

**Public schools as potential agents of urban and landscape  
redevelopment: open space systems in schools as elements of  
connection and preservation.**

**Franklin Roberto Ferreira de Paula**

Doutor, USJT, Brasil

pesquisadorfranklinferreira@gmail.com

ORCID 0000-0002-5298-8044

**Maria Isabel Imbrunito**

Professora Doutora, PPGAU-UPM, Brasil

imbrunito@gmail.com

ORCID iD 0000-0001-7394-3809

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**A escola pública como um potencial agente de requalificação urbana e paisagística: os sistemas de espaços livres nas escolas como elementos de conexão e preservação.****RESUMO**

**Objetivo** – Este artigo tem como objetivo analisar como os sistemas de espaços livres em escolas públicas podem funcionar como elementos de conexão e preservação da paisagem, além de atuarem como agentes de requalificação urbana e paisagística, especialmente em áreas periféricas.

**Metodologia** – A pesquisa adota uma abordagem qualitativa combinada com estudo de caso, utilizando observação direta, entrevistas com a comunidade escolar e análise espacial dos espaços livres (considerados como bordas). Complementarmente, aplicaram-se os instrumentos metodológicos Bonde a Pé e Painel dos Desejos, visando uma análise participativa e interdisciplinar que integra arquitetura, educação e sustentabilidade.

**Originalidade/Relevância** – O estudo explora o potencial transformador das escolas na relação entre urbanidade, educação e paisagem, preenchendo uma lacuna teórica ao abordar os sistemas de espaços livres como parte essencial do território educativo e da paisagem urbana.

**Resultados** – Os resultados demonstram que os espaços livres escolares (como pátios e áreas adjacentes) podem fortalecer vínculos sociais, promover a preservação ambiental e revitalizar territórios degradados quando integrados a atividades comunitárias. O estudo de caso da EEEI Sd. PM Eder Bernardes dos Santos ilustra como as ações participativas impulsão a requalificação urbana e a integração escola-comunidade.

**Contribuições teóricas/metodológicas** – O trabalho amplia o conceito de território educativo ao incorporar os espaços livres como componentes da paisagem urbana, reforçando a importância de métodos qualitativos e participativos na análise de escolas como elementos urbanos dinâmicos.

**Contribuições sociais e ambientais** – Destaca-se o papel das escolas na promoção de inclusão social, conservação ambiental e valorização da paisagem local, reforçando sua capacidade como agentes de transformação em áreas marginalizadas. A parceria com universidades e ONGs evidenciou a eficácia de ações coletivas na conscientização ambiental e na requalificação territorial.

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**PALAVRAS-CHAVE:** Sistema de Espaços Livres. Qualidade de Vida. Escola Pública.

**Public schools as potential agents of urban and landscape redevelopment: open space systems in schools as elements of connection and preservation.****ABSTRACT**

**Objective** – This article aims to analyze how open space systems in public schools can function as elements of connection and preservation of the landscape, in addition to acting as agents of urban and landscape redevelopment, especially in peripheral areas.

**Methodology** – The research adopts a qualitative approach combined with a case study, using direct observation, interviews with the school community, and spatial analysis of open spaces (considered as edges). In addition, the methodological instruments Bonde a Pé and Painel dos Desejos were applied, aiming at a participatory and interdisciplinary analysis that integrates architecture, education, and sustainability.

**Originality/Relevance** – The study explores the transformative potential of schools in the relationship between urbanity, education, and landscape, filling a theoretical gap by addressing open space systems as an essential part of the educational territory and urban landscape.

**Results** – The results demonstrate that school open spaces (such as playgrounds and adjacent areas) can strengthen social bonds, promote environmental preservation, and revitalize degraded territories when integrated into community activities. The case study of EEEI Sd. PM Eder Bernardes dos Santos illustrates how participatory actions drive urban regeneration and school-community integration.

**Theoretical/methodological contributions** – The work expands the concept of educational territory by incorporating open spaces as components of the urban landscape, reinforcing the importance of qualitative and participatory methods in the analysis of schools as dynamic urban elements.

**Social and environmental contributions** – The role of schools in promoting social inclusion, environmental conservation, and appreciation of the local landscape is highlighted, reinforcing their capacity as agents of

transformation in marginalized areas. Partnerships with universities and NGOs have demonstrated the effectiveness of collective actions in raising environmental awareness and territorial redevelopment.

**KEYWORDS:** Open Space System. Quality of Life. Public School.

## **La escuela pública como agente potencial de recalificación urbana y paisajística: los sistemas de espacios libres en las escuelas como elementos de conexión y preservación.**

### **RESUMEN**

**Objetivo** – El presente artículo tiene como objetivo analizar cómo los sistemas de espacios abiertos en las escuelas públicas pueden funcionar como elementos de conexión y preservación del paisaje, además de actuar como agentes de reurbanización urbana y paisajística, especialmente en las zonas periféricas.

**Metodología** – La investigación adopta un enfoque cualitativo combinado con un estudio de caso, utilizando la observación directa, entrevistas con la comunidad escolar y el análisis espacial de los espacios abiertos (considerados como bordes). Además, se aplicaron los instrumentos metodológicos Bonde a Pé y Painel dos Desejos, con el objetivo de realizar un análisis participativo e interdisciplinario que integre la arquitectura, la educación y la sostenibilidad.

**Originalidad/Relevancia** – El estudio explora el potencial transformador de las escuelas en la relación entre urbanidad, educación y paisaje, llenando un vacío teórico al abordar los sistemas de espacios abiertos como parte esencial del territorio educativo y el paisaje urbano.

