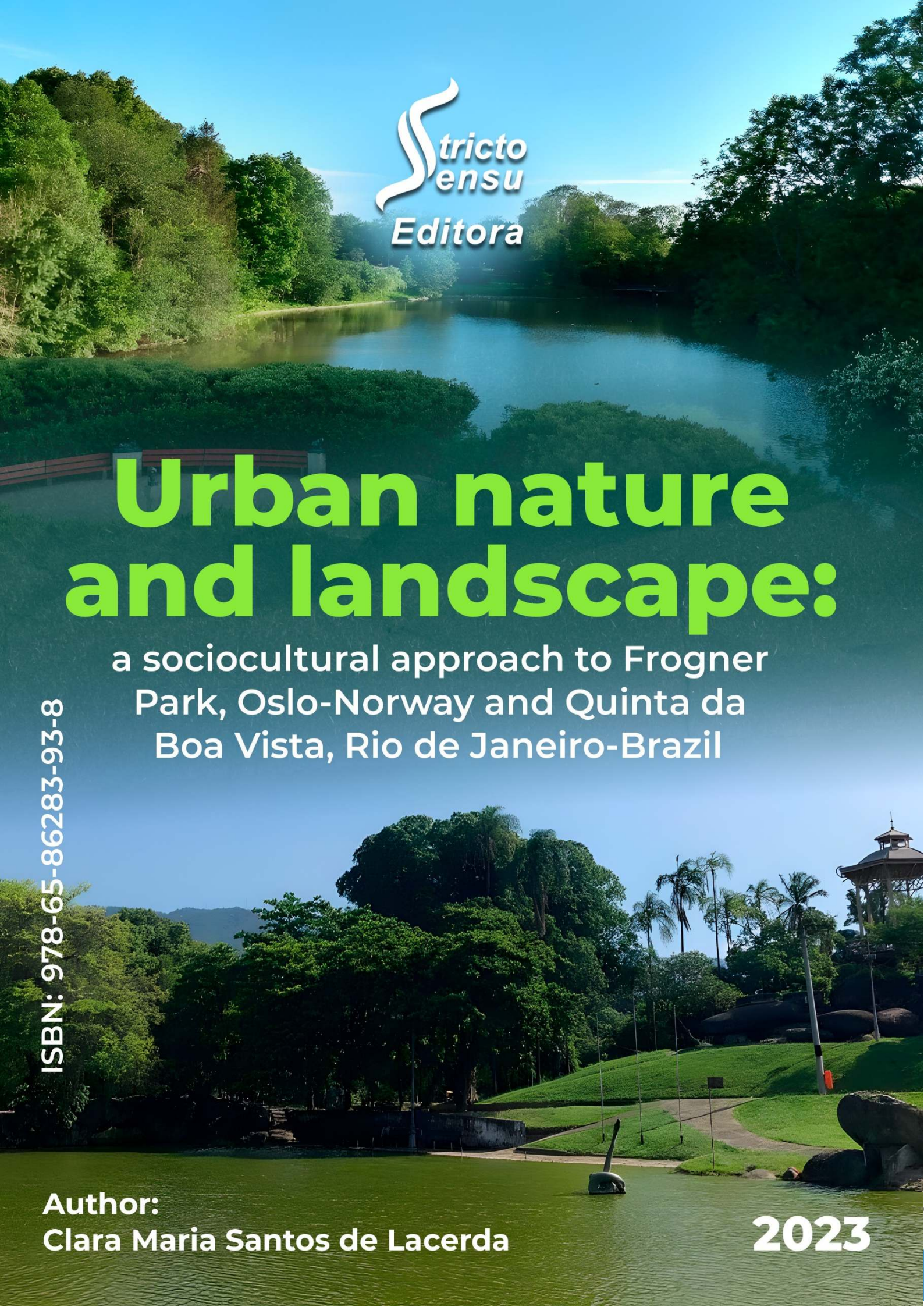

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Urban nature and landscape:

a sociocultural approach to Frogner Park, Oslo-Norway and Quinta da Boa Vista, Rio de Janeiro-Brazil

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BOOK PRESENTATION

Knowledge is a mix of both creativity and curiosity, where the researcher seeks new discoveries, or even new ideas about a given topic, contributing to different perspectives about our human reality. Based on this reflection, in 2016, I had the honour to be a volunteer intern at NIMA (Interdisciplinary Centre for the Environment; *Núcleo Interdisciplinar de Meio Ambiente da PUC-Rio*), in which I was able to work together with students and professors to reformulate the university's Environmental Agenda, in terms of spaces for coexistence and on-campus mobility.

This gave me the opportunity to observe and think about what made our university campus such a nice place to be. What aspects made me spend most of my free time outside in the woods? (And with the research, I could constate that other students did the same). Then, together with my fellow colleagues at NIMA, we identified the importance of the green area inside the university's campus for both leisure activities, and academic ones as well. The woods were a great place for students and staff to relax, or even read a book. There were many students who had their lunches in the woods, while others used the space to study there too. Sometimes, there were also yoga classes happening there, and not to mention the many friendships that started in the woods! So, we can argue that the nature inside PUC-Rio provided us with a marvellous environment to develop our activities, being an important part of our university lives.

After NIMA, I continued to research the importance of urban nature, but in other surroundings... In this context, 2018 was a cornerstone year in my academic life, as I had finished my work at NIMA, and obtained a bachelor's degree in Geography at the Pontifical Catholic University of Rio de Janeiro, where I defended research on the morphology and symbology of Campo de São Bento, an urban park located in Icaraí, Niterói-RJ. The research dealt with the identity of this park as a significant place in the city, considering concepts such as place and public space, as well as its historical importance for the neighbourhood of Icaraí.

Just a year later (in 2019), I had the opportunity to participate in the summer course on Energy, Environment and Social Change, offered by the International Summer School at the University of Oslo, Norway. Together with other students from different countries and fields of study, we dialogued about the relationship between human beings and nature, biophilia, and about techniques for more efficient energy consumption, as well as green and blue infrastructure in cities around the world.

This experience in Oslo also gave me new insights about urbanism and landscape. How could a city integrate nature in such a way that I felt immersed by urban nature every time I went outside? I felt connected to nature when I had to take the T-bane (metro line); when I went shopping in the streets, when I went to the lake Sognsvann… Urban nature such as lakes, rivers, parks, and forests were just 10 min away by metro, and just some more minutes away on foot. I was amazed.

Having these issues as a basis, upon returning to Brazil, I became interested in knowing the socio-spatial dynamics in the city of Rio de Janeiro, more specifically regarding urban green spaces, as we can perceive a great disbalance in the city, concerning the access to urban nature, which can be considered as an urban/ social inequality. In this way, I applied for a master's degree at the School of Architecture and Urbanism at the Fluminense Federal University (Niterói, RJ), as I thought that the dialogue with professors and other colleagues would be of great relevance for my reflection on socio-environmental issues from the point of view of urban practice (as Architecture and Urbanism is in the field of Applied Social Sciences). I think that the master's allowed me to see the urban space from another perspective, in relation to the praxis of urban and environmental planning, which complements the more theoretical geographical perspective (my original training).

In this sense, the case of Quinta da Boa Vista's park (RJ, Brazil) caught my attention, due to its structural and social change in the neighbourhood of São Cristóvão (where the Quinta da Boa Vista is located), throughout the 19th and 20th centuries. In parallel, inspired by the experiences in Norway, I believe that investigating the process of urbanization of the city of Oslo, in the 19th and 20th centuries, specially Frogner neighbourhood, where Frogner Park is located, as part of a history of public policies that proposed to integrate green spaces into the urban landscape in the 20th century, is relevant for a parallel analysis of the socio-spatial reality of the Brazilian context.

Therefore, this book was based on researches developed in the scope of my master's degree at the Fluminense Federal University (UFF-2020/2022), supervised by professor Eloisa Carvalho de Araújo (PhD Professor, PPGAU/UFF), in which we aimed to reflect about nature as a relevant concept to understand the socio-environmental dynamics of contemporaneity, as the presence of natural elements in the urban area, the so-called urban nature, also implies the cultural position of nature in contemporary societies' mindset.

Finally, we hope that the informative content covered in this book can contribute, in the near future, to foster the understanding of nature in the context of urban design in Oslo, located in Norway and Rio de Janeiro, in Brazil, considering the following timespan: the end

of the 19th century until the current 21st century. Throughout this volume, the reader will get an overview of some aspects about management and public narratives about urban nature in those two cities. Thereafter, it will be presented the thematic of the urban park, in which the book will contextualize how the socio-environmental aspects located in Frogner Park (Oslo) and Quinta da Boa Vista (Rio de Janeiro) intervene in the perception of urban well-being at the local level.

Clara Maria Santos de Lacerda

SUMMARY

FOREWORD

Urban nature has as much a social value, as it has an environmental one. Parks, green belts, community gardens, rivers, and other natural elements in the context of urban design, not only have the potential of being an ally to fighting environmental problems (as it is the case of green and blue infrastructure and Nature-based Solutions), but also can be a place of sociability, relaxation, and tranquillity inside the cities. Thus, urban nature by itself, represents a social point of view about nature, in which urban society perceives, manages, and experience their environment in different ways.

In this sense, this book will present a contextualization of nature's integration in the urban design, and an analysis of the cities of Oslo, located in Norway, and Rio de Janeiro, in Brazil, considering the end of the 19th century until the current 21st century. Throughout the chapters, the reader will be able to learn a brief overview of some specific aspects about the management and planning strategies of urban nature in these two social realities. Then, it will be presented the thematic of the urban park, in which there will be covered some important issues related to the socio-environmental aspects located in Frogner Park (Oslo) and Quinta da Boa Vista (Rio de Janeiro), and how these aspects intervene in the perception of urban well-being at the local level. It is important to mention: this local perspective is completely related to the cultural sphere, as each person considers each park framed by a sociocultural optic.

But why study those two urban contexts? What kinds of new knowledge can they provide to the urban design and cultural geography researchers worldwide?

The Norwegian context provides an interesting example on how the cultural approach to green spaces in the city of Oslo is connected to the way the city has been managing urban nature in recent history. The case of Frogner neighbourhood, where Frogner Park is located, as part of a history of public policies that proposed to integrate green spaces into the urban landscape in the 19th and 20th centuries, is relevant for a parallel analysis of the socio-spatial reality of the Brazilian context. In Norway, this time frame is also important because of the advent of romanticism and nationalist movements. It was a period in which the country was in the process of liberating itself from the union with Denmark (1814) and, later, Sweden (1905). In this sense, forests and urban parks came to symbolize the social belonging of the nation that was being formed. Both intellectuals and the working class saw green spaces as part of the Norwegian national identity (SYSE, 2016, p. 47). According to Brøgger (2016),

Frogner Park is a distinctive park in Norway, because it is connected to the history of the neighbourhood, tracing its medieval agrarian origins and because it is also affectionately connected to Oslo's social history, design, biodiversity, and popular culture (BRØGGER, 2016, p. 71).

In parallel, the Brazilian case of Quinta da Boa Vista caught our attention, due to the structural and social change in São Cristóvão neighbourhood, throughout the 19th and 20th centuries. For instance, the 19th century was the moment when Brazil was being structured as a nation, in which profound transformations took place to meet the needs of the royal family and new social demands. In the period, Rio de Janeiro underwent a restructuring to carry out its new symbolic and administrative functions and the area where Quinta da Boa Vista is located was essentially related to the aristocracy (MACEDO; SAKATA, 2002). But this changed in the 20th century, as the space of the São Cristóvão neighbourhood became the place for the working class and the gardens of Quinta da Boa Vista were adapted to the function of a public park. Still today the park offers a space for a huge variety of social activities, such as picnics, museums, zoo, and organic markets, which makes Quinta da Boa Vista an important green space in the urban landscape nowadays.

The origins of Frogner park and Quinta da Boa Vista are different; but they are both connected to specific sociocultural approaches to nature, historically related to the formation process of national identity. While Frogner Park was designed in the 1920s, and did not function as a royal residence, but as a former manor residence, Quinta da Boa Vista was the main residence of the Brazilian Imperial family. But still, both Quinta da Boa Vista and Frogner Park underwent functional and organizational changes, within an urban system perspective, which allowed a better access to green spaces in their cities. The two parks are in neighbourhoods with different types of integration via public transport, and offer a place of sociability for its citizens and visitors.

The two parks have a distinct artistic form, as they were conceived under different sociocultural and geographical contexts. The area where Quinta da Boa Vista is located was part of a Jesuit farm, later being passed on to private owners, and before the Portuguese royal family arrived in Brazil, the place was constituted by only one large house, with no special gardens. Only in 1868, already in possession of the imperial family, the gardens of Quinta da Boa Vista, were designed (as a demand of D. Pedro II) by the French horticulturist Auguste François-Marie Glaziou, whom transformed the whole area using the rocailles technique, a typical landscape art from the 18th to the 19th century, which consisted of using

construction materials such as cement to imitate the elements of nature, especially rocks and caves (TRINDADE, 2014, p. 63).

Glaziou carried out intense botanical research on native Brazilian species in order to use them in the gardens he was in the process of designing. It is interesting to notice that Glaziou intended to project another kind of nature into the garden's space, to promote the enjoyment of the imperial family, and this was in complete relation to the movement of Brazilian romanticism, where recreated and idealized tropical nature were in connexion to national ideals, because the driving force of the nation was its natural resources. Thereafter, this is something that influences the landscape of Quinta da Boa Vista up to the present day, as the park is considered a historical garden in Brazil and there are actions and public policies of preserving the garden's botanical biodiversity and history.

During the reign of D. Pedro II, the park's total area remained practically unchanged. However, with the arrival of the 20th century, the extension perimeter was reduced, as parts of the land were being ceded to the republican government for other purposes (FERREIRA; MARTINS, 2000). The widening of the railway and the opening of roads are part of these modifications, which progressively distorted the morphology that the gardens had during the reign of D. Pedro II, mainly in the southern part of the park, where the railway was opened, and in the northern part, from the monumental gate of the avenue to the gate that leads to Largo da Cancela. These interventions left a good part of the original area outside the current morphological limits (FERREIRA; MARTINS, 2000).

From another point, Frogner Park was an arable area during the Middle Ages, in which the name Frogner, meant fertile, referring to the fertility of the land for plantations. With the advent of the bourgeoisie in the 18th and 19th centuries, the place where the park is located today was also an agricultural mansion, which belonged to a private owner. In 1896, the City Hall bought the property in the context of the city's urban expansion, and in 1900 a public park was implemented for the people. In 1924, the Norwegian sculptor Gustav Vigeland designed his own space in a neoclassical format inside the park, and in 1930 the place became known as "Vigeland park", composed of his sculptures with human figures expressing different feelings, sensations, and life stages.

It is relevant to observe that Vigeland's ideas were intensely criticized by intellectuals and urban planners at the time, such as Marius Røhne, chief in charge of planning the city's green areas from 1916 to 1948 (JØRGENSEN, 2018). According to Jørgensen (2018), Røhne thought that Frogner Park should not be managed from a fragmented perspective, as Gustav Vigeland predicted. Marius Røhne believed that this was a place in the city to guarantee the

connection between the forest area and the urban parks through a system of integrated green corridors. Still, the sculptures are one of the main touristic attractions in Oslo nowadays.

Today, Frogner Park is the largest green space in central Oslo and is a popular leisure area for the population, with numerous places for walking and sports, as well as a museum. In addition, the park, like Quinta da Boa Vista in Rio de Janeiro, is located close to an important football stadium and integrated public transport routes such as subways and bus stops. Another feature in common between the two parks concerns the proximity to the urban forests present in both cities: while the Frogner park is geographically connected with Oslomarka, Quinta da Boa Vista is also near to the Tijuca Forest. This factor is potentially beneficial for possible further integrations of green spaces in the urban planning of Oslo and Rio de Janeiro.

Given the above, during the research stages, we investigated how urban nature, especially the two parks discussed here, are relevant areas for the urban network, enabling new interpretations for the daily life of both urban realities studied. The general objective of the research was to investigate how the sociocultural and environmental aspects in Frogner Park and Quinta da Boa Vista interfere in the well-being at the local level.

The research encompasses five specific objectives, which intended to promote a deep immersion, through bibliographical research about the empirical contexts, interviews and analysis of different sources that can be interpolated:

1. Carry out a bibliographical survey on the socio-environmental theme and the policies of green spaces in the studied cities (19th -21st century time frame);

2. Analyse how the two parks are integrated into the urban landscape in the conception of sustainability;

3. Investigate the role of the two parks as spaces for sociability, promoting access to urban nature;

4. Check the current management of these spaces and how it contributes (or not) to their improvement;

5. Evaluate the potential of parks in promoting well-being in the city of Oslo and Rio de Janeiro.

In this research, the approach to urban well-being considered:

- The multifunctional aspects of parks;
- Social activities carried out within the parks;
- Access to urban nature.
- Biodiversity of fauna and flora;

- Connectivity to other green spaces in the urban network.

Within this reflective framework, **Chapter 1** intended to demonstrate the theoretical and methodological basis used during the investigative stages, bringing information about the extension of the research, the argumentative schemes, the relations of similarity and dissimilarity between the two parks and cities, as well as the instruments used for the analysis. This chapter also presented the databases (perceptive, reflective, academic, and institutional approach) accessed for bibliographic and imagery collection. In addition, the thematic panorama used with the interviewees in relation to the Norwegian and Brazilian context, as well as the profile of the reports obtained.

In order to explain and delimit the worldview that supports the research carried out here, in **Chapter 2**, more general questions were discussed, related to nature and the city, approaching the conceptions of gardens, public parks and other natural elements within the perspective of urban/ecological practices, such as green and blue infrastructures, as well as Nature- Based Solutions in a historical outline that intended to place the reader in relation to the development of an urban nature, influencing contemporary urban and environmental planning.

Chapter 3 deals with the urban space of Oslo and Rio de Janeiro, presenting the sociocultural scene of these two cities and the main planning processes for green spaces that impacted the two urban parks analysed here. In addition, the way in which nature is inserted in the urban landscape was also considered. In this chapter, sociocultural aspects related to the morphology and historical formation of parks and forests in the collective imagination were investigated, as well as the current image of urban nature propagated by the media and by the management bodies of these two urban realities.

Chapters 4 and 5 corresponds to the analysis of the empirical contexts of Frogner Park and Quinta da Boa Vista. In these chapters, the interviews, in the form of reports, were examined, as well as other sources of research that contribute to revealing the importance of public parks as relevant urban nature for cities. From the three categories of analysis *1) sustainability*, *2) sociability* and *3) management*, I sought to contemplate the various aspects that make the contexts essential sociocultural spaces from the perspective of well-being and biophilia.

I expect this book will provide an engaging reading about the sociocultural perception of nature in the cities, as well as the role of two urban parks as multifunctional spaces of sociability and sustainability. Furthermore, I aim to inspire other studies on urban nature and

bring new perspectives about the possibilities provided by green spaces for more holistic urban and environmental planning in this 21st century.

CHAPTER 1

THEORETICAL AND METHODOLOGICAL BACKGROUND

According to Cardano (2017), every research starts with a specific central question. This will lead to the empirical context in which it is expected to obtain a relevant answer. He says that the empirical context is the place where the observer (researcher) can make the experience more consistent with the research objectives (CARDANO, 2017, p. 65-66). This place is not the object of the research, but the entire interpretative community of which the researcher is a part of, added to the research object that will bring new perspectives to the questioning of the investigation, based on a theoretical framework. On that account, at the present work, I am considering the theme of city and urban nature, and the object of study **urban park** allows an in-depth analysis through the empirical contexts: Frogner Park and Quinta da Boa Vista.

The research carried out here is qualitative and explanatory, intending to describe the complexity of two concrete cases and explain the reason for the phenomena and processes, suggesting some kind of propositional action, where knowledge can be acquired from the intense exploration of the parks (contexts). According to Mason (2002), in this type of scientific exploration, a holistic analysis is also necessary, as it considers the social unit studied as a whole, with the aim of understanding it in its own terms. Furthermore, the author emphasizes that qualitative research must produce explanations or arguments going beyond the mere description of the facts studied (MASON, 2002, p. 7).

Therefore, as a theoretical and methodological assumption, the two urban parks studied here illustrate forms of experience with urban nature in two different social realities. In this research, the term *green space* is used to designate areas with the presence of plant species in an urban context, while *urban nature* englobes also areas with rivers, lakes, and other water environments. Throughout the investigative procedures, it is intended to highlight

how precisely these places are multifunctional, representing spaces that participate in the sociocultural and environmental dynamics in the urban landscape.

The selection of the geographic areas of Oslo and Rio de Janeiro, followed four selection criteria:

- Population density,
- Sociocultural history,
- Climatic and geographic elements;
- Urban and environmental planning policies.

These criteria correspond precisely to the main differences between the two chosen contexts. I chose to work with what Cardano (2017) referred as ***the comparison of the most distant cases*.**

The research hypothesis is that the two parks are united by a solid image in the urban narrative, but are separated by profound differences related to the sociocultural, economic, and environmental contexts in which they are inserted. The passage from the central question from which the research moves towards the empirical context is mediated by a strategic choice, which refers to the case studies chosen for the research. Both Frogner Park, in Oslo, and Quinta da Boa Vista, in Rio de Janeiro, have the potential to provide eloquent answers to the main question, seeking to reach the scope of the research: **how are urban nature, such as parks, relevant in different social contexts?**

The theoretical basis of the research and the empirical support used was based on Cardano's approach to the Theory of Argumentation, which allows to build a theoretical framework, sustaining the legitimacy of the research results (CARDANO, 2017). Thus, the parks were analyzed through rigorous verification categories such as *sociability, sustainability, and management*, connecting the scope of the research to the stipulated general objective and specific objectives, verifying their connections to the themes of biophilic cities, ecological urbanism, and cultural geography. In this way, the investigation demonstrates its unfolding, following a double deductive and inductive trajectory, in which the representativeness of the case studies (objects) is given by the possibility of exploring a research problem in depth by the object in question (GOLDENBERG, 2004).

