound to one another and with the environment itself.

Changing our cities is not an isolated battle and an issue detached from the priorities of the modern world. Taking a step in the direction of greener urban environments is but one part of the challenges we face in coping with the problems of the world we live in, and which we are destined to change.

Bibliography

references

Here is a list of the references I used throughout this thesis, among the texts from classical urban sociology, there are the articles I used in chapter one as well as the material suggested to me by the expert that I used in chapters three and four. At the end of the bibliography I attached a reference to the transcription of the interview with the expert.

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interview complete transcription

The interview I conducted in chapter 3 is available here:

Interview transcript – WGIN expert Luigi Petito -