

# URBAN LANDSCAPES AS THIRD EDUCATOR: THE CASE OF PALAZZO MICCICHÈ AS AN EDUCATIONAL PLATFORM FOR CO-LEARNING IN NATURE

Chiara Cadoni<sup>1</sup>, Ermes Invernizzi<sup>2</sup>, & Florinda Saieva<sup>3</sup>

<sup>1</sup>Architecture Built Environment Interiors, Politecnico di Milano (Italy)

<sup>2</sup>Department of Architecture and Urban Studies, Politecnico di Milano (Italy)

<sup>3</sup>Founder of Favara Cultural Park, Favara (Italy)

## Abstract

Reconsidering urban spaces as places of learning is essential to develop a new coexistence between humans and nonhumans. However, traditional urban development models often prioritize economic and pragmatic concerns over ecological considerations, resulting in the degradation of natural ecosystems and a disconnection between humans and the environment. This paper examines the potential of Palazzo Miccichè as transformative educational landscapes, aiming to promote sustainable urban development goals through a coexistence between humans and non-humans. The accelerated urbanization process has led to the fragmentation and degradation of natural habitats, exacerbating biodiversity loss and environmental hazards. Ecological sanctuaries as part of ecological corridors emerge as tools for mitigating these impacts by connecting fragmented green spaces, facilitating flora and fauna movement, and providing opportunities for human-nature interaction. Despite their significance, the educational potential of ecological sanctuary remains underexplored. This paper seeks to bridge this gap by investigating how ecological sanctuaries can serve as platforms for environmental education, instilling relational values with nature, and fostering collective consciousness towards environmental preservation. Through an analysis of the experience in Palazzo Miccichè, this paper outlines a conceptual framework for understanding the role of ecological sanctuary as educational landscapes in developing new routes for new alliances between humans and nature. In the course of history, man has slowly distanced himself from nature to the point of conceiving the anthropocentric vision of which we are part. To develop a sustainable future, it is essential to educate the society to new sensitivities and approaches to nature, the urban environment in this context is considered as a third educator. Moreover, the paper examines how to maximize the educational and ecological benefits of ecological sanctuaries, emphasizing the importance of community engagement and participatory processes. Learning, in fact, is an active process. By reconceptualizing urban spaces as intertwined with nature, ecological sanctuaries and ecological corridors offer promising avenues for nurturing harmonious relationships between humans and the natural world. Through education and awareness-building initiatives, these sanctuaries can serve as agents of change, inspiring sustainable behaviors and fostering a deeper appreciation for the interconnectedness of all living beings. Ultimately, the integration of ecological sanctuaries as educational landscape into urban landscapes represents a critical step towards creating more resilient, inclusive, and nature-based cities for current and future generations.

**Keywords:** *Co-learning, environmental education, ecological sanctuary, nature based solutions, sustainable urban development.*

---

## 1. Introduction

Cities are responsible for a significant transformation of the natural ecosystems in which they are situated, affecting biodiversity and their ability to provide services closely tied to the wellbeing of urban dwellers. At the same time, cities also serve as preferred learning arenas to experience new ways to relate to the natural world and to become more aware of the necessity to have a more balanced relationship with the animal and plant kingdoms. Within the European Commission's document on biodiversity education, it is highlighted that "Low public awareness on nature and biodiversity has been identified as a major cause for inadequate action on protecting the environment. Increased urbanization is weakening the human-nature relationship, with detrimental effects on humans as well as the environment." (European Commission, 2023) It is also emphasized that education plays a significant role

in the preservation of biodiversity. We depend on biodiversity in multiple ways, yet public awareness of its importance is scarce.