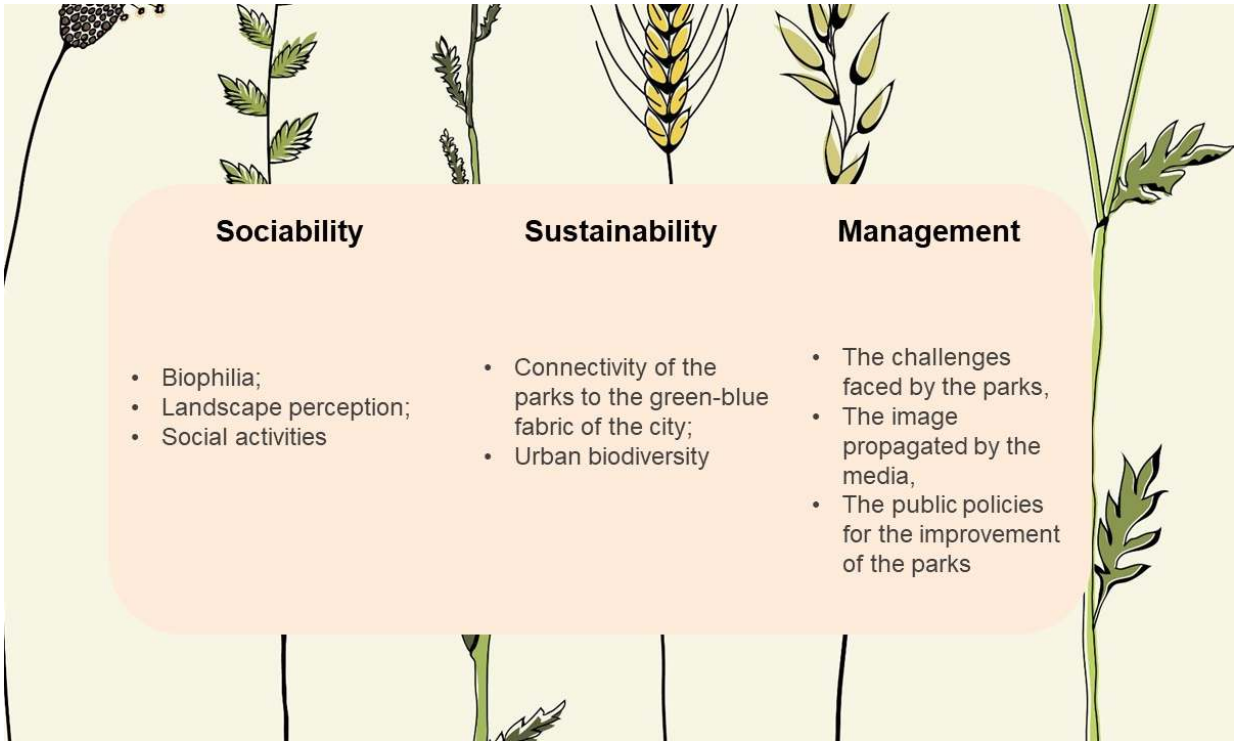

Figure 1. Verification categories and the research extent.

The reader will take a closer look to those aspects on chapter 4 and chapter 5, where the park is considered as both a unit and a synthesis of sociocultural and ecological processes. Through theoretical and conceptual research, the two parks were approached, under a critical analysis, seeking to reflect and dialogue with the other specific objectives of the research. The examination of the interviews also entered this section, and the methodology used so far provides a broad theoretical-conceptual basis, fostering data for the investigation. The research instruments were adapted, also due to the global pandemic context (in which interviews and other surveys were carried out virtually, using internet communication resources).

These circumstances and methodology proposed here does not intend to generalize data that are based on analysis of certain cases, but on the contrary, it is aimed at understanding the extension of the research, in a reflexive movement from the general to the particular (deduction) and from the particular to the general (induction).

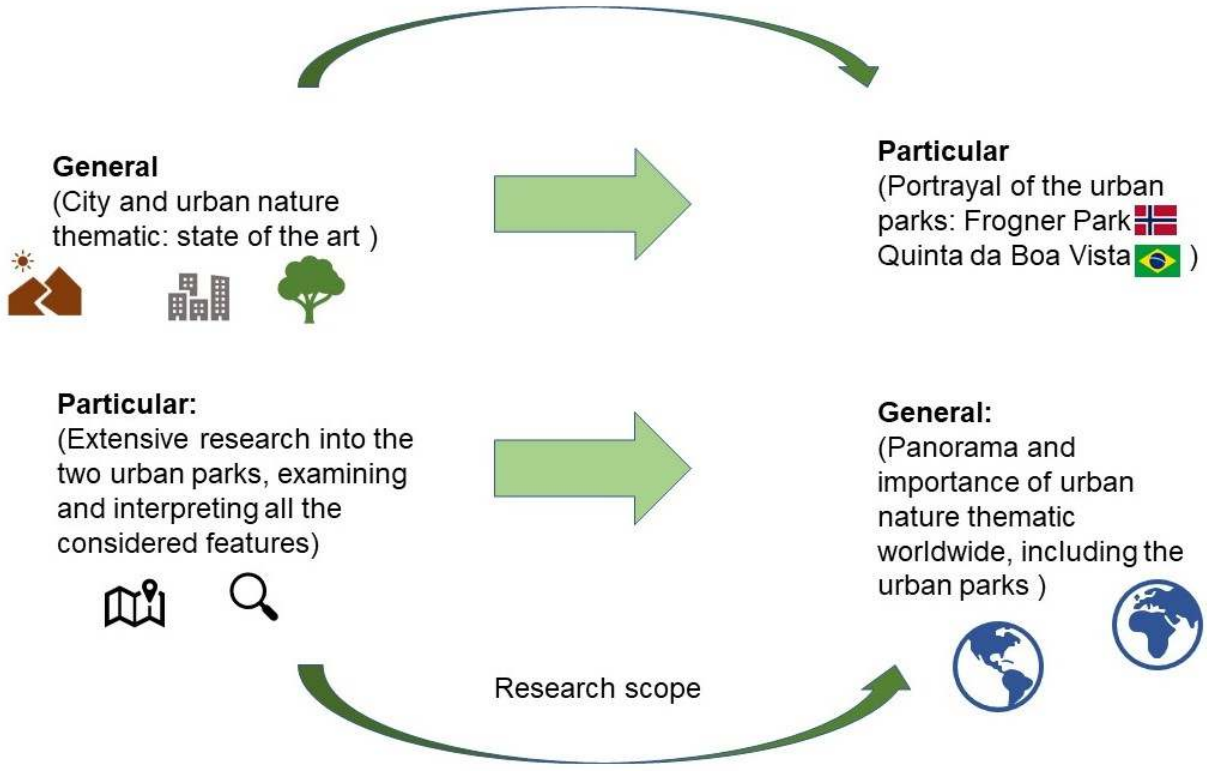

Figure 2. Research extent.

In this way, the two empirical contexts analysed here are exemplary cases to reveal the culture and socio-environmental aspects of the places where they are located. The comparative potential of these more distant cases runs through the hypothesis that guides the work: despite being in different urban realities, there is a certain similarity in their sociocultural and environmental importance for their specific social contexts. They have a solid image in their local urban narrative. Thus, the hypothesis depends on the relationship that occurs between the profile of the parks (their main characteristics) and the research problem from which the investigation moves (that is, how parks are relevant in today's cities). The approximation of these two cases, which are as different as possible, gives solidity to the traits that unite them, as it will be discussed through the interpretation of the collected data (CARDANO, 2017, p. 85).

Therefore, with the distinctions between Frogner Park and Quinta da Boa Vista, it is also possible to find similarities and possible resonances that unite them, to promote the advancement of knowledge about the city and urban nature, inspiring new ideas both for management, and for contemporary urban and environmental planning. This is on the opposite side of what a comparative analysis of similar cases would propose to unravel. In a

comparison between similar cases, one would expect to find a certain comparative difference between the cases.

The research followed a methodological path in which the object of study showed the functioning of theories in different empirical contexts, intending to provide an analysis of the role of urban parks in promoting access to nature in two contexts, as well as demonstrating the insertion of these parks in the local culture (considering their relevance in the socio-environmental dynamics of the place/region where they operate). These two guiding aspects of the research were dedicated to using the park as a means and as an end.

The bibliography was considered as a source, making it possible to obtain information and evidence on the subject studied. In this perspective, the sources generally consist of produced texts and other imagery and visual data, which in this research were divided in two different ways.

Primary sources:

- Historical documents (photographs and maps...);
- Articles and books written by authors considered classics in their field of study (see figure 3);
- Information obtained from official government and tourist websites and social networking pages;
- Interviews.

Secondary sources:

- Scientific literature review articles;
- Descriptive books based on research already carried out.

In this sense, **secondary sources** represent bibliographical productions with a literature review character, indicating other studies about urban nature such as parks and urban forests in different parts of the world. These studies are important to verify the consolidated knowledge about the relationship between cities and green spaces and, therefore, contributed to the state of the art, supporting the research problem. In addition, as part of the **primary sources**, specific academic research was analysed on the dynamics of urbanization in the cities of Oslo and Rio de Janeiro, as well as on the empirical contexts of

Frogner Park and Quinta da Boa Vista. Classic authors were also considered as this kind of source, and they were connected to the Cultural Geography theory; Urbanism, and Sociology/Philosophy academic disciplines. This means that their productions, together with secondary sources, contribute to a greater understanding of the thematic roots of urban nature in the academic and scientific context, being divided according to the main theories of the bibliographic works considered (see Classic Authors figure):

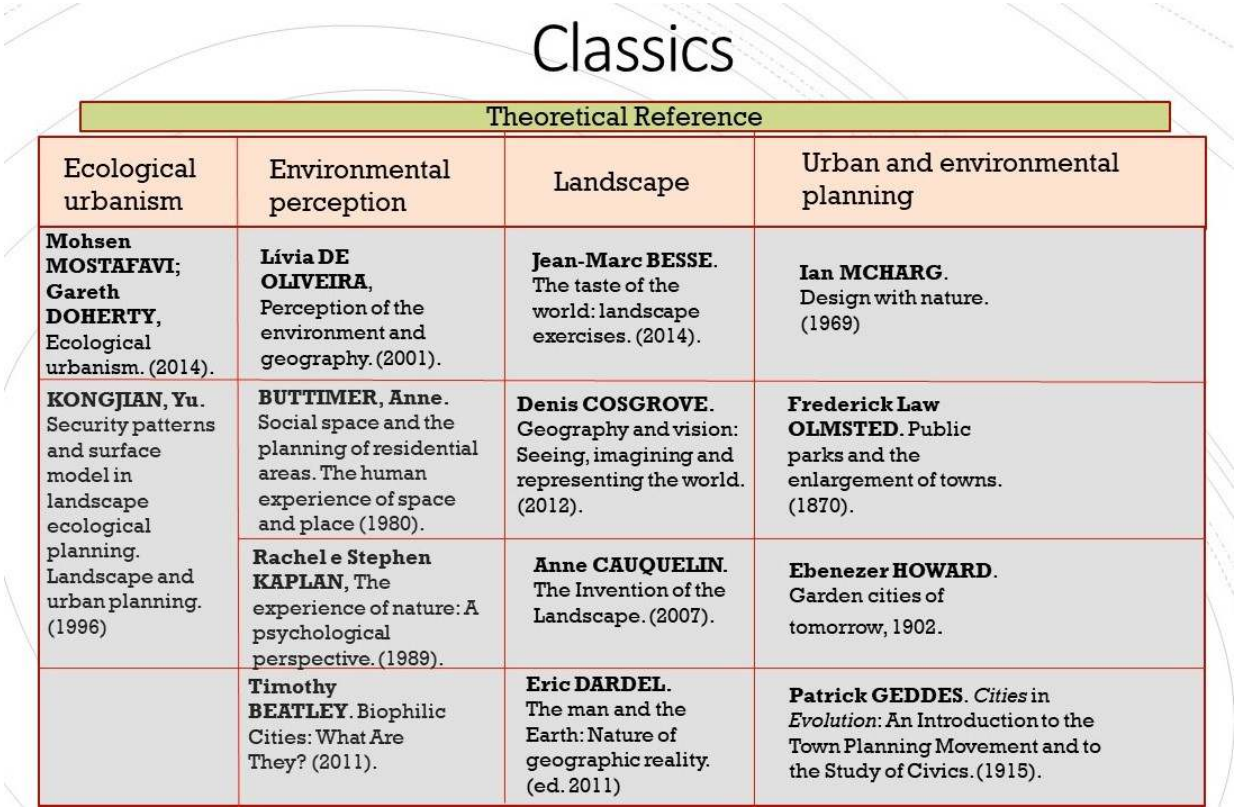

Figure 3. Classical authors considered in the research's theoretical framework.

Databases used in the construction and identification of the urban realities of Oslo and Rio de Janeiro:

- University of Oslo Library (https://bibsys-almaprimo.hosted.exlibrisgroup.com/primo-explore/search?vid=UIO&lang=en_US);
- Google Scholar (https://scholar.google.com.br/);
- Periódicos CAPES (https://www-periodicos-capes-gov-br.ezl.periodicos.capes.gov.br/index.php?);
- Oslo Kommune (https://www.oslo.kommune.no/english/);
- Oslo City Archives (https://www.digitalarkivet.no/en/actors/35/oslo-city-archives);
- Historical Archive of Norwegian Landscape Architecture – NMBU University (https://blogg.nmbu.no/ila-samling/);
- Kartverket – Maps open-source (https://www.kartverket.no/en/api-and-data);
- Parks in Oslo (https://www.visitoslo.com/en/product/?TLp=229664);

- Guided Tour: Vigeland Sculpture Park – University of Oslo (https://www.uio.no/english/studies/summerschool/social-activities/events/social-events/vigeland%282%29.html);
- Norges Naturvernforbund – Associação norueguesa de amigos da natureza (https://naturvernforbundet.no/?lang=en_GB);
- Bymiljøetaten – setor de meio ambiente (https://nyhetsrom.bymiljoetaten.no/opplev-oslo/);
- IBGE RJ (https://cidades.ibge.gov.br/brasil/rj/rio-de-janeiro/panorama);
- Biblioteca Nacional- Brasiliana Fotográfica (https://brasilianafotografica.bn.gov.br/);
- Plataforma colaborativa WiKi Rio (https://www.wikirio.com.br/Quinta_da_Boa_Vista);

1.1. INTERVIEWS AND PERCEPTIONS

The interviews, which were discussed in chapter 4, have the purpose to outline the urban contexts considered here. The ones concerning the city of Oslo, were carried out in the period corresponding to the years 2020 and 2021, in English, with a predetermined group of people. This group included students, residents of nearby and distant neighbourhoods of the park, university professors and the former urban planner of the city of Oslo (Ellen de Vibe- Former head of the Planning and Construction Agency in Oslo, where she worked for 20 years). In addition, another predetermined group of people was interviewed about the urban reality of Rio de Janeiro and Quinta da Boa Vista, in the years 2021 and 2022. The interviewees were selected in order to bring examples of different types of spatial experiences, highlighting also students, residents of neighbourhoods near and far from the park and the former employee of the city hall of Rio de Janeiro (Jeanne Almeida da Trindade, Architect of the City Hall of Rio de Janeiro between 1986 and 2016).

The interviews took place in a virtual environment, such as e-mail, Google Meet, Zoom and WhatsApp written/ video conversations. Each person was given a formulary containing the title of the research project, the university filiation of the author and the permission (via signature) to use the data collected in the interview. Thus, the formulary also contained a selection of thematic axes (that were different from the general participants to the two professional urbanists), which intended to capture the experiences of these people in both their local urban nature and in the analysed parks. By doing this, we wanted to provided a roadmap for people to feel more comfortable talking about their impressions and ideas, given that participation in academic research in the form of discursive interviews tends to leave respondents confused and nervous about “where to start and with what to write/ say on a blank page.” In order to eliminate these social discomforts, the technique used was that of thematic axes, which greatly facilitated the process.

The answers were given in written, audio, and audio-visual formats (recorded video call), according to the preference and availability of the interviewees. In the context of qualitative research, the theoretical-methodological approach was based on an analysis in the form of reports, which act as a mediation between the research and the investigated reality. In this perspective, the experience lived and reported by each individual was considered both unique and collective, as it contributes to knowing the different ways of being in the world, identifying the ways in which these people experience urban nature and relate to the cities. Furthermore, the collectivity of these experiences lies in the fact that each person belongs to a certain sociocultural context, which also influences the social aspects that underlie their individual perceptions of the environment.

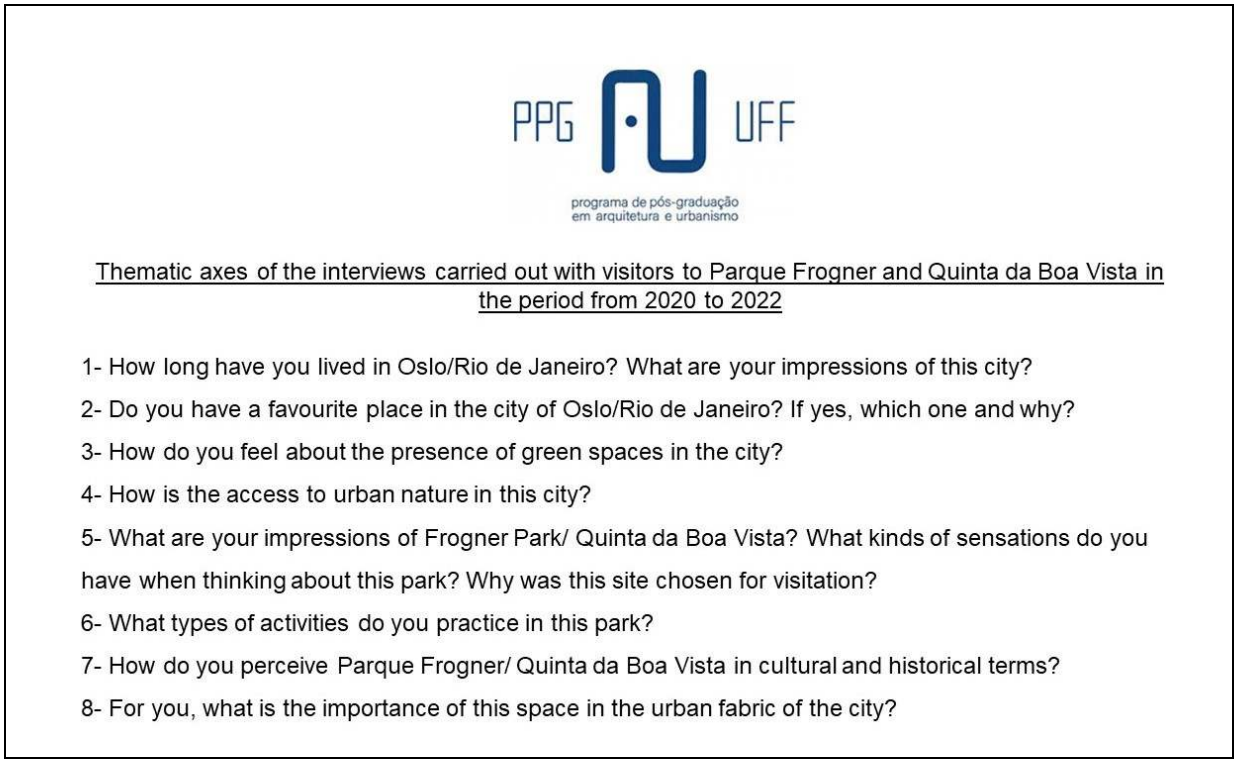

Figure 4. Formulary model of the interview with general participants.

MODEL OF THE INTERVIEW CONDUCTED WITH THE NORWEGIAN URBANIST **ELLEN DE VIBE** IN 2020

1- What was it like to lead the agency and deal with long-term professional projects and political decisions at City Hall?

2- What kind of political changes have you seen in Oslo during your working years? And how did this affect the urban and environmental planning of the city?

3- How important is it to have public parks available in Oslo? How are parks still relevant?

4- How do you see Marius Røhne's ideas and efforts as the first outstanding landscape architect in Norway? What is your opinion of park system policies during the 20th century?

5-What was the most significant change in Oslo after the city was named European Green Capital 2019?

6- How long have you lived in Oslo (and where)? Do you have a favorite public place in town? If yes, which one and why?

7- How do you feel about the huge presence of green spaces in Oslo?

8- What is the importance of Parque Frogner for the urban structure of the city?

Figure 5. Formulary model of the interview with the Norwegian urbanist Ellen de Vibe.

MODEL OF THE INTERVIEW CONDUCTED WITH THE BRAZILIAN URBANIST JEANNE TRINDADE IN 2022

1- You did an extensive study, for your doctoral thesis in 2013, on the Glaziou gardens for Quinta da Boa Vista. Why was this park chosen for your research? How is your current relationship with the Park?

2- How does Quinta da Boa Vista present itself to you within the urban insertion of the city of Rio de Janeiro? (importance, connectivity with other green areas in the city, accessibility, socio-cultural aspects, etc...)

3- What kind of changes in urban policies for green areas did you see in Rio de Janeiro during your years working in the city hall? And how did this affect the urban and environmental planning of the city?

4- From the point of view of a public agent, committed to the environmental issue, how do you position yourself regarding the relevance of the availability of public parks for the population?

5- How does the system of adoption and concession of green spaces work? What are the advantages and disadvantages of this type of action?

6- Could you talk a little about your experience in the city hall and the articulation of interests as a member of the Brazilian Society of Urban Forestry and as a research professor? And how do you observe the relationship between the city and nature?

7- From your point of view, how is the relationship between managers of green areas and the population? How to deal with conflicts? Who loses and who wins?

Figure 6. Formulary model of the interview with the Brazilian urbanist Jeanne Trindade.

CHAPTER 2

UNDERSTADING NATURE'S SPACE IN THE PRESENT CITY

The city, even in all its artificiality, is part of nature for the simple fact that everything that exists in the world is nature. Within this perspective, Ellis and Ramankutty (2008, p. 439-441), present the notion of anthropogenic biomes, which identify the landscapes produced by human relations in space (ELLIS; RAMANKUTTY, 2008, p. 439-441). The authors discuss the fact that it is necessary to place social relations even on maps of a physical nature, considering that:

> Of Earth's 6.4 billion human inhabitants, 40% live in dense settlements biomes (82% urban population), 40% live in village biomes (38% urban), 15% live in cropland biomes (7% urban), and 5% live in rangeland biomes (5% urban; forested biomes had 0.6% of global population; Figure 2a). Though most people live in dense settlements and villages, these cover just 7% of Earth's ice-free land, and about 60% of this population is urban, living in the cities and towns embedded within these biomes, which also include almost all of the land we have classified as urban (94% of 0.5 million km2, although this is probably a substantial underestimate; Salvatore et al.2005; (ELLIS; RAMANKUTTY, 2008, p. 441).

