



**The Park and the city: analysis of the Ecological Park “Valdemar Salmeirão”,  
in the city of Birigui/SP**

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## SUMMARY

Most Brazilian cities have developed disorderly and in little harmony with the natural landscape, especially in the valley bottoms. It is understood that harmonious integration with the environment is the way to the permanence of cities and the well-being of their inhabitants, besides being a way to solve the problems that affect the urban environment. Thus, strategies have been formed in favor of quality urban expansion. The creation of linear parks in valley bottoms (aiming at the integration between people, vegetation, and waterways) is a good intervention that culminates in quality spaces and quality of life in society. However, if these spaces are not used and are not properly maintained, they will not achieve their purpose and tend to be abandoned. This article aims to highlight the relationship between river and city, analyzing the issue of interventions in valley bottoms, having as a case study the Ecological Park "Valdemar Salmeirão" in Birigui-SP, verifying its state and its current appropriation, based on bibliographic, cartographic and photographic surveys that support and illustrate the area in question.

**KEYWORDS:** Linear Park. Valley Bottom. Urban Voids.

## INTRODUCTION

Cities are products of human actions and the ways of living in society. There is a range of combinations between these attitudes and the environment to which they are applied that give rise to the diverse landscapes that exist and that may come to exist. There is also a growing underutilization of spaces that have generated urban voids and devaluation of urban areas, along with problems of mobility and social welfare. Voids often arise from gentrification, activity shifting, and real estate speculation. The consequences are the delineation of inequalities, segregation, and lack of identification between people and the city. Added to this is the lack of security in these areas and the presence of irregular dwellings and occupations. In short, any planning that does not suit the environment and the people who live in it is not effective.

Since the emergence of the first civilizations, many cities have ceased to exist, while others have developed and persisted. Urban life stems from the end of the feudal system. In Europe, feudal society led an essentially rural life, basing its economy on natural production for subsistence. With the surplus production, little by little, a demand for commercialization was generated. This process intensified as more cities appeared, and many cities were conceived by the transportation of goods. The European colonization of Latin America in the 15th century subsequently culminated in the replication of the colonizer's urban way of life in the colony (CASTRO, 2018).

The first Brazilian cities were established on the coasts of the Northeast, South, and Southeast. The navigability of the rivers enabled the advance to the inland. The discovery of gold and precious stones (leading to the settlement of miners and establishing cities) progressed to the cattle trade and corroborated with the deforestation for planting, whose product would be disposed of by railroads (MARX, 1980).

Urbanization, in most cases, is a process that lacks planning and is driven by real estate speculation and financial interests of those who have greater concentration of income (SILVA, 2020). It catalyzes the results of environmental impacts and alters the terrestrial geography, since humans, despite being part of the ecosystem, act as if they were foreign to it, as they try to override the environment that surrounds them and extract its resources in a domineering

way (DREW, 2005). These factors can lead to the consolidation of poorly designed cities and carriers of serious problems in the functioning of their systems, added to disagreements about the geographical environment in which they are installed.

The issues that direct the studies of cities are based on the urban interpretation of society, especially the Latin American one, resulting from the absence of the welfare state (characteristic of peripheral countries) and that generally present a low level of reproduction of the labor force and precarious living conditions of the workers (CASTRO, 2018). There is a high concentration of income and significant social differences. Thus, cities present precarious places where low-income people live, in contrast to others with good infrastructure, occupied by a privileged group.

When considering that the landscape "designates a part of the territory, as perceived by the population and whose character results from the action of natural and/or human factors and their interrelationships" (COUNCIL OF EUROPE, 2000), and that every landscape is cultural, "not essentially because it is seen by a culture", but "because it has been produced within a set of practices (economic, political, social), and according to values that, in a way, it symbolizes" (BESSE, 2014, p.30). However, there is greater interest in studying the way of life in cities, because this presents the largest contingent of activities performed (CORRÊA, 1989). Therefore, it is essential to observe and analyze the quality of experiences and urban development, since it happens directed by the demands and interpretations of space, erroneous or not. When mistaken and in dissonance with the environment, they generate urban and environmental problems, such as mobility difficulties, spaces with unique functions, diseases, floods, and urban voids.

One of the main contributors to the underutilization of urbanized areas is the real estate market. It is a producer of urban space together with the State, manipulating the valuation of certain areas and the devaluation of others, and greatly influencing the lives of citizens and their activities (FARRET, 1985).