Developing a more aware relationship with nature is essential to provide a more sustainable future. The overall objective of the United Nations 'Sustainable Development Goals (United Nations Human Settlements Programme, 2020) is to address social, economic, and environmental challenges in an integrated manner, encouraging a global approach to sustainability. These goals serve as a guide for governments, organizations, and citizens, promoting concrete actions and collaborations to achieve significant results by. Furthermore, the New Urban Agenda (UN-Habitat, 2017) outlines a set of objectives aimed at fostering a more sustainable future for urban development. Specifically, it emphasizes the pursuit of social integration for vulnerable populations, economic stability, environmental preservation, and spatial organization. It underscores the importance of incorporating cultural elements into the promotion and adoption of sustainable consumption and production practices, which in turn contribute to responsible resource utilization and mitigating the adverse effects of climate change. Ecological sanctuaries and ecological corridors emerge as indispensable tools for advancing education and sustainability in economic, social, and spatial realms.

Moreover, they are a tool capable of supporting tenets of ESD's Sustainable Urbanization theme (United Nations, n.d.), including lifelong learning, learning as participation in urban life, and learning in diverse contexts, as well as a long-standing tradition of participatory processes in environmental education. In fact, ecological corridors and sanctuaries not only serve as areas to preserve biodiversity but also act as learning spaces by proposing a reconciliation between urban fabric and the surrounding natural environment. Ecological sanctuaries, serving as educational landscapes, offer the opportunity for people to reconsider their connection with the non-human world, develop new cooperative methods to preserve nature, and reconnect with the natural world.

## 2. State of art

The recent urban landscapes have led to a gradual reduction of the connection between humans and the surrounding natural world.

The urban environment, historically, was a place of certainty where solid walls excluded natural forces and surrounding biodiversity. This destructive process, rooted in a threatening view of nature, persists, although contemporary reasons are more pragmatic and economic (Inostroza, 2022). Despite the shift in environmental awareness, urban development in the majority of the world's cities is still grounded in outdated concepts—essentially aesthetic, pragmatic, and economic—that do not embrace new paradigms incorporating ecological processes and biodiversity as essential components for the wellbeing of local populations (Inostroza, 2022). Moreover, the urgent need to address the challenges of climate change and environmental crisis intersects with the demand to foster a conscious coexistence between the human and non-human elements.

Ecological sanctuaries in the urban environment are vehicles to explore how coevolution with nature may take place, and where multispecies and more-than-human approaches may take place in innovative ways. The exploration of ecological sanctuaries, through multidisciplinary approach, is an instrument that provide environmental and ecological education through the relational values developed with nature to pursue a more sustainable future in the urban environment.

Conceiving of cities as environments separate from nature and the ecosystem has led to extremely critical consequences. Loss of biodiversity carries profound implications for both urban and peri-urban inhabitants. The deterioration of natural ecosystems can exacerbate economic fragility and environmental hazards, particularly affecting impoverished households and those residing in peri-urban areas, as well as biodiversity itself. Ecological sanctuary can help mitigate the loss of biodiversity, an alarming problem. As highlighted in the Global Risk Report 2023, the World Economic Forum considers it one of the most rapidly deteriorating global risks over the next decade. Hence, focusing on ecological sanctuary becomes an essential element in conserving biodiversity and the proper functioning of ecosystems. It is crucial to work towards its strengthening as a system of connection and interchange between isolated areas and natural elements, thus counteracting fragmentation and its negative effects on biodiversity. (Fogli, S, 2023)

The natural world is viewed merely as a resource to exploit, leading to activities like logging, mining, or poaching of wild animals. This exploitation is fueled by the misconception that ecosystem services are free and, therefore, lack inherent value. While concern for environmental protection is prevalent in many regions, a considerable gap exists between concern and action, attributed to low levels of understanding of environmental issues and a lack of emphasis on social, emotional, or behavioral learning (European Commission, 2023).