In this way, the idea of making room for nature in cities does not intend to express the city as an entity without participation in planetary biological dynamics, but rather that it is necessary to understand the presence of urban nature, such as trees, rivers, and flowers, and its relevance for both urban ecosystems and social lives, as well as how it can be improved by daily management measures, urban planning, and environmental education. And this is precisely the debate brought up by the Brazilian geographer Marcelo Lopes de Souza in his recent work *Environments and territories: an introduction to political ecology* (DE SOUZA, 2019, translation by the author).

According to him, the urban space is immersed in the complex naturogenic system, in which there is interaction between fauna and flora, hydrological cycles and other aspects that provide our material existence in this planet (DE SOUZA, 2019, p. 66). However, he also

claims that it is necessary to identify that the nature of cities produces different biological situations. For example:

> Even if rain is, in principle, a naturogenic process, and the substances contained in raindrops are, in principle, also naturogenic, acid rain is a product of society (and more precisely of specific processes and social relations in the context of industrial society); although the urban fauna and flora are, as such, not produced by man (discounting all the situations represented by the artificial selection that is behind the selection of our domestic animals...), human-social processes, such as environmental pollution, affect all the animals and plants that exist in our cities, leading to phenomena such as mimicry and the search for new ecological niches (DE SOUZA, 2019, p. 66, translation by the author).

Within this context, when we recognize both urban nature's aspects, and the environmental problems in a local level, we can think about new management procedures to make the urban ecosystem more sustainable over time, as well as more liveable too. In such manner, the author Skjerve-Nielssen (2009) addresses that a sustainable city is one that manages to balance progress in economic levels, environmental characteristics, and sociocultural aspects, through processes of active participation of each citizen. (SKJERVE-NIELSSEN, 2009). In parallel, Butters (2021), states that although the term has been trivialized and appropriated in a marketing way in the contemporary world, in essence, the word sustainable means something that has the quality and means to last over time (BUTTERS, 2021, p. 2). Therefore, in the urban context, sustainability designates an environment with great resilience, which can overcome crises and avoid the risks of environmental disasters for the population that inhabits it.

The author also points out that there are some myths involving sustainability (BUTTERS, 2021), as if it were something difficult to achieve or only available to those (social realities or even personal individuals) who have a high economic level, who can afford the excessive value of products that offer energy efficiency or that they were made with licensed, quality, and lasting materials (as in the case of legalized wood). Butters (2021, p. 2) understands that the great challenge for sustainability is, in fact, the prevailing economic model worldwide, which prevents the promotion of a fairer society (BUTTERS, 2021). However, he also states that there are ways to start achieving the much-desired durability of cities with more specific actions, starting with the presence of urban green spaces, which guarantee amenities and socio-environmental opportunities at the microscale of each neighbourhood (BUTTERS, 2021, p. 2-7).

Similarly, Jaime Lerner (2003, p. 4), had already argued that attitudes in strategic locations can offer great help for life in urban centres, making an analogy with the needles of

the Chinese acupuncture practice, which pierce specific points in the human skin, in order to help cure diseases, by creating positive chain reactions, which will influence other areas of the body, in a domino effect (LERNER, 2003, p. 4). In this sense, "opening" space for urban nature represents precisely this logic of propositional actions at the local level, as if they were needles in the urban space, which have the potential to reach other areas of other cities, as a systematic reaction through example and behaviour change of the bottom up and bottom down urban management.

This can be seen in the current community gardens, existing in countless urban realities. According to Twiss et al. (2003, p. 52), this type of enterprise also has results for health, as it improves the population's nutrition and enables physical activity, promoting the role of public health in improving the quality of life. Through community garden initiatives, cities are able to design policies for interim land and complementary water use, as well as improving access to local produces, raising public awareness of collective health, food security, and creating educational materials through culturally appropriate training and strengthen community cooperation skills (TWISS et al., 2003).

In a complementary idea, Tonkiss (2013) analyses that urban planning in a context of (economic) austerity can be a challenge, but at the same time, there are several degrees where alternative planning can materialize. He also cites the example of urban gardens and vegetable gardens and its relevance. According to him, gardening done in urban spaces demonstrates the persistence of a community way of thinking that insists on being present even amid a hegemonic logic of private spaces. Tonkiss analyses the different modes of urban experimentation that help to “escape” from the homogeneous way of (re)producing space (TONKISS, 2013).

In this way, creativity finds space for existence even in moments that are inhospitable to its presence. However, it is important to highlight that the author also analyses how these creative and alternative spaces can end up being appropriated by neoliberal thinking, where spatial differentiation, marked by multiculturalism, contributes to the valorisation of a certain urban area, in a marketing logic (TONKISS, 2013). It is relevant to think about these two contexts at the same time, so that we can understand what happens in the spaces around us and make critical propositions about it. While it is essential to have an alternative urban planning and in dialogue with the community (even produced by it), it is also necessary to verify when this planning is only becoming a product ready to sell an image of the city and what are the consequences of this for the community ‘s space. This reflection is important in order to inhibit the phenomenon of gentrification.

Local attitudes and projects can occur in the multifunctional spaces of cities, taking advantage of the same environment for a range of activities that go beyond the primary functions for which a given place was previously designed. According to Araujo, Mello and Sbaffi (2019, p. 63), the city is a heterogeneous space formed by different mosaics that are experienced in different ways. Therefore, for the authors, in addition to the practical-functional aspect, multifunctionality also means that space encompasses interspersed material and subjective dimensions, which expand their role in cities and recover the social experiences of the inhabitants (ARAUJO; MELLO; SBAFFI, 2019, p. 72).

There are some ideas and concepts that permeate and enable these specific actions and the duration of cities, among which we can highlight: reforestation and, consequently, the promotion of biophilic cities, ecological landscaping, as well as the adoption of green infrastructures and Nature Based Solutions (NBSs). On these aspects, Per Gunnar Røe and Mark Luccarelli (2016, p. 3) argue that they are in broad connection with the emergence of the so-called Green Urbanism. According to the authors, this urban current works precisely with the relationship between urban design and nature, enabling the idealization and construction of a sense of self-awareness of the city in its geographical context. That is, both management and urban planning begin to consider management measures that take into account the climatic/natural environment in which the city is inevitably inserted, implementing actions to conserve natural resources and green spaces (RØE; LUCCARELLI, 2016, p. 1-5).

Among the contemporary practices of urbanism that consecrate the importance of urban nature, as an environmental policy, resulting in experiences that strengthen environmental preservation, Ecological Urbanism emerged as a way to boost the ideas already addressed by Green Urbanism, in the sense of promoting theoretical research and practices that identify the geographic and ecological aspects of a given area, to promote a greater union between concrete natural space and urban occupation, in addition to greater connectivity between the various elements of urban nature present in cities, making them more resilient and biodiverse (see Figure 7).

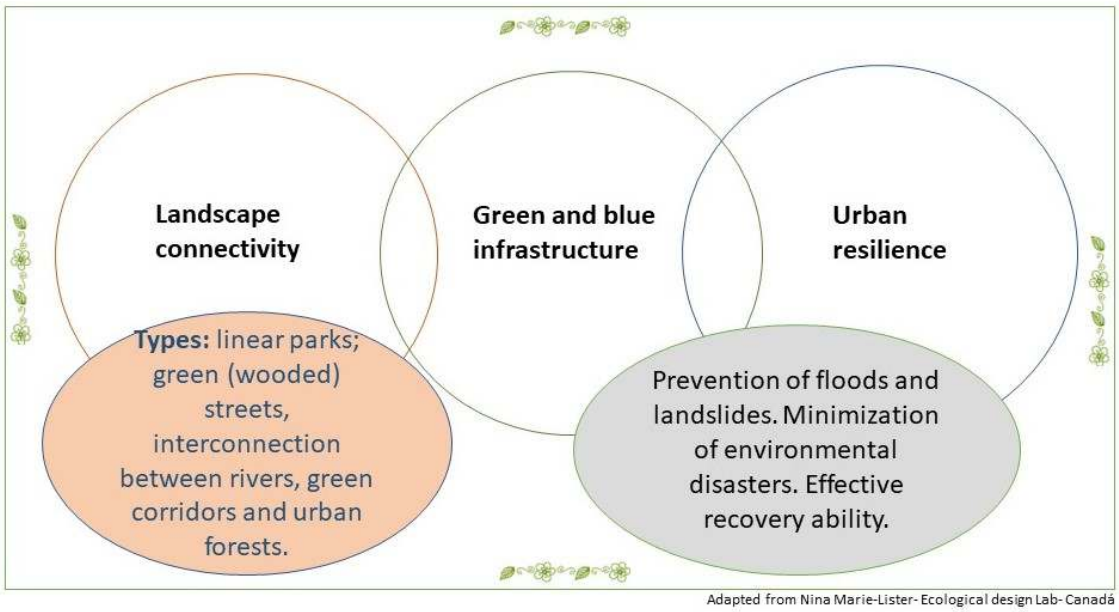

Figure 7. Urban practices allied to urban ecology and systemic thinking.

To this end, in 2014, Gareth Doherty and Mohsen Mostafavi brought together, in the book “Ecological Urbanism”, researchers who reflected on seven premises 1) Anticipate, 2) Collaborate, 3) Feel, 4) Include, 5) Mobilize, 6) Heal, 7) Adapt; that help situate the debate and think about urban space in connection with the community and the biogeographic environment (DOHERTY; MOHSEN, 2014). The book has been a great basis for current urban research, demonstrating that the project is the synthesis capable of uniting ecological principles, urbanism, and political and sociocultural relations in the promotion of more sustainable cities.

By anticipating, the authors consider predicting the types of socio-environmental challenges of a given area, which can be projected together with the collaboration of the community, which experiences and feels the place on a daily basis. In this way, social inclusion enables greater mobilization and engagement. The population learns more about their place of residence, in addition to having a voice to teach some knowledge already acquired over time as well. This exchange of information allows for healing and adaptation, which are related to urban resilience.

Still in this reasoning, according to the Brazilian landscape architect Patrícia Akinaga (2014), ecological urbanism emerged in opposition to the so-called “New Urbanism” of the United States of the 1980s, whose urban planning was based on the automobile and multifamily buildings in a logic of density of services and housing (AKINAGA, 2014).

Ecological Urbanism appeared by the end of the 20th century and the beginning of the 21st century, as a result of the environmental debates of the period. It is interesting to reflect those researchers of Ecological Urbanism (and green urbanism) rescue ideas such as those of Frederik Law Olmstead or Ian McHarg in the post-war period, with regard to urban design following the outline of nature.

In this context, the occupation of urban space now includes urban nature such as green spaces not only as an accessory linked to aesthetic beauty, but mainly in the sense of using vegetation as a structuring element of the urban landscape, through green infrastructure tools and nature-based solutions (NBS). At this point it is important to spark the distinctions between green infrastructure and NBS:

- Some examples of green infrastructures are: green walls, green corridors, parks, squares, and green roofs.
- Nature-Based Solutions are practices inspired by nature's typical way of acting, such as rain gardens, constructed wetlands, reforestation.

That is, the difference between the two types of tools consists in the fact that NBSs try to mimic the functioning of the local ecological system, by their own means. An example of this are constructions with permeable and humid surfaces, which allow a greater flow of water, such as rain gardens in flooded areas.

About the specific role of urban gardens in terms of ecology for cities, an author who has been standing out is the British Matt James, with his practical knowledge of landscaping and gardening. According to James (2014: p.11), there are six positive aspects of considering “green” within the urban structure:

1. Combat the harmful effects of excess carbon, as the leaves can hold impurities from the pollution generated by factories and vehicles, in order to dissolve these impurities in the soil, with the help of rainwater. In addition, vegetation also can capture large amounts of carbon dioxide in the process called photosynthesis, releasing oxygen into the atmosphere;

2. Improve the urban microclimate, as the vegetation reflects solar radiation, instead of absorbing it (as it happens in places heavily paved and with concrete, causing heat islands). In addition, trees provide shaded areas, of undeniable thermal reduction, helping to create cooler places for cities;

3. Prevent flooding and ensure better management of rainwater, as “the soil and grass absorb rainwater, helping to reduce localized flooding. Plants, especially trees, intercept rain and slow its descent to the ground, which, in turn, relieves pressure on culverts” (JAMES, 2014: p.12). For this, maintenance of soil drainage is essential, so that it does not become compacted.

4. Reduce energy costs and improve thermal insulation, as vegetation has the capacity to, at the same time, cool buildings in summer and heat them in winter, which represents a reduction in the use of air conditioners and heaters;

5. Conserve water; bearing in mind the various forms of water recycling in a garden (use of rainwater, directing clean water from other sectors of the city...);

6. Provide space for the biodiversity of urban fauna and flora, as the garden environment is an ecosystem conducive to the existence of different types of birds, insects, and other animals essential for the ecological balance and even for our food security (the guarantee of genetic diversity through plant pollination, for example). James (2014, p. 15) emphasizes that, depending on the size and biogeographic characteristics, “urban gardens can support more than 250 species of wild animals”.

2.1 LANDSCAPE, BIOPHILIA AND ENVIRONMENTAL PERCEPTION

Within the context of ecology and urban practices, there is also the psychological and subjective dimension that connects everyone to the space in which one lives and transits. For the French geographer Eric Dardel (1899-1967), this is consistent with the geographic reality: the concrete place of human experiences. Also, according to the geographer, the multiplicity of experiences through geographical elements finds its synthesis in the landscape: “Much more than a juxtaposition of picturesque details, the landscape is a set, a convergence, a lived moment, an internal connection, an impression, that unites all the geographical elements” (DARDEL, 1990, p. 30).

In the same line of thought, the Brazilian geographer Lívia de Oliveira wrote about these issues in her article “Perception of the environment and Geography” (DE OLIVEIRA, 2001). There, she emphasizes one of the first worldwide efforts to understand “how a cultural

group perceives, either as an individual or as a group, its environment" (DE OLIVEIRA, 2001, p. 15). She analysed the role of other geographers such as Ian Burton and Anne Whyte on a research project called *Man and the biosphere*, promoted by UNESCO, resulting in the first publication of its kind: Environmental Perception Research, in the 1970s-1980s.

It is interesting to note that precisely this subjective dimension makes it possible to understand that there is no landscape without the human being, as it is he/she who gives meaning to their geographic space. This spatial quality was called geographicity, or, in French *géographicité* (1990, p. 31), that is, the materialization of social relations in the concrete space which form the landscapes we know (and those we are still creating). In this logic, there is a dialectical relationship between society and space, in which social dynamics produce space, but at the same time, space produces society, as it can influence new ways of life, adapted to a given physical reality (as it is the case of designing resilient cities, for example, in which public management, planners and inhabitants must adapt to the environmental context, avoiding risks to the population).

About this, De Oliveira (2001, p. 18) states:

> One must consider the landscape as something inseparable from observation and cognition. In the landscape, the subject and the object are inseparable, not only because the spatial object is constituted by the subject, but also because the subject is involved by the landscape; that is, the subject is enveloped by and within the landscape.

In parallel, Besse (2014, p. 41-42) states that "the landscape is the element where humanity is naturalized and where nature is humanized (and symbolized)". In this sense, the author identifies that the landscape is the means by which another nature (or second nature, according to Santos, 1992), is constituted as a product of socio-environmental and cultural relations. In this way, cities, as urban landscapes, represent the concreteness of these relationships and enable feelings of philia to their citizens.

Thus, the term biophilic cities, presented by Timothy Beatley (2011), in the book "Biophilic Cities: Integrating Nature into Urban Design and Planning", is interesting, as the author considers philia relations from another perspective in the urban space, going beyond the philia with a certain concrete space (as in the case of the descriptions of topophilia by Yi-Fu Tuan), but specifying the sentimental link with urban nature/green spaces. It should be noted that the term biophilia originally means love for life and was thought up by Edward O. Wilson, an American ecologist, in 1984. But Beatley (2011, p. 51) deepened this issue, discussing how urban design can enable inhabitants to develop outdoor activities amid

vegetation and water bodies, in addition to offering a lifestyle that lets them learn from “nature” and commit to it. Therefore, providing citizens with an experience of urban nature is beneficial for the development of biophilia in the landscape of the present-day cities.

Beatley (2011, p. 50) also stated that a biophilic city is one whose management and other social agents see access to urban nature through the perspective of environmental justice, in which nature in urbanized areas is seen as essential to having a good and meaningful life and, therefore, it is a right of all neighbourhoods, without social and economic distinction. A biophilic city encourages its inhabitants to walk through the streets, exercising environmental perception through the immersion of vegetation allied to urbanism. On this aspect, the author argues that “the ability to walk or cycle, or to transit through a park or urban forest is essential” (BEATLEY, 2011, p. 50, free translation).

Furthermore, Beatley (2011) identifies 6 guiding principles of biophilic cities:

- 1st Principle: Nature in abundance located close to many inhabitants;
- 2nd Principle: Connecting citizens with native flora and fauna;
- 3rd Principle: Connect outdoor spaces, promoting and facilitating the use of the population;
- 4th Principle: Multisensory environments;
- 5th Principle: Education in the field of nature;
- 6th Principle: Investment in infrastructure that favours the connection between city and nature.

In a similar analysis, Besse (2014) explains that the landscape is what allows us to produce the encounter between the “city” and “nature”. According to the author:

> Ecological and environmental concerns are decisive today, as we know. Nature no longer means just the “opposite” of the city: that more or less wild green thing that is found outside the urban universe. Nature is in the city, and it is present on the one hand, in the form of concerns about the quality of water and air, for example, on the other hand in the form of projects for parks and public gardens and, finally, in the form of reflections and experiences regarding the diversity of plants that can be installed in it in a sustainable way. In other words, the city is, today, a hybrid natural environment, of a particular type (BESSE, 2014, p. 58-59).

Therefore, in the context of the present book, biophilia in the urban context presupposes that the cities’ landscapes are shaped together with elements of urban nature, which will provide a distinct environmental perception at the level of lived space. But both *nature* and city have also a long history of symbolic separation. For instance, in their classic work “The experience of nature,” the authors Rachel and Stephen Kaplan (1989), explain

through examples and interviews, the experiences with nature in different scenarios, highlighting that often in the social imaginary of the interviewees, nature, is seen as a natural environment without buildings, far from cities (generally an untouched forest or a rural area). Although the book was written at the end of the last century, this thought is still present today, and it goes in opposition to the ideas of the biophilic city and ecological urbanism.

One example of this distinctive way of perceiving the urban environment can be seen in the book *Habitar (Brazilian Portuguese version)*, by the Finnish architect Juhani Pallasmaa (2017, p. 51-54), where he argues that:

> Parks and squares silence the continuous murmur of the city, allowing us to hear the sound of water in a fountain or the chirping of birds. Parks create an oasis in the urban desert and allow us to smell the flowers and herbs. They make it possible for us to be simultaneously surrounded by the city and outside it; *they are metaphors of the absence of the city* and, at the same time, miniature nature and images of a constructed paradise (PALLASMAA, 2017, p. 52, emphasis added).

Although the author recognizes the importance of parks in providing new sensations and connexions, even comparing it to a paradisiac place, it is interesting to note that in this specific writing, Pallasmaa (2017) considers a green space like a park, as the absence or the contrary of the city. This does not necessarily mean that he ignores the benefits of nature. On the contrary, he emphasizes how good it is to be in a green space. However, his analysis indicates a symbolic division between the space of the city and the space of the nature, as if the two were not part of the same system. Exactly this point of view does not represent the efforts of the concept of biophilic cities to bring “nature” to the awareness of the urban population. In this sense, Kaplan and Kaplan (1989) address the separation of human beings and nature present in Western culture, especially in post industrial revolution societies, in which an urban environment sometimes does not represent nature in the collective consciousness.

About this, the authors argue:

> The juxtaposition of nature near the place of residence strikes some people as a contradiction. The word nature is often reserved for areas that have not been affected by human influence and that have trees and other vegetation to a considerable extent. What is near for most people most of the time could hardly be described without human influence and is unlikely to be vast areas. However, vegetation may well be present, and perhaps this feature in itself qualifies for the designation of "nature", even if it is on one's doorstep. The issues here are not simply semantic. The failure to recognize the satisfactions and benefits that the natural environment near to the place of residence can offer has important consequences. This means that landscaping is often considered just an optional and superfluous "amenity". Having green things around is undeniably nice, but

> it is often considered less essential in the context of many urban landscapes (KAPLAN; KAPLAN, 1989, p. 150).

On that account, in this research, I aim at identifying how the presence of urban nature, such as parks, is vital to sustainability's sake, but also to physical and mental well-being of urban societies, being largely connected to perception and experience. And, therefore, vegetation, water bodies and other elements must be considered as structuring the urban landscape, transforming the city into a biophilic one, not only for aesthetic reasons, but specially for offering amenities and resiliency, and for the psychological and sensory aspects that interfere in the quality of life of every citizen.

CHAPTER 3

A SOCIOCULTURAL PERSPECTIVE ON URBAN NATURE IN OSLO, NORWAY AND RIO DE JANEIRO, BRAZIL

3.1 NATURE IN THE URBAN LANDSCAPE OF OSLO

Norway is a northern European country that, together with Denmark and Sweden, constitute the Scandinavian peninsula. With just over 5 million inhabitants, Norway is marked by the presence of a long, harsh winter and short, mild summers. The country has a vast extension from north to south, and its coastline covers about 103,000 kilometres in length, being considered the second largest in the world.

Its capital, the city of Oslo, located in the southeast of the country, has a population of approximately 707,531 inhabitants according to the 2022 Statistics Norway (SSB). Located at one end of the fjord, Oslo has a wide relationship with the local geographical environment and, in the past, the city was gradually constituted through its rivers and streams for the transport of wood taken from the forest, a product that it was, for a long time, the local economic base, considering that it was an essential artifact for the construction of houses and ships, in addition to being an important source of energy (SYSE, 2016).

Since many centuries, forests already had great relevance for Norway. Even due to the geographic characteristics of the country, with numerous mountainous areas providing difficult access to the inland, urbanization occurred late, fragmented, and concentrated in small nucleus, where forests and rivers were the only connection path between villages in most regions. However, it was with Henrik Ibsen (1828-1906), Norwegian poet and playwright, that the concept of *frilufsliv* deepened the importance of nature in the social context of the nation in formation (ELGVIN, 2009).

According to Elgvin (2009), in a literal translation into other languages, *frilufstliv* refers to “outdoor life”, but this term means much more than that:

> It is a total appreciation of one's experience in communicating with the natural environment, not for sport or recreation, but for its value in the development of the whole spiritual and physical being. Frilufstliv is the full identification and realization of body and soul that a person experiences when immersed in nature away from urban centres. (...) (ELGVIN, 2009, p. 1,).

