

# ENVIRONMENTAL DESIGN

## Nature and pathways connecting Cadorna Station and Triennale Milano

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### ABSTRACT

This article investigates the Master Plan measures for the environmental, cultural, and social regeneration of a highly historical and monument-dense area of Milan, by the European guidelines against climate and environment-related issues, in the framework of a competitive and efficient economy in terms of natural resources. We present several approaches to foster a dialogue on the cross-discipline character of climate-adaptive design in urban contexts as a research ground for the development of strategies and innovative solutions, as well as new cultural models to support the green transformation of anthropized environments.

### KEYWORDS

environmental sustainability, green infrastructures, design of cultural eco-systemic services, inclusion, nature, and art

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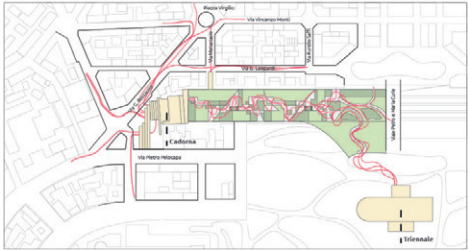
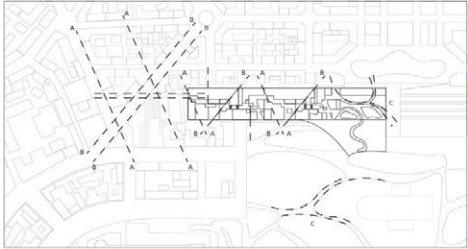
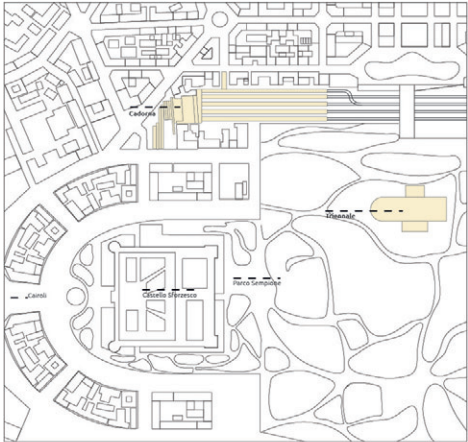
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The definition of ‘green design’ first appeared in the book *Small is Beautiful* by Ernst Friedrich Schumacher (1973), a German economist, philosopher, and writer who challenged the modern Western paradigm that focuses on consumption, big industry, and organizational centralism. Schumacher anticipates some ecological themes that will lead to success in the following decades. Humanity is consuming nature’s capital at an alarming rate without considering that resources are not infinite. This leads to a materialistic economy based on the individual pursuit of maximum wealth, which, not knowing the principle of finiteness, is not suitable for a limited environment. According to (Calvino, 1973, p. 42), we could be approaching a time of crisis in urban life, and the Invisible Cities are a dream sprung from the heart of unliveable cities; today, we insist both on the diffusion of the natural environment, and on how frail our great technological systems are, thus capable of triggering cascade failures which can paralyze entire metropolises: the crisis of too large cities is the other side of the crisis of nature<sup>1</sup>. The study described in this article is motivated by the desire to create and experiment with new project solutions to integrate the natural environment with built-up spaces.

Cities are the most suitable places to challenge the adaptability of urban systems to climate change (Kane and Shogren, 2000): if on one hand, the urban systems produce negative, climate-changing externalities, on the other hand, they are a privileged context to innovate and experiment with mitigation practices, that can adapt to the self-provoked impact (Musco and Patassini, 2012). The urban environment is hence a singular scenario, through which we can watch and analyse the needs and desires of contemporary society. In recent times, the design of public spaces and infrastructures has been focusing on the integration between natural processes and urban environments, promoting a kind of regeneration based on the activation of new social and environmental functions that are typical of cities (Perrone and Russo, 2019).

Within this cultural framework, and analysing the contents of the Master Plan<sup>2</sup> (MP) of Cadorna’s area in Milan, this article recalls some of the design strategies aimed at regenerating the urban tissue, to establish new guidelines to find a balance between conservation and today’s need for resilience, sustainability, transformation, and use of public spaces (UN General Assembly, 2015, 2017; Rockefeller Foundation, 2015), according to principles of multi-functionality, connectivity, and transcalarity (European Commission, 2013).

