Matheus de Vasconcelos Casimiro

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São Paulo's green areas production policy: historical and projectual analysis

Abstract

From the 20th century, the City Administration of São Paulo began to formulate plans that guided the policy for public green areas. In this article we discuss the changes observed in two different experiences that occurred respectively in 1974 and 2014. The analysis here is divided in two perspectives: 1. historical indicators, through official documents revision; and 2. design indicators, which examine the design practices of the architects involved in each experiment analyzed. To do so, a description is provided on how the indicators have been formulated, as well as their use in this analysis. The results show a historical trend of progressive emphasis on environmental conservation and preservation and of diminishing the importance of the social role of parks and urban green areas, leading to significant changes in the role of architectural design for urban free areas.

Keywords

Green areas system. Urban planning history. Analysis indicators. Academic research in design areas

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A POLÍTICA DE PRODUÇÃO DAS ÁREAS VERDES MUNICIPAIS DE SÃO PAULO: ANÁLISE HISTÓRICA E PROJETUAL

Resumo

A partir do século XX, a Administração Municipal de São Paulo passou a formular planos que norteavam a política para as áreas verdes públicas. Neste artigo discutimos as modificações observadas em duas experiências distintas, ocorridas, respectivamente, em 1974 e 2014. A análise desdobra-se em duas perspectivas: 1. com base em indicadores históricos, fundamentada na leitura de documentos oficiais; e 2. a partir de indicadores projetuais, nos quais são examinadas as práticas projetuais dos arquitetos envolvidos em cada experiência analisada. Para tanto, são descritos os modos como os indicadores foram formulados, bem como seu emprego nesta análise. Os resultados mostram uma tendência histórica de ênfase progressiva nos valores de conservação e recuperação ambiental, e diminuição da importância do papel social dos parques e áreas verdes urbanas, levando a modificações significativas na função do projeto arquitetônico para essas áreas.

Palavras-chave

Sistema de áreas verdes. História do planejamento urbano. Indicadores de análise. Pesquisa acadêmica em área de prática projetual.

1. Introduction

This article seeks to build an understanding of the initiatives that led to the formulation of green area production policies in São Paulo. Since the beginning of the twentieth century, the public administration of the capital of São Paulo has expressed interest in setting up a municipal green areas system. Many of these intentions were registered in the urban and regulatory plans, of which up to the 1950s, the following stand out: the Caio Prado Improvement Plan (1899-1911); the Bouvard Plan (1911); the Avenues Plan (1930); and the São Paulo City Public Improvement Plan, known as the Robert Moses Report (1950). In the second half of that century, the main regulatory frameworks were: Basic Urban Plan (1968); Integrated Development Master Plan (PDDI, 1971); and the various versions of the Strategic Master Plans (1985, 1991: not approved by the Chamber, 2002 and 2014).

The theme of the Green Areas System was always addressed in these documents, each time appearing with different emphasis: the Bouvard Plan suggested the formation of two public parks, Anhangabaú and Várzea do Carmo; the Avenues Plan proposed a Green Area System in an area peripheral to the urbanized fabric at the time; PDDI inaugurated a hierarchy of types of public parks according to the coverage of the population. Until the 1970s there was clear concern with the social role of green areas, leisure, aesthetic appreciation and collective living. The hygienic and sanitary aspects promoted by the green areas were also an important concern, however, due attention was not given to the qualitative aspects and peculiar characteristics of the vegetation, flora and fauna of these regions. A change of approach can be seen in the Strategic Master Plan of 2002, which inaugurated, in São Paulo, the idea of ??formulating green areas such as protection of water resources and environmental protection areas - the linear park.

In this article, we review two of these documents. The first, entitled *The Green Policy for the City of Sao Paulo*, consisted of a specific green area plan published in the Department of Parks and Green Areas in 1974 - an offshoot of the 1971 Integrated Development Master Plan; the second, *Strategic Master Plan for the City of São Paulo*, was published by the City Council in 2014. Each of these documents is analyzed from the perspective of two indicators: 1. Historical/Historiographic; 2. Projectual.

2. Analysis indicators

It is worth remembering that analyses based on historical/historiographic indicators are already widespread and consolidated in the tradition of academic research, including architecture and urbanism. However, the validity of design indicators has still been the subject of discussion within the

disciplines with creative, propositional and artistic interface. According to Büchler and Biggs (2010), the incorporation of criteria based on projectual practice in academic research contributes to the knowledge of fields linked to projectual practices in general.

The theme of recognition and evaluation criteria of academic research containing design and creative elements has been worked on within the Research Group *Architecture: Design & Research & Teaching* at Mackenzie Presbyterian University, since 2009. Of the output in which these authors participated, it is worth mentioning the project report entitled *Academic Research in Areas of Projectual practice: Architecture and Urbanism - PAAPP* (LIMA, 2011), the results of which include the publication and development of PhD, Master and Final Undergraduate research projects.