In Ibsen's literary legacy, the poet portrayed nature in such a way as to identify human emotions in it. In addition, his work, as part of the realist movement, also meticulously described the environment, highlighting the importance of *friluftsliv* for the physical and mental constitution of his characters, influencing the way his readers identified with the story (ELGVIN, 2009). From literature, this term was taken to painting, in which a great exponent was the artist and horticulturist Nikolai Astrup (1880–1928), who dedicated himself to representing the environment in his homeland, Jølster (west region of the country), with strong and expressive colours, in order to transmit through his paintings, the vibrant outdoor life and the customs of the rural area.

Although, in essence, *friluftsliv* represents a transcendental experience between human beings and the environment, in a nature located far from urban borders, the term has been gaining ground in the daily culture of the country, also being related to experiences with urban nature. In this sense, authors such as Skjeggedal, Vistad and Thorén (2019, p. 2-3), address the fact that contemporary *friluftsliv* encompasses intra-urban spaces, such as public parks, squares and places for walking (SKJEGGEDAL; VISTAD; THORÉN, 2019, p. 2-3).

In the recent publication (2019) “Planning for the local walk in neighbourhood and public health” Planlegging *for nærtur og folkehelse* (free translation by the author), the authors consider that Norwegian cities should have an urban planning that dedicates more space to walkability in the midst of vegetation, facilitating and stimulating walking around the places of residence (SKJEGGEDAL; VISTAD; THORÉN, 2019, p.2-3). In this way, vegetation would be a type of attraction in the urban environment, a way of exercising friluftsliv on a daily basis, so that people feel comfortable covering their distances, permeated with green infrastructure and, without necessarily using cars, for example (SKJEGGEDAL; VISTAD; THORÉN, 2019).

In addition, Nilsen (2008, p. 11), discusses in the article “Children in nature: Cultural ideas and social practices in Norway”, that the stimulation of nature in the Norwegian context is something present since childhood, where social practices in a process of cultural (re) production, consider children and young people as essential both in valuing nature and in spreading knowledge about local geography (NILSEN, 2008). The author discusses the

existence of the White Paper of the Norwegian Ministry of the Environment that brought *friluftsliv* to the parliamentary debate in the 2000s related to this theme:

> Environmental and health issues are at the top of the agenda. For example, it is stated that the government will work to 'increase opportunities for children and young people to develop physically, mentally, and socially by playing, walking and experiencing nature (...). (NILSEN, 2008, p. 11).

In this sense, all this culture of access to forested spaces, in addition to the country's agrarian past, influenced the historical context that led to the creation of a wide network of green spaces in the urban fabric of Oslo, which developed mainly in the 20th century. Idealized from the nationalist and romantic movements, which intended to materialize in the urban space the essentiality of the Norwegian nationality (SYSE, 2016).

Furthermore, Røe and Luccarelli (2016, p. 2) argue that:

> While it is undeniable that Oslo has been marked by many of the same unsustainable practices and outcomes that have characterized other cities in the western world, we argue that Oslo also has a long history of being a 'green city' both in terms of feeling a strong self-awareness towards its geographical setting within a broader context, as well as its long tradition of conservation of natural resources and green spaces. Significantly, "green" in this sense is related to culture and cultural memory - that is, to practices, landscapes and monuments that provide a historical context for identification with place. This constitutes an important resource in the construction of a local green urbanist discourse.

In the late 19th and early 20th centuries, the so-called Oslomarka, a forested area that surrounds the city, came to represent these sociocultural dynamics well, in which the forests were re-signified, transmitting a sense of social belonging, as this was the space that symbolized the “soul” of the urban area of Oslo. Both the working class and the intellectuals of the time began to use the urban forest for a variety of activities, from skiing to writing their reflections and fairy tales (SYSE, 2016).

According to researcher Karen Syse (2016, p. 48, p.58-59):

> Oslomarka is an area containing places people anchor both meaning and identities to, it is an area of importance to ideas of cultural heritage as well as to ideas of nationhood, and within the last few decades, it has also become an area important to biodiversity.
> 1898 marked another important event for the population of Oslo, as Holmenkollbanen opened. This was a tram service running from Majorstuen, by the western centre of Oslo, and all the way up to Holmenkollen. Holmenkollen is a very good starting point for walks and skiing trips alike, and gave the growing population of Oslo easy access to the forest. Marka has since become accessible to everyone. And from that, a whole new suburban area developed along the tram lines.

Throughout the 19th century, there was no broad tradition of building parks in the city (JØRGENSEN, 2018; THOREN, 2016). The few that existed were built by citizens, associations or by the Royal Court, designed by the Oslo Byes Vel association, in 1810-1820, in addition to the Bygdøy complex, developed as a public park by the Royal Court in 1837 (JØRGENSEN, 2018; THOREN, 2016). In 1814, Oslo, which was called Christiania, was still a small town with about 10,000 inhabitants, belonging to the Swedish-Norwegian kingdom. The city did not have the necessary bases for the creation of parks, unlike what happened in other places in Europe. In addition, there were no large castles with gardens in Oslo, which could become a public park, apart from Slottsparken, created in 1840 to serve as a garden for the seat of the monarchy – which has now become a public park.

Figure 8. Slottsparken.

Source: Personal archieve (2019).

According to Jørgensen (1997, p. 245):

> The history of garden art in Norway has yet to be written. An indifferent observer might ask if there is any history to record, because garden art is not what impresses you when you visit the country. Scenery and natural landscapes, rather than gardens, are the most common reasons to visit Norway. But when you look a little closer, there are actually gardens, and they have a history. It is not the story of the gardens of the royal palace or the great estates of princes. Looking at the history of gardens in Norway means looking for the subtlest nuances.
> Norway was a province of Denmark from the 14th century to 1814, and almost destitute for most of the 16th and 17th centuries, when the art of garden design flourished in other parts of Europe. Therefore, there were hardly any professional garden designers in Norway until the end of the 19th century.

On the other hand, the 20th century represented a great modification in Oslo urban life, in which new infrastructures were implemented, with the aim of transforming the capital of Norway into an epicentre of innovation and nature. To some extent, the Norwegian profession of landscape architecture has managed to achieve a central position in urban and rural planning and design. Unlike the context of central Europe, where the tradition of gardens is older, in Norway, the profession of landscape architect was established and supported at the beginning of the 20th century, by university-level education, in view of the growing context of urbanization of the country (JØRGENSEN, 2011).

In the first half of the century, the processes of idealization and construction were configured in an urban landscape narrative, woven by a series of subjects, from urban planners, horticulturists and even sculptors. In this sense, a highlight was the creation of the Department of Parks in 1916, whose landscape architect Marius Røhne was appointed head in charge of planning the green areas of Oslo, occupying the position of Head of the Department of Parks until 1948 (JØRGENSEN, 2018). Røhne was the first landscape architect in Norway and made a pioneering effort to make Oslo a modern green city.

It should be noted that what was once piecemeal gradually took on a more structured approach under Røhne's comand. He considered Oslo as a whole and developed parkland in the eastern, poorer parts along the Akerselva River, transforming the city into a place where planning made green spaces available for the public in and around residential areas, without distinction of social classes. This ‘park culture’ was intended to nurture the feeling that people belonged to the urban landscape and thus also took care of the local nature (JØRGENSEN, 2018). The planning and creation of green spaces took place with the support of scientific and botanical research on the Norwegian flora, to ensure the implementation of species suitable for the urban environment. Therefore, all fences around the green areas were removed, maintaining a high standard of vegetation maintenance (JØRGENSEN, 2018).

The importance given to parks and other green spaces, as well as the quality of housing, was the joint effort between the Parks Department and the Urban Planning Sector. This brings us to the second subject of this narrative: Harald Hals, city planner of Oslo from 1926 to 1947 (JØRGENSEN, 2018). He actively participated in the modernization of the city, and thought that the inclusion of the green component in the landscape was essential for community life, since they were places of sociability, in addition to being beneficial to the urban ecosystem.

Jørgensen (2018) argues that Hals and Røhne emphasized more the social and environmental advantages of having green spaces integrated into the urban system, than just

defining urban patterns with vegetation in residential areas (JØRGENSEN, 2018). It was in this period that forests, parks, and green corridors first appeared as main elements in the municipal master plan of 1929, in which categories of green areas were used to better integrate urbanization and vegetation. Syse (2016, p. 46) corroborates this idea. In particular, she highlights that it was the beginning of a series of measures to link suburban, interurban and forest areas, marking a beneficial period in the Norwegian urban design context (SYSE, 2016). The idealization of the master plan envisaged that these categories would relate to each other, in a systemic idea, in which green spaces, previously isolated, could be connected to each other, forming a cohesive park system (HALS, 1929 apud JØRGENSEN, 2018).

It is important to highlight that planning was concerned with maintaining the forest areas as part of the city's park system, not only because of the cultural history of the social relationship with Oslomarka, but also, because of the geographic risk aspects for the city, if the expansion of urban construction spread through the forest zone. According to Thorén (2016, p. 23), technical-scientific studies were carried out as early as 1934, resulting in a municipal decision to limit the developed areas in Oslo to a certain altitude, due to the restriction of water pressure. In this way, housing expansion was prohibited in Oslomarka, because the hydraulic systems could not guarantee the full supply of water, in case the forest was deforested (THOREN, 2016).

In this sense, Næs, Næss and Strand (2011, p. 113-120), state that the frontier represented by the forest in the face of urban expansion was officially regulated in the Municipal Plan of Oslo in 1936, having remained almost unchanged until the present day (NÆS; NÆSS; STRAND, 2011). The authors attribute this result both to the dynamics of planning and the park system in the first half of the 20th century, but also to Norwegian urban thinking from the 1980s onwards, following a policy of increasing the density of already urbanized areas, without expanding urbanization to the forest and other arable areas.

Through bibliographical research in scientific articles, it is remarkable to perceive the hyper-concentrated urban growth of the city from the end of the 20th century to the present day. According to Jørgensen (2018), especially the 1980s and 1990s represented a decline in park policy in the city, due to economic crises and the lack of investment in the legacy left by Hals and Røhne (JØRGENSEN, 2018). However, this same period is cited by other authors, Næs, Næss and Strand (2011) and Thorén and Aradi (2010), as the moment of development of public policies linked to the ideas of sustainability, although the focus was not specifically on urban parks, but the even greater integration of the green component of the

city, being understood within a multifunctional urban system, with different values and functions for the ecological structure of the landscape (THORÉN; ARADI, 2010, p. 1).

It is possible that the decline in the park implementation policy cited by Jørgensen (2018) may be connected to what the authors Røe and Luccarelli (2016) approached on their book “Green Oslo: visions, planning and discourse”. According to these authors, the emergence of the densification policy in the city can constitute a threat to small nucleus of vegetation, present mainly in squares and urban gardens:

> The effort to make the city denser, and therefore more traffic-oriented, can threaten small pockets of green space and destroy monuments - a paradox for city planners and policymakers. Our position is that this conflict can be managed more adequately and democratically if a broad perspective of the city, its traditions, historical trajectory, and possibilities for constructive changes are developed (RØE; LUCCARELLI, 2016, p. 2).

The year 1987 was important for the holding of the United Nations Conference in Oslo, in which the Bruntland report was presented, where the term sustainable development appeared for the first time. This had a strong influence on ongoing urban practices at the local level, since the thought that the forest is the limiting factor for the spread of the city was intensified. Still, Oslo has not stopped growing in terms of population density and building construction. In the 21st century, the city saw its population increase from 167,500 in 2008 to 196,600 in 2009, without any expansion of urban land (NÆS; NÆSS; STRAND, 2011). The solution found by planners and politicians (which is followed until today) was to compact urbanization in certain already urbanized centres, increasing transport infrastructure and intra-urban services, in addition to increasing the attractiveness of housing and the job market within the city itself, developing without converting forest land to new urban land.

The authors Næs, Næss and Strand (2011) also claim that some historical and environmental factors can explain this propensity to the policy of concentrated urban density. For them, the first factor is the cost of infrastructure, since in this part of south-eastern Norway, there is a predominant presence of rocky terrain, which often makes urban expansion into forestry and agricultural land expensive. This is precisely the case of the city of Oslo, surrounded by hills. In addition, strict national policies from the 1970s prohibit the conversion of agricultural land to other purposes, as the country has a shortage of arable land, which covers only about 3% of the national territory, making densification more profitable and influencing urban development (NÆS; NÆSS; STRAND ,2011).

However, only in 2009 did the forest have its own law – the *Markaloven* (BUGGE; REUSCH, 2010). In this recent legislation, the borders of the forest and its limits with the city and suburban areas were mapped. This allowed for even more protective measures. But it is also important to point out that the legislation was not intended to separate the forest from the population, from a preservationist perspective. On the contrary, the 2009 Act makes it clear that the *marka* is a common good of Norwegians and must be managed so that environmental protection is in balance with human activities. Therefore, the objective of the law is to facilitate outdoor life, experiences in nature and sports, but also to guarantee the limits of urban space and the sustainable use of the area. The law also granted stricter protection to some areas, such as nature reserves.

Figure 9. Nordmarka and Lake Sognsvann.

Source: Personal archive (2019).

3.2 NATURE IN THE URBAN LANDSCAPE OF RIO DE JANEIRO

Brazil is a country with around 212.6 million people (according to IBGE 2020 projections), located in South America, and its capital is the city of Brasília. Despite this, one of the best known and visited Brazilian cities worldwide is the former imperial capital, Rio de Janeiro, a metropolis situated in the southeast region, whose current population is around 6.748 million (also based on IBGE 2020 projections). According to Arbilla and Silva (2018),

the vegetation cover of this city is composed of about 28.9% of Atlantic Forest vegetation, mainly found in the forests and some parks within the urban perimeter (ARBILLA; SILVA, 2018).

According to Macedo and Sakata (2002, p. 16), the Brazilian public parks originated as an accessory iconography, connected to the interests of the elites throughout the 19th century, who wanted to approach the form and culture present in European daily life (MACEDO; SAKATA, 2002, p. 16). Because the 19th century was the period of the constitution of Brazil as a nation and, even more so, with the arrival of the Portuguese royal family in 1808, new structures were being shaped in the cities, which began to perform other social and economic functions and needed to appear certain formal and cultural tradition of the great cities and empires of Central Europe, but adapted to the tropical reality of the country.

In this sense, Enders (2008, p. 89-91) discusses that the moment when the Brazilian national sentiment emerges is uncertain, being a consequence of the independence movements between the end of the 17th century and the beginning of the 1830s. Analytically, the author highlights the importance of understanding the role of the city of Rio de Janeiro, as one of the actors in the ongoing political-social process:

> It is, however, in Rio de Janeiro, capital of an ephemeral Luso-Brazilian empire between 1808 and 1821, that independence presents some of its intriguing singularities. The city becomes the heart of a centralizing State, around which the Brazilian territory gravitates. Until the loss of its status as a capital, in 1960, the great moments of its history were intertwined with those of the history of Brazil. It is also in Rio de Janeiro, invested with the mission of civilizing the entire country, that the different ways of transforming the inhabitants of Brazil into Brazilians were elaborated (ENDERS, 2008, p. 90. Free translation by the author).

Based on this, the city became the locus of a series of sociocultural transitions which marked the development of a common identity for the members of the nation in formation. Regarding the morphological and functional changes in Rio de Janeiro during the transition from colony to Empire, Macedo and Sakata (2002, p. 16) argue that:

> The capital, Rio de Janeiro, is, naturally, the city that undergoes the most rapid and urgent urban transformations, since it immediately incorporates functions previously exercised by Lisbon, and, from the proclamation of Independence, in 1822, it becomes the capital of a new nation, rich in resources, attracting large investments from all over the country. Telegraph, telephone, mansions, boulevards, post offices, banking services, ministries, colleges, embassies, and headquarters of new corporations appeared and settled in the city, which took the forefront in the process of national urbanization throughout the century. In this context, the first three public parks were created in Rio de Janeiro, with the morphological and functional characteristics we know today: Campo de

Santana and Passeio Público, located next to the historical core and traditional centre of the city, and the Botanical Garden, next to the then distant Lagoa Rodrigo de Freitas.

The Botanical Garden of Rio de Janeiro, created as the Garden of Acclimation by Dom João VI for the cultivation of spices brought from the East Indies, is one of the most impressive scenarios of Brazilian landscape Eclecticism due to its size, elegance, and maintenance, which has remained stable over the years (MACEDO; SAKATA, 2002, p. 16-17. Free translation by the author).

Figure 10. Rio de Janeiro Botanical Garden.

Source: Personal archive (2015).

It should be noted that Rio de Janeiro has not only undergone urban and functional changes, but also population changes. Enders (2008) states that the presence of the Court contributed to attracting waves of migrants, driven by different reasons. Thus, in a short period of time (from 1799 to 1821), the population expansion was so expressive that the city centre went from 43,000 to 79,000 inhabitants (ENDERS, 2008, p. 92). Adding to this, Benchimol (2010, p. 116) also reiterates the progressive population increase in the following years: in 1822, the number of inhabitants in the city reached the figure of 100 thousand and in 1840, the city had 135 thousand inhabitants.

This brought a greater demand for green spaces as part of the ideals of modernity and refinement, in addition to greater pressure on water and energy resources. Among these spaces, there were numerous private gardens, attached to palaces and mansions, following the model of French bourgeois gardens. Until the mid-nineteenth century, Rio de Janeiro was a city of narrow streets, without sidewalks for pedestrians, in which public spaces were primarily occupied by slaves, women, children and “working animals” (BENCHIMOL, 2010, p. 120). Therefore, only after the 1870s, with the consolidation of the empire and the end of

slavery, under the reign of D. Pedro II, the city came to represent a new wage of labour relations, and new morphologies originated as a symbol of capitalist modernization.

It was also during the reign of D. Pedro II (1840-1889) that the issue of urban nature was more effectively addressed through the reforestation of the Tijuca Forest. Influenced by naturalistic ideas about the knowledge and cataloguing of plants in herbaria, as well as the understanding that the Tijuca massif was essential for maintaining the city's water resources and, at the same time, a refuge amidst the growing urban expansion that Rio de Janeiro was experiencing, the emperor promoted public policies for hydrological conservation, production of a healthy climate and leisure areas for the elite of Rio, based on the logic of structuring urbanization by the presence of vegetation (FERNANDEZ, 2011).

Thus, in 1860, the *Imperial Instituto Fluminense de Agricultura (IIFA)* was created, which aimed to manage the progress and issues related to agriculture in the city and its surroundings, in view of the precarious legacy left by colonization and the lack of knowledge, technical and environmental measures to avoid soil and vegetation deterioration. The implementation of the IIFA, together with the creation of the Directorate of Parks and Gardens of the Imperial House in 1869 by D. Pedro II, also contributed to the reforestation of the Tijuca forest and the planting of about 100 thousand seedlings of native species of the Atlantic Forest, in the period from 1861 to 1874, in which the reasoning was that “the planting of trees should descend from the mountains to the squares and to the streets” (IMPERIAL INSTITUTO FLUMINENSE DE AGRICULTURA, 1870, p. 31 apud HEYNEMANN, 2009, p. 4. Free translation by the author).

It is important to emphasize that the reforestation also intended to rescue the memory of a romantic image through which the forest was admired and portrayed in the works of artist-travellers who were in Brazil in the French Artistic Mission, still in the period of Portuguese colonization and subsequent independence, when the area had not yet gone through its complete deterioration process.

In this case, the Tijuca Forest is an iconographic landmark, in which the city of Rio de Janeiro was usually painted as the limit of the vegetated area. According to HEYNEMANN (2009, p. 3):

> The naturalist travellers composed, in their passage through Brazil, a picture in which the Tijuca Forest appears as an example of subtropical vegetation, confirming the maxim of Brazil as a “paradise for naturalists.” Watercolours, paintings, diaries, collections, and scientific treatises are the objects that, in their materiality, contributed decisively to the project of national identity pursued by the Imperial State. The recognition of this value in the Forest would come from the public authorities, in the second half of the 19th century, with the reforestation project.

On that account, the area constituted by the Tijuca forest was a re-creation, methodically planned throughout the second empire. Hence, the forest itself can be considered as a great tropical project of a romantic garden, carried out in the period from 1877 to 1887, in which several beautification interventions were happening, such as the construction of roads connecting the forest to the lower parts of the city, in addition to the contribution of the French horticulturist and landscaper Auguste François-Marie Glaziou in the creation of viewpoints, fountains, belvederes and lakes, in an environment completely remade in the light of well-being and contemplation (HEYNEMANN, 2009).

According to Fernandez (2011:p. 2), the initiatives for the replanting of this forest, which had almost completely disappeared, due to the predatory extraction of wood and deforestation for the cultivation of coffee, in previous times; represents the relationships between nationalist ideas, the discourses of environmental conservation that were beginning to take effect internationally, besides representing the beginnings of a national political and environmental formation (FERNANDEZ, 2011, p.2).

However, with the advent of the republican period, in 1889, the forest underwent a moment of abandonment until the mid-twentieth century, as it was considered an icon and legacy of the imperial lifestyle (FERNANDEZ, 2011). In this context, after years of being managed from a distance by the Federation, in 1944, the forest area was once again managed locally by the city of Rio de Janeiro, through the Municipal Water and Sewage Service. From this stage, the area received the support of the landscaper Roberto Burle Marx, for the recovery of the vegetation, in addition to having its roads restored, facilitating its physical and symbolic reconnection with the rest of the city and the visitors, who returned to use the forest for a series of activities, both contemplative and sporting.

Another important moment in the history of this green space concerns the year 1961, when the mountainous complex of the Forest was considered a National Park, with an area of 39.52 km2, and listed as National Historic and Artistic Heritage in 1966. In this sense, the author Fernandez (2011, p. 6-7) states that, by becoming a forest-park, this area consecrated and institutionalized not only conservationist values, but also aesthetic ones, related to the propagation of the image of the “untouched” forest and its connection with the city, and identity both of Rio de Janeiro and Brazil, in which the landscape composed of a specific tropical fauna and flora expresses the Brazilian national identity (FERNANDEZ, 2011, p. 7).

Figure 11. Tijuca Forest.

Source: Personal archive (2013).