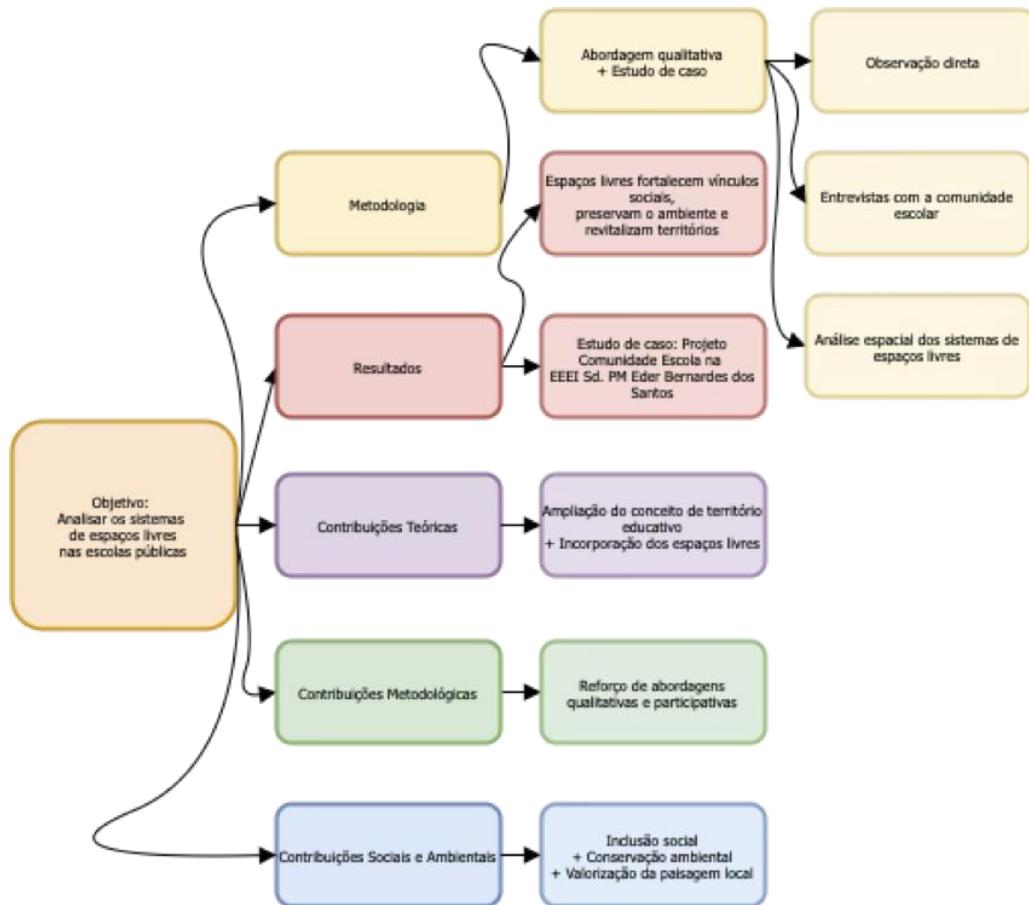
**Resultados** – Los resultados demuestran que los espacios abiertos escolares (como los patios y las zonas adyacentes) pueden fortalecer los vínculos sociales, promover la preservación del medio ambiente y revitalizar los territorios degradados cuando se integran en las actividades de la comunidad. El estudio de caso de la EEEI Sd. PM Eder Bernardes dos Santos ilustra cómo las acciones participativas impulsan la regeneración urbana y la integración entre la escuela y la comunidad.

**Contribuciones Teóricas/Metodológicas** – El trabajo amplía el concepto de territorio educativo al incorporar los espacios abiertos como componentes del paisaje urbano, reforzando la importancia de los métodos cualitativos y participativos en el análisis de las escuelas como elementos urbanos dinámicos.

**Contribuciones Sociales y Ambientales** – Se destaca el papel de las escuelas en la promoción de la inclusión social, la conservación del medio ambiente y la apreciación del paisaje local, reforzando su capacidad como agentes de transformación en zonas marginadas. Las asociaciones con universidades y ONG han demostrado la eficacia de las acciones colectivas para aumentar la conciencia medioambiental y la reurbanización territorial.

**PALABRAS CLAVE:** Sistema de Espacios Libres. Calidad de vida. Escuela pública.

## RESUMO GRÁFICO



## 1 INTRODUÇÃO

This article is based on doctoral research conducted over the last four years (2020-2024) in the Graduate Program in Architecture and Urbanism at São Judas Tadeu University in São Paulo. The research focused on understanding the role of public schools, especially those located in peripheral regions, in urban regeneration and landscape preservation, based on the assumption that the areas adjacent to school buildings are seen as structural parts of a system of open spaces capable of promoting connections between the school and the community. This article seeks to present some of the findings of this investigation, with an emphasis on the potential of these schools' open space systems as structural elements of connection, social inclusion, and environmental enhancement. These spaces, which include courtyards (Photo 1), sports courts, and land adjacent to the school building, are analyzed as boundaries capable of integrating the school into the community and promoting significant territorial transformations.

Photo 1 – The courtyard (shed) being used by teenagers, children, and family members living in the region during a social action on Saturday.