One publication resulting from this reflection that is worth highlighting is *Proyectos e Métodos proyectuales en La Investigación Académica: Algunos indicadores útiles* (LIMA; ZEIN, 2011), as it points to the effectiveness of the use of indicators, which are of a textual (historical and historiographic) and graphical (projectual) nature, in the scientific development of the field of architecture and urbanism. Between 2012 and 2014 the continuity of the study was developed in the *project Project Practices: projectual practices of architects, and designers: analysis of project practice instruments and possible jobs, directly or not - in the academic research stricto sensu*[1] . Among the repercussions of this project it is worth mentioning the article written by Lima and Vieira (2016) under the title *The redesign as an instrument of knowledge construction in architecture*, in which the authors analyze the use of historical/historiographic and projectual indicators for constructing arguments. in academic research based on projectual practice.

Based on the trajectory of constitution and use of the indicators mentioned above, the elements used in the construction of each indicator are described below.

[1] Financing "Fundo Mackenzie de Pesquisa": Mackpesquisa.

2.1. The construction of historical/historiographic and projectual indicators as a form of academic research

The relevance of the consideration of these indicators consists not only in their function as an aid to the recognition and evaluation of research using design methods, but also in the process of conducting the investigation, acting on the construction of the argument.

Based on bibliographic review and exhaustive analysis of dissertations and theses produced over a period of about three decades (1978 to 2008), research filed in the library of the Faculty of Architecture and Urbanism of the University of São Paulo, initial delimitations of the elements were established. that make up what we call "elements of projectual practice," and how they could be identified in academic research.

What was observed throughout the process of investigation and analysis was the effective association between traditional methods, especially those of a

historical/historiographic nature, and projectual methods. After this first step, it was possible to establish, with greater clarity, two indicators, described below, that characterize research that uses projectual methods as a fundamental part of the argument.

- **Historical/historiographic indicator:** use of historical or historiographic, textual methods that contextualize, justify and situate the concern of a projectual nature. The use of historical/historiographical methods was observed as a way to situate the cultural context, topics, concerns and cultural interests pertinent to the subjects portrayed with greater precision. These approaches seem to align with the methods adopted for academic research in architecture and urbanism in European countries and the United States. This impression is corroborated by the work of Borden and Ray (2009). The authors agree that academic research in architecture and urbanism can adopt varied characteristics and that there is really no consensus on what specific forms this type of research should take. They emphasize the most commonly required aspects, such as the need for originality, and crediting other authors' ideas and designs, where appropriate. This recognition, in our view, involves connections that the researcher builds between their work and the knowledge established in their historically organized research and practice area.

- Projectual indicator: the use of projectual methods, as used in the universe of the analyzed works, suggests approximations with the notion of artifact, that is, they appear to be constituted by non-textual constructions that aim to bring up an element of the discussion involved in work that would not be amenable to description or comprehension by traditional textual methods (LIMA; VIEIRA, 2016). The conceptual construction of this indicator aims to allow the identification and legitimation of academic works that, by employing non-textual methods - here called non-textual artifacts -, imply that the process of methodological decisions, the contextualization and solution of the problem can be clearly described. Alternatively, they could answer the following question by Scrievener (2000, np): the researcher *"demonstrated to be aware of what he was doing and was able to propose and solve problems"*, to this question, we add: through employment of non-textual artifacts? For example, typical representation problems in architectural research may be more efficiently described in the form of visual and infographic schemes, as we will show later.

The report concluding the work of this Research Group in 2011, as well as the articles published above, reflect on the relevance of establishing these indicators. This importance lies mainly in contributing to the recognition and legitimation of the production of academic research that employs non-textual artifacts as a means, method and/or research theme. These artifacts can be expressed through preparing physical models, maps, plans, sections, elevations, schemes and sketches. Perhaps the greatest merit of this effort, for architects, would be the adoption of work strategies based on the experience acquired during professional practice, which can be transferred to the development of academic research. The mobilization of this knowledge, when articulated with knowledge of a historical/historiographic nature, results in qualification of both groups.

Once the indicators are stated and described, the question is: how to effectively identify, describe and analyze their use in academic research using instruments of projectual practice as an essential part of the construction of argumentation? First, it must be borne in mind that all intellectual construction, textual and non-textual, is situated within a historically constructed disciplinary field; It is in this context that it articulates with the historical/historiographic indicator, in order to verify the historical position, explicit or otherwise, of the researcher.

-**Verification of the historical/historiographical indicator:** the history, historiography and bibliography of architecture play an important role in giving meanings to architectural production, as they organize architecture, designers and places in specific value scales. Being taught partly in the form of text, partly in the form of images, the history of architecture has an important effect on creating the sense of reality that students and students construct mentally. Marina Waisman (2009) considers that while historical problems refer to the existence of the historical fact - its likelihood, the date, the author, the circumstances of its production - historiographic problems directly compromise the historian's ideology, implicated in the selection of the object of study, its critical instruments, the structure of the text and *"all that will lead to the interpretation of the meaning of the facts and, ultimately, to the formulation of its version of the chosen theme"* (WAISMAN, 2009, p. 15).