According to Segawa (1996), public gardens and parks were only effectively inserted in the Brazilian social context from the 20th century onwards (SEGAWA, 1996). With the post-war period and the consolidation of the Republic in Brazil, a period in which most of the population began to inhabit urban centres, parks began to serve a range of inhabitants with diverse interests. Although coastal cities, such as Rio de Janeiro, have had the beach as a strong sociocultural element for leisure and social activities in their urban space, between the 1950s and 1960s, there was already a lack of outdoor spaces for mass leisure. With the depletion of these areas, parks and other green spaces have become essential for urban life as a way of offering sporting, contemplative and cultural services, no longer exclusively for the elites (MACEDO; SAKATA, 2002).

Rio de Janeiro, in this period capital of the Republic, was once again a place that underwent numerous transformations. For instance, at the beginning of the 20th century, with the Pereira Passos urban reform, wide avenues were built, especially in the city centre and adjacent areas. Later, in the end of the 1920s, the Agache urban plan promoted more modifications in the city, and the guidelines for urban morphology followed rationality and functional and aesthetic modernism, in which was determined that the Foundation of Parks and Gardens should manage all the green spaces.

Already in the years 1970 to 1980, modern parks were consolidated in the country and were served by the advent of environmentalist ideas of the time, which favoured their existence, since they contributed to the improvement of the quality of urban life, as being both

a place for leisure, and a mitigation environment, providing better air quality to the city's microclimate, due to the presence of vegetation. With the wide contribution of landscape architect Roberto Burle Marx, the concepts of modern park and ecological park were then introduced into the daily life of these Brazilian public spaces (PANZINI, 2013).

Burle Marx used plants native to Brazilian biomes in his projects, combining modern and soft forms according to the local geography. His work had a great influence on the design of tropical gardens in the 20th century, in addition to being a great environmentalist. In Rio de Janeiro, he designed gardens attached to public institutions such as the gardens of the Museum of Modern Art (MAM), and even contributed to large parks such as Flamengo Park, inaugurated in 1965, which extends along the waterfront, serving as a connector between different areas of the city. About this Oliveira (2006, p. 3) states:

> The Flamengo Park is above all an important experience in the Brazilian context in terms of using a park as a specific urban planning instrument, which precedes and guides public and private administration initiatives. Parallel to its creation, the road connection between the South Zone and the centre of Rio was improved, an artificial beach was created, important urban facilities were integrated such as Santos Dumont airport, MAM and the Yacht Club. The park is also a victory against the offensive of real estate speculation and the spatialization of an excluding character, a practice ingrained in the city of Rio.

From the end of the 1970s to the 1990s, the city underwent a boom in its urban growth, marked by the increase in paved spaces, real estate developments, precarious housing policy in peripheral areas, densification and creation of new viaducts and avenues, guided by the automotive thinking, which increased the number of vehicles transiting throughout the city (FERREIRA et al., 2020). Furthermore, conflicts related to the presence of vegetation in the city's neighbourhoods have been, since then, generated by the planting of species that are inappropriate for the urban environment and without proper maintenance, which bring problems to the daily lives of residents.

It is interesting to note that since 1986, the city has had a program for the adoption and concession of green areas by residents, companies and/or organizations that intend to manage everything from gardening services to even the administration of leisure equipment. To obtain the adoption or concession license, an authorization from the Foundation of Parks and Gardens is required, and in the case of the concession, a bidding process through the City Hall is also necessary. If, on the one hand, the adoption by residents can be a way of bringing people closer to the urban nature present in their neighbourhoods, where they have the potential to receive even more environmental education at the local level, on the other

hand, the concession can generate a management fragmented and not very comprehensive of the green spaces in the urban fabric, since each entity would only be managing the green area under its responsibility, not worrying about the surroundings and the socio-environmental connections between different spaces.

In this context, the review of the Master Plan, which has been underway since 2018, is an opportunity for new approaches in urban and environmental planning in Rio de Janeiro, as well as the regulation of the Integrated System of Environmental Planning and Management, which will serve as a structure for the entire urban policy in the municipality.

3.3 URBAN NATURE AND DISCOURSE

Management contributes to giving greater visibility to the city, emphasizing the cultural elements, constructed through narratives and collective identities, which will precisely influence the sociocultural differentiation of the urban images to be conveyed. The way in which the image is formed in the collective imagination is present in studies by Azambuja (2007), where the author based her analysis on studies of environmental psychology, in which the environment has symbolic value formed from a set of mental images.

In addition, she also points out that there is no physical environment that is not involved by a social system and inseparably related to it (AZAMBUJA ELALI, 2007). In the context of global cities, this image that is formed from individual and collective identities, uniting the social world and the environmental world, is also related to how much urban management can invest, through devices such as social networks, to add even more aesthetic and qualitative characteristics to the city.

In this way, in the contemporary world, cities and, no longer exclusively countries, stand out at the international level. And in this great game of urban geopolitics, many actions are carried out in favour of the city. According to sociologist David Harvey (2012, p. 271), “the idea of nature as a social product has to be accompanied by the recognition that natural resources are cultural, economic and technological appreciations.” (HARVEY, 2012, p. 271) In addition, Harvey also analyses that:

> So are our cities designed for people or for profits? The fact that such a question is so frequently asked immediately takes us into the terrain of the wide variety of social and class struggles in the making of place. These are the landscapes in which daily life has to be lived; affective relationships and social solidarities are established, and political subjectivities and symbolic meanings are constructed. Capitalist class and the developers of interests are aware of this

> dimension and seek to mobilize it through community or city support and the deliberate promotion of a sense of local or regional identity, sometimes successfully building on popular sensibilities, derived from strong relationships with land and place.

On this aspect, it is worth mentioning both the example of Oslo, when it received the Green Capital of Europe award in 2019, by the European Commission, and that of Rio de Janeiro, when it was conferred the title of Intangible Cultural Heritage, by UNESCO in 2012.

It is interesting to point out that the Norwegian city was already going through a historical and cultural process of implementing policies for access and maintenance of green spaces, in addition to sustainability measures as part of its urban and environmental planning. This can be verified in the research carried out on urban nature in Oslo, in addition to the interview carried out with the former architect and urban planner of the city, presented, and discussed in chapter 4, on aspects of the management of Frogner Park.

However, it was precisely this culture of green spaces, already present in the city, which gave its differentiation among other urban contexts that were also competing for the title of Green Capital. It was during this same period that the expression: “the blue, the green and the city in between,” became even more popular both in academic vocabulary and on social media, when referring to Oslo. This expression carries in itself the image of the city, as can be seen in the excerpt and in the figure below, obtained from the collaborative tourist map, USE-IT OSLO, made by young residents of the city in 2018, which can be read:

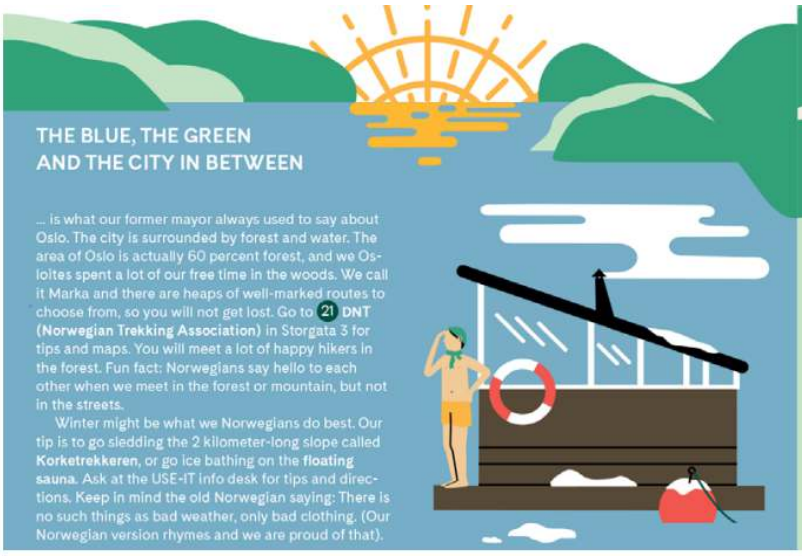

Figure 12. The blue, the green and the city in between.

Source: Oslo city map produced and distributed by USE-IT Oslo in 2018.

Furthermore, in the year 2021, the same collaborative mapping produced a new city map, emphasizing the parks that are available. It is interesting to note that, similarly to the cartography made in 2018, in this one, the main image of Oslo is related to its green spaces and outdoor life, as can be seen in the figure below, with the title Park Life, and specifying some characteristics of the best-known parks:

> "We visit the parks like they are our own backyard. Join us for a beer and a picnic in summer, or a sledging and cocoa in the winter. (...)" (USE-IT OSLO, 2021, p. 5).

Figure 13. Park life.

Source: Oslo city map produced and distributed by USE-IT Oslo in 2021.

In this perspective, the contribution of the researcher Laurent Jégou (2016) is relevant, when he states that the effectiveness of a map is measured by its communication capacity and the way in which the creator/cartographer visually presents the information to the map reader. According to him, the map is a graphic creation that directly affects its reader from the visible aspect. That is, the image is an important factor in the development of spatial memory, through graphic representations present in cartographic productions (JÉGOU, 2016).

It is interesting to observe that the author also discusses the role of the media in the formation of this spatial image. In this way, since cartography is a means of geographic communication and a (re)producer of images, it can be considered that the image contained in a cartographic representation, such as the one shown on Oslo, can contribute to the formation of both the individual image, of a visitor who is getting to know the city now, but also enhances the synthesis of collective images of a certain culture, in this case, the Norwegian one. It is precisely in this relationship that the image is formed, being constantly constructed

by the actors and agents of the space, weaving the connecting threads of the urban landscape.

Likewise, Rio de Janeiro also benefited from all its natural scenery, with the presence of elements such as Corcovado, Sugarloaf Mountain, Tijuca Forest and beaches, to propagate its image of a “wonderful city”, which was already being narrated and internationalized by several cultural components throughout the 20th century, such as in the musical genre of Bossa Nova, especially in the songs of the composer and conductor Tom Jobim. This aspect can be seen in the excerpt from the song below, *Corcovado*, composed by Tom Jobim in 1959:

“Um cantinho, um violão	“A corner, a guitar
Esse amor, uma canção	This love, a song
Pra fazer feliz a quem se ama	To make happy the one you love
Muita calma pra pensar	very calm to think
E ter tempo pra sonhar	And have time to dream
Da janela vê-se o Corcovado	From the window you can see Corcovado
O Redentor, que lindo!”	The Redeemer, how beautiful!”
(TOM JOBIM, 1959)	(TOM JOBIM, 1959, author's translation)

Figure 14. Excerpt from the song “Corcovado” by Tom Jobim.

Source: Brazilian song lyrics.

Thus, whether in the global North or South, the two cities analysed in this investigation are related to the idea that urban nature gives them a certain image (or even images), in which the landscape acts as a resource of attraction both for people, as in the case of tourism, or at the investment level, such as the establishment of companies and new transport and communication infrastructures in these cities.

Furthermore, the recognition of two respected world institutions, such as the European Commission and UNESCO and the international awards to Oslo and Rio de Janeiro, further emphasizes the sociocultural representation of the environment available in these two urban realities in the global context, giving credibility and reliability to their urban nature’s portrayal.

A recent example of the image transmitted through elements of popular culture is the song “We don't need a garden”, (in Norwegian: Vi trenger ikke hage vi), composed by the Norwegian singer Ine Hoem in the year 2020. In this song, she emphasizes the issue of living

in an apartment and not needing a private garden, as the city itself offers all its inhabitants parks and squares, where they can feel free and even run if they want.

"Vi trenger ikke hage vi	"We do not need garden
For vi har mange parker vi kan løpe i	Because we have many parks where we can run
I byen føler vi oss fri	In the city we feel free
Når de spør oss er det én ting vi skal si	When they ask us, there is one thing we have to say
Vi trenger ikke hage vi"	We do not need garden"
	(INE HOEM, 2020, author's translation).

Figure 15. Excerpt from the song "We don't need a garden".

Source: Norwegian song lyrics.

Therefore, the image conveyed through the song concerns, above all, the changes in urban form and planning that Oslo has been going through in contemporary times. It is interesting to note that the title, sometimes unexpected and contradictory, makes us wonder: "how can a population that values moments spent in nature so much compose a song whose title says they don't need gardens?" However, through the lyrics, we realize that the importance of green spaces stands out in the song, and it is understood that, in fact, the central theme is the full access to these spaces in the urban environment of Oslo, which is not only historically relevant, as it continues to be essential to the lives of residents.

From the perspective of the city of Rio de Janeiro, a recent example of conveyed image is the graffiti made by the artist Gloye, in 2021, in which there was created an artistic representation of the Tijuca Forest. In this case, Gloye was recommended by residents of the neighbourhood of Laranjeiras, in the south of the city, to create a panel on a wall that was previously covered by ivy, but which had to be removed after a car accident. The wall, located on Rua Alice (Alice Street), is part of the residents' actions to transform this public road into a touristic attraction, consisting of a corridor of artistic manifestations connected to the nature present in Rio de Janeiro. In addition, the interest in using the space on the wall also stemmed from the population's concern with the high rates of car accidents in the area, which corresponds to a dangerous curve around the accesses to the Tijuca Forest.

In this way, Gloye produced an ample graffiti, covering the wall with images of trees typical of the Atlantic Forest, as well as wild animals present in the urban forest, including toucans and tamarins. In a report to O Globo Newspaper, on April 24, 2021, Gloye stated:

> "Revitalize. Love. Channel that energy into getting healthy; because today it is easy to get unbalanced. There is a lot to happen in the city of Rio. We have a lot of walls, a lot of motifs." (Gloye, 2021. Author's translation).

Figure 16. Graffiti representing the landscape of Tijuca Forest- Gloye.

Source: O Globo newspaper (2021).

In this sense, the image of urban nature present in the graffiti not only increases the visibility of the Laranjeiras neighbourhood, but also the importance of Tijuca Forest for the city. Furthermore, Freitas (2019, p. 66), says that the graffiti-landscape goes beyond the visual aspect, as it is also created and experienced by its creator artist. Therefore, understanding the experiences that Gloye obtained in the graffiti elaboration processes is also relevant to understand the meanings that transit through the graffitied landscape, and the way of inhabiting the city. Through the excerpt narrated during the interview to the newspaper, we realize that Gloye relates the green space of the forest to the feeling of balance and well-being, when mentioning the fact that painting the mural means revitalization, connected to his own perception of a healthy city.

However, it should be noted that, in the case of Rio de Janeiro, sometimes only a part of the city, commonly associated with the south zone, is considered as the image that will bring the much-desired visibility. This aspect can be analysed from the background of Rio de Janeiro's inequalities in the socioeconomic context, in terms of housing, infrastructure and access to quality public spaces, which differs according to the neighbourhood in which you are.

This fact is not so striking in the sociocultural history of Oslo. Although there are certain inequalities in the city, especially in the administrative areas divided by the Akerselva River,

in more traditional neighbourhoods to the west, and the strongholds of the working class to the east. However, the differences both in access to public goods and the availability of infrastructure throughout the city are very tenuous, compared to the South-American context.

CHAPTER 4

THE CONTEMPORANEITY OF THE PUBLIC PARK

4.1 FROGNER PARK: A LAND OF PERCEPTION AND EXPERIENCE

Frogner Park is an urban and public park with origins in the Middle Ages, when it was still an agricultural mansion. In the 18th century, the municipality of Kristiania (Oslo) purchased its land, and in 1896 the space became official state property, with the original intention of turning it into a cemetery for the western part of the city, an idea that was cancelled by decision of the urban council in 1902, where its park function was maintained.

Located in the neighbourhood of the same name, in the city of Oslo, Norway, this space has undergone several transformations throughout its existence, among which we can highlight the restructuring of one of its internal areas in neoclassical style, designed by the Norwegian sculptor Gustav Vigeland in 1934, a place now known as Vigeland Park. This distinction is due precisely to the sculptures made by this artist inside the park, representing human figures in different positions and daily activities, which makes it a very peculiar and famous space in the urban landscape of the city.

Brøgger (2016, p. 74) argues that between the 1910s and 1920s, when the city of Oslo was immersed in a broad political discussion about urban planning and the presence of public parks, the then chief gardener of the city, Marius Røhne, and Gustav Vigeland had fierce clashes regarding their opposing ideas about the future of Frogner Park in the context of integration of green areas. On the one hand, Røhne feared that Vigeland would “transform the park into a private sculpture park,” disconnected from the basic essence of the political movement that was underway in the city, which conceived it as a place with an abundance of vegetation, designed as a natural environment close to the population (RØHNE, 1965, p. 155 apud BRØGGER, 2016, p. 74).

It should be noted that, even with this dispute of interests, Vigeland ended up being invited to design a place for his sculptures in the central part of the park, a fact that generated even more disagreements, considering that he had no prior knowledge of landscaping or any experience with urban projects. However, the result was accepted by the City Council without any requirements for eventual modifications, generating “indignation among critics in many fields, from artists, architects and planners themselves, to gardeners and landscape architects in particular” (JØRGENSEN, 1997, p. 255).

Figure 17. Vigeland Park.

Despite all this history, the sculptures represent a major tourist attraction in the park today, being one of the most visited public spaces in Oslo (JØRGENSEN, 2018). However, it is not only for artistic reasons that the park is so relevant, but specially for being the largest green area, with 320,000 m2 in the central part of the city, favouring mainly the residents of Frogner, Majorstuen, Blindern and Ullevål neighbourhoods. From this analytical perspective, we can argue that Marius Røhne's legacy has also a presence nowadays. This is important in view of the tendency of Oslo's recent urban policy towards densification in already urbanized areas, making the city centre and adjacent neighbourhoods, places with less vegetation cover, when compared to other spaces further away from the centre.

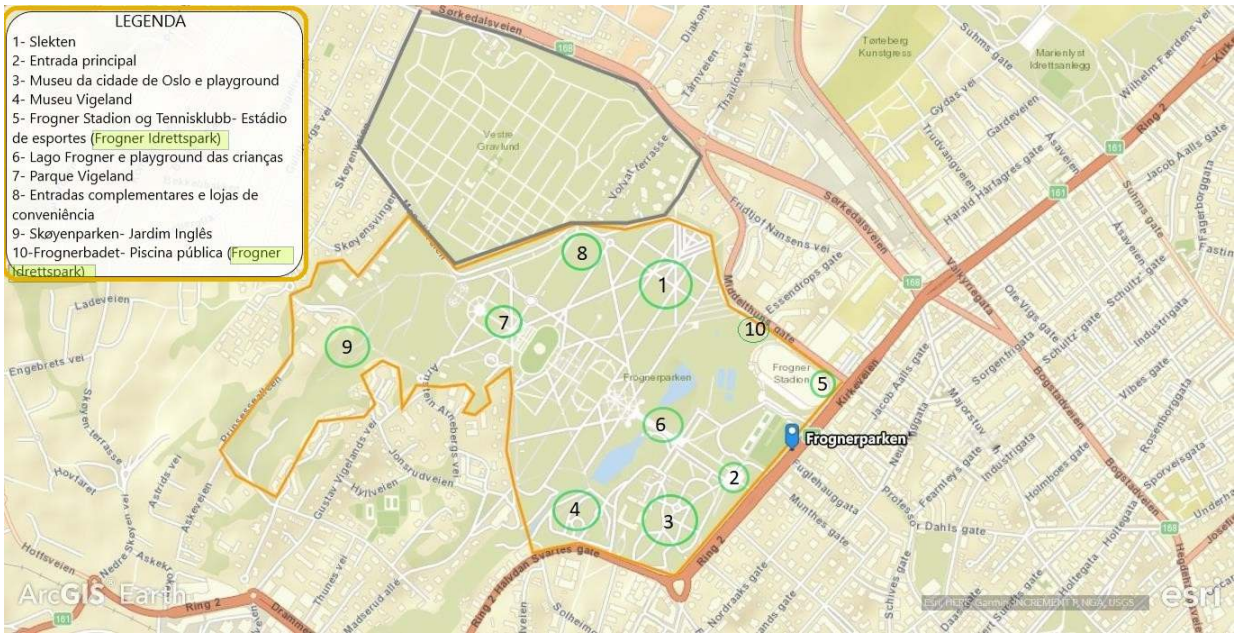

Figure 18. Identification of the internal mosaics of Frogner Park, highlighted in orange.

Source: Adapted by the author through ArcGIS Earth (2022).

According to Gísladóttir (2014, p. 43), in her study on the importance of green areas in Oslo for the health of the elderly population, Frogner Park represents a space of refuge, in addition to being a great place for reading, meeting friends and doing physical exercises during the week (GÍSLADÓTTIR, 2014). The researcher carried out interviews during all seasons of the year, to identify how the elderly experienced the park in different climates, and how the landscape architecture located in this green area contributed above all to facilitating access for this group of people, such as the presence of benches inside the park, as well as ramps and handrails following the universal design.

One of her research results was the fact that Frogner Park is in an old and traditional neighbourhood of the city, influencing the level of maintenance and attention that this space receives from the city hall. She also found that, in Frogner, there are many residences for the elderly, which further favours the social activities that this group performs in the park, a place close to their homes. Gísladóttir (2014) highlights that, especially the bridges and the lake, as well as the English garden (Skøyenparken), which are further away from the sculptures and central areas, “provide an environment of calm and relaxation, where the Frogner river flows its course under the bridge and towards the ocean” (GÍSLADÓTTIR, 2014, p. 57).

Figure 19. Frogner park in summer.

Moreover, Frogner Park is located near several public transport connections, such as subway stations (on Kirkeveien Street), bus stops and trams, facilitating public access from other locations to this space, through the integration of different lines of displacement. The main neighbourhoods that maintain direct connections through the public transport system are: Majorstuen, Blindern and Sentrum, plus the Frogner neighbourhood itself. Regarding private vehicles, there are not many parking areas around the park, apart from the space at the main entrance (Kirkeveien Street), intended for tourist buses, which implies a limited movement of cars in accessing this green area.

Figure 20. Location map and Park side entrance.

As previously mentioned, Vigeland's sculptures mainly attract tourists, who feel impacted in a first contact with the art permanently exposed in the place. However, other factors also influence the multifunctional dynamics present there, such as the presence of

three places with an entrance fee, for example: *frognerbadet* (a public swimming pool) and the sports complex, with a tennis court and a football stadium, as well as the cafeteria. Regarding activities and free spaces, the wide leisure area with extensive lawns, playgrounds for children and adults stand out, as well as the largest collection of roses in the country, with 150 different species, attracting families on weekends, who gather in the park to carry out picnics, and even walk with pets or attend an open-air concert (the latter being an activity for which tickets are charged).