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Source: Author's collection (September 24, 2022)

School architecture in peripheral areas, often designed to meet basic educational demands, has been characterized by configurations that reinforce the isolation between the school and its surroundings. High walls, controlled access, and little visual or functional integration with the territory are recurring elements in these projects. However, contemporary approaches in the fields of architecture, urban planning, and education have advocated for a reconfiguration of these spaces, proposing that schools can become hubs for community connection and participation. Architect and researcher Ulrike Altenmüller-Lewis believes that "the creation of better school facilities can be a decisive factor for a healthy community" (Altenmüller-Lewis, 2012).

In this context, open space systems gain relevance because, in addition to their educational function, they can act as catalysts for urbanity and sustainability. The playground, as well as the sports court, play fundamental roles in enabling the establishment of bridges, the creation and consolidation of bonds, ties of affection, and belonging. Architect and researcher Ana Beatriz Goulart de Faria broadens the understanding "of the function and space that the school playground plays in Brazilian public schools today, and the quality of its relationship with

other school and urban spaces" (In: Azevedo, Rheingantz, and Tângari, 2017, p. 39) by recognizing it as an element capable of establishing this intermediary between the school and the city.

The school playground, part of the system of open spaces, plays a fundamental role in school dynamics, promoting social interactions, leisure time, games, and sports, in addition to stimulating students<sup>1</sup> motor and sensory development (Photos 2 and 3). This space also provides an environment conducive to learning and can be used for educational activities that go beyond the traditional classroom. When it has vegetated areas, it contributes significantly to the environmental quality of the school, favoring the microclimate, biodiversity, and students' relationship with nature.

In addition, the playground can be understood as the main social space of the school, since it is where both spontaneous interactions between students, which strengthen community ties, and events organized by the school administration take place. Science fairs, theatrical performances, cultural exhibitions, and other planned activities transform this environment into a meeting place that integrates the school and the community, promoting a more participatory and collaborative relationship between students, teachers, families, and local residents.

Photo 2 – While still open during the inaugural years of the new building, the courtyard (shed) was the stage for activities such as children's fashion shows open to the community.



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Source: Collection of EEEI Sd. PM Eder Bernardes dos Santos (no date).

<sup>1</sup> In a study entitled "Open spaces in schools: their pedagogical, social, and environmental functions," Lais Regina Flores lists five roles that open spaces play in schools, from the development of communication, motor, and sensory skills to outdoor classes, with a view to bringing the environment closer to environmental education. See Gonçalves and Flores. In: Azevedo; Rheingantz; Tângari, 2017, p. 30.

Photo 3 – The open courtyard, a meeting place for teenagers who gather “under the sun” on a cold autumn morning while others enjoy themselves on the large chessboard.



Source: Author's collection (May 29, 2024).

The Sd. PM Eder Bernardes dos Santos State School, located in the Encosta Norte Housing Complex, in the eastern part of the municipality of São Paulo, was chosen as a case study for this investigation due to its history of integration with the community and initiatives aimed at territorial requalification. The Encosta Norte complex, characterized by its intense occupation and lack of infrastructure, offers an ideal setting for analyzing the role of schools in the transformation of vulnerable territories.

Built in the mid-1990s, the school has undergone significant transformations, both in its physical structure and in its pedagogical and social approach, standing out as an example of the articulation between education, urbanism, and sustainability. The demolition of the old, small building, called “barracão” by residents, and the construction of the current building designed by architect Décio Tozzi coincided with the formation of the Jagatá favela, which borders the Tijuco Preto stream, both located in front of the school grounds (Photo 4).

Photo 4 – Worker at the construction site for the new building; in the background, the Jagatá slum expanding rapidly in front of the old shed, in the middle ground.



Source: Collection of EEEI Sd. PM Eder Bernardes dos Santos (no date).

The school's proximity to the Jagatá slum led the institution to take on a central role in promoting improved living conditions for residents. The school not only serves the children of these families, but has also become an important agent of local transformation, coordinating actions that directly benefit the community. A striking example of this commitment was the mobilization of school management together with public authorities to ensure accessibility and water supply to homes that did not yet have access to the piped water network. The school's role in this process involved meetings with representatives of the water supply company, conducting a survey of the affected homes, and mediating between residents and the responsible agencies<sup>2</sup>.

Another relevant initiative was the school's coordination with the local sub-prefecture to eliminate an illegal garbage dump on the corner of the street leading to the school and the slum. The constant accumulation of waste at the site compromised public health and the environmental quality of the region. Through the school's intervention, it was possible to raise awareness among both public authorities and residents about the importance of proper waste disposal. As a result, in addition to the removal of waste and the installation of educational signs, a garden was planted on the sidewalk of the Special Reception Center, a building located on the same block as the school, facing the slum. This action not only contributed to the landscape requalification of the surrounding area, but also helped to consolidate a new understanding of urban space and its conservation among residents.

<sup>2</sup> According to information obtained in an interview with school management, the initiative was halted during negotiations between residents and public authorities, as one of the stages of the works involved the partial expropriation of some homes to improve accessibility, which would have impacted the dynamics of groups that exert influence in the favela and the surrounding area.

In addition to these external actions, the school has strengthened its relationship with the community through cultural, sports, and educational activities. Two initiatives are worth highlighting: the Community School Project and the Family School Program, the latter being one of the few schools in the region that has maintained the program in its weekend schedule. While the Family School Program, implemented by the São Paulo State Department of Education in the early 2000s, provided for the opening of state schools on weekends for socio-educational activities conducted by volunteers and university scholarship students, the School Community Project—created in 2022 by the school administration in partnership with a group of volunteers—takes a more targeted approach to local demands. This project was created to fill the gap left by the discontinuation of the state program, caused by budget cuts and a lack of staff to monitor activities. Unlike the state program, which had a broader scope and standardized structure, the School Community Project is an autonomous initiative of the school administration, aimed at strengthening the links between the school and the surrounding residents through cultural, sports, and environmental activities aligned with the specific needs of the community.