-**Projectual Design indicator check:** would this verification, in academic research based on projectual practice, call for an examiner who necessarily had experience in projectual practice? This is certainly a point that deserves careful reflection and debate. It can be said, of course, that the examiner must be aware of the debate on research in this area and its essential characteristics. Doris Kowaltowsky (2011) reminds us, in her introduction to the Brazilian edition of Bryan Lawson's book (2011) *How Architects and Designers Think*, that it was the English researcher Nigel Cross, one of the founders of the journal *Design Studies*, who identified the main subjects discussed. With regards the design methods: 1.) control of the design process; 2.) the structure of the design problems; 3.) the nature of the project activity; 4.) The philosophy of design method.

In view of the two indicators described above, we develop some considerations about the municipal policy of green areas in São Paulo, at two different times: 1974 and 2014. This analysis is performed from the perspective of the articulation of its historical bases and the projectual practices that characterized them. Thus, it consists of a reflection based on elements that constitute the structure of the design problems of public green areas, and how they have varied throughout history, with specific attention to the times at which the two design experiences studied here occurred.

3. Provision of the São Paulo City Green Areas System: a historical analysis of its approaches

3.1 The Green Policy for the City of São Paulo: 1974

During Miguel Colassuonno's mandate as Mayor of the City of São Paulo (1973-1975), the document *The Green Policy for the City of São Paulo* by the Municipal Services Secretariat in partnership with the Secretariat of Education and Culture was published. The production of this document aimed *"to characterize the role that green areas play in the urban nucleus [...]. The objective was to make the population aware of the subjective criteria generated by the availability of green areas"* (VIEIRA, 1995, p. 112).

The first highlight can be placed in the first paragraph, in the sentence that seems to us to be an assumption that is reflected in the other arguments throughout the document: *"nowadays, it is no longer argued that there is a correlation between the amount of green in a city and the quality of life that this city offers its inhabitants"*(PMSP, 1974, p. 1). The text shows the hypothesis that the citizens' quality of life is linked to the amount of available green area per individual. The relationship considered ideal was difficult to measure, depending on the indicator to be analyzed - temperature, environmental comfort, urban drainage, idle need, among others - for this reason the index recommended by the World Health Organization (WHO) was adopted as a reference, of the United Nations (UN), of 12 m²/inhabitant[2].

According to Maria Elena Merege Vieira (1995), there was an uncontested consideration in this period in favor of adopting the green area rate per inhabitant in city planning, aiming at the citizens' quality of life[3]. This index reflected an attempt to create a quantitative bias policy that sought to preserve as many green areas as possible, against the process of expanding the city's urbanization. The ratio between green areas per inhabitant was the postulate that underpinned all decision-making of the municipality in this regard.

There is, however, a differentiation made by the document to be highlighted at this point. The index of green area per inhabitant is distinguished from the index of "green area treated by the government, common use, accessible for use, with or without equipment" (PMSP, 1974, p. 3) per inhabitant. While calculating for the city the index of 4.48 m²/inhabitant, at that same time, it was projected to have only 1 m² of green area open to the public, such as gardens and parks, per inhabitant. It is understood that this is a historical deficiency, since in 1920, with 10% of the population of the 1970s, the amount of public parks and gardens was 0.84 m²/inhabitant (PMSP, 1974).

In this sense, it seems that the most latent concern regarding the function of the green areas system for the city, in this scenario, was the "maintenance of green areas associated with well-being, recreation and leisure" (PMSP, 1974, p. 1). Total quantification was a feature of politics, but its purpose of public

[2] The index of 12 m²/inhabitant was released by the United Nations WHO and employed in several Brazilian urban public policies. Cavalheiro and Del Picchia (1992) have already discussed this issue in the article Green Areas: concepts, objectives, guidelines for planning, even indicating that, despite its diffusion in Brazil, the origin and technical basis that generated this index is not even recognized by the sources. who released it (p. 5).

[3] Interview held in October 2016 with Prof. Maria Elena Merege Vieira, PhD, architect and urban planner, landscaper who worked in the Municipal Department of Parks and Green Areas in the 70's, participated in the formulation of the "Green Policy", and developed the dissertation "Architecture of the Square: Space, Art, place", which also comments on this document.

appropriation was the motivating bias of the production and maintenance of the whole of vegetated spaces. They were associated with their function of comfort and recreation for the population. Merege (1995) states that the campaign during the term of Mayor Miguel Colasuonno only gained intensity of viability when he related the green policy with the public use of recreation, which stimulated the contact of the population with these areas. The survey conducted by the *Green Areas and Recreation Improvement Plan* (KLIASS and MAGNOLI, 2006) was taken as a reference for forecasting new green areas.

It is possible to notice the defense of ideas related to citizenship for the composition of vegetated areas - be they social, cultural, hygienic or educational. These, however, appear in the background compared to the other functions of green appropriation by the population:

> *In fact, the subjective effects generated by the availability of green areas are more important than the direct effects generated by them, namely, the reduction of environmental temperature fluctuations, possible depolluting action, and even the landscape aspect* (PMSP, 1974). , p. 1).

The *"subjective"* effects, linked to the terms of the *"urban comfort"*, were linked to the functions nowadays framed as environmental, but had a close connection with the psychic effects provided by the green areas.