The present article, while attempting a ‘biophilic’ approach to design (Marshall and Williams, 2019), offers a contemporary point of view over the idea of green as a multi-functional, strategic element to the reactivation of resilient processes in heavily built contexts (Forman, 2014). Ecologically efficient green areas play a fundamental role in carrying out performative eco-systemic functions (Rigillo, 2016), opening new research scenarios. Here, a need for pursuing a dynamic balance among different environmental factors, eco-systemic capability and changed social needs emerges. Adaptive urban design is an opportunity to think about the relation between artefacts and nature, as well as about our ability to embrace change rather than oppose it, and to cre-



**Fig. 1** | The intervention area (credit: D. Bruno, 2016).

**Fig. 2-5** | Intervention area and flow analysis (credits: D. Bruno, 2016).

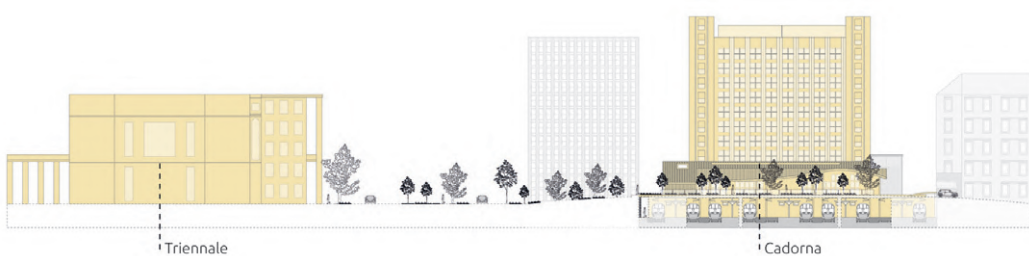
ate new opportunities from instability and crisis. The ideas of adaptability, transformability, and reactivity can be interpreted as new requisites which, in terms of adaptive capability, can integrate the ecological efficiency needs of the human habitat (Angelucci, Di Sivo and Ladiana, 2013).

Specifically, this article is divided into six sections. The first one introduces the motives of the project and the genesis of its idea, consistently with European and international reference models. The second section describes the methodological and operational approach. Special emphasis is given to the development of green infrastructures and environmental benefits, as explained in the third section. Before proceeding to the fifth section which describes the obstacles and constraints of the project and its dissemination as a good practice, in the fourth section, we will focus on the need to re-establish relations with nature and art within the urban context, valuing continuity in a contemporary culture of design. Based on the analysis of selected international case studies, the sixth section focuses on the verification of the project idea. The article ends with conclusions and future visions.

The contents call for a reflection on the potential of synergic design, highlighting a need to reinforce the cross-discipline character among scientific research, environment, economy, and society aimed at a sustainable and futuristic design of future cities.

**Reasons behind the project: an integrated approach to European and international models** | The railway stations are going through an identity crisis. They are ‘non-places’ plunged in often pleasant and sometimes spectacular landscapes (Augé, 1992). They need to flawlessly blend in, pairing the beauty of shapes, functionality, usability, and circular sustainability of their operation. While cities still struggle with the recovery of their identities, ‘non-places’ in their landscapes can transform and shape their communities, experimenting with the creation of new celebrity and reputation on the territory. Stations evolve and become more competitive, and offer their users unprecedented services as well as miscellaneous opportunities. Space planning makes them welcoming, the most diverse offer permeates every corner and meets a society that lacks time. In line with the existing city challenges, the station shall be key to urban reorganization, and representative of sustainable mobility. Having a leading role in the new set-up of the urban tissue, it becomes an interchange centre with an economical-cultural value. Here, we intend to limit the impact of railway lines on urban areas, turning them into assets. Train tracks shift their role from barrier to connecting elements.

From our analysis, the role of stations in the cities of the future will be threefold: fulcrum of mobility, event laboratories, and places for physical, intellectual, and cultural recharge. Every renovated reality will allow the city to reshape and create new poles, hindering its limits. Cities are resilient, capable of evolving without expanding by optimizing the existing, abandoned, high-potential areas. From this perspective, the railway context turns into a development model that encourages the urban review of the rest of the city. The railway context longs for becoming a new centre, a modern version of Agorà. The railway buildings are actual monuments, strongly rooted in the places they connect, establishing a symbiotic relationship with the city. Their central position projects the travellers into the city: the building lessens the bewilderment