The School Community Project has been fundamental in increasing the population's participation in the school space and consolidating the school as a social reference point. A striking example occurred in December 2024, when one of the school walls—facing the sports court—was graffitied with a message emphasizing the institution's environmental concern and its relationship with the surrounding area, reinforcing the school's dual commitment: to environmental preservation and community belonging. In this way, the Eder Bernardes school has established itself not only as a place of learning, but also as an active agent in urban renewal and improving the living conditions of the residents of the Jagatá favela. Its initiatives demonstrate how schools can play an essential role in transforming the territory, promoting not only formal education, but also citizenship and sustainable development.

Another set of activities analyzed in this article involves external partnerships, such as the collaboration between the school and São Judas Tadeu University. In one of these initiatives, actions such as planting native trees on school grounds were carried out, expanding an existing environmental project and contributing to the revitalization of outdoor areas. Another significant activity was the Bonde a Pé (Walking Tram), promoted in partnership with the NGO Instituto Corrida Amiga. This action involved students and community members in walks that explored the territory, promoting awareness of active mobility, appreciation of the urban environment, and the creation of a sense of territorial belonging.

The research also showed that open space systems, when planned and used strategically, have a direct impact on urban regeneration. In the case of the Eder Bernardes school, the courtyards, sports court, and adjacent sidewalks are presented as boundaries that facilitate dialogue between the school and its surroundings. These edges function not only as transitional spaces, but also as places for social interaction and articulation. Through these edges, the school ceases to be an isolated space and becomes integrated into the urban fabric, promoting inclusion and community participation. The concept of edge, derived from the idea of porosity, suggests the feasibility of encounters between different social groups and initiatives that contribute to overcoming barriers. In the school context, both the spaces mentioned and the organization of the building, combined with the activities and actions promoted by the

school community that somehow impact the neighborhood, can influence the level of porosity that the school presents in relation to its surroundings.

Stavros Stavrides suggests that porosity is linked to a process directly related to interventions carried out in a given space. As the author points out, “porosity can be approached as a potential characteristic of both the spatial arrangements and the spatial practices that constitute the experience of inhabiting shared spaces” (In: Wolfrum, 2018, p. 32). In this sense, it is essential to reaffirm the role of urban or architectural space as a basis where interactions, shared experiences, and actions can develop. The edge, in turn, fulfills the function of mediating these interactions and enabling coexistence between different groups or cultures, allowing the aforementioned spatial arrangements and practices to “pierce barriers and create osmotic spatial relationships” (In: Wolfrum, 2018, p. 32).

The methodology used in the research combines a qualitative approach with techniques such as direct observation, interviews, workshops with members of the school community, and mapping of open spaces. These instruments made it possible to identify levels of appropriation of spaces by different actors, as well as to understand the social, cultural, and environmental impacts of the actions carried out. In addition, the analysis highlighted the relevance of participatory school management, capable of promoting collaborative projects that involve the community and strengthen the school's relationship with the territory.

This article is part of a broader theoretical and practical discussion that explores the intersections between architecture, education, and urbanism. Concepts such as educational territory and educating the city guide the reflections presented, reinforcing the idea that schools can act as agents of social and environmental transformation. By articulating these perspectives, we seek to contribute to the debate on the role of public schools in promoting urbanity, sustainability, and social inclusion, especially in highly vulnerable regions.

Finally, it is important to highlight that the activities described in the following topics of this article illustrate how the integration between open spaces, school management, and community participation can generate significant results in the requalification of urban territories. By analyzing the experience of the Eder Bernardes school, we hope to inspire new initiatives that explore the potential of public schools as articulating centers in contexts of vulnerability. In addition, we seek to broaden understanding of the role of open space systems in building more sustainable and inclusive urban landscapes.

## 2 OBJECTIVES

This article aims to analyze the potential of open spaces in public schools as elements of connection, social inclusion, landscape preservation, and agents of urban renewal, with a special focus on peripheral territories. It seeks to recognize the components of the urban and school landscape that constitute open spaces, ranging from internal elements such as courtyards and sports courts to the areas surrounding the school building, extending beyond the walls that delimit school grounds, including sidewalks, squares, parks, and other adjacent public spaces.

It also aims to investigate the characteristics of these systems of open spaces that enable and intensify connections between the school and the surrounding territory, analyzing how these interfaces can simultaneously promote social inclusion and landscape preservation,

both in their cultural and natural dimensions. The study examines the social, cultural, and environmental impacts generated by participatory actions within the school, such as the School Community Project and other school management initiatives aimed at the community.

At the same time, it evaluates the results achieved through external partnerships established with various institutions, notably the planting of native trees on school grounds and the activities of Bonde a Pé, carried out in collaboration with the NGO Instituto Corrida Amiga. Finally, it seeks to analyze how these systems, planned as borders, can function as spaces for transition, coexistence, and social articulation, contributing to urban requalification and territorial valorization.