There was also the idea that green areas could contribute to the development of citizenship: *"As new green areas are offered to the population, from the developed centers to the most peripheral ones, the way of life and consequently, the integration of the community, can be decisively changed"* (PMSP, 1974, p. 2). There is also a sense that the formation of a space qualified by the landscape architecture project could have a civilizing effect on man: *"The existence of green leads, in turn, to a series of manifestations in the community, in artistic terms, cultural, sporting and recreational activities"* (PMSP, 1974, p. 02).

3.2 The Strategic Master Plan of the City of São Paulo - Law 16.050 on July 31, 2014

The Strategic Master Plan in force in the city of São Paulo was approved by the City Council through Law Nº. 16,050 on July 31, 2014, with the intention of being the new legal apparatus regulating the development of the capital. The subject of green areas is found throughout the document, with special emphasis on Chapter VI of Title III, which presents specific guidelines for the System of Protected Areas, Green Areas and Free Spaces - SAPAVEL. Thus, between articles 265 and 290, guidelines are defined and stipulated for this large group, in the sections of: Protected Areas System; Areas of Permanent Preservation; Vale Fund Recovery Program; Linear parks; Green areas; Cemeteries and the four Municipal Plans for Green Areas - Protected Areas, Green Areas and Free Spaces; Conservation and Recovery of Areas Providing Environmental Services; Urban afforestation and the Atlantic Forest.

Regarding SAPAVEL, the document argues that one of its strategic objectives of its urban development policy is the need to *"expand and requalify public*

spaces, green and landscape-permeable areas" and *"protect permanent preservation areas, conservation units, watershed and biodiversity protection areas"*(PMSP, 2014, p. 42). Therefore, two orders of public policy would be focused: numerical growth with increment of new areas and qualitative improvement regarding the management of existing ones. Green areas listed as of policy interest were stipulated according to the environmental value - vegetation and water system. There is no explicit mention of such growth parameters as quantity, location, shape or size.

In addressing the foundations dictating the objectives of public policy, the roles of various urban structures are described as elements of formation and ordering of the territory. Four networks are cited: Urban Structuring; Public transportation; Environmental water; and Local Structuring, worth mentioning the third, as this

> *[...] consists of the set of watercourses, drainage headwaters and floodplains, urban, linear and natural parks, significant green areas and protected areas and clear spaces that constitute the environmental framework of the municipality and perform strategic functions to ensure urban balance and sustainability (*PMSP, 2014, p. 45).

The green and free areas would be constituted guided by focusing on the environmental protection of the most fragile areas, especially those linked to watercourses and springs. The parks appear here as equipment the main function of which would be to protect the natural matrices.

In the chapter on Structuring and Territorial Ordinance guidelines, the PDE Dimensions are placed, reiterating that the plan data took into account social, cultural, economic, environmental and real estate issues. Highlighted as priority preservation items: springs, forests to the north and south, protected areas and natural parks, and especially the components of the Environmental Water Network, in articles 24 and 25 (PMSP, 2014). The guidelines revolve around the assumptions of ridding the headwaters, permeating permanent preservation areas, and expanding green areas because of their role in mitigating erosions, floods and heat islands.

Throughout the Master Plan, there is an almost exclusive focus on its environmental function of protecting vegetated massifs and preserving water bodies and floodplains. Its use in the municipal territory was to protect the natural elements, *"fundamental for urban sustainability"*: springs and floodplains. However, it does not describe how the protection actions of these natural bases would be carried out , but it is suggested that creating parks would contribute to the effectiveness of such a guideline.

It is also worth mentioning how parks are referred to throughout the introductory texts and initial articles. Parks, both "urban" and "linear", are highlighted as spaces the implementation of which aims to *"balance the relationship between the built environment and the green and free areas and ensuring leisure and recreation spaces for the population"* (PMSP, 2014, p 53). The green areas were, at various points of the text, generically described from the

perspective of their environmental function, especially regarding protection of the water network. Parks and reserves of vegetated areas appear, in this circumstance, with a leading position in this conduct. Its importance for the city is mentioned with an even greater prominence, because they meet, allied to its preservation characteristic, a relevant potential of recreational function. The position in favor of creating collective use and recreation in a green area, of course, considers the need to articulate environmental issues with the various social demands for leisure.

4. Verification of the projectual indicators in two projects for the provision of the São Paulo City Green Area System

We proceed to the analysis based on verifiable design indicators in the above-mentioned documents, which are part of the design problem structure to be considered by designers addressing this issue. There are three elements that make up the project analysis performed here: 1.) the criteria for choosing the priority areas; 2.) the basic parameters of the projection exercise; 3.) the methodological guidelines of project development.

The development of this stage is based on the experiential knowledge of the professionals involved in the projects, respectively: Maria Elena Merege Vieira, architect in the Department of Parks and Green Areas (DEPAVE) in the 1970s, and Matheus Vasconcellos Casimiro (2018) acting architect, also at DEPAVE between 2011 and 2016.