Figure 21. Grass and the City Museum (Bymuseet) in the background.

Figure 22. Cafeteria.

It is interesting to note that the history of Frogner Park is associated with the development of the neighbourhood, going back to its agrarian origins in the Middle Ages until

its later development as bourgeois property and, finally, property of the municipality. In this sense, the park is related both to Oslo's socio-cultural history and to the park system designed by Marius Røhne and Harald Hals, as seen in the previous chapter. It is a place that maintains sociocultural meanings, perpetuating not only the past and present, but also the future of the city. This can be seen in the fact that the museum that narrates Oslo's history (Bymuseet) is located within Frogner Park, which may indicate that the park maintains the city's historical roots, in addition to artistic installations, such as Vigeland's sculptures, which represent the moment in which Norway sought its national identity through the arts.

In a phenomenological analysis, the author Brøgger (2016, p. 72-75), describes his interactions with Frogner Park during his childhood, highlighting the symbology that the place keeps in his memory:

> The parts of the park I sought out as a child were, above all, Røhne's naturalistic garden designs, which also invited impressions of "a rich, unfocused environment" that appealed to each and every one of my senses. In my perception, Frogner Park was an Eden-like environment for a boy like me. Long before I knew the names of the many plants and animals that inhabited the park, I was eternally in love with them. Frogner's name may originate from the Old Norse *fraun*, which meant "fertile soil" - and although highly cultivated, this was a lush environment with its wide lawns, two ponds, stream and its several thousand trees which included some maples, elms and lime trees from the 1700s (some of them more than fifteen feet in circumference), not to mention the dense jungle of smaller trees and shrubs along the Frogner Creek below the second lake, and the scrub-covered slopes below the Monolith that they offered, in their bowers, secret hiding places for both me and the sparrows (BRØGGER, 2016, p. 75).

In this sense, the author who lived in the lower part of Kirkeveien, a street on the other side of the park, was able to experience during his first years of life (from the 1960s onwards) a nature that he associates with his childhood memories, making the space of this specific park as a source of rescuing his first discoveries of nature. Frogner Park offered him a kind of natural sanctuary, where he had a refuge. In addition to being his “enchanted forest” (BRØGGER, 2016, p. 72), the author points out that, from inside the park, one could have a panoramic view of the various hills (koller), which are present in Oslo, impelling him the curiosity to know the other green spaces that the city had to offer.

In this way, we can say that, based on the researcher's recollections, the connection between the parks and other green areas promoted by urban planning and the park system of the 20th century, seen in chapter 3, was not just something generically delimited and managed in the maps, but it was also a visual perception of those who frequented the place, where the landscape of the park was expanded beyond its initial perimeter, providing a horizon of interconnection between the various green spaces in the urban landscape of Oslo.

Brøgger (2016, p. 80) also narrates that Frogner Park was a place where he used to play during all seasons of the year, climbing trees in Gratishaugen in summer or throwing snowballs at naked statues in winter. It was in this place of urban nature and human idealizations that the author claims to have started to observe the life of all the animals that populated the park's various biotopes, expanding his awareness of the world and the different ways in which we share the environment with other forms of life (BRØGGER, 2016).

In a way, based on the information above, Frogner Park activated the notion of enlargement and contraction in the author's daily life: both outwards, linking him to Oslo's hills and the sociocultural aspects of the city's urban context, but also to the interior, triggering the perception that, within the park itself, there were ecosystemic worlds with completely new dynamics and elements, and in themselves, unique.

Figure 23. Aspects of the Frogner Park vegetation.

From 2020 to 2021, interviews were conducted, in the form of short reports, with recent visitors to Frogner Park. The group was selected based on age and place of residence (city of Oslo), where an attempt was made to approach, with analytical depth, the experience of a restricted group of people within the park. In this sense, people in the age group from 20 years old to 30 years old, as well as from 40 years old to 70 years old, foreigners and native Norwegians, who commented on their experience both in relation to the green spaces of the city of Oslo, as well as with specific regard to Frogner Park.

The central axis of the answers was the question of the preferred public spaces of the interviewees in the city, which ranged from Lake Sognsvann, Nordmarka forest, small urban parks, and markets in the Grunerlokka neighbourhood, as well as the islands present in the

fjord, which promote a good place to swim and cool off in the summer. In this context, Frogner Park was mentioned as a popular place to take tourists visiting the city, in addition to being a space for walks and physical exercises for those who live in the vicinity of the place.

The city's green landscape was widely perceived as beneficial and promoting well-being. From the axis of answers regarding green spaces, it can be highlighted that the presence of vegetation affects people in a positive way, making them calmer and more centred, which enables them to follow the different seasons of the year, due to changes in colour and appearance of the leaves. That is, having effects mainly on the mental health of all respondents.

It is interesting to note that, for the Norwegian interviewees not the parks, but specially the forest is a place where one can stay for many hours of the day, performing countless different activities. However, despite claiming that some parks are not that attractive, the answers provided the acknowledgment that it is precisely the presence of vegetation in and around Oslo that influences people's willingness to leave their homes and face the snow and cold of winter, which perhaps would not happen if there were only buildings all over the urban landscape. In this way, the vegetation, the coastal zone and other areas of rivers and lakes, play a double role, related both to the question of the biophilic city (a) and the question of sustainability (b): (a) it offers a rich space for sociability and well-being for the inhabitants, as well as assisting in water regulation and urban resilience (b).

According to the responses on this same thematic axis, we can also argue that green spaces have the role of bringing people closer to the local fauna and flora. Just as Brøgger (2016) claimed that in his childhood he started his contact with the small animals in Frogner Park; we can debate those other spaces of urban nature favour contact with a great range of wild life, influencing even the notion that we are not alone in this world, a fact that is the opposite of the solitary and individual environment that many contexts of large cities currently offer.

Moreover, urban nature was also regarded with relevance specifically during summer. Sunlight influences the number of hours people spend outdoors and, in this sense, Frogner Park seems to be a good place in the city to celebrate this very important time of year, when the summer solstice is celebrated in the northern hemisphere. Furthermore, it was also emphasised the issue of art, in which the outdoor space of Frogner Park influences the perception of the artistic artifact, because the park itself can be considered a work of art, as nature, buildings and sculptures are connected to each other, forming a landscape complex.

About the importance of Frogner Park for the structure and urban history of the city, the theme of tourism was frequently mentioned. For the Norwegian interviewees, despite being a large park, it is a place frequented mainly by tourists and residents of the Frogner neighbourhood and surroundings. This group also emphasized that the park is a tourist landmark in Oslo, relevant to relieve the other green areas.

In this sense, we can analyse that the interviewees corroborate the fact that the sculptures represent a huge tourist attraction for the city, besides being part of the Norwegian culture. On the other hand, as a green space, Frogner Park is as relevant as the other parks in Oslo. It is noticeable the role of Frogner Park as a space for sociability is more connected to the local context, a fact that also occurs with the other parks in the city. This relates to the analysis by Gísladóttir (2014), where she points out that Frogner Park is a place of visitation chosen by elderly people from the Frogner neighbourhood itself, as well as the narrative by Brøgger (2016), who lived on Kirkeveien Street, close to the main entrance of the park during his childhood.

Additionally, it should be noted that the park is highly sought after by tourism and has a large area of extension, which is mainly seen as something positive, because if it were not for the presence of a park with 320 thousand m2 in the central surroundings of Oslo, perhaps other smaller green spaces would have overloaded their capacities, influencing the sense of well-being of these places. This represents one more connection that Frogner Park has with these other smaller parks, which goes beyond the visual and cartographic connection, but also has to do with the flow of people that transit through these spaces in the urban landscape.

Still on the theme of Frogner Park's image to the interviewees, the construction of the site was premeditatedly designed to be something remarkable; something that conveyed the message that the country had great architectural and artistic works. Bearing in mind that demarcating and building a particular enterprise gives meaning of power to the space, transforming it into territory, where "architectural constructions materialize and concretize the social, ideological and mental order" (PALLASMAA, 2017, p. 96), and that "a work of art is an image, an experiential and emotional complex that penetrates directly into our consciousness" (PALLASMAA, 2017, p. 59), we can argue that the integration between art and nature present in this park (as a landscape work), contributes to perpetuating the awareness of independence and national community in the country, from generation to generation that attends or has heard of the park.

Figure 24. Family having a picnic on the lawn (1) and a man walking his dog (2) – Frogner Park.

Concerning the management aspects, Frogner Park is supervised by the Department of Environment of the city of Oslo, called Bymiljøetaten, created in 2011. The objective of this department is to manage common areas such as streets, squares, parks, leisure areas, sports facilities, fields, and the interior of Oslofjord, as well as being responsible for air, noise, water, and soil. According to information on the Bymiljøetaten website, the goal is to make Oslo a safe, beautiful, green, and active city.

Despite being a public park and under the responsibility of Bymiljøetaten, Frogner Park also receives funds and transfers through the association "*Frognerparkens Venner*", or "Friends of Frogner Park" in English. Founded in 1971, this association brings together people interested in the park, besides regulars and residents of the surroundings, who invest in the maintenance of the space and cooperate with the Department of the Environment, the administrations of the Vigeland Museum and the Museum of the City of Oslo, to preserve the park in the best way so that as many people as possible can enjoy the place.

According to information on Bymiljøetaten website, Frogner Park is not only the largest park in central Oslo, it is also very popular with the city's inhabitants. For this reason, it is a park that is open 24 hours a day, in all seasons of the year and has free admission. Also, according to the website, Frogner Park is protected by the Norwegian Cultural Heritage Act. It is interesting to note that not only the sculptures are considered part of this heritage, but also the vegetation, such as flowers, highlighting the 150 different species of roses, and the various types of trees found within the park; such as linden, maple, sycamore, elm, poplar, and ash. In addition, the fact that the Frogner River flows north and passes through the park, forming two dams, *frognerdammene*, also influences the importance of this park.

In this sense, to understand more about the management dynamics of the city of Oslo, in terms of its urban and environmental planning, I conducted, in 2020, an interview with the Norwegian urban planner Ellen de Vibe, former head of town planning at the Planning and Building Services Agency in Oslo. She answered questions related to the urban policies implemented in the city throughout her 20 years of work in the city hall, in addition to the nomination of Oslo as “Europe's Green Capital” in 2019.

The interviewee highlighted the importance of green spaces for the urban fabric of the city, as well as the recent public policies which gave continuity to the work that was done throughout the 20th century. For example, in 2009, the City Council of the city approved new guidelines for the Master Plan, which stated that the streets must be permeated by green and blue infrastructure, so that the city must offer 1000m2 of public space per 20000m2 of built area.

It is interesting to note that, in her personal experience, Ellen de Vibe uses Frogner Park to walk and, above all, to meet her grandchildren and play games with them there. That is, the Park is related to health and family gatherings.

Furthermore, de Vibe pointed out that this park serves as a connection between green areas inside and outside the city; as if it were a transition between the urban forest space and the green area located on the Bygdøy peninsula, interconnecting the green landscape with the coastal, fjord and sea landscape. This is reflected very well in the famous description of the city of Oslo, popularized by researcher Elin Børrud- “Blue, green and the city in between.” In this context, the forest finds in the parks a scenic connection with the sea, making Oslo a place with a well-structured urban landscape through its green-blue fabric.

Figure 25. The blue-green urban fabric.

Source: Oslo city map produced and distributed by USE-IT Oslo in 2019.

4.2 QUINTA DA BOA VISTA- ONE GARDEN, MANY STORIES

Quinta da Boa Vista is a public park located in the neighbourhood of São Cristóvão, in the north zone of Rio de Janeiro. It is currently administered by the municipality's Foundation of Parks and Gardens. It is interesting to note that the park has important institutions inside, such as the Bio Parque Zoo (former Rio Zoo foundation), the National

Museum - which comprises the former imperial palace and the horticultural garden, the latter being maintained by the Federal University of Rio de Janeiro (UFRJ).

Until 1759, the site was originally located in the valley between hills and the land belonged to Jesuit missionaries, comprising a territorial extension “from the banks of the Maracanã River to the surroundings of Inhaúma. The coastal part of this immense property included Ponta do Cajú, on one side, and almost the entire west bank of the current Canal do Mangue, on the other extreme” (FERREIRA; MARTINS, 2000, p. 130).

Then, in 1808, the area was given over to be the new home of the Portuguese Royal Family and, later, it was also the residence of the Brazilian Imperial Family, during the two empires. It is worth to mention that only in the Second Empire (1868), the palace gardens were designed following landscape and artistic guidelines, by the French horticulturist Auguste François-Marie Glaziou, as a personal request from the Emperor D. Pedro II. According to Trindade (2014, p.60), the landscaped complex was built for the use of the imperial family and other people who lived inside the property, but also, on Sundays, the area of Quinta da Boa Vista was open to the population.

It was only after the landscaping reform designed by Glaziou that the gardens began to be visited by the public (FERREIRA; MARTINS, 2000). This was also favoured by the morphological and functional changes in the surroundings of the area, among which the following stand out:

> The establishment of regular bus and later trams lines, which made the connection between São Cristóvão and the rest of the city, that is, it was from the reign of D. Pedro II that, little by little, people had access to the gardens of the palace and started to assume it as its own (FERREIRA, 2000, p.145. Free translation by the author).

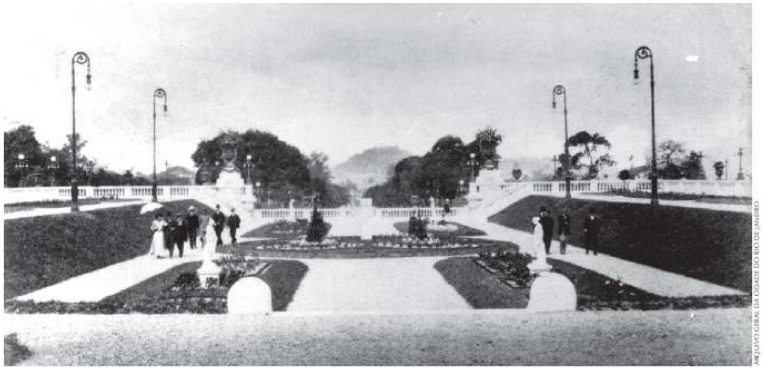

Figure 26. Walks in Quinta da Boa Vista (1911).

Source: Brasiliana fotográfica, General Archive of the City of Rio de Janeiro (c2002-2012).

However, according to Macedo and Sakata (2002), it was not the entire population that had access to Quinta da Boa Vista. The authors argue that the main social group enjoying the gardens were related to the Brazilian elite and aristocracy, in which poorer groups were left aside:

> Ladies, gentlemen, and children paraded along its boulevards, displaying the elaborate clothing of the time, with heavy tailcoats, dresses with frames and many skirts, and umbrellas, most of the clothes totally inappropriate for a tropical country like Brazil. The same type of social behaviour that characterized the other spheres of life in the new country in formation was repeated in the use of public space: the copying, the reproduction of Anglo-French patterns. (MACEDO; SAKATA, 2002, p. 23. Free translation by the author).

Having been inspired by French bourgeois gardens, Glaziou's project also included knowledge of Brazilian flora, producing a bucolic and mystical landscape, with the presence of artificially built caves, lakes with curved banks and flowerbeds with species native to the Atlantic Forest biome. It is noteworthy that in this same period, the reforestation of the Tijuca Forest was underway, and Glaziou used much of the knowledge acquired with the Forest for Quinta da Boa Vista's garden design.

According to Magalhães (2017, p. 19), Glaziou was part of a large group of immigrants who arrived in the second half of the 19th century, bringing their landscape traditions with the recreation of numerous public and private spaces throughout the country, promoting the picturesque scenery of the *paysager* garden in the Brazilian social and architectural context. The author also points out that the very design of the gardens was like works of art, made using the technique of reinforced cement (*roccailles*), as decorative ornaments, mimicking the various elements of nature, such as rocks, caves, and waterfalls, for example (MAGALHÃES, 2017, p. 19-20).

Figure 27. Quinta da Boa Vista Lake and rocks built using the roccaille technique.

In this sense, the specific idealization of the gardens of Quinta da Boa Vista, followed the nationalist and romantic rhythm, as it materialized in the space of the imperial residence, a new formal tradition, uniting the floristic richness of the country and the design art in vogue, mainly in France, concretely representing in space both the consolidation of the Empire's power in Brazilian territory, and the relations that this empire had with the aesthetics and culture of Continental Europe.

The wide avenue of Sapucaias, which led pedestrians to the imperial residence (today the National Museum), was designed so that the inhabitants/visitors could be enveloped in the atmosphere of the terrain modelled with slopes and paths that provided different points of view. It is important to note that the site of the imperial residence was built on top of a small pre-existing hill in the region, and Glaziou's original project intended to give visibility to the building, as from all the circular paths, one could obtain a view of the palace. This changed after renovations to the gardens during the Republican period.

Under D. Pedro II's reign, the total area of the Quinta remained practically unchanged, with around 1,033,800 m2. Nonetheless, with the arrival of the 20th century, the perimeter of extension was reduced, as parts of the land were being ceded to the republican government for other purposes (FERREIRA; MARTINS, 2000). The widening of the railway track and the opening of streets and viaducts are part of these modifications, which progressively distorted the morphology that the land had during the reign of D. Pedro II. These interventions left a good part of the original area outside the current physical limits (FERREIRA; MARTINS, 2000).

Nowadays, Quinta da Boa Vista has a green area of 155 thousand m2. According to the website of O Globo Newspaper, in a 2014 publication, had its original land been maintained, so the entire area where the famous Maracanã Stadium is located, as well as the State University of Rio de Janeiro (UERJ), the Museum of indigenous people (*Museu do índio*) and parts of Mangueira Hill would be part of the Park.

Despite having lost space, Macedo and Sakata (2002, p. 144) argues that the gardens of Quinta da Boa Vista fit well into the urban dynamics that were taking place during the 20th century, and "were perfectly suited to the function of urban park" (MACEDO; SAKATA, 2002, p. 144). Probably due to its historical and cultural value, in addition to the ease of access, since the area is "surrounded by viaducts, train lines and the Maracanã Stadium, Quinta is the most precious public space in this area of the city, also housing the Nacional Museum, since 1892, and the Zoo, since 1945." (MACEDO; SAKATA, 2002, p. 144. Free translation by the author).

The fact that the first occupations of the area were carried out by the royal and imperial family, contributed to the transformation of the neighbourhood of São Cristóvão with the image of a noble and aristocratic area. The authors Ferreira and Martins (2000) state that throughout the imperial period, the area where the urban park of Quinta da Boa Vista is located today was a relevant point of reference for Brazilian society, which was still recognizing itself as a nation. Therefore, besides the aristocratic image, the neighbourhood also had an image of political and social strength, where the central point of convergence between political powers was in Quinta da Boa Vista (FERREIRA; MARTINS, 2000).

Throughout the republican period, housing and urban planning changed in the social context of Rio de Janeiro. It is possible to notice that the elite, former aristocracy that inhabited the surroundings of the Quinta, migrated to the south zone of the city, mainly due to the presence of the beaches (FERREIRA; MARTINS, 2000). Moreover, the displacement of power to the Catete Palace (*Palácio do Catete*) with the advent of the Republic also influenced new questions and disputes, in which it was refused to maintain an imperial space as the locus of republican management (FERREIRA; MARTINS, 2000). In this respect, the neighbourhood of São Cristóvão lost some of its prestige and began to house industries and migrant workers who had recently arrived in Rio de Janeiro. Throughout the 20th century, the image of the neighbourhood of São Cristóvão and Quinta da Boa Vista gradually incorporated the popular context, being the meeting place, above all, for the working classes.

According to research on the types of social activities carried out in this park, Ferreira and Martins (2000) state that, in the context of Quinta da Boa Vista (from 1940 to 1980), the

park was the meeting place for families at the weekends for get-togethers and picnics. With the creation of the Zoo, in 1945, Quinta gained another leisure area with the potential to attract even more visitors (FERREIRA; MARTINS, 2000). Currently, the park is still a place of leisure for the population of the most popular layers of society, mainly due to the ease of access and free entrance.

According to Trindade (2013, p. 182), Quinta da Boa Vista is characterized by its intense vegetation cover, composed of trees of different species, as well as lawns. About access, the author claims that there was a restructuring work in the 1990s, a period in which parking lots were built on interlocked concrete floors. She emphasizes the fact that this construction removed the “small depressions for tree specimens,” previously created by the horticulturist Glaziou, as they were grounded and levelled when the parking lots were built” (TRINDADE, 2013, p. 182). In this sense, there was also the loss of some tree that existed on the site, as they did not survive the renovation. Even so, the park's infrastructure was improved, influencing people's access to the place by car.

In addition, another feature that the park gained in the late 1990s and which has been perpetuated in these first two decades of the 21st century concerns the image the park assumes in the educational context. Quinta da Boa Vista is a constant presence in the field work itineraries of elementary schools, mainly public ones, where children visit the place to learn a little more about the country's history, besides the flora of the Atlantic Forest. Also, the park has a social relevance at the local level, as it is a space with a wide presence of vegetation, in the north zone, representing an opportunity for the population to experience urban nature in a closer way, considering the lack of this type of space in neighbourhoods further away from the south zone of the city.

In this perspective, the park area is considered a historical garden in Brazil, with functions that go beyond leisure and relaxation amid urban nature, but also being related to sociocultural education, as it was a place designed with the composition of various elements related to the historical testimony of an era, transmitting the past and present of the social context not only of the city of Rio de Janeiro, but also of Brazil. That is, the landscape complex of Quinta da Boa Vista brings together architectural, artistic, and arboreous aspects of public interest, advocating the idealized function of collective use (PAIVA; ALVES; LAURA, 2015, p. 57).

Among the negative events in the recent history of Quinta da Boa Vista, we can address the fact that occurred in September 2018, in which the Park went through a period of turmoil, with the fire at the National Museum. In this event, practically the entire collection

was lost, accounting for the incalculable loss of historical artifacts from the old collections of D. Pedro II, documents from the republican period, as well as species of native flora that were protected in herbariums. The Museum has been closed since then, with reopening scheduled for 2026, affecting the academic research carried out there, in addition to practices and visits by schools and the general public. Meanwhile, the Federal University of Rio de Janeiro has been negotiating the receipt of "new transfers and donations amid the lack of direct investments from the Ministry of Education (MEC)."