### 3 METHODOLOGY

The methodology adopted in this study is based on a qualitative approach, chosen for its ability to capture the complexity of the relationships between school open space systems, the community, and the urban territory in which they are located. This approach allows us to understand not only the physical aspects of the spaces analyzed, but also the social, cultural, and environmental dynamics that permeate them. The investigation was conducted through a case study of the Eder Bernardes school. This choice allowed for a detailed and contextualized analysis of the dynamics and transformations promoted by the school's management and the partnerships established, using the school's open spaces and surroundings as a support for actions and activities structured by these agents. The case study involved data collection on multiple fronts, including direct observation, mapping of free spaces, and analysis of initiatives developed in partnership with the University and the school itself.

Direct observation was carried out at various times, allowing us to record the daily use of free spaces, the social interactions that occur in them, and the perceptions of the different actors involved. This technique revealed how courtyards, sports courts, outdoor areas, and adjacent sidewalks are appropriated by the community and students. In addition, it made it possible to identify the symbolic and cultural relationships attributed to these spaces. The record includes field notes, photographs, and videos, diagrams, and a redesign of the building, ensuring rich and detailed documentation of the dynamics observed. As a complement to direct observation, semi-structured interviews were conducted with school administrators, teachers, students, and members of the local community. These interviews aimed to understand the perceptions and experiences of different actors regarding the role of open space systems in schools and their contribution to urban regeneration and social inclusion.

The mapping of open spaces was a fundamental step in understanding the spatial and functional relationships between the school and its surroundings. This analysis included the identification and registration of spaces considered as borders, such as courtyards, courts, and sidewalks. The connections between these spaces and the adjacent territory were also analyzed, highlighting their potential as elements of transition and coexistence.

The activities carried out in partnership with São Judas Tadeu University and the NGO Instituto Corrida Amiga were also analyzed as part of the methodology. Specifically, the initiatives to plant native trees on school grounds and the Bonde a Pé (Walking Tram), which promoted walks to explore the territory and raise awareness about active mobility, were evaluated. These activities were studied for their impact on strengthening the relationship between the school, the community, and the environment, as well as on developing a broader perception of the role of open spaces in territorial transformation. In addition, the Painel dos Desejos (Panel of Desires) was incorporated, a participatory methodological tool that allowed

students to express their ideas and proposals for improvements in urban spaces along the route of the Bonde a Pé.

The research also included the Caminhada-Entrevista (Walk-Interview), conducted with a group of students to capture the experience of planting seedlings of native species on school grounds. During this activity, students shared their perceptions of the environmental and social impact of this action, allowing for a qualitative deepening of how interventions in the school landscape influence their relationship with the environment.

Based on the data collected, a qualitative analysis was carried out that considered the social, cultural, and environmental aspects of the actions and spaces investigated. This analysis aimed to identify how open space systems contribute to the creation of community ties, landscape enhancement, and urban regeneration. With this detailed methodological approach, the present study seeks to offer an in-depth understanding of the role of public schools as agents of territorial transformation, highlighting the importance of open space systems in building more inclusive and sustainable urban landscapes.

#### 4 RESULTS

The results of this research demonstrate how school open space systems can play a fundamental role in urban regeneration and integration between the school community and the urban territory. The initiatives analyzed reveal efforts to break down the physical and symbolic barriers that separate the school from the city, strengthening the role of the school as a space for connection, belonging, and territorial transformation. School management has taken a proactive role in expanding the use of school open spaces, promoting initiatives that bring the community closer to the school and strengthen its social function.

The School Community Project, implemented in 2022, has established itself as one of the most important actions aimed at the local population. The project offers cultural, sports, and health activities on weekends, transforming courtyards, courts, and other outdoor areas into spaces for socializing and shared learning. In addition, the project expanded the community's access to services such as legal advice, reinforcing the school's role as a center of social support. These initiatives enabled the surrounding population to perceive the school not only as a space restricted to formal education, but as a true community center where different needs could be met, promoting a deeper sense of belonging and citizen participation.

In a social action carried out on December 2, 2023, the "Questionnaire on the Impact of School Actions on the Community" was administered. This methodological tool aimed to understand the participants' perception of the impacts generated by the initiative. The questionnaire was administered with the collaboration of a researcher from PGAUR/USJT and two members of the action's organizing team: a school teacher and a volunteer. In total, ten responses were collected from adults aged 18 and over, who answered a total of 15 questions.

The first four questions sought to map the participants' place of residence, the means of transportation used to get to the event, and their relationship with the school. Only three of the ten interviewees said they lived in Encosta Norte, while the others lived in neighboring neighborhoods and even in more distant locations, such as Cidade Tiradentes, located approximately 18 kilometers away. Most of the participants, seven in total, arrived at the school on foot to enjoy the activities offered. Regarding the interviewees' relationship with the Eder Bernardes School, three stated that they had studied there, two were students at the time of

the survey, and the other five had never studied at the institution. However, only two people stated that they had no family members who had ever attended the school.

Regarding participation in other social actions promoted by the school, eight of the interviewees reported having participated in previous events, in addition to the end-of-year action. The most mentioned activity was Children's Day, cited by seven respondents, followed by the event Dia de Quem Cuida de Mim (Day of Those Who Care for Me), which was attended by five of the eight recurring participants. Only two of the interviewees were participating in a social action at the school for the first time. Among the others, half said they had attended at least three such events. The reasons for participation varied, but there was a convergence of responses highlighting "unity" and "connection between children and families in the neighborhood." In addition, two participants mentioned that they were present to act as volunteers, helping with haircutting and table tennis introduction activities. One interviewee, a resident of the Jagatá slum, emphasized the importance of his presence as a way to "encourage other residents to also participate" in future activities promoted by the school.