4.1 Maria Elena Merege Vieira, 1974

The projectual indicators of this period were systematized by the authors of the article based on the description of how public square spaces were designed at the time, an explanation given by Vieira (1995) in her master's dissertation. Below are the illustrative synthetic tables:

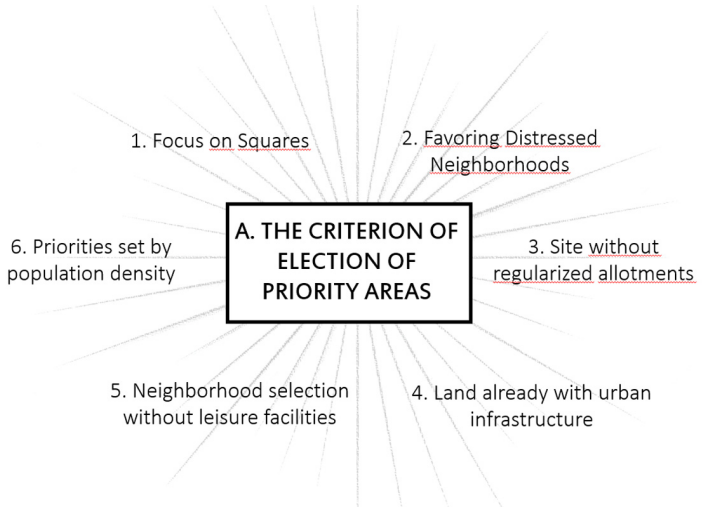

Table 01: Criteria for election of priority areas.
Source: Casimiro; Lima (2018).

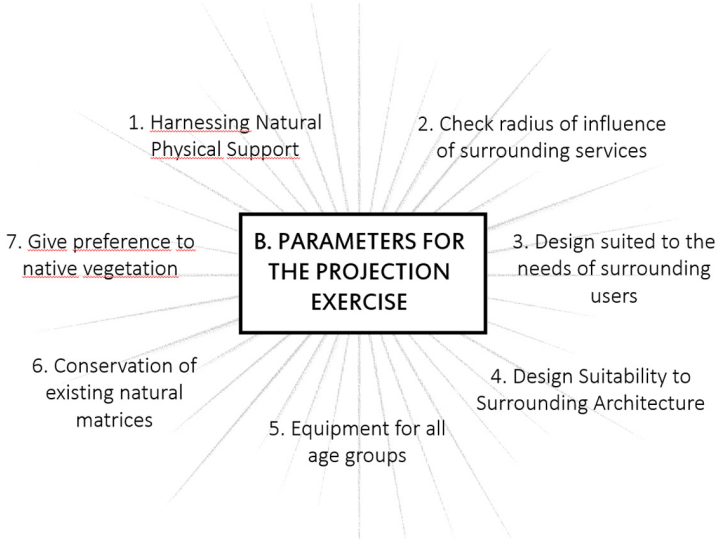

Table 02: Basic parameters of the projection exercise.
Source: Casimiro; Lima (2018).

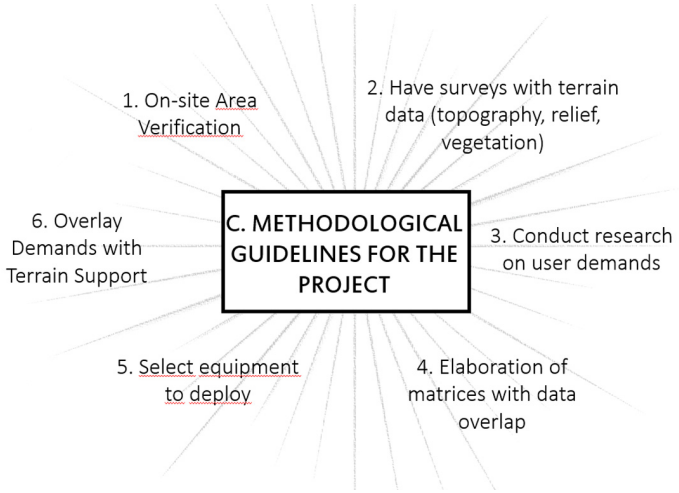

Table 03: Methodological Guidelines for Project Development.
Source: Casimiro; Lima (2018).

4.2 Matheus de Vasconcelos Casimiro, 2014

a) Criteria for selection of priority areas

The Strategic Master Plan contains the Map of the Environmental Water Network, SAPAVEL (PMSP, 2014, p. 174) and Table 7 - Existing and Proposed Parks (PMSP, 2014, p. 190-194), which guide the growth priorities of the Green Areas System. This material is the main reference for executive power actions over the next sixteen years (from 2014), and was constituted from technical references supported by the Secretariat of Green and Environment (SVMA). The "existing" parks have already been classified as a Special Environmental Protection Zone (ZEPAM), as well as the "in project" and "under implementation" that are natural and urban. The ZEPAMs would be portions of the territory destined to the preservation and protection of the municipal environmental heritage, the main attributes of which include the remnants of