It is in areas rejected by the private real estate market and in public areas located in devalued regions that the poor working population will settle: on the banks of streams, on hillsides, on land subject to floods or other types of risks, in polluted regions, or... in environmental protection areas (where the existence of protective legislation and the absence of inspection define devaluation).  
(MARICATO, 1996, p.58).

This orientation in the form of production of the urban environment ("mercantilization" of the same), according to Serpa (2007), serves exclusively economic interests and gradually stimulates the privatization of public space, where they encourage consumption and restrict its use only to those who can pay for it. Sennett (1998) calls "the death of public space" the fact that they are "emptied" by encouraging the habit of seeking increasingly individual spaces instead of seeking common spaces, suppressing the exchange of ideas and the

possibility of changes in the reality experienced, beneficial to the development of both man and the environment. The act of staying is gradually being transferred to private spaces.

The part of the population most affected by the absence of public spaces is the poorest, whose resources are incompatible with access to equipment and community and private spaces (OLIVEIRA; MASCARÓ, 2007). Rolnik (1998) notes that public spaces for community use are being reduced to mere circulation spaces. Tardin (2010) observes that when analyzing the planning of cities, one can conclude that its conception was based on occupation and not on utilization, standardizing the landscape and devaluing the importance of free spaces. The author states that these spaces need protection, control, demarcation, and management, interacting with the infrastructure of the urban landscape and serving the common good.

Despite this, the potential of public open spaces in the urban landscape is enormous, and there are new trends in the production of these spaces aiming at better use and recognition, attributing new identities and requalification of the city. The linear parks implemented in valley bottoms are presented as relevant to the production of urban space, as well as green corridors and other strategies with the intention of adapting the city to more ecological and natural forms (BRANDÃO, 2011). They also contribute to the revaluation of the waterways that served the main need of every city: water. Its importance was forgotten because of the development of new technologies regarding fundraising and the eagerness to take advantage of every available space for new construction.

In many cities the Areas of Permanent Preservation - APPs - were used for public places, housing, commerce, and waste disposal, and, if not, they were concreted over, channeling and rectifying the rivers. Today, with the understanding that the paths taken until then (dominance of man over the environment) were harmful, the river-city relationship explained by Coy (2013) has stood out as a guideline for the expansion and intervention of the city.

Approximating rivers, which have been fundamental for the formation of human communities, and people promotes multiple benefits and gives rise to spaces rich in possibilities. Balanced coexistence is what defines the success of this relationship between river and city.

Costa (2006) states that recognizing the river as a landscape is, therefore, inhabiting it. Urban rivers increase the fluidity of the city landscape (CONSTANTINO, 2014). However, for this integration to occur, new measures need to be discussed and applied. Along the same line, the current situation of urban streams and their banks almost always presents itself as a "void between places" (HOUGH, 1995), so it is important to look at the landscape, check how it is, and then "design with the landscape" (BESSE, 2018).

In the mid-1990s, the idea of creating linear parks along urban rivers is introduced in the formulation of new master plans from the 1988 Federal Constitution, which led to the creation of linear parks and the reservation of land for water conservation and riparian vegetation in many urban centers (MACEDO, 2012). The same author comments that the conservation of urban water resources necessarily goes through the daily appropriation of the resource and its landscape qualification, and only after the twenty-first century, some actions

that actually sought a coexistence of citizens were configured, encouraging its social use at the same time of water conservation and riparian forest.

Linear parks seek to adapt the natural environment to a manageable urban context, adding several functionalities to promote its maintenance. Thus, delimiting the linear parks in urban areas requires several planning criteria for decision-making, according to their respective priorities. These are conditioned both by objective factors and by current legislation (RODRIGUES et al., 2014).

In this sense, the present paper aims to analyze the valley bottoms seen as a void between places in the urban landscape, having as a case study the Ecological Park "Valdemar Salmeirão", in the city of Birigui-SP. This is a recent intervention, but it has already had an impact on the lives of those who live or pass through the region.

To understand and analyze the dynamics of the landscape we used as methodological procedures the bibliographic research, choosing as key reading urban voids, valley bottoms and linear parks. The documentary research comprised the consultation of relevant legislation, maps, plans and projects, as well as newspaper archives. For the case study of the "Valdemar Salmeirão" Ecological Park, through which the Biriguizinho stream flows, field research was fundamental to identify the spatial and environmental structures, enabling the observation of use and behavior, in addition to the activities performed by the users. The photographic survey complemented the reading of the landscape.