The ten respondents were unanimous in their assessment of the importance of the social activities organized by the school. On a scale of 1 to 5, where 1 represented "not important" and 5 "very important," all gave the highest rating. The reasons for this assessment varied, but some responses stood out due to their recurrence. Among them was the importance of actions in "helping the community" by providing "leisure, health, and sports activities, which are often only found in distant places, such as CEU Veredas." In addition, respondents recognized that the school's initiatives "promote collective social well-being, something that is lacking in the neighborhood itself," and that they guarantee "a leisure space for children."

The ninth question investigated the participants' perception of the physical spaces where the activities took place. Seven of the ten interviewees stated that the actions took place in the main school building, including the shed (covered patio). Only one mentioned having participated in activities carried out exclusively on the multi-sports court, while the other two reported having moved between the main building and the court. Based on this question, question number thirteen explored the interviewees' perception of ownership of the multi-sports court. Among the available options—belonging to the school, the community, both, the government, or anyone who uses it—four participants argued that the court belongs to the community, while three considered that it belongs to both the school and the community. Thus, more than half of the interviewees recognized that the school has little or no control over the space. Only one respondent stated that the court belongs exclusively to the school, while two believe that the place belongs to anyone who uses it.

Finally, when asked about possible changes in their relationship with the school after participating in social actions, only two interviewees stated that they had not noticed any changes. The others, however, reported different positive impacts, such as using school spaces they did not frequent before, increasing the time spent in the school environment, forming new friendships, and engaging as volunteers. One of the participants pointed out that the actions "changed their view of the effects of their own attitudes," while another stated that "the actions add nothing."

The school administration also developed a comprehensive project to renovate the school's outdoor areas (Design 1), seeking to revitalize underutilized spaces and expand the

possibilities for using open spaces. Developed in 2022 by the technician responsible for school maintenance, the project to intervene in the open spaces of the grounds is the result of a movement that reinforces the school's role as an agent of dialogue and collaboration with the community. For the design of the project, residents were consulted about their main needs and desires in relation to equipment that would serve different age groups. The proposal provides for the expansion of the needs program and the qualified occupation of the outdoor area, including the implementation of a vegetable garden, an amphitheater, a walking track, kiosks, and a wooden tree house on levels above the main block. On a lower level, adjacent to the multi-sports court, there are plans to build an exclusive indoor soccer court, chess tables composing a social space, as well as kiosks, a deck, and the revitalization of the caretaker's house originally designed by Décio Tozzi. With the restructuring of the property, the possibility of its use as a playroom or, alternatively, a storage area for court support materials is being considered.

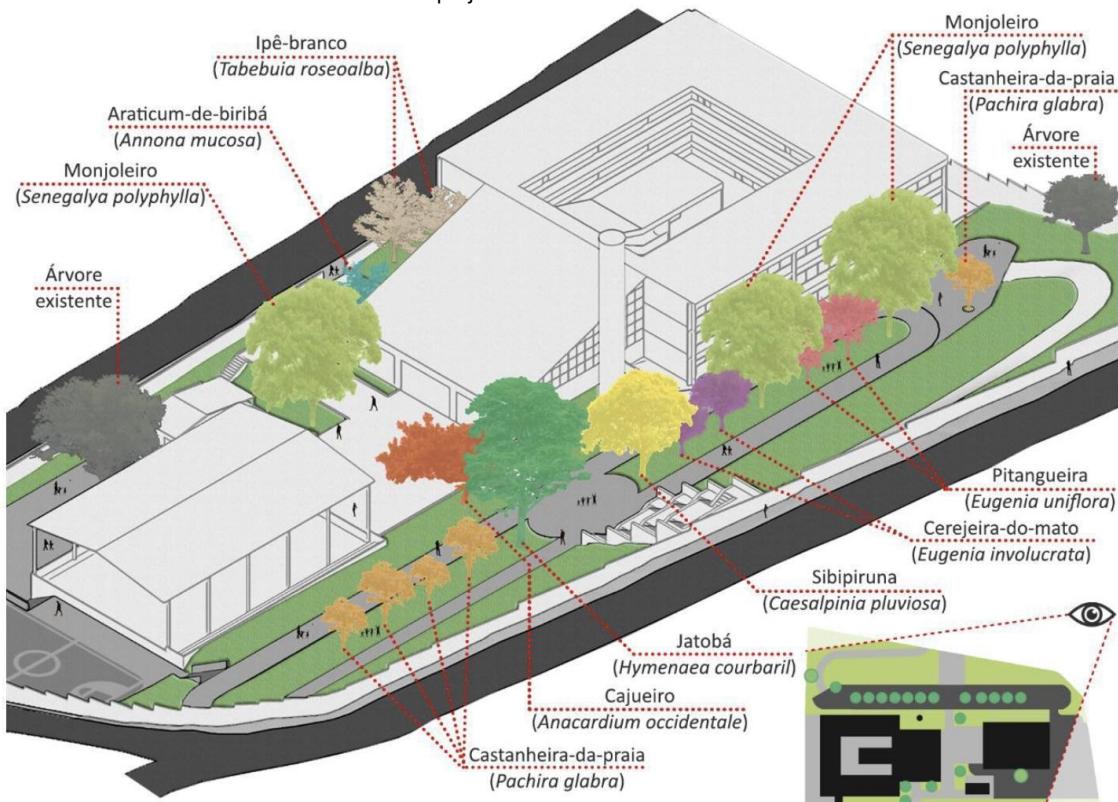
Drawing 1 – Proposal for the redevelopment of the school's outdoor areas with the installation of a walking track, futsal court, vegetable garden, amphitheater, among others, developed by the school in conjunction with the community.