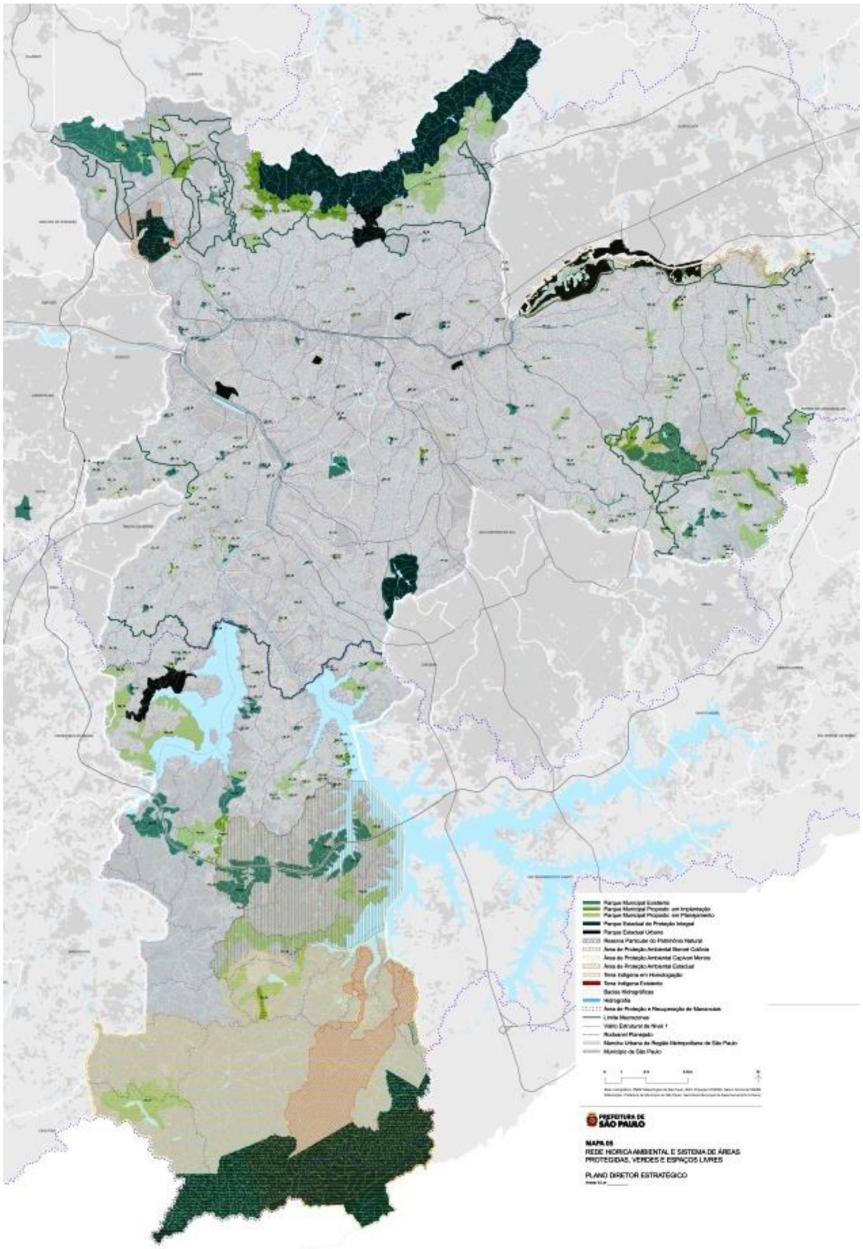

Figure 01: PDE Map 5, referring to the Environmental Water Network and SAPAVEL.
Source: PMSP, (2015, p. 174).

the Atlantic Forest and high permeability index with the springs and their consequent environmental services. To be able to classify an area in ZEPAM, four natural structures were considered: remnant of native forest; significant vegetation; high rate of permeability or existence of spring (PMSP, 2014).

The criteria for classifying the most important area that seeks to create public parks, therefore, would be based on environmental values, consisting of both green remnants and protection areas of water lines. These elements also indicate the technical criteria prioritized in the SVMA selection of green areas to compose the PDE. Since the public parks would be in places that presented

conditions of fragility of the natural elements, it becomes evident that there are restrictions to the occupation of permanent protection areas. Due to this legal apparatus, the creation of recreational uses becomes increasingly limited. ZEPAM itself already imposes several limitations to the project, such as the waterproofing limit of 10% of the entire land.

b) Basic parameters for the projection exercise

– Relate the programmatic uses of equipment and buildings based on both the necessary conditions for management established by the SVMA - administration, service entrance, management shed, sentries, toilets - as well as based on: survey of demands from neighborhood organizations and civil entities; holding public hearings with local government and/or representatives of social movements; and articulation with public agents in direct contact with the surrounding population.

– Determine which soil modifications are related to: applicant topography, earthmoving, containment, bank treatment, lake spillway, surface water drainage and building demolition; harnessing the physical potential of the area by performing the smallest possible earth movement and discarding the smallest amount of inert material.

– Create access points to the area consistent with the urban design and pedestrian circulation of the surrounding area, observing the external circulation axes, sidewalk conditions, pedestrian lanes, circulation and stops of public transport, bicycle paths, among others; In addition to the use of pre-existing paths for the formation of the circulation of the green area, preferably in closed circuits.

– Establish values ??to preserve and modify by implementing equipment for the leisure of the population that provides contemplation and social use, consistent with the condition of preserving the natural matrices and characteristics of the site and pre-existences.