Furthermore, to improve the quality of the cities it is necessary to provide a more aware relationship between ecosystems and the humankind. The history of the relationship between man and the environment has changed. Some of our ancestors had a relationship of coexistence and balance. They lived on the move and their movements considered the changing seasons, the annual migrations of animals and the growth cycles of plants. Analyzing the evolution of worldviews, it is interesting to highlight how the relationship between mankind and the environment began with animist beliefs that testify to a genuine concern for nature as it was considered sacred. (Harari, 2015). Every barrier between nature and man was broken down, the world did not revolve around humans or any other group of beings. In the course of history, man has slowly distanced himself from nature to the point of conceiving the anthropocentric vision of which we are part.

The increasing trend of urbanization has weakened the humankind connection with the natural world and played a significant role in diminishing public awareness of biodiversity. Approximately half of the world's population resides in urban areas, with fewer opportunities for direct contact with nature. This ongoing alienation, often referred to as the 'extinction of experience', has two interconnected consequences, both of which raise significant concerns. Firstly, it reduces the diverse benefits derived from human-nature interactions for physical health, psychological well-being, and cognitive performance. Secondly, there is mounting evidence from research indicating that limited contact with nature during childhood can initiate a cycle of disaffection towards the environment, diminishing the willingness to support conservation initiatives later in life. This establishes a feedback loop leading to the gradual deterioration of the human-nature relationship, extending across generations, and proving detrimental to both humans and the environment. (Soga, & Gaston, 2016). Ecological sanctuaries are essential as a tool for environmental awareness to reestablish the relationship between mankind and nature.

The design of open and natural spaces in urban areas for urban biodiversity and ecological education is a critical issue. Thus, preserving these areas as wildlife habitats and spaces where people can learn is extremely important nowadays. (Nakagoshi, & Mabuhay, 2014). Ecological sanctuaries present significant opportunities for participation and interaction, and as urban landscapes, they demonstrate the positive role of humans in restoring biodiversity and degraded social-ecological systems in cities. In various experiences, it has been shown how through the involvement of the population in the restoration and conservation of urban ecosystems, the community has developed new ways of connecting with the environment, thus making the ecological corridor a pedagogical tool to promote sustainable communities. Ecological restoration and native biodiversity knowledge have led to a cultural transformation of communities from an educational perspective.

Restoration initiatives led by citizen activists, non-profit organizations, and municipal governments offer platforms for active learning, contributing directly to the sustainable management of urban biodiversity and ecosystem services. Urbanization has resulted in the destruction and fragmentation of native habitats, leading to biodiversity loss. However, many urban areas still harbor pockets of ecological diversity. Organizations like PECT (Peterborough Environment City Trust) (Peterborough Environment City Trust, n.d.) are at the forefront of initiatives aimed at restoring urban biodiversity. For instance, PECT's Eco Charter for schools integrates sustainability education into the curriculum, engaging students in activities such as creating wildlife corridors through seed bombing. These corridors not only attract diverse wildlife but also serve as outdoor classrooms, offering hands-on learning experiences for students and community members.

Specifically with the B-Lines project (Peterborough Environment City Trust, n.d.), PECT addresses the decline in pollinator habitats by creating a network of wildlife pathways and green spaces across Peterborough. With over 3 million hectares of wildflower-rich grassland lost in England over the last 70 years, there's an urgent need to protect pollinators like bees and butterflies. The B-Lines Initiative contributes to ecological restoration by creating pollinator pathways and restoring habitat. By collaborating with landowners, communities, schools, and businesses, the project aims to restore habitats through wildflower planting and seeding. Besides enhancing biodiversity, the project emphasizes education, community engagement, and awareness-raising to promote the importance of pollinator conservation.

### **3. Favara Cultural Park Palazzo Miccichè**

Palazzo Miccichè within the Favara Cultural Park, located in Sicily, Italy, is an example of how a place can become a tool for environmental awareness and the transformation of urban spaces into ecological sanctuaries can contribute to urban regeneration in a context awaiting redevelopment. Palazzo Miccichè is a late 19th-century aristocratic palace that was restored to unity after some 30 years during which the property had been fractionated.