Source: EEEI collection Sd. PM Eder Bernardes dos Santos (no date).

Redesign: Beatriz Eyng, Julia Simões Peregrino, and Sophia Manfredini Figueiredo.

Drawing 2 – Project for planting native species seedlings developed by the university as a complement to the school's project to renovate outdoor areas.



Source: Leandro Barros Nascimento (2024).

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This initiative was essential to creating a more inviting environment, encouraging the use of open spaces by both students and neighborhood residents. One of the main actions within this project was the planting of native species seedlings (Drawing 2) on the school grounds, carried out in partnership with São Judas Tadeu University<sup>3</sup> on October 31, 2023. This activity not only integrated with the project to renovate the outdoor areas, but also promoted environmental education and the preservation of local biodiversity. The involvement of students and teachers in the activity contributed to improving the environmental quality of the institution. The planting promoted the perception of the school as an essential element in the ecological structure of the neighborhood, suggesting that initiatives such as this have impacts that go beyond the school's boundaries and spread to the immediate urban surroundings.

In a walking interview conducted on April 19, 2024, with a group of seventh-grade students from the school in the area outside the building, the experience of planting native tree seedlings on the school grounds was recalled. With enthusiasm and pride, the students remembered the initiative and pointed out the seedlings that were growing at the main entrance. However, they reported with regret that these were the only ones that had survived,

<sup>3</sup> The planting was an initiative resulting from the extension project of the Stricto Sensu Graduate Program in Architecture and Urbanism at São Judas Tadeu University – PPGAUR/USJT. entitled "Environmental Educational Practices at EEEI Sd. PM Eder Bernardes dos Santos in the Encosta Norte Housing Complex," coordinated by Prof. Maria Isabel Imbronito, PhD, with the collaboration of master's and doctoral researchers from the program, as well as a student from the university's Architecture and Urbanism course.

as all the others had been removed due to incidents that occurred after the action. The conversation led to the question of what they thought about the trees. One of the students expressed his view by saying, "It's wonderful. I think it would be wonderful to plant several trees with flowers here, because in the spring the ground would be all colorful." Other participants added that, in addition to making the environment more pleasant, the presence of trees also helps to "reduce air pollution"<sup>4</sup>.

Another important initiative developed in partnership was the Bonde a Pé<sup>5</sup> (Walking Tram), also promoted by the University in collaboration with the NGO Instituto Corrida Amiga. This activity involved students in a walk from the school to Parque Sta. Amélia, located on the northern edge of the neighborhood. The proposed route is familiar to the students, who travel it daily, either on their way to school or because they live in the vicinity, such as in the Jagatá favela. The activity aimed to promote awareness of active mobility and appreciation of the territory. Before the walk began, the research team distributed tools such as pedometers, binoculars, and notebooks so that students could record recurring elements or items of interest along the route.

With the group organized, the walk began with a visit to the Educational Assistance Center (CAE), located next to the school. A few meters ahead, the participants entered the Jagatá slum (Photo 5), facing their first challenges: uneven stairways that bridge large gaps between the street and the stream, narrow alleys, and the need for makeshift crossings made of wooden planks by the population itself. At the end of the slum section, the group faced another long staircase until reaching the intersection between Rio Mirivaí Avenue and Estudantes da China Street. As the group advanced, new challenges arose. Narrow sidewalks with accumulated trash made it difficult to move around, often forcing participants to walk on the road, exposing them to risks. In the final stretch of the route, shortly before arriving at the park, a third staircase had to be crossed. Upon arriving at their destination, the participants were taken to the activity shed, where they discussed their perceptions of the route they had traveled. Among the main points made by the students were the excess of vehicles, the lack of accessibility on the sidewalks, the presence of staircases, the bad smell near the stream, the scarcity of trees, and the improper disposal of trash.

<sup>4</sup> During a recent visit to the school on December 7, 2024, it was observed that the intervention project in the school's open spaces underwent significant changes due to the implementation of a renovation and accessibility adaptation project conducted by the Foundation for the Development of Education (FDE). The changes resulted in the expansion of the impervious area of the land, especially for the redesign of the teachers' parking lot, which further reduced the available green area, compromising part of the originally planned proposals.

<sup>5</sup> The Walking Tram, a methodological tool developed by the NGO Instituto Corrida Amiga, was one of the activities implemented in the extension project "Awareness of the perception and exploration of the school environment and surroundings: experience and training with the Instituto Corrida Amiga," structured and offered within the PPGAUR/USJT. Coordinated by Professor Eneida de Almeida, the project counted on the collaboration of Professors Andrea de Oliveira Tourinho and Maria Isabel Imbrionito, lecturers at PPGAUR/USJT, as well as a group composed of undergraduate students and master's and doctoral researchers from the program.

Photo 5 – Irregular stairways, narrow alleys, foul odors during the passage through the Jagatá slum, the first section of the Walking Tram.



Source: Author's collection (Sept. 30, 2023).

The second stage of the activity introduced a methodological tool called the Wish Panel, in which students, divided into groups, expressed their views on an ideal route. During this stage, proposals emerged such as the creation of tree-lined paths, the implementation of safe pedestrian crossings, and the improvement of accessibility conditions. Elements that reflected their daily experiences also stood out, such as the presence of shops and cultural facilities relevant to their routines.