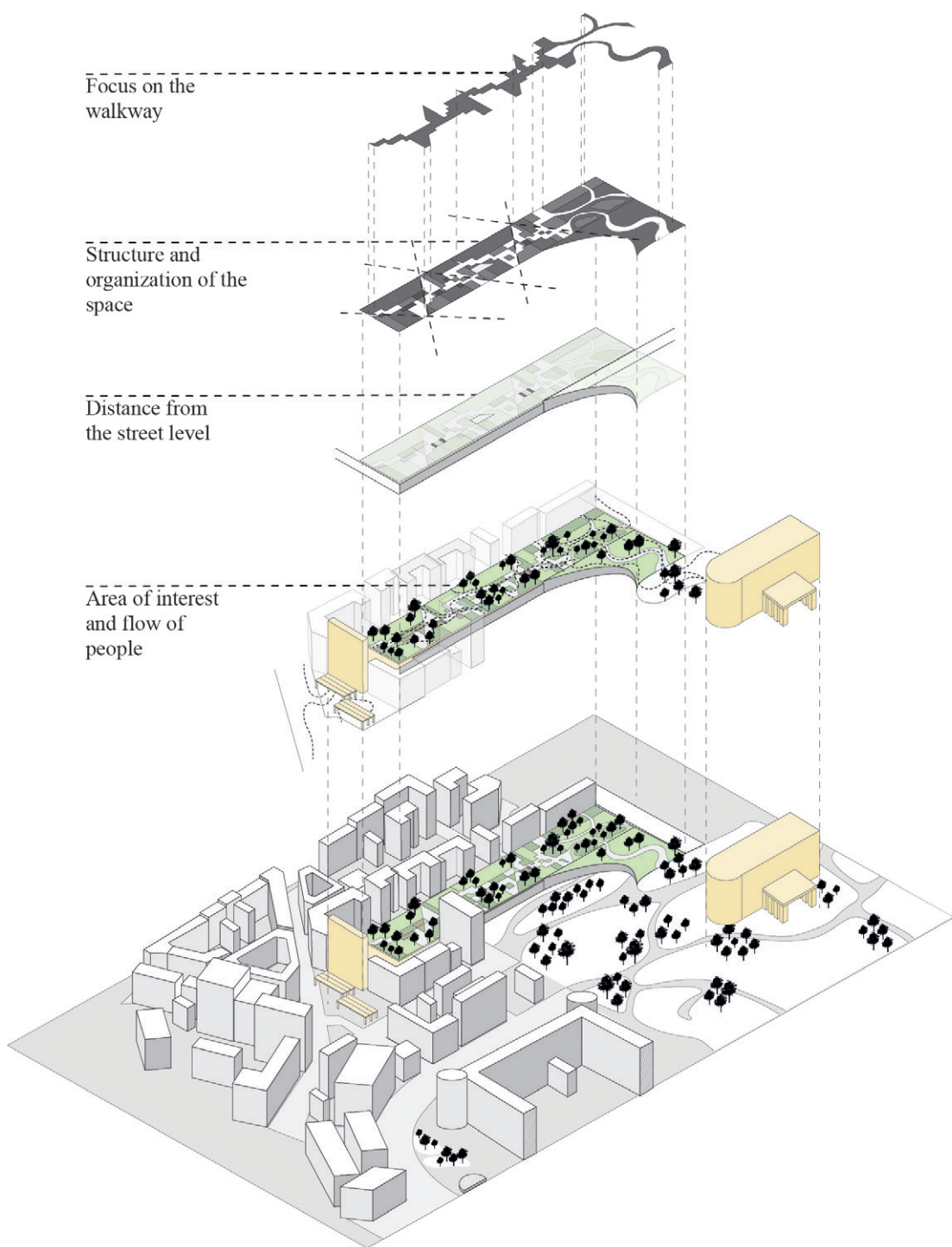


caused by a fast change of location, which causes a lost perception of the surroundings (Giardiello, 2011). Therefore, railway buildings are a joint between separate worlds and become places to redefine functions, structures, strategies, and new poles.

The MP of Cadorna's area is part of the European plan for integration (European Commission, 2011), among collective transportation leading lines, and infrastructures (local railway stations), for the creation of a new way to avail of 'non-places' at a regional level. The framework of the MP is wide: from theoretical research and analysis of international case studies to on-the-field practice (through co-design and involvement of local stakeholders in the project choices), to reach citizenship in a strive for participation and social inclusion.