– Indication of the treatment of the land by means of tree, shrub, herbaceous and forage vegetation, both in sections intended for tree enrichment or preservation of floodplains and riparian forests, as well as in landscape compositions, with the creation of shading and insolation areas, giving Preference is given to the native vegetation of the city of São Paulo (ORDINANCE 60/SVMA/2011 and ORDINANCE 61/SVMA/2011).

– Defining the form of public procurement of project and work detailing, in order to adjust the details of the intervention regarding the choice of materials and construction techniques, establishing implementation phases and also meeting the principles of maintenance and durability of structures, equipment and buildings.

c) Methodological guidelines for the project

– Verification of the classification of the site in the municipal, state and federal legislations, regarding the urbanistic regulations, environmental regulations, overturning organs and civil construction norms by the historical patrimony.

– Cartographic survey - especially the bases of the São Paulo Metropolitan Planning Company (EMPLASA) and GEOSAMPA - and surveys on the site situation - watershed, water bodies, relief, permanent preservation areas (APP) , existing massifs and significant vegetation. Depending on the size of the area and/or its relevance in the connection of environmental matrices, vegetation diagnosis reports from DEPAVE8 - Herbarium and DEPAVE 3 - FAUNA are also requested. To stipulate which interventions are essential for the space infrastructure, articulating the arrangements with the concessionaires and the appropriate public agencies: Containment, stream treatment - Secretariat of Urban Infrastructure (SIURB), São Paulo State Environmental Company (CETESB), Department Water and Electric Energy (DAEE); Sanitation and Supply (SABESP); Energy and Primary Cabins (Eletropaulo); and Public Lighting (ILUME).

4.3. A comparative analysis of evolution

The results of the investigation of historical/historiographic and projectual indicators are summarized in the following two tables (tables 04 and 05). The

Table 04: Summary of the Historical/Historiographic and Projectual Indicators of 1974.
Source: Casimiro; Lima (2018).

HISTORICAL / HISTORIOGRAPHIC

- Creation policy and green areas based on quantity. Emphasis on green area rate per inhabitant;
- The aim of the system was to form green areas with public power treatment and free appropriation;
- The quality of the green areas system was in providing spaces for the welfare, recreation and laxer of the population;
- Green areas can have a civilizing character, forming better people through environmental education;
- Valorization of the natural matrix of vegetation.

GREEN AREAS PRODUCTION INDICATORS FROM

1974

PROJECTUAL

- Priority given the production of squares;
- The intervention focuses on providing leisure;
- Smaller areas near densely populated regions with infrastructure were selected;
- The intention was to privilege underprivileged areas, as long as they were regular and had urban infrastructure;
- Maximum use is made of the existing site condition with minimal intervention (relief, buildings, woods);
- The focus of the project is to serve the user;
- The environmental preservation of the natural matrices had the focus of the vegetation. Priority to indigenous people.

Table 05: Summary of the Historical/Historiographic and Projectual Indicators of 1974.
Source: Casimiro; Lima (2018).

HISTORICAL / HISTORIOGRAPHIC

- Creation of green areas policy based on quantity. Emphasis on its environmental function within the urban fabric;
- In addition to vegetation, green areas have the function of solving problems linked to drainage, watercourses and headwaters;
- The park would have the function of protecting the environmental "resource", preventing the human occupation of fragile matrices;
- The park's function is to provide the balance between the green area and the built environment, producing leisure spaces;
- The parks are now divided by types of environmental protection: urban, linear and natural.

GREEN AREAS PRODUCTION INDICATORS FROM

2014

PROJECTUAL

- Priority given to the production of parks;
- The intervention focuses on the maintenance of matrices of environmental importance;
- The priority is the reserve of larger areas, with environmental function of mitigation the ills of the urbanization, especially in the periphery;
- The choice of areas are indicated by the Master Plan, which highlights the ZEPAM area, chosen from 04 environmental criteria;
- The value of green areas is in protecting vegetation, permeability, springs and water body margins;
- The condition of the existent site is maximized with minimal intervention (relief, constructions, woods);
- There is a special concern regarding the spaces to support the management and durability of the equipment;
- The parks are intended for leisure, but these are subordinated to the liberality of environmental legislation.

idea is to form a set of assumptions delimited by its historical period, gathering a chronological view of the main approaches to the provision of the green areas system in both 1974 and 2014. It is noteworthy that these data were gathered following the same order of characteristics. thus revealing to the reader what was changing with each period.

5. Final Considerations

This article sought to shed light on some aspects of the evolution of the approaches of the municipality of São Paulo in its plans for green areas system spaces. To this end, we first sought to analyze, based on historical criteria, documents published in 1974 and 2014; Secondly, these same documents were analyzed based on design criteria, based on the performance of architects who were active in the body that carried out the municipal projects -DEPAVE- at the time of the formation of each of these plans.

Some findings emerged from this approach, in particular the historical trend of: 1.) a reduction in the focus on leisure to focus on environmental protection; 2.) the diminishing importance of smaller areas, in denser areas of the population to the detriment of larger areas of environmental value; 3.) the selection of new public areas, which diminishes the emphasis on social criteria, giving more value to matrices more concerned with environmental sciences, mainly aiming at the conservation and restoration of green areas.