Furthermore, another aspect of change within the park, which has the potential to change the way people move around the place, is the case of the former *Fundação Rio Zoo*, which became *BioParque do Rio*, through a process of concession of the site to the private company of *Grupo Cataratas*, in 2016. We can say that the zoo represents a park within Quinta da Boa Vista, with relatively different internal dynamics, due to its function of keeping the animals, in addition to being a privately managed space, but which, at the same time, is not dissociated from the dynamics present in Quinta da Boa Vista.

Figure 28. School visits to the Bio Park.

Source: BioParque do Rio (n.d.).

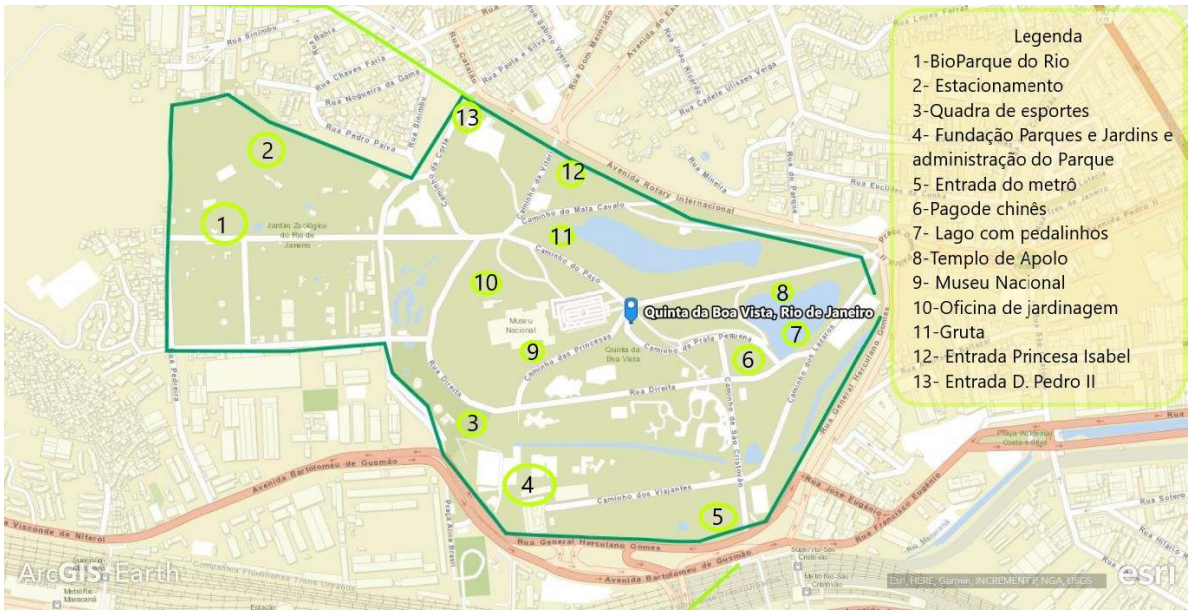

Figure 29. Spatial mosaics of Quinta da Boa Vista.

Source: adapted from ArcGis Earth (2022).

In the quest to understand how the population experiences the space of Quinta da Boa Vista in contemporary times, interviews were conducted during 2021 and January 2022, in the format of small reports, about the experience of residents of the city of Rio de Janeiro in this public park. The interviewees' selection criteria were based on their place of residence and age, seeking to encompass a diverse context of people in a restricted number of reports. This was done to analyse in depth some recent types of experiences within the park. For this purpose, Brazilians were interviewed, aged between 20 and 30 years old and between 30 and 63 years old, men and women from neighbourhoods near and far from Quinta da Boa Vista.

Figure 30. Quinta da Boa Vista.

Source: Personal archive, photo by Phelipe Steves (2022).

The central axis of the answers about the favourite urban nature places in the city ranged from *Alto da Boa Vista*, at the top of the Tijuca Forest~ to admire the landscape, the Botanical Garden and Quinta da Boa Vista, as well as the beaches of the south zone, in particular Copacabana and Ipanema and, on the west zone, Barra da Tijuca beach. In this context, we realize that the coastal landscape is of great relevance, as it is very attractive, especially during the hottest summer months.

Nevertheless, it is also noted through the responses that the availability of green spaces in the city, such as the Tijuca forest itself, in addition to small squares and urban parks, is considered beneficial and essential for the physical and mental health of the interviewees. Especially on weekends, when most people have leisure time to visit these spaces.

Through a specifically analysis of Quinta da Boa Vista, the reports obtained in 2021-2022, provided a clear picture about the challenges to be overcome, and people often associate them with the fact that this park is not located in a prime area of the city. The interviewees highlighted the relationship between the feeling of insecurity in the place and the lack of visitors to the park during the week, in addition to the poor state of maintenance of the park's gardens.

Furthermore, it is interesting to observe the occurrence of a double symbology present in Quinta da Boa Vista, as being a place where many interviewees went during school time, and on weekends with their families. In this context, the images present in the imagination of

each person who has already attended this park, end up connecting these individuals to the Quinta da Boa Vista space, based on memories of different periods of life.

Figure 31. Paths of Quinta da Boa Vista.

Source: Personal achieve. Photo by Phelipe Steves (2022).

Figure 32. Lake at Quinta da Boa Vista.

Source: Personal archive. Photo by Phelipe Steves (2022).

About the management aspects, Quinta da Boa Vista is a public park, mainly administered by the Foundation of Parks and Gardens (FPJ), with the participation of CONLURB and the Municipal Guard of the city of Rio de Janeiro. It is relevant to mention that management takes place in a distinctive way in some establishments inside the park, as is

the case of Bioparque do Rio, which is managed by a private company: Grupo Cataratas; and the National Museum and the Horticultural Garden/ Fauna Museum, both under the responsibility of the Federal University of Rio de Janeiro (UFRJ).

In general, the supervision of the park takes place in an integrative way, because despite covering several entities, Quinta da Boa Vista is a unique space, and therefore, it is necessary to have cooperation between the different sectors and interests. Thus, the park is part of the planning area 1, which refers to the presence of CONLURB, for cleaning the park, the Municipal Guard, responsible for security and the Foundation of Parks and Gardens, with responsibility for conservation/maintenance of the landscaped areas of Quinta da Boa Vista, as well as the park's general water infrastructure.

In addition, the Secretary of the Environment of the city of Rio de Janeiro (SMAC) also works in the park, through urban and environmental planning policies in the “coordination, formulation, execution, evaluation and updating of the State Policy for the Environment and Sustainability, analysis and monitoring of sectoral public policies that have an impact on the city's environment and articulation and coordination of plans and actions related to the environmental area” (BRASIL, 2011).

In this sense, in order to broaden the understanding of those aspects, in terms of urban and environmental planning, on February 2022, I carried out an interview with researcher Jeanne Almeida da Trindade, specialist urban planner in Environmental and Landscape Planning and former employee of the city hall of Rio de Janeiro. She answered questions related to the urban policies implemented in the city throughout the 1990s and her research, including a doctorate on the importance of the historical garden of Quinta da Boa Vista.

In this context, the experience of the interviewee as an employee of the city of Rio de Janeiro, being responsible for coordinating the conservation of several parks in the city, made her even more interested in Quinta da Boa Vista, precisely because of its state of degradation in the early 1990s. She argued that she became interested in studying more about the park from an academic perspective in her doctorate (2013), when she had to propose improvements and request funds to the city hall for better preservation of this historical garden.

Moreover, she also highlighted the public administration measures and instruments that were created in the city between the years 1990 and 2010. For instance, the Secretary of the Environment of the city (SMAC) was created in 1993 and, after that, environmental policy began to have more relevance in Rio de Janeiro. Regarding this aspect, Jeanne addresses the fact that this was a moment when reforestation projects began to be more

encompassed as part of urban policies, guaranteeing the creation of the figure of the “manager of parks” also in 1993, and in 2000 the Law implementation of the National System of Conservation Units (SNUC, 2000), which led to the development of Management Plans in Conservation Units (UC).

However, despite all these advances, we can verify that the city of Rio de Janeiro still lacks a greater integration of urban policies and management instruments that favour a more comprehensive vision of the urban space. Based on the interview and the other sources analysed, there is still a lack of greater connectivity in the urban landscape of Rio de Janeiro, as well as measures to bring urban nature closer to the population.

CHAPTER 5

THE RELEVANCE OF THE TWO PARKS IN THE CONTEMPORARY URBAN LANDSCAPE

The initial descriptions of Frogner Park and Quinta da Boa Vista, as well as the analysis of the interviews carried out in the period 2020-2022, demonstrate how these two spaces have multifunctionalities connected to both physical and symbolic spheres of social experiences with urban nature. This means that these parks, despite being in different urban contexts, represent environments of sociability in the midst of nature, actively participating in the socio-environmental dynamics of their respective urban societies.

The ways in which parks are used in daily life differ as their cultural, geographic, and socio-economic realities differ. For example, the uses of Frogner Park change according to the season of the year, while in Quinta da Boa Vista, there are no great distinctions throughout the year, due to the tenuous perception of changes in the geographic and climatic context of Rio de Janeiro. In this sense, the interviews and the analysed bibliographic sources demonstrate how the experiences in Frogner Park, during the summer, are connected to the context of the availability of sunlight almost 24 hours a day, in contrast to the winter, where the days are shorter and darker. In addition, in winter, the types of social activities are also different, mainly related to taking advantage of the snow for outdoor leisure programs, while in summer the main activity consists of picnics and sunbathing.

Another example of distinctions verified in the research sources concerns the main public that attends the two parks. It should be noted that both have good access by public transport, as they are located close to bus stops, metro lines, and train stations. However, Frogner Park's visitors are more local, consisting of residents of the Frogner neighbourhood and surroundings, combined with a national and international touristic appeal; while Quinta da Boa Vista responds to an enormous lack of green spaces in the north zone of Rio de Janeiro, sometimes receiving visitors from neighbourhoods, and even municipalities,

geographically distant, but close in terms of connections via public transport. In addition, the tourist character of this Brazilian park is more related to local, alternative, and cultural tourism, because this space is not one of the most popular tourist spots, compared to those in the south zone of the city.

Frogner Park has a well-developed relationship with the surrounding areas, and actions to preserve and improve the park have been verified by sectors of Oslo City Hall, as well as *Bymiljøetaten* – Department of the Environment and *Frognerparkens Venner* – Association of Friends of Frogner Park, including residents who visit the space, as well as people generally interested, who invest in the preservation of lawns, benches, public restrooms and other components together with public administration sectors. When checking the research sources, no questions were found about the safety sensation inside the park, moreover, only one bibliographic reference (GÍSLADOTTIR, 2014), related the excellent maintenance of this Norwegian park to the fact that it is in the traditional neighbourhood of Frogner, and represents an important cultural site for the city of Oslo.

On the other hand, the reports and bibliography about Quinta da Boa Vista demonstrate that the park has several challenges to be overcome, despite the management efforts on the behalf of the Foundation of Parks and Gardens. Problems, such as the feeling of insecurity from Monday to Friday, aspects of lack of maintenance in the garden areas of the park, public restrooms with little infrastructure, in addition to the little movement of pedestrians around the park and the activities of prostitution at night (pre-pandemic); still require greater attention and investments by the administrative sectors of the municipality of Rio de Janeiro.

It is interesting to note that the challenges present at Quinta da Boa Vista are not intrinsic to the park, but rather related to the main urban problems of the Brazilian cities and, therefore, they reflect the dynamics of the urban space in Rio within the reality of the park. That is, the lack of security in the park and the poor investments for the preservation and improvement of the public and cultural good, resulting, among other things, in the fire of the National Museum in 2018, are consequences of the history of political denial and disregard for social, economic, and environmental aspects in Brazilian society, causing extreme socio-environmental inequality in the contemporaneity.

In this sense, the expression Green Apartheid has been used in the Brazilian media, as can be seen in the Veja Magazine report, published on the Instagram page of the Foundation of Parks and Gardens on April 16, 2021. In this post, the socio-environmental context of the urbanization of the city of Rio de Janeiro is defined based on its distinction

between the vegetation cover of the south, north and west zones of Rio de Janeiro. This aspect was also verified in the interviews, which associated the lack of investments in Quinta da Boa Vista with the fact that this park is not located in a rich area of the city.

Figure 33. Green Apartheid.

Source: FPJ-Official public Instagram account, published on 16/04/2022.
(Full story available for free online on the magazine's website in Portuguese: https://vejario.abril.com.br/cidade/plano-diretor-arborizacao-apartheid-verde/)

Thus, the situation of lack of vegetation areas in more peripheral neighbourhoods is concomitant to the social inequality. According to the publication, these areas lacking quality green spaces are precisely those that suffer most from climate phenomena produced by the city itself, such as heat islands, as well as floods and landslides. Therefore, since 2016, there has been a proposal for a Master Plan for Urban Afforestation, seeking to solve the problem through an investigation into the tree species in the city and the identification of suitable areas for planting these species in the urban environment.

However, it should be also said that, despite the challenges, Quinta da Boa Vista is a place of relevance for its visitors, for the history of Brazil and Rio de Janeiro, and for the environment, as an urban space with a rich vegetation cover and animal species. This can be analysed in all the sources analysed in this research, mainly through the reports that

identify Quinta da Boa Vista in relation to all the cultural and affective meaning that this space carries with it in the current urban landscape.

From another angle, the reality of the urban context of Oslo, in connection with the socio-political characteristics of Norway, differs to a great extent in comparison to what has been presented about the Brazilian context. Although, as an independent nation, Norway is very young, dating from the 20th century, the country has an ancient social-political development, in which the current welfare state was based on the importance and discussion of social issues in collective life. This influences education about the rights and duties of the citizen, raising the levels of popular participation in political life, as well as the awareness that the success of the country, also depends on community success.

In this sense, these Norwegian historical aspects are reflected in the policies for the development of the park system in Oslo, which was addressed in chapter 3; and which demonstrates a concern to combine urbanization with the availability of green and public spaces close to people's living quarters, in all areas of the city. However, the biggest challenge experienced by Oslo in contemporary times is to maintain a high standard of maintenance and connectivity of green spaces, in a context of increasing population density and the intense verticalization of the city centre, which makes urban space a confluent stage of interests of different private and public sectors.

5.1 APPROACHES TO SUSTAINABILITY AND PARK MANAGEMENT

Urban management practices combined with geographical and biological knowledge about the components of urban ecology, in this case, through the infrastructure of gardens, can influence effective sustainability and resilience, meaning the ability to sustain itself over time. Bearing in mind the context of transformations in ecosystems generated by the expansion of urbanization at the global level, the advance of impermeable areas, resulting in a high reduction in soil infiltration capacity, directly affecting hydrological cycles; the two parks analysed in this research have the potential to represent spaces of greater permeability for their neighbourhoods.

In the case of Frogner Park, as discussed earlier, it has an area of 320 thousand m2, of which only the Vigeland park, the public swimming pool and the sports courts do not have vegetation in expressive numbers. Likewise, Quinta da Boa Vista, with 155,000 m2, represents an important location for the northern part of Rio de Janeiro. The fact that this area of the city is intensely vertical and paved, with a lack of vegetation cover and effective urban

drainage, implies a lower capacity for water infiltration into the soil, favouring the occurrence of surface runoff and a greater propensity for flooding. Thus, Quinta da Boa Vista, as well as other green spaces, also influences in terms of cooling the temperature in the summer months, contributing to the regulation of the urban microclimate.

In this perspective, Cunha and Guerra (2012, p. 337), argue that it is necessary to look at the problem, or in this case the risk, in a holistic way, considering all the cause and consequence relationships between the degradation of the environment and the ways of living in contemporary society. The authors claim that this is the only way to identify what needs to be modified, in order to recover and promote more resilient urban systems (CUNHA; GUERRA, 2012, p. 337-339).

Therefore, the diagnosis is made up of the analysis of several separate components, which will be placed together, enabling an integrated action on the part of urban management. In both empirical contexts analysed in this research, Frogner Park and Quinta da Boa Vista are elements in the broad urban system of Oslo and Rio de Janeiro. This means that these two parks have environmental benefits, like other urban nature places, especially with the help and interest on behalf of management sectors in investing in the maintenance levels of these spaces, in order to guarantee good soil drainage, water quality and urban biodiversity, as well as connectivity to other green elements of the urban landscape.

In this way, it is worth emphasizing that the urban policy is in continuous construction and that, through the Law, exercised in the master plan specific to each urban reality addressed here, there is a structure in the form of principles, objectives, guidelines, and priority areas for intervention. These guidelines provide a predicted panorama to be achieved and which will be progressively monitored, in addition to being evaluated and reformulated over time.

In the case of Oslo, both the park system, the Stortingmelding nr 58, the Kommunedelplan and the Compehensiveplan have exercised the potential of socio-environmental integration in the city, being discussed in the City Council with urban planners, local NGOs, and district representatives, where urban parks are considered as areas of vegetation and social activities relevant to the urban structure. In the urban space of Rio de Janeiro, the review of the Master Plan started in 2018, with the discussion of the Master Plan for Sustainable Development, combined with other management instruments, such as the Master Plan for Urban Afforestation, in dialogue with civil society and with urban space researchers, intends to promote a interdependent planning strategies, through the Integrated Planning and Environmental Management System, where parks and other green spaces are

effectively connected to each other in a systemic way, promoting better management and redefinition of the city's green areas.

Therefore, the following table summarizes the factors addressed and presented during the other stages of investigation into the maintenance of Frogner Park and Quinta da Boa Vista, indicating the information found, what it represents in terms of sustainability levels for each park, and which urban management policies would improve these urban realities.

<table>
<tr><th>Aspects of sustainability in urban gardens:</th><th>Frogner Park</th><th>Quinta da Boa Vista</th><th>Management policies and actions that could contribute to these spaces:</th></tr>
<tr><td>1- Combating the carbon problem</td><td colspan="2" rowspan="2">V Due to the presence of vegetation cover.</td><td rowspan="2">Oslo: Integrated management of Bymiljøetaten and civil society.
RJ: Monitora Rio Program, by the Municipal Secretary of the Environment. It works to identify forested areas in the city, preventing deforestation.</td></tr>
<tr><td>2- Urban cooling</td></tr>
<tr><td>3-Flood prevention and rainwater management</td><td>V Measures were identified for efficient water management in this park.</td><td>X Problems were identified in the water management of this park.</td><td>Oslo e Rio de Janeiro: Identification and prevention of areas at risk of flooding and pollution in the parks covered.</td></tr>
<tr><td>4- Reduction of energy costs and improvement of thermal insulation</td><td colspan="3">Not applicable *</td></tr>
<tr><td>5- Water conservation</td><td colspan="2">--- In part. The water present in these parks comes from rainfall and drainage systems of the urban network. More studies on water conservation at the site are needed.</td><td>Oslo- Urban Biodiversity Report - Stortingsmelding nr. 58</td></tr>
<tr><td>6- Urban fauna and biodiversity</td><td>V There is information on the biological diversity of the Park in relation to other green spaces.</td><td>-- No specific studies of the current biodiversity were found. Only maintenance guidelines, which indicate the existence of plant and animal relevance in the park.</td><td>RJ: Revision of the Master Plan for the promotion of an Integrated Environmental Planning and Management System.</td></tr>
</table>

Figure 34. Aspects of sustainability in the research's empirical contexts.
*Not applicable, as this was not a component considered in this research approach.

Regarding biodiversity in Quinta da Boa Vista, no information was found from studies on the current fauna and flora specific to the park, nor on the connection of this green space to other urban nature in the city of Rio de Janeiro. Only in the bibliographical reference (TRINDADE, 2013, p. 257), the mention and description of the maintenance guidelines of the Quinta, by the management sector, are addressed, in addition to Annex 1 quoting “The Charter of the Brazilian Historic Gardens”, published in 2010 (TRINDADE, 2013, p. 227), showing the management measures in force in the Brazilian urban legislation, aiming to preserve the physiochemical aspects of the soils, as well as allowing the existence of the vegetal organisms that constitute this historic garden, in allusion to the maintenance of plant species used in Glaziou's landscaping.

In addition, general information was found on the Horticultural Garden (*Horto Botânico*) website, under the responsibility of the Federal University of Rio de Janeiro, on plant cultivation for research purposes, in which one can read:

> The Horticultural Garden is located inside the Quinta da Boa Vista Park, in the Imperial neighbourhood of São Cristóvão, Rio de Janeiro. It belongs to the National Museum and consequently to the Federal University of Rio de Janeiro. Its land was annexed to the National Museum on September 30, 1896.
>
> This area is intended for the cultivation of plants and biological experiments for the purposes of studies, research, and practical demonstrations. There are historic constructions such as tanks and a system of canals for beds of aquatic plants whose water was supplied by a water tank that was on top of a tower, all these constructions date from 1910. Around 1950, the Horticultural Garden lost a large area with the construction of avenues in its surroundings and later it had to be restructured which happened with the help of Professor Luiz Emygdio de Mello Filho.
>
> It currently has an area of 40,748.50 m², which includes: an important green area, with ca. 20,000m², consisting of vegetation from various Brazilian ecosystems and exotic species; the National Museum Library and some buildings that house the Departments of Botany and Vertebrates, the Archaeological Collection of the National Museum (Casa de Pedra) and installations of the Living Coral Project (MUSEUM…, c2022).

Although it does not effectively represent the park's flora, this presentation about the Horticultural Garden is important to understand that there is research related to ecology in progress within the park, requiring further investigations on how these university dynamics could contribute to the improvement of the space of Quinta da Boa Vista in relation to urban ecology. Another component that could be an ally in the knowledge and maintenance of biodiversity concerns the *Bioparque do Rio* (new zoo), whose principle is to be an “ecological conservation centre, with various services of environmental education, establishing partnerships with national and international research institutes and universities.”

Although there is a gap in the dissemination and investigations on the biological components of this urban park, the city of Rio de Janeiro has effective measures for the management of tree species and, together with the administration of the Foundation of Parks and Gardens, this would contribute to the knowledge and management of this Quinta da Boa Vista in connection with the urban landscape. Among them, we can highlight the Master Plan for Urban Afforestation, and the botanical research carried out by the Research Institute of the Botanical Garden of Rio de Janeiro on ecological areas, through the identification of threatened species of the Atlantic Forest, with the aim of cataloguing urban biodiversity, recognizing priority areas for preservation, and initiating restoration processes.

In terms of hydrology, Quinta da Boa Vista has been experiencing problems. In 2015, the park's lakes were news in the main newspapers (Extra and O Globo), due to the bad smell and greenish colour, indicating the presence of cyanobacteria that proliferate in contaminated water. The problem, identified by researchers as eutrophication of water, occurred due to the accumulation of organic matter, in which cyanobacteria act in decomposition, producing sulphide gases and methane. In addition to the olfactory discomfort since the smell is similar to sewage, contaminated water, if ingested, can cause intoxication.