The specific challenge consists in transforming the railway station of Milano Cadorna, consistently with the sensitivity and generative capacity of the place, into an immersive, highly communicative space, strongly characterized by new digital and/or traditional forms capable of conveying to viewers: a balanced level of mediatic information (against semiotic abuse); new ways to praise the territory (emphasizing landscape and beauty of the local area); recovery of the central role of new forms of contemporary art. At the basis of the project is the idea to offer the onlookers a two-speed system. On one hand, a station at full throttle, characterized by the typical dynamism of high-quality industrial artefacts, precision, and transparency in the daily movements of its inner workings; on the other hand, a slow, monolithic station, that conveys the idea of a docked ship, ready for sailing.

It also defines a new abacus as arbitration between past and present, introducing new functions, materials, and shapes to connect the central part of the square to the



**Fig. 8** | Main layers of the new natural and built-up environment, in relation to the status quo (credit: D. Bruno, 2016).

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**Fig. 6** | Perspective and section drawings of the buildings, the new canopy, and the underground rail system (credit: D. Bruno, 2016).

**Fig. 7** | Internal view of the new canopy (credit: D. Bruno, 2016).

Triennale park, thus reconciling two areas of the city with the creation of a joint, a shelter, a great hydroponic green river supported by a light tensile structure, characterized by grass-covered areas and immersive paths of works of art, installations, and technologies (Fig. 1-5). To observe the constraints given by the flow between inner and outer areas, we decided to develop an overhead itinerary, in the open air, recreating a connection between parts of the city, as an example of a highly porous, open system, linked to the Triennale gardens (Fig. 6).

The canopy is conceived as an effective and formally expressive tool to cover the railway tracks (Fig. 7), and joins the existing urban context like a fluid element, an object whose unity and direction towards Triennale look always different (Fig. 8). The station appears as a docked ship. Six sails on the canopy accentuate this impression, conveying the typical sense of fluidity that belongs to the gentle rocking movement of the waves. The architecture is entirely dominated by the movement of the station and the travellers; the space between the sails is conceived as a natural connection among the services inside the building, staggered by the architecture itself. This natural continuity among different spaces, the context-inclusive architecture, and the material choice which links and unifies all the elements within the volume, conveys an idea of organicity.

The strong presence of green meets the European guidelines for greening politics. The process of reunion of two city areas is carried out through the creation of an overhead, 380 meters long canopy-bridge which joins, with a nearly 32,000 square meters area, via Leopardi and the Triennale park, over railway tracks and secondary streets. The infrastructure shapes the bed of a hydroponic green river, which structures immersive paths of design and technology installations. More specifically, the idea of a cultural eco-systemic path from Cadorna station to Triennale Milano aims at strengthening the link between the natural environment and built-up area, in a new symbiosis. In one of the most suggestive, historic, and monumental contexts of Milano, this vertical garden, animated by a maze of green paths, will act as an imaginary factory producing oxygen for the city. The collection and re-use of rainwater would also offer better water resources management and the mitigation of extreme pluviometric effects in a circular vision of the natural processes, aimed at improving the environmental as well as the socio-economic conditions.

In the heart of the city, architecture turns a station as a 'non-place' into a dynamic, moving structure, and finally gets rid of the fracture of the ancient urban design in a new, highly permeable system in connection with the Triennale gardens, entering the forest of surrounding buildings as a fluid element (Carta, 2013). The greening intervention is hence the chosen tool which turns the Plan's guidelines into factual action, in a historic context where the physical transformation of spaces is often extremely difficult (Boeri et alii, 2017; Dessì et alii, 2017). A pioneer and visionary project that has the re-establishment of a connection between the city and natural environment as its goal, through the creation of high-quality and highly liveable public spaces, in line

with the accessibility represented by the Milano Cadorna Station in its new inclination to meet the needs of travelling citizens. The project hence pairs natural elements and artefacts, biological cycles and building processes, tradition, and innovation determining the high quality of its new set of technological, eco-systemic, and efficient offers, enriched by artistic and cultural suggestions (Figg. 9-11).

Even though the scope of the MP is well-defined and localized in the Milanese context, a multi-disciplinary approach, in-depth study of the state-of-the-art, as well as evidence-based design, create an underlayer of knowledge that can be transferred into different contexts, both at a national and at an international level.