These approaches seem to suggest the deepening of the debates about the tensions between the questions and demands formulated based on the environmental sciences, *vis-à-vis* the social demands for green areas. The resulting propositions will contribute to the development of landscape projects that improve the articulation of human and social claims in articulation with the need for recovery and conservation of the natural environment.

References

BORDEN, Ian; RAY, Katerina Rüedi. *The Dissertation*: an architecture student's handbook. Oxford: Architectural Press, 2006.

BÜCHLER, Daniela; BIGGS, Michael. Oito critérios para a pesquisa acadêmica em áreas de prática projetual. *Pós*, São Paulo, v. 27, n. 27, p. 136-152, 2010. Available at: https://bit.ly/2lQIpiD. Accessed on: Oct 10, 2018. Doi: https://doi.org/10.11606/issn.2317-2762.v0i27p136-152.

CASIMIRO, Matheus de Vasconcelos. *A invenção e reinvenção do parque público paulistano*: um olhar sobre a produção municipal. 2018. 379 f. Dissertação (Mestrado em Arquitetura e Urbanismo) – Faculdade de Arquitetura e Urbanismo, Universidade Presbiteriana Mackenzie, São Paulo, 2018. Available at: https://bit.ly/2kAAB4v. Accessed on: Oct 10, 2018.

CAVALHEIRO, Felisberto; DEL PICCHIA, Paulo Celso Dornelles. Áreas Verdes: conceitos, objetivos, diretrizes para planejamento. *In*: CONGRESSO BRASILEIRO SOBRE ARBORIZAÇÃO URBANA, 1., 1992, Vitória. *Anais* […]. Vitória: SBAU, 1992. p. 29-38.

KLIASS, Rosa Grena; MAGNOLI, Miranda Martinelli. Áreas verdes de recreação. *Paisagem e Ambiente*, São Paulo, n. 21, p. 245-256, 2006. Available at: https://bit.ly/2lPGRW6. Accessed on: Oct 10, 2018. Doi: https://doi.org/10.11606/issn.2359-5361.v0i21p245-256.

LAWSON, Bryan. *Como arquitetos e designers pensam*. São Paulo: Oficina de Textos, 2011.

LIMA, Ana Gabriela Godinho (org.). *Pesquisa acadêmica em áreas de prática projetual*: arquitetura e urbanismo. São Paulo: MackPesquisa, 2011. Relatório final do projeto de pesquisa da Universidade Presbiteriana Mackenzie.

LIMA, Ana Gabriela Godinho; VIEIRA, Julio Luiz. O redesenho como instrumento de conhecimento em arquitetura. *Revista Thésis*, Rio de Janeiro, v. 2, n. 3, p. 34-53, jan./out. 2017. Available at: https://bit.ly/2kjRKiE. Accessed on: Oct 10, 2018.

LIMA, Ana Gabriela Godinho; ZEIN, Ruth Verde. Proyecto y métodos proyectuales en la investigación académica: algunos indicadores útiles. *In*: JORNADAS INTERNACIONALES SOBRE INVESTIGACIÓN EN ARQUITECTURA Y URBANISMO, 4., 2011, València. *Anais* […]. València: Universitat Politècnica de València, 2011. Available at: https://bit.ly/2kexFdq. Accessed on: Aug 27, 2019.

SÃO PAULO (Município). *Lei Municipal nº 7.688, de 30 de dezembro de 1971*. Dispõe sobre instituição do Plano Diretor de Desenvolvimento Integrado do Município de São Paulo - PDDI-SP, e dá outras providências. São Paulo: Câmara Municipal de São Paulo, 1971. Available at: https://bit.ly/2keyzXm. Accessed on: Oct 10, 2018.

SÃO PAULO (Município). *A Política do Verde para a cidade de São Paulo*. São Paulo: Secretaria de Educação e Cultura; Secretaria de Serviços Municipais, 1974.

SÃO PAULO (Município). Gabinete do Secretário do Verde e Meio Ambiente. Portaria 60/SVMA/2011. *Diário Oficial do Município de São Paulo*, São Paulo, n. 56, p. 30-48, 28 maio 2011.

SÃO PAULO (Município). *Lei Municipal nº 16.050, de 31 de julho de 2014*. Plano Diretor Estratégico do Município de São Paulo: texto da lei ilustrado. São Paulo: Prefeitura de São Paulo, 2014. Available at: https://bit.ly/2Yh7Pn8. Accessed on: Oct 10, 2018.

SCRIVENER, Steven. Reflection in and on practice in creative-production doctoral projects in art and design. *Working Papers in Art and Design*, Hatfield, v. 1, 2000. Available at: https://bit.ly/2mhPcCj. Accessed on: Aug 27, 2019.

VIEIRA, Maria Elena Merege. *Arquitetura da praça*: espaço, arte, lugar. 1995. 254 f. Dissertação (Mestrado em Arquitetura e Urbanismo) – Faculdade de Arquitetura e Urbanismo, Universidade Presbiteriana Mackenzie, São Paulo, 1995.

WAISMAN, Marina. *El Interior de la Historia*: historiografia para uso de latinoamericanos. Bogotá: Escala, 1990.

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