The planet and living beings' life depend on plant world. The palace has been transformed into a forest becoming a container for different species of plants with a variety including ivy, tropical palms, ferns and various shrubs. (Bartoli, A, 2024) It is an oasis that celebrates the beauty and the diversity of flora. It becomes a sanctuary where the relationship between humankind and nature can find space and be amplified, in which the citizens are called to question their relationship with the plant world and the possibility of experiencing new ways of inhabiting the planet. A space that had been abandoned acquires new life and accompanies man toward a redefinition of himself and his surroundings, learning to get in tune with the planet by practicing listening at the expense of exploitation. The palace, in this new guise, taking on subjectivity can say, "I no longer want to be a palace but a forest". Thus, the project redefines the physical and theoretical meaning of a historic-monumental building, such as Palazzo Miccichè, which aspires to become something else: a forest, a jungle, a mental place, an environment for encounter, a secular-sacred space. It contributes significantly to ecological restoration by providing habitat for diverse plant and animal species. It fosters a connection between humans and nature, encouraging residents to become caretakers of their environment.

The project, known as Human Forest, redefines the purpose of historical buildings like Palazzo Miccichè, envisioning them as havens for biodiversity and cultural exchange. Human Forest demonstrates the power of community involvement and education in fostering a deeper connection between humans and nature while promoting environmental stewardship.

The transformation of Palazzo Miccichè into an ecological hub involved extensive community engagement.

Residents, businesses, and organizations were actively involved in the project. This collaborative effort not only enhanced biodiversity but also fostered a sense of ownership and pride among residents. Education plays a central role in the Favara Cultural Park project, aiming to raise awareness about environmental issues and promote a deeper understanding of the natural world. It serves as an outdoor classroom where residents, especially children, visitors and students can learn about ecology.

#### **4. Workshop memory la città incantata at Palazzo Miccichè**

The architectural design workshop "Memory: la città incantata" was an activity offered to students of the Politecnico di Milano during the current academic year and integrated into the training path of architects and urban planners in the second and third years. The workshop originated from the collaboration among various entities active in urban regeneration and social innovation, including, the DASTU (Department of Architecture and Urban Studies) of the Politecnico di Milano and Farm Cultural Park, lead partner of the RUF project implemented under the PNRR - European Union funding - NextGeneration EU, Managed by the Ministry of Culture. The workshop aims at field experimentation in which an attempt is made with local people to trigger processes that can lead territories to become permanent laboratories in which to build new understandings of the meaning of living.

During the workshop, students reflected on the relationship between humans and the environment following a guided tour of Palazzo Miccichè. They were then given the task of imagining specific aspects of human habitation and collective life that did not explicitly address the relationship between humans and the plant kingdom. These reflections were to be transformed into installations at Farm, a space of their choice, to showcase their ideas. Interestingly, more than half of the students chose the spaces at Palazzo Miccichè as the location for their installations. It became evident that these installations at Palazzo Miccichè were responsive to the needs of the plant species present, reflecting a growing awareness among the student community of the importance of the plant kingdom beyond its utility for human habitation.

Moreover, the students have been asked to answer a questionnaire about the experience of the workshop in Palazzo Miccichè. The results highlight that a more specific environmental and ecological education among people and inhabitants and experience such as the one in Palazzo Miccichè are extremely needed nowadays. It has been also shown how experiences like this has helped to develop a more conscious relationship with the non-human world.

#### **5. Conclusion**

In today's rapidly urbanizing world, the disconnection between humans and nature has become increasingly evident, leading to diminished public awareness of the importance of creating a more balanced. However, urban landscapes as third educators provide valuable learning experiences about exploring new relationships with the natural world. Ecological sanctuaries serve as dynamic platforms for co-learning in nature, not only providing habitats for diverse plant and animal species but also

opportunities for environmental education and community engagement, serving as pathways for the coexistence of humans and nature within urban environments.