**A new methodological and operative approach** | The original character of the contribution can be inferred from the double approach, methodological as well as operative. The methodological aspect is based on the research of balance in the scenario of a 'non-place', between the request for conservation and the new need for resilience, sustainability, transformation, and use of the collective spaces, where an integrated reading of the existing situation creates value through a project layer that systemizes overlapping layers of urban stratigraphy (railway tracks/canopy/green river). To address our research question, this study has explored knowledge, projects, and experimentation, 'contaminated' by the European context. In particular, the pedestrian Promenade Plantée in Paris, also known as Coulée verte René-Dumont (Fig. 12), the High Line in New York (Fig. 13), the overhead garden of Sants in Barcelona (De Francesco, 2017; Fig. 14) have been selected as reference cases.

The selected case studies present significant projects for reinterpreting the urban tissue, aiming at establishing a connection between the built environment and the network of environmental and social processes in the cities. From the analysis, shared methodologies and design objectives, leading to the experimentation of innovative solutions have been found. Firstly, the exploratory analysis considered the technical solutions adopted by the greening systems to promote the refunctionalisation of the grey infrastructure, the creation of benefits from the point of view of the psycho-physical and social well-being of the local community and the sustainable integration between building and environment.

A second, equally innovative aspect is laid out in the 'operative' dimension. From a visionary illustration of the contribution, we can outline in detail the design elements that contaminate the scenario in the eyes of the onlookers. The project opens to an array of industrial, artistic, and technological products which clearly define a historical, contemporary, and projected path through a careful, continuous design process that spans over time, from the proto-design of the great masters to new generation materials; from creation matter to the cultural inversion leading to a green sustainable process. The original contribution can be seen in the right match between cultural, green, technological, and design elements which outline a multi-disciplinary approach, aiming to suggest a best practice as a tool for prefiguration and a reference model that is adjustable to different urban contexts.



Modular walkway with geometric shapes, composed by several elements of urban furniture



Enhancement of the greenery, with separate areas for different species of vegetation



The public space is distributed on several floors and offers shady areas thanks to the presence of many hanging gardens



The area offers green spaces for conviviality thanks to the presence of many seats



Zone of connection with Sempione Park. With its organic shape and large spaces it can house the most iconic works of art



**Perspectives for the development of green infrastructures and environmental benefits** | In Europe and the world, a social and economic process determining the gradual abandonment of rural hill and mountain areas is taking place, together with the intensification, in terms of occupied surface and residential density, of the urban systems. The effects of climate change (heat islands, intense precipitations, floods) add to this already critical situation, and the urban areas can be considered as both generators of hazardous conditions and exposed goods. The critical environmental issues that our cities are facing require a re-thinking of the analytical and design approach to habitat transformation, which contributes to the alteration of the eco-systemic balance related to wellbeing, health, and access to resources.

We are witnessing a change of paradigm in the transition from sustainability culture to resilience culture. While thinking in terms of perfect balance among social equity, economic possibilities, and environmental constraints is no longer enough, resiliency comes to suggest a dynamic balance in the terms of sustainability, which should include continuous changes of status and a new start after a critical phase. These cyclically mark the interaction between humans and the environment (Dell'Acqua, 2020). The mandatory character of the environmental issues, together with the acquisition of a paradigm of resiliency within the project culture, has determined a remarkable development of the disciplinary debate, shifting the attention of the scientific community from research objectives that were mainly oriented to the conservation of resources (safekeeping of the natural capital through sustainable use of them), to more focused studies around the nature of anthropized systems and the advantages of their re-design from an ecological point of view (Rigillo, 2016).

The urban project becomes the place for transcularity and multi-objective, promoting strategies where the green systems correspond with a vital re-interpretation of stratified (urban) landscapes. Taking inspiration from the Lynchian metaphor of cities as 'learning ecology' (Lynch, 1981), we can nourish the design activity originating research activities around the ecological function of urban spaces focused on the interaction between natural cycles and the peculiarities of built-up environments (pattern, materials, technologies, building processes (Niemela et alii, 2010). Through this approach, we can re-define the relationship between the built-up environment and nature: a 'gentle' invasion of green into the urban tissue (Zaffi and D'Ostuni, 2020) which mimics the natural colonization processes that are generally hindered by humans (Fig. 15). In this context, urban green areas play a fundamental role in the implementation of projects aimed at limiting the cities' vulnerability.