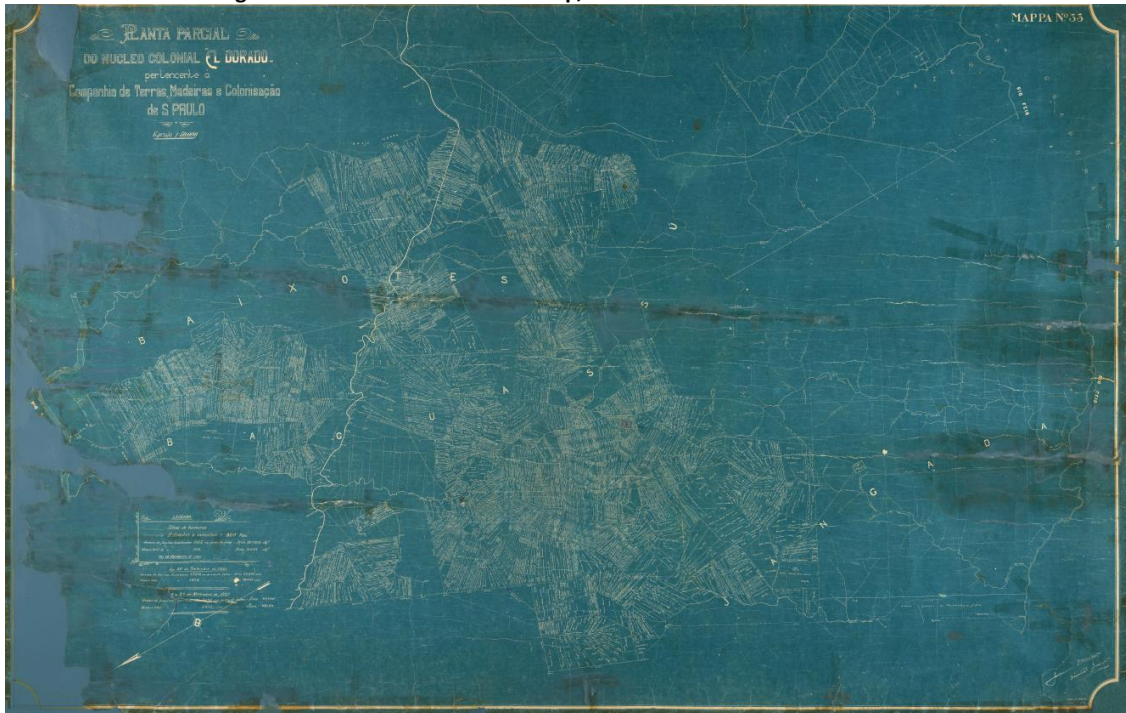
## **THE CITY AND THE STREAM BIRIGUIZINHO**

When analyzing the landscape as a social representation and culture and as a territory produced by societies in their history (BESSE, 2014), it is observed that the Biriguizinho stream has always been linked to the history of Birigui. Birigui is part of a network of cities established in the first half of the 20th century in the state of São Paulo.

The first land development company to operate in the Northwest region was The San Paulo Land, Lumber & Colonization Company, which parcelled out vacant land and sold it in lots. Its target audience was made up of immigrants, especially those who had arrived in Brazil a few years ago and had managed to gather some capital (CONSTANTINO, 2010). This company was responsible for the marketing of a large territory located in the region that encompassed three large properties: the Baixotes, Baguassú and Jangada farms. The locations of these properties later gave rise to some of the region's current municipalities, such as Birigui. Figure 1 shows the importance of the rivers in the subdivision of the lots.



Figure 1: Detail of the historical map, with the names of the main rivers



Source: <http://robertoclarkmeuavo.com.br/capas.html> , 2003, with intervention from the authors, 2022

At the time of Birigui's city foundation, the tracks of the Noroeste do Brasil Railroad Company - CEFNOB were established near the Biriguizinho stream. In 1914 the town had its street plan drawn up by engineer Theodoro Augusto Graser and "the layout was based on the limits of the railroad esplanade, not its tracks" (GHIRARDELLO, 2002, p.211). In 1917, the first railway station was built in Birigui, in masonry, on the banks of the stream.