This paper has explored the potential of ecological sanctuaries as transformative tools for urban sustainability and education, highlighting their role in reconnecting urban dwellers with the natural world and fostering a deeper understanding of biodiversity. Particularly, Favara Cultural Park exemplifies how urban spaces can be transformed into ecological sanctuaries, promoting biodiversity and cultural exchange while reconnecting residents with nature. Furthermore, the findings from the workshop at Palazzo Miccichè underscore that by engaging in experiential learning activities that emphasize the interconnectedness of humans and the natural world, individuals can develop a more conscious relationship with their environment and contribute to efforts aimed at preserving biodiversity and fostering sustainable communities. By involving local communities in the regeneration of urban landscapes, this project creates opportunities for meaningful engagement and learning.

This workshop experience highlights the potential for historical buildings like Palazzo Miccichè to serve as platforms for environmental education and community engagement. By integrating ecological principles into architectural design and urban planning, projects like this contribute to the regeneration of urban spaces while fostering a deeper connection between humans and nature. Considering the pressing challenges posed by climate change and biodiversity loss, it is essential to prioritize the integration of co-learning with nature. Through education and community engagement, cities can work towards creating more sustainable and resilient urban environments for present and future generations.

## References

- European Commission. (2023). *Biodiversity and education: A knowledge synthesis and analysis of measures for enhanced nature education highlighting the relevant EU policies, projects and initiatives*. Publications Office of the European Union. Retrieved from <https://doi.org/10.2760/419465>
- United Nations Human Settlements Programme. (2020). *New Urban Agenda illustrated handbook. UN-Habitat*. Retrieved from [https://unhabitat.org/sites/default/files/2020/12/nua\\_handbook\\_14dec2020\\_2.pdf](https://unhabitat.org/sites/default/files/2020/12/nua_handbook_14dec2020_2.pdf) p.12
- UN-Habitat. (2017). *The New Urban Agenda. United Nations Human Settlements Programme*. Retrieved from <https://unhabitat.org/the-new-urban-agenda>
- United Nations. (n.d.). *The 17 goals. United Nations*. Retrieved from <https://sdgs.un.org/goals>
- Inostroza, L. (2022). Biodiversity and Region: A Unitary System. The Paradigm Shift in 21st Century Urban Development. In Mejía, M.A., Amaya-Espinel, J.D. (eds.). *BiodiverCities by 2030: Transforming Cities with Biodiversity* (pp. 40-47). Bogotá. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt.
- Fogli, S. (2023, June 9). *Corridoi ecologici: cosa sono e come proteggono la biodiversità. wisesociety.it*. Retrieved from <https://wisesociety.it/ambiente-e-scienza/corridoi-ecologici-cosa-sono-e-come-protteggono-la-biodiversita/>
- Harari, Y. N. (2015a). *Sapiens: A Brief History of Humankind*. Vintage Books. P.76-77
- Soga, M., & Gaston, K. J. (2016). Extinction of experience: the loss of human–nature interactions. *Frontiers in Ecology and the Environment*, 14(2), 94–101. <https://doi.org/10.1002/fee.1225>
- Nakagoshi, N., & Mabuhay, J. A. (2014). Designing low carbon societies in landscapes. In *Ecological research monographs*. P. 73. <https://doi.org/10.1007/978-4-431-54819-5>
- Peterborough Environment City Trust. (n.d.). *Seed bombing: Creating wildlife corridors in schools*. Retrieved from <https://www.pect.org.uk/projects/seed-bombing-creating-wildlife-corridors-schools/>
- Peterborough Environment City Trust. (n.d.). *Making a B-Line for pollinators*. Retrieved from <https://www.pect.org.uk/projects/b-lines/>
- Bartoli, A. (2024, January 14). *Urban Forestation — Farm Foundation*. Farm Foundation. <https://www.farm-foundation.it/about/humanforest>