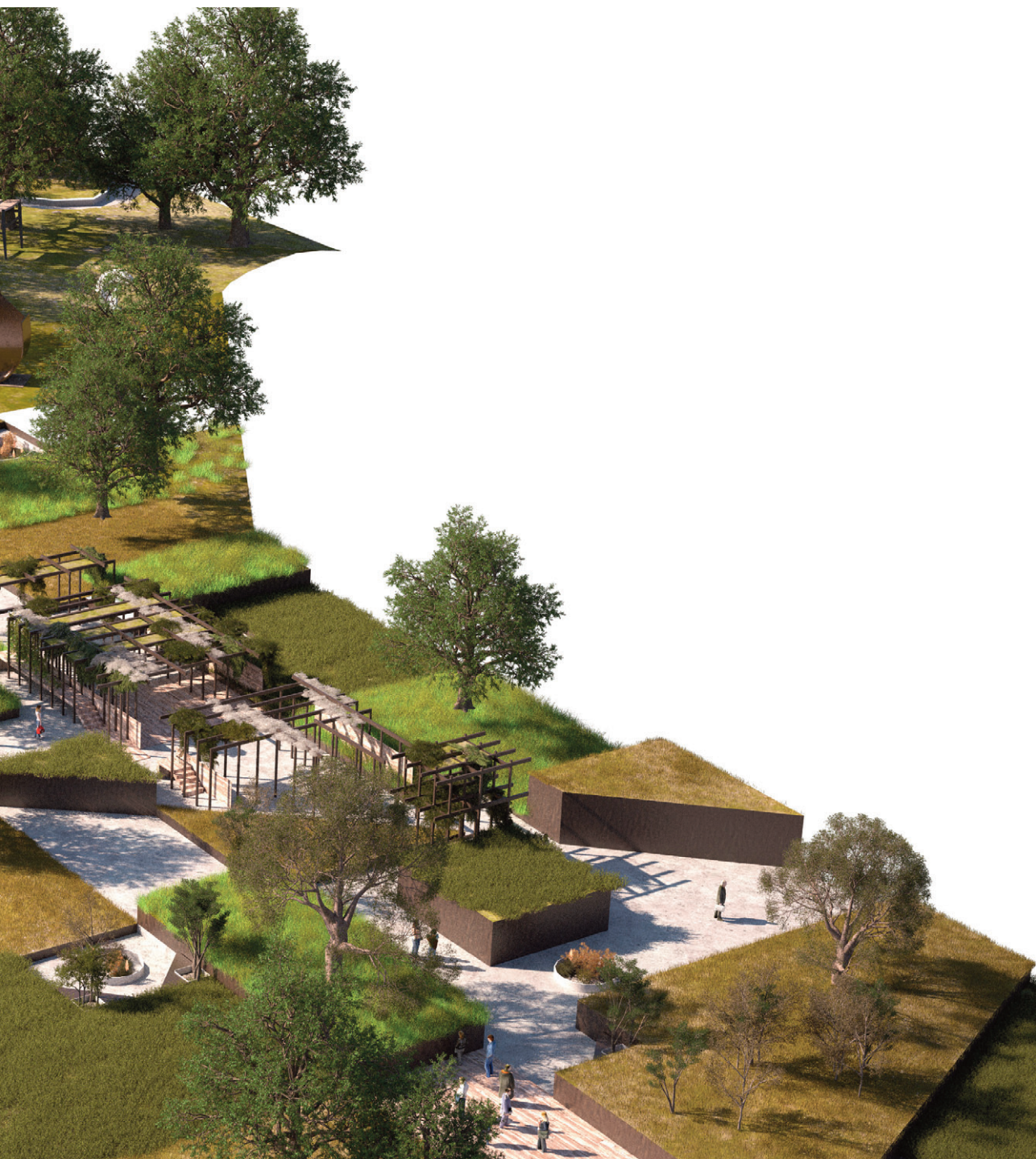
The increased awareness of the role played by natural resources in the creation of urban resiliency guides policies and actions aimed at a reconfiguration of spaces, following an adaptive approach that acknowledges the value of green infrastructures and

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**Fig. 9** | Union between the natural environment and sustainable artificial elements (credit: D. Bruno, 2016).



**Fig. 10** | Design and art elements on a hyper-scale  
(credit: D. Bruno, 2016).





**Fig. 11** | Selection from a taxonomic element of design objects on an urban scale (credit: D. Bruno, 2016).

eco-systemic functions. In the framework of these needs, we can find the theme of green infrastructures at different levels of integration of nature in cities. They are recognized to contribute to the environmental quality of anthropized systems and, more specifically, to lower vulnerability in terms of climate change (Dell'Acqua, 2020). Adopted in several disciplinary fields and widely used in design and planning, the expression green infrastructure has more than one meaning. Mainly represented by two different cultural and geographical matrixes – from the United States and Europe – we can find references in authors such as Benedict and McMahon (2002), who in the beginning of the years 2000 in the United States linked the idea of green infrastructure to that of an interconnected network of natural areas and other open spaces, maintain natural ecosystem values and functions, sustain water and air quality, and provide a wide range of benefits to people.