In another piece of news about an oil slick in the waters of the lakes, in 2020, the Newspaper's website highlights that "the Foundation of Parks and Gardens has had difficulties managing a space of 155,000 m2", due to the low budget and capital invested by municipal power. The report also mentions that the reddish diesel oil, of unknown origin, exposed fish, and birds to the risk of immediate intoxication, which is contradictory in a park that houses a zoo and a horticultural garden. On the occasion, technicians from INEA (State Institute for the Environment) and Civil Defence, as well as the park manager, assessed the possibility that the leak had been carried out in a "rainfall gallery outside the limits of Quinta da Boa Vista," which further intensifies the importance of analysing the park in connection with the other elements of Rio de Janeiro's urban landscape, in an integrated planning and management system.

In this sense, Rufatto-Ferreira et al. (2018) argue that Economic Ecological Zoning (EEZ), as an urban planning model with an emphasis on sustainability, would represent an important tool for the municipality of Rio de Janeiro, indicating management guidelines for a better use of the city's areas, seeking to integrate economy to social and ecological aspects. For the authors, this tool would enable a greater understanding of the socio-environmental challenges of the city because it is done in stages, which would contribute to the formation of an overview, or diagnosis, to arrive at solutions.

About Frogner Park, no bibliographic sources were found on environmental degradation in this green space. On the contrary, information about the park's environmental aspects are very promising and relates to the fact that the park is habitat for mammals such as squirrels and bats, the latter being constantly monitored in the area at night. In addition, Frogner park has many tree species composed of very old deciduous trees, which are important for filtering the air. According to the website *Miljølare*, precisely these types of deciduous trees act as an essential biotope in the maintenance of animals and plants, since old trees provide more habitats through hollow spaces, and also by the presence of lichens

and mosses, attracting insects, mammals and birds, as is the case with owls that build their nests in these empty places inside tree trunks.

It is interesting to note that, in the context of Norwegian cities, most parks are too small in area to support a large amount of wildlife habitat compared to the forest and grassland environment. However, the value of these green spaces in ecological terms of biodiversity multiplies as they are connected, through green corridors, to other green spaces, whether large or small.

According to the electronic newspaper Vårt Oslo (Our Oslo), there are about 15 thousand plant and animal species in the Norwegian capital, and this is largely related to the joint maintenance of streams and green spaces that cut through the city, and that connect the forest to the sea. For this reason, the management of biological diversity has been carried out in order to identify the exotic species that proliferate and threaten native species, in order to avoid the spread of pests that compromise the various ecosystems present in Oslo.

In this way, the biodiversity of Frogner Park has its relevance increased due to the urban set of green spaces in the city landscape. This means that sustainability must be considered in a systemic way, in which the maintenance of the park's fauna and flora species depends on the maintenance of other green areas and urban hydrological aspects.

In this sense, it is important to produce knowledge about urban biodiversity, as stated in the report of the Norwegian parliament (Storting nº 58), written in 1996 and 1997, in which all municipalities in the country were encouraged to map the biological diversity present in the urban space. In the case of Frogner Park, the Oslo Department of the Environment has public-private agreements, where the Mercell Group (private company) supports the operationalization of park management, through the mapping of exotic species, as well as establishing of biodiversity conservation guidelines for arboreal species and the collection of roses, with more than 14,000 plants.

Within this perspective, the areas with the greatest biological diversity in Frogner Park correspond to the trees, shrubs and flowers located in the gardens close to the Frogner River, as well as those that surround the park. The area where the Vigeland Park is located, specifically the monolith, in this logic, would be one of the least diverse, precisely because it is a place without much vegetation and with a strong presence of concrete.

One of the hydrological aspects of the park is the Frogner River, which is formed at the confluence of Gaustadbekken and Sognsvannbekken in the Frøen district, and is channelled in a southerly direction, passing through the Frogner district. Within the park, the river flows through dams (drammensveien), being essential for the surrounding ecosystem. Through

bibliographic research, I found that the Frogner River has its own association of friends (*frognervassdragets venner*), which contributes to maintaining water quality, through "cleaning work, signalling, trail preparation, tests of water and follow-up of zoning plans, manifesting itself in cases that affect the watercourse", in addition to organizing "river walks" along this urban river, from May to October, and cultural events, especially with residents and elementary school students from schools located in the neighbourhoods where the river flows.

Another issue related to this river concerns its relationship with animal life. According to a report published by the online newspaper Nettavisen, on May 21, 2020, a beaver was found inside Frogner Park, "swimming around the creek and feeding on cabbages on the riverbank. The animal had apparently moved into the Frogner River, which is the stream that flows through Frognerparken and empties into Frognerkilen."

5.2. URBAN NATURE AND WELL-BEING

Well-being is sometimes seen as something subjective in society, based on different psychological, socio-environmental, and even economic factors. About this, Londe et al (2014) argue that well-being would be the result of the relationship between the concepts of quality of life and environmental quality, based on the principle that people need spaces in the city that can perform ecological and social functions (LONDE et al., 2014, p. 268). For this reason, the multifunctionality of green spaces has been considered of great importance in contemporary urban life.

Although there are good indicators of well-being and quality of life in qualitative research on the urban space, such as, for example, in the Brazilian project called **The Urban Well-Being Index** (IBEU), which identifies "the urban conditions necessary to live in cities, especially in the country's large urban centres", favouring research on the condition of housing, public transport and other urban characteristics, in order to promote an improvement in the experience of Brazilian cities; it is important to emphasize that each indicator is inherent to the interest and questions of the research in which it is being used, since it is difficult to measure the meaning of satisfaction feelings, contentment and fullness that are part of the emotional state of each one, and articulate all this in a generic and universal indicator.

In this sense, precisely due to the peculiarities and subjectivities of the interviewees in this investigation, I sought to reflect on the aspects mentioned and reported by them in relation to the theoretical contribution of biophilic cities and the geographical landscape, promoting a

greater immersion and understanding of the environmental perception presented in the reports. From this approach, it was possible to list our own indices, related to what was studied by this specific research.

Based on the contexts of Oslo and Rio de Janeiro, one can see the occurrence of similar sociocultural values, about the importance given to urban nature by people. Although experiences are different in the two cities, the fact that there is some kind of availability and access to green spaces was considered extremely positive and even essential for life in these urban realities. Therefore, the word cloud resource was used, through the personal account on the Mentimeter website, to present the most pronounced and/or written words in the reports. These words appear in different sizes (in ascending order), visually representing the most cited terms, indicating the well-being indices that this research is based on, as can be seen below:

Frogner Park:

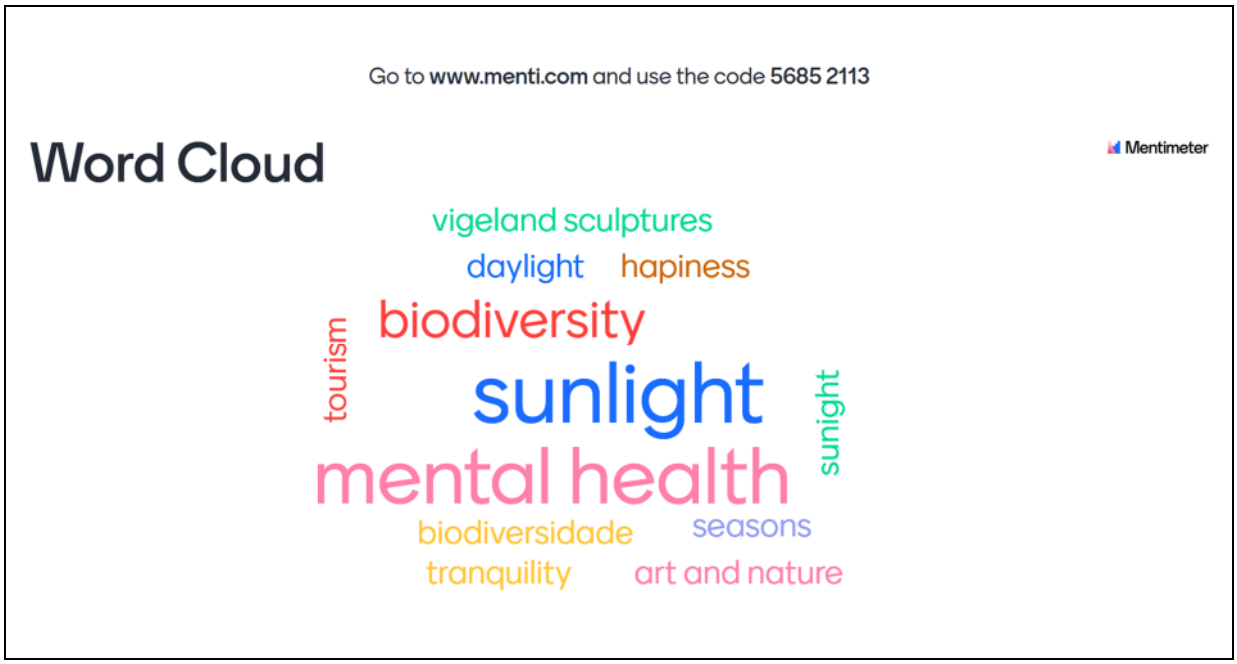

Figure 35. Frogner park word cloud.

Source: Prepared by the author based on the reports.

Quinta da Boa Vista:

Figure 36. Quinta da Boa Vista word cloud.

Source: Prepared by the author based on the reports.

From this perspective, we understand that the two parks represent multifunctional environments with highly relevant environmental and social aspects. From the words/expressions highlighted by the figures, it was possible to organize the terms into three indices:

• **Socio-environmental values:** Biodiversity, sunlight, seasons, contact with nature, mild temperature.

• **Cultural values:** Art and nature, Vigeland sculptures, Museum, Zoo.

• **Social benefits:** Relaxation, mental health, accessibility, tranquillity, happiness, childhood memory.

These results show that socio-environmental values are qualities that the environment, or in this case the two parks, have according to the perspective of their society and are also related to the local culture. The social benefits effectively indicate the improvement of the state of well-being due to the availability of these values (both socio-environmental and cultural), indicating that all aspects exist and must be analysed together. For instance, improved physical and mental health and stress relief are social benefits that depend on the socio-environmental values analysed such as availability of sunlight, biodiversity, and a milder temperature. Likewise, childhood memories are connected to the cultural values present in visits to the Museum (Nacional) and to the sculpture park (Vigeland).

Following the analysis of the reports and the visualization of the word cloud, we acknowledge that the value given to the urban nature present in Frogner Park is more connected to the ecological aspects of sustainability and biodiversity, which were considered as a socio-environmental value present in this space. In addition, the component of sunlight, or daylight, was also often cited as important in the experiences of people in this urban park, which may indicate the relationship between the park and other green spaces in the city to the climatic aspects of the country, where it is essential that urban nature is available so that the population can enjoy the city even on the shortest and coldest days of winter. Likewise, this connects to biophilia in this space, where the seasons of the year are perceived as each month passes, and people's perception changes as the colour of the landscape also changes, through the appearance of the leaves of the trees, the white of the snow, or the green of the lawn and the blossoming of the first flower buds in the spring, in addition to the availability of almost 24 hours of light in the summer.

Mental health also had its importance highlighted. The interviewed people associated the presence of green spaces with the maintenance of physical and mental well-being, essential in daily life. In this sense, the parks would also act as a kind of framework for not only environmental but also psychological sustainability for Oslo residents, as places where one can feel a sense of relaxation and tranquillity, as well as do a range of different activities amid the presence of vegetation and all animal life (biodiversity).

Art issues related to Vigeland's sculptures and the park's tourist character were also mentioned in the reports, demonstrating that this cultural space is part of the country's historical past. In addition, art and sculptures were considered part of Norway's cultural identity, as a kind of cultural legacy in the park's contemporaneity, a fact that attracts many tourists.

Regarding Quinta da Boa Vista, it is noted that, unlike Frogner Park, the ecological and sustainability issue were not the main aspect mentioned in the reports. However, in a socio-environmental analysis, the word “fresh” and the indication that the park has a “mild temperature,” even if indirectly, are related to the issue of the ecological importance of this park for the city, where the reports show that the presence of vegetation connects to a more pleasant place, especially in a city with a hot climate like Rio de Janeiro. This is also an example of a biophilic relationship with the vegetation at Quinta da Boa Vista, where the environmental perception present in the reports implies a value given to the trees and other plants in the park, perceived and felt in countless ways.

For the interviewees, having a place of coexistence amid urban nature was the fundamental experience. Even the expression “space of well-being” was used to refer to the park in relation to “contact with nature.” Another very discussed issue was that of childhood memories. This is reflected in reports about school trips to the park, as well as family picnics held in this space, which indicate that people have an affective relationship with Quinta da Boa Vista.

Terms such as relaxation indicate that Quinta da Boa Vista, despite the challenges in terms of infrastructure and security, is still very relevant, as it is a place of tranquillity, specifically in the north zone, the latter being another word often mentioned in the interviews. The fact that the park is accessible to many people via public transport is something that influences the general well-being of the interviewees, as they can access the space in an easier and closer way.

FINAL CONSIDERATIONS

In the present work, throughout the research stages, it was verified the cultural aspects about urban nature amid the challenges brought by the logic of industrialization and urban expansion in the 19th and 20th centuries. The way in which landscape architecture was inserted in this urban expansion allows us to see the city as a concrete stage of socio-environmental relations, understanding that societies and all their dynamics are also part of the natural world, experiencing and imprinting marks on space with the potential to generate environmental consequences of the most diverse levels and characteristics.

Therefore, with urban nature as the guiding principle of this research, an attempt was made to address the planning context in two social realities, Oslo, and Rio de Janeiro, with the aim of analysing how the socio-environmental aspects present in Frogner Park (OSL) and in Quinta da Boa Vista (RJ), that is, specifically in two green spaces, are related to the urban well-being of the respective cities. The answer to this main question is not evident, and it was necessary to trace the ways in which the context of Oslo and Rio de Janeiro dealt with their environment, especially from the end of the 19th century to the present day. This was important to understand the sociocultural foundations that allowed the existence of the two parks studied later.

To this end, when carrying out a bibliographical survey on the socio-environmental theme and the policies of green spaces in the cities studied, it was possible to notice that in the 20th century, the Norwegian city received great influence from the environmentalist ideas in force in western urban planning, where a wide system of parks interconnecting urban green spaces and enabling the construction of even more parks and gardens in all neighbourhoods, provided access to urban nature in the immediate vicinity of the houses. This system, conceived and implemented in the middle of last century, was the first of a series of subsequent urban policies aimed at making the city greener. From this perspective, Frogner Park is part of this logic, but has some specificities, as it was also a space built with the aim

of exercising an important cultural function through Vigeland's sculptures, at a time when Norway was seeking greater sociocultural independence from its neighbouring countries.

In the case of the city of Rio de Janeiro, it is observed that the context of urbanization is different, relating to the functions of capital of the Empire, with the arrival of the Portuguese imperial family at the end of the 18th century. Regarding green spaces, especially in the second Empire of D. Pedro II, the urban nature present in the city began to receive more emphasis, with the reforestation of the Tijuca forest and the idealization of some parks. In addition, the greatest advances in urban policies for urban and environmental planning of the city occurred from the second half of the 20th century onwards. From this perspective, the initial creation of Quinta da Boa Vista was not intended to be an urban park, but it was rather the gardens of the residence of the Brazilian imperial family in *Paço de São Cristóvão*, which later began to exercise the function of a public park considered as historic garden.

The analysis of Frogner Park and Quinta da Boa Vista exposed the contexts for the creation of these spaces, but not limited to a historiographical analysis, as the transformations that the parks have undergone up to contemporaneity were discussed, showing the characteristics of ecological and sociocultural multifunctionality, making them central in socio-environmental terms. In order to understand how the aspects, present in these parks are related to the notion of well-being, the investigation carried out here sought support in the categories of analysis, **sustainability**, **sociability**, and **management**, in order to provide a greater investigative immersion in the reality of the parks.

To achieve this purpose, it was necessary to analyse how the two parks are integrated into the urban landscape in the conception of sustainability, in which the existence or not of connectivity between these parks and other green spaces was investigated, in addition to the understanding of the sets of actions that preserve them, as well as the ecological characteristics they have, among which their biodiversity.

In this way, the analysis of the two empirical contexts of this research showed that both have ecological relevance for their cities. However, in the case of Rio de Janeiro, there is a lack of dissemination of studies on the specific biological aspects of Quinta da Boa Vista (a fact that opens gaps for future researches), as well as a lack of connectivity between this green space and other places of urban nature within the scope of urban and environmental planning in the city. Even though the park is linked to several research institutions related to biodiversity (see those managed by UFRJ, such as the Museum of Fauna and the Horticultural Garden, and more recently under the responsibility of the private sector, the Bioparque), environmental problems were identified, such as lake pollution, which represents

a challenge for the management of this space, due to the lack of resources and integration with areas adjacent to the park.

About Frogner Park, much evidence has been found in academic studies on the connectivity of this space to other components of urban nature, which clearly relates to urban policies for the creation of green spaces in Oslo, discussed on previous chapters. It is important to mention that bibliographic sources were identified on elements of the park's biodiversity, and the measures that are taken both by the city hall and by the residents of the Frogner neighbourhood for the local ecological maintenance. It was shown how the hydrological aspects present in the park, in addition to the trees and other plant elements, constitute a space full of interconnected and interdependent ecosystems, being considered relevant for the city.

Although the creation of Frogner Park was controversial in the intellectual circle of Norwegian landscape architects, as it was specially designed to provide a place for Vigeland's sculptures, apparently going against what was intended at the time in terms of environmental issues; even thus, this space managed to meet the multiple interests of promoting an urban landscape where green is well integrated, and the park represents an important means of transition between the urban forest and the peninsula of Bygdøy.

Furthermore, it was also necessary to investigate the role of the two parks as sociability spaces, promoting access to urban nature. It was intended to analyse how the activities carried out in the two empirical contexts are constituted by everyday experiences of symbolic relevance for understanding of sociocultural dynamics. Therefore, the interviews in the form of reports with visitors to both parks, allowed the understanding of the multifunctionality of these spaces, either as an ecological place, or as a spot for people's life experiences, being largely related to the memories and personal stories of each one.

Even though the parks are in different urban realities, it was possible to understand that the possibility of visiting a green space near to the place of residence or with easy access by means of public transport, is essential for both contexts. While those interviewed about Frogner Park, in general, consider it as one more option of urban nature among many others that are easy to visit in Oslo; interviewees about Quinta da Boa Vista indicate that the main relevance about this space is that it is located close to their homes via public transport, in a scenario of access inequality in Rio de Janeiro’s urban nature.

In this sense, the joint analysis on how these parks are managed by their municipalities and how this management contributes or fails to contribute to the improvement of urban nature, was also relevant to the research, connecting the other specific objectives and

allowing us to observe how sustainability and sociability are related to urban and environmental management and planning. In addition, the image of urban nature was also important to recognize how these parks are addressed in official media discourses, where we observed the context in which the two cities benefit from urban nature not only on a social and ecological level, but also with relation to global socioeconomic interests. From the interviews with two urban planning professionals, one in Oslo and the other in Rio de Janeiro, it was possible to investigate the main ways in which the two parks have been considered from the perspective of management in contemporary times.

The interview about the urban reality of Oslo provided, among other aspects, an understanding of the role of Frogner Park as an essential space for biodiversity and connectivity in the urban landscape, in which some guidelines that the city has been following were presented, especially at a time when Oslo is going through transformations, through the policies of densification and verticalization of the city centre, which demonstrates the challenges in the coming years, when there will be more people circulating and living in the city, emphasizing the importance of green spaces precisely in these denser areas of urban space, which tend to intensify in contemporary times.

The interview about the context of Rio de Janeiro, however, showed the first efforts witnessed by the interviewee, as an employee of the city hall of Rio de Janeiro, for the incorporation of the environment into urban planning (already in the 1990s). Within this context, she mentioned that the city of Rio de Janeiro has a good number of public parks, including natural parks and urban parks, but that the distribution, supply, and conservation of these spaces are not balanced. Quinta da Boa Vista is also no stranger to this situation, and the professional commented on how this place was degraded in the period from 1993 to 1997, which was the reason why she became even more interested in the park and felt encouraged to fight for more funds for effective maintenance.

In this sense, it was possible to evaluate the potential of parks in promoting well-being in the city of Oslo and in Rio de Janeiro, considering that each category of analysis contributed to the formation of a parameter of the contemporary reality of each park. The various aspects that make the empirical contexts relevant in terms of well-being are related to the contents unveiled during the research stages on sustainability, sociability and management, and allowed understanding that the categories influence each other, because, if there are problems of environmental pollution in a certain park, this will influence the way in which people experience the place, being able to notice, among other things, unpleasant smells in the rivers, which can prevent them from visiting certain places. And both the question of

ecology and sociability also depends on the management of the space. Thus, the urban policies that influence the management of both parks, when they contribute to a greater consideration of the role of nature in the urban space, also influence the level of preservation of the parks, which in turn influence social experiences.

From the figure on the sustainability aspects of the empirical contexts on chapter 4, it was possible to visualize the ecological potential of the parks in connection with the urban policies that would be useful in each case. Besides, the indices constructed through the sources analysed during the research (**Socio-environmental values**; **Cultural values and Social benefits**), showed how the two empirical contexts respond to the challenges that are posed to them on a daily basis in each urban reality, as well as how they represent elements of biophilia and well-being.

On that account, in the context of a healthier city both at ecological and social levels, the two parks present themselves with intense relevance for their urban spaces, offering contemporary examples on the importance and consideration of social and environmental aspects in urban administration, contributing and instigating new academic research on this topic. In this sense, the two cities have characteristics that can be improved by new urban policies and urban and environmental planning instruments, as well as integrated management, as discussed before, where planning scales and sectoral policies need to be linked into a cohesive structure.

Therefore, the research carried out here provides updated content on the urban reality of Frogner Park and Quinta da Boa Vista, which can help in new ways of managing not only these two parks, but also other elements of the contemporary urban landscape. Bearing in mind that resilience is not only the environmental capacity to recover after a crisis, but also the possibility for people to effectively live in cities, where their social relationships can also sustain themselves. Thus, this wide network of connections and subjectivities coexists in the environment and provides the existence of individual and collective well-being, and must be considered by researchers, as well as by urban planners and managers.

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