With industrialization the riparian vegetation was eradicated, the watercourse was canalized and the spring was closed off. Today, because of the poorly planned growth, it is burdened with the demand to drain practically all the city's rainwater, which generates floods, damage to property, restriction of circulation, and predisposition to disease. The conflicts between river processes and urbanization processes have generally been addressed through drastic changes in the environmental structure of the river.

Figure 2 - Image generated in QGIS with detail of the stream in evidence



Source: The authors, 2022

Figure 2 shows the Biriguizinho stream and its relationship with the city. The residual spaces alongside the riverbanks are suitable areas to aggregate identity, functions, and possible transformations. According to Costa (2006), connectivity is also an important physical attribute and consists of the connections between waters, and between waters and other urban components, in all scales. For the author, visible and with public access, the waters expand their social and cultural role, gain collective use and reinforce society's relationship of identity with the natural asset. After years of neglect, in a stretch where the banks had not been paved, the proposal to create a linear park arose. The justification was to preserve this stretch of the stream, preventing the area from being used as a pasture and garbage disposal.

### THE VALDEMAR SALMEIRÃO ECOLOGICAL PARK

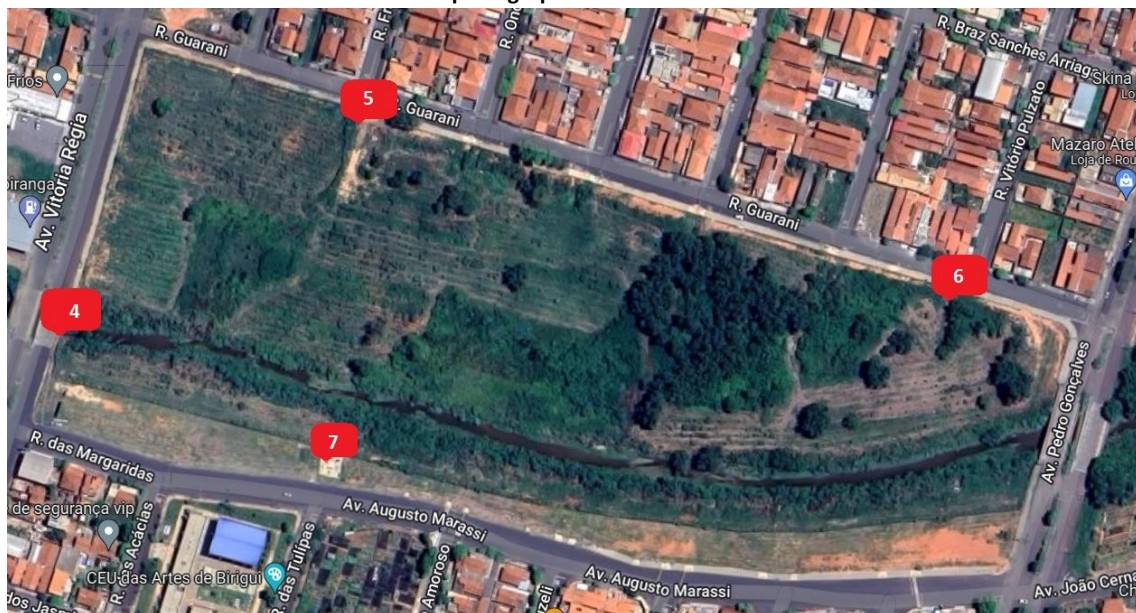
The spaces have characteristics that, combined, make it possible to identify spheres such as functional, bioclimatic, economic, social, topoceptive, affective, symbolic, and aesthetic (HOLANDA, 2007). And it is precisely this plurality of faces that enriches, guarantees the use and motivates the appropriation of spaces by all.



The Biriguzinho stream has been devalued and associated with floods and pollution. This is mainly due to the occupation without respect to the Areas of Permanent Preservation - APPs, and to the canalization of the stream.

The creation of a linear park was a 2018 project that was implemented in parts. This is a previously degraded area that had only in its favor the absence of roads or constructions that would strangle the Biriguzinho valley bottom. As its surroundings comprised a residential neighborhood with no recreational spaces, a park project was approved that would unite care, maintenance and popular use. The intention was to prevent harmful factors from compromising the watercourse, but without driving people away, attracting them to contemplate the stream and enjoy its margins equipped for this purpose. At least this was the initial proposal. However, in the "Valdemar Salmeirão" Ecological Park it can be observed that there is still resistance to the care that a park demands. Figure 3 indicates the place where the photos that show the problems found were taken.

Figure 3 - Aerial image of "Valdemar Salmeirão" Ecological Park with indication of the places where the photographs were taken



Source: <https://www.google.com.br/maps/@-21.2918424,-50.3192347,403m/data=!3m1!1e3?hl=en-BR>, with intervention by the authors, 2022

In some stretches, it is possible to find garbage (Figure 4). This waste can either be from irregular disposal or may have been brought from other areas of the city by rain. Regardless of who is responsible, the correct attitude on behalf of the public authorities would be to pay attention to the area, since the Park's purpose was precisely the preservation of the water course. In addition, it would be essential to stimulate environmental education programs that would make the population aware of the necessary care, also encouraging the use of the park.



Figure 4 - Garbage accumulated along the course of the Biriguizinho stream inside the Ecological Park



Source: The authors, 2022

In another stretch (Figure 5) burn marks are noticeable. Unfortunately, it is a habit of many people to get rid of garbage and vegetation residues (such as tree leaves) by setting fires. We can see that the fire went beyond the fence and ended up causing damage in the area that should be protected. The fence of the park is without a base and overhanging. It is possible to see an erosion mark from a rainwater pipe, since the culverts are disproportionate to the pipes, and they do not extend to the stream's margin. The flow and concentration of water end up dragging the earth as it makes its way to its destination. In this case, it is up to the public administration to execute works appropriate to the norms and the place where the intervention is to be made. In addition, when an error or inefficiency of a certain measure is detected, it must be repaired so that no further damage is done. Other green infrastructure strategies could be more effective and sustainable, such as rain gardens or biovalets.



Figure 5 - Scorch marks and erosion mark



Source: The authors, 2022

An aggravating factor is that the protection fence (which was installed with the purpose of protecting the stream bed from animals grazing nearby and also to prevent garbage disposal) was unfinished in some parts and was later complemented by padlocked fences. The sidewalk, which is deteriorated along the way, was not completed. It can be observed that, due to a lack of maintenance, some stretches are overgrown with vegetation (Figure 6). We have verified a popular initiative regarding the maintenance of the area, such as the installation of wooden benches, cleaning of the vegetation, and posting of notices when someone notices that some structure in the park is offering a risk. In this sense, within their possibilities and understanding of the necessities, there is a sense of ownership by the residents.



Figure 6 - Wire fencing and padlock, along the deteriorated sidewalk



Source: The authors, 2022

In the area destined for various sports and leisure activities, there was appropriation by the population. But with use, some equipment deteriorated and was not repaired. Gradually, this part of the park became under-utilized. The number of people has decreased and some of the project's proposals, such as the basketball court, were not implemented. The gym equipment is preserved, which does not occur with the children's toys, which include, in their vicinity, elements that offer risk, such as a piece of iron observed in Figure 7. Another situation that goes against the intention of the designed space is the use for grazing horses.

Figure 7 - Toys for children



Source: The authors, 2022

## CONCLUSIONS

The current way of life does not seem to be compatible with environmental preservation, and some measures, such as the implementation of linear parks in valley bottoms, help to make our cities more sustainable. However, when designing a place one must take into account the existing landscape and encourage its proper use, preserving natural resources and providing proper maintenance and public safety.

Without proper maintenance and the veiled permission to dump domestic and industrial waste, it was observed that the "Valdemar Salmeirão" Ecological Park has not been used by the population, despite the program of needs that includes leisure equipment and sports courts. To determine the causes of the neglect of the public space, new questions must be raised before a participative project involving the community and the municipal administration can be elaborated. In this sense, these interventions can promote a sense of belonging on part of the population, provoking a desire to protect and use that space.

New agendas raised by the United Nations Agenda 2030 (UN, 2015) point out that sustainability is not only about environmental and ecological factors but also about linking them to human issues, taking into account social, economic, spatial, and cultural factors. In relation



to the Sustainable Development Goals - SDGs, it is essential to "make cities and human settlements inclusive, safe, resilient and sustainable" (SDG 11) and "ensure the availability and sustainable management of water and sanitation for all" (SDG 6), aiming to protect and restore water-related ecosystems, including rivers, aquifers and lakes. In this sense, it is essential to foster the articulation between urban and environmental policies in our cities, aiming at the appropriation and maintenance of public open spaces, such as linear parks.

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