Both in the description of the green infrastructure and their ascribed functions, the definition by Benedict and McMahon recalls the idea of the ecological net as found in literature, projecting it into a sustainable planning logic that considers natural areas as an essential resource for human wellbeing. The 'infrastructural' value of the natural capital is hence acknowledged in its Anglo-Saxon meaning of common good, used to support the idea of an active safeguard of resources. As opposed to that, the European

approach highlights the multi-function value of green areas and recognizes the fundamental role of green structures in the contribution to sustainable urban development (Sandström, 2002). At the core of the idea of green infrastructure is the understanding of the advantages related to inter-connectivity, and the conception of them as more than a simple sum of different parts. The latter generates indeed fewer benefits than the potential expressed by their synergy. So, the idea of green infrastructure qualifies for its characteristics of multi-functionality, inter-relation, systemic nature, and provision of differentiated services (Dell'Acqua, 2020).

Among the main pursuable objectives in the design of green infrastructures, the ones linked to the management of water resources – also through the implementation of hydroponic cultures – and to the recreational functions emerge, taking on a strategic role in the climatic adaptation of cities through eco-systemic services and ecological, economic, and social benefits that such nature-based solutions are capable of providing. However, new variations to green infrastructures emerge after the remarkable changes in our reality. After the recent happenings, the academic world has started to show an increased interest in the implication of the human-nature relation on people's wellbeing, contributing to a more in-depth analysis of its consequences from a social and relational point of view (Perez-Urrestarazu et alii, 2021; Dobson et alii, 2021).

It is on these premises that the green infrastructures adopted within the scope of the MP shall become functional to an adaptation in its broadest meaning, from the need to re-establish a relationship with nature and art to increasing the inclusion of intangible components – digital networks to support the maintenance and care of the natural capital in the urban context (with IoT and Artificial Intelligence technologies) – and to turning the open space before the station from a 'non-place' to a potentially safe place to recover new normality (Scalisi and Ness, 2022).

**Elements of human-nature-art relation** | There are multiple images as well as reading and representation paths for the relationship between humans and nature. Literature, philosophy, and art have shaped this relation, depicting in history their harmony and contradictions. One of the goals of the MP is to highlight the vegetable element in its social implications. Can Nature, in symbiosis with art, witness and take part in human history, and operate towards a change? And if so, how? The project aims at opening a space for reflecting on the human-nature-art relation, fostering awareness on the ethical dimension as well as on a mutual faith which unites nature and humans, in opposition to the idea of unlimited resources, hence relieving the frailty of the ecological environment. This frailty makes it essential and urgent to commit to safekeeping and conservation, together with the education to mindfulness and sensitivity within ethics of responsibility. The green itinerary that looks towards the Triennale park is not only an open-air museum but a relational space between art and life, a match of nature and artefacts. In using nature as an



**Fig. 12** | Promenade Plantée, Paris (credit: J.-L. Zimmermann, 2009).

**Fig. 13** | High Line, New York (credit: Iwan Baan, 2008).

**Fig. 14** | Raised garden of Sants, Barcelona (credit: A. Goula, 2016).

aesthetic element, art plays an active role, animating the scene with highly symbolic works and objects, mixing tradition and avant-garde of the Italian design, and anticipating future artistic revelations.

**Constraints and obstacles of the project** | The limits of the project lie mainly in the articulation of cross-cutting competencies at various levels, concerning both the design phase and the execution phase the intersection of structural engineering and management engineering with the aspects of civil architecture, interior design, the design of the object population and an ‘open-air museum system’ that is supposed to mend and connect two urban tissues like a hinge. Therefore, the complex set of all these activities that need to be linked together, in the absence of a highly qualified direction oriented towards a multidisciplinary approach, could be a real and extremely limiting constraint to the success of the project.

In addition, problems of a political and economic nature, easily encountered in environmental and territorial contexts comparable to those of this case study, should be considered as potential obstacles to the implementation of the project. A third aspect concerns the layering and sedimentation of a new project in the existing reality. In the execution phase, it will therefore prove necessary to create a development model that can guarantee the operation of the station without limiting the quality and efficiency of the services offered.