The application of these methodological tools revealed an educational approach that goes beyond the physical boundaries of the school, integrating the territory and the community into the learning process. Bonde a Pé strengthened the connection between the school and its surroundings, allowing students to become critical observers of the reality in which they live. The initiative reinforced the role of the school as a point of territorial articulation and sensitized the community to the importance of sustainable transportation. Bonde a Pé also functioned as an extracurricular educational activity, connecting the theory learned in the classroom with the practice and recognition of urban spaces in a conscious and engaged way. Students had the opportunity to perceive the challenges of urban mobility and reflect on how small actions and daily choices can contribute to more accessible and sustainable cities. In addition, the walk also served to highlight the interdependence between school spaces and the urban fabric, promoting a new form of relationship between school and community. At the same time, the Wish Panel allowed their ideas to be considered in the construction of a more inclusive urban environment that is responsive to collective needs.

When combined, these devices transform the city into a living learning space, where education takes place in an interactive and contextualized way. In a scenario such as that of São Paulo, characterized by complex urban challenges, recognizing urban fragments as educational agents is fundamental to promoting a more engaged education. The dilution of barriers between school and community, facilitated by these instruments, proves to be an innovative and

transformative educational practice that encourages the active participation of students in building a more equitable and sustainable future.

Both the actions promoted directly by the school and those developed in partnership with the university and the NGO reveal a continuous effort to transform the relationship between the school and the city. The initiatives analyzed seek to dilute the physical and symbolic barriers that traditionally isolate the school from its surroundings, promoting more dynamic interactions and greater appropriation of free spaces by the community. In this way, the school transcends its traditional teaching function and begins to act as an active agent of urban regeneration and social strengthening. When planned and reimagined, school open spaces become structural elements of the city, expanding its capacity for social integration, inclusion, and belonging.

## 5 CONCLUSÃO

The results obtained in this research show that public schools, when coordinated with their territories and communities, become fundamental agents for urban regeneration and the promotion of social and environmental sustainability. The development of initiatives such as the School Community Project, the Walking Tram, the planting of native species, and social actions has demonstrated that expanding the use of free school spaces and opening schools to the community promotes integration between education and the city, reframing the role of schools as Educational Territories. Azevedo, Tângari, and Flandes (2020) summarize the concept of educational territory as a “set of relationships, interactions, and contradictions involving a diversity of actors in continuous movement and dialogue.” The relationship established between the school and its surroundings reflects the principles of the Educating City, in which urban spaces are understood as extensions of the learning environment and education transcends the boundaries of the classroom. Strengthening these interactions promotes more dynamic teaching processes that are connected to the students' reality, promoting the collective construction of a more inclusive territory that is responsive to the demands of the community.

The research also highlights the contribution of the actions analyzed to the achievement of the UN Sustainable Development Goals (SDGs), especially SDGs 4, 11, 13, 16, and 17. By strengthening the integration between the school and the territory, the initiatives contribute to Quality Education (SDG 4), promoting contextualized and participatory learning experiences. The requalification of open spaces and the promotion of active mobility are aligned with the goal of building Sustainable Cities and Communities (SDG 11), encouraging social inclusion and improving urban quality. Environmental education practices and the revitalization of green areas in schools are directly linked to Action Against Climate Change (SDG 13), demonstrating that schools can play an active role in raising ecological awareness and implementing sustainable solutions. The promotion of peace and social inclusion through community activities and the democratization of access to school spaces is directly aligned with SDG 16 (Peace, Justice, and Strong Institutions). Finally, collaboration between schools, universities, NGOs, and the community reinforces SDG 17 (Partnerships and Means of Implementation), highlighting the importance of participatory governance in promoting more sustainable and resilient territories.

Thus, this study reaffirms the importance of public schools as spaces for territorial transformation and the construction of a more just and sustainable society. By considering free spaces as structuring elements of connection and belonging, schools play a strategic role in promoting civic education, community engagement, and urban sustainability. Schools are the most widespread public facilities, especially in the periphery, being widely present in these territories and playing a central role in the life of communities. However, each school has unique characteristics and is part of a specific context, influenced by its particular relationship with the territory, school management, and the involvement of the local community. The research shows that the integration of schools with their surroundings generates positive impacts, enhancing territorial transformation through school facilities in coordination with other urban agents and the territory itself. Thus, although it is possible to replicate the research in other schools, it is essential that the methods and actions be adjusted to the specificities of each reality, considering the institutional, social, and spatial particularities of each context.

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## DECLARAÇÕES

## CONTRIBUIÇÃO DE CADA AUTOR

- **Concepção e Design do Estudo:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Curadoria de Dados:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Análise Formal:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Aquisição de Financiamento:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Investigação:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Metodologia:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Redação - Rascunho Inicial:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Redação - Revisão Crítica:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Revisão e Edição Final:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.
- **Supervisão:** Franklin R. Ferreira de Paula, Maria Isabel Imbrunito.

## DECLARAÇÃO DE CONFLITOS DE INTERESSE

Nós, Franklin Roberto Ferreira de Paula e Maria Isabel Imbrunito, declaramos que o manuscrito intitulado **"Public schools as potential agents of urban and landscape redevelopment: open space systems in schools as elements of connection and preservation"**

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1. **Vínculos Financeiros:** Não possui vínculos financeiros que possam influenciar os resultados ou interpretação do trabalho.
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