**Verification based on case studies** | Operational reality is generally characterized by a variety of factors and conditions, some of which elude the arguments presented above. Therefore, it seems appropriate to verify some of the discussed issues by means of practical project opportunities that provide synthetic readings of the transformability of places through comparisons. In particular, two case studies have been analysed (High Line in New York and Promenade Planteè in Paris) from which we have tried to extract symbolic aspects, structural elements, and perceptual modalities as indicators that characterize the project. The two analysed case studies make it possible to explain the indicators in a differentiated way by showing the predominance of some aspects over others or the absence of some factors, thus allowing a comparison of the different evaluation outcomes. By comparing the case studies with the Milan project, we can generally observe that the transformation of the railway infrastructure, as a kind of intervention in the city, becomes part of the totality of public spaces in different ways.

Specifically, the case of New York's High Line proposes the least transformative project of the infrastructure's characters, focusing on the architectural qualities of the building. The symbolic factors that give the viaduct the significance of an urban monument have been decisive in this design. Therefore, the more specific attributes of the



**Fig. 15** | Bird's eye view of the new intervention (credit: D. Bruno, 2016).





Fig. 16 | Integrated simulation of the new intervention in relation to the buildings and urban context (credit: D. Bruno, 2014)



infrastructure, such as the structural section and the perception along the railway line, take on greater importance. The case study of the Promenade Planteè in Paris presents a less radical alternative than the previous one. It has succeeded in selecting some features of railway architecture that can be integrated into the cityscape and focusing the project on solving peripheral areas. In Paris, it is mainly the considerations of perception that play a role, both in the design of the elevated railway and in the transformation of the 'parts' of the infrastructure into urban artefacts (the long building, the pedestrian bridge, the large path, etc.). However, some structural aspects are also of considerable importance, such as the relationship of the forms influenced by the different positions of the path, which determine the dimensions and the specific character of each segment of the path.

In the case of Milan, the project idea, aimed at the environmental, cultural, and social revitalization of a highly historical and monument-dense urban area, has allowed the symbolic factors, the structural elements, and the perceptual sensations to coexist to strengthen the link between the natural environment and the built space. In particular, the morphological features of the settlements significantly impacted the definition of the design strategies, which also influenced the relationships and the perceptual qualities of the intervention. By declaring nature as an aesthetic element, art plays a proactive role, enlivening the scene with highly symbolic works and objects and introducing a population of industrial, artistic, and technological products that mark a historical path through the mix of tradition and avant-garde of Italian design.

**Conclusions and future visions** | This article describes the outcome of a project that aims at identifying a new eco-systemic and cultural path from Cadorna station to Triennale Milano, devoted to an environmental and social recovery of a strategic area of the city, that is also dense in history and monuments (Fig. 16). The project suggests the addition of a new design 'level' as a tool to recover the historical reasons (artistic and monumental patrimony) integrating them with the contemporary needs (sustainability, wellbeing, inclusion), with the purpose of bringing the project to the centre of an effective cultural development process. In an up-cycling approach, the original function will be integrated with new creative uses, that are closer to the citizens' needs and more impactful on the economic and social dynamics of a contemporary city (Ferlenga, Biraghi and Albrecht, 2012). The possible applications of the Plan and the related synergies have the potential for being fruitful pilot-projects, encouraging the creation of new initiatives and projects for the adaptation of built-up environments to the effects of climate change. At the same time, they shall promote mitigation solutions in green regeneration-inclined contexts. The adoption of green infrastructures with water-saving/reuse systems, together with the use and/or supply of renewable energy with the support of digital solutions, become necessary in an urban circularity approach (Carli and Scrugli, 2021).

A second element for positive reflection comes from the collaboration between universities and institutions to receive multi-disciplinary contributions, and to trans-

late research and experimentation into opportunities, also fostering the scientific debate within a vision that is inclined to support the development of solutions for urban resiliency, in a process of ecological transition.

Although this article presents a qualitative reflection on the possibilities of green infrastructures, we need to carry out a quantitative analysis to depict a more comprehensive scenario of their strengths and weaknesses. The implementation of nature-based solutions with high technological content would allow for: 1) investigating the technical aspects of plants as design material, in terms of performance, durability, and maintenance; 2) identifying vegetable species that better respond to the need for shade and evapotranspiration, according with the site climatic characteristics. In a broader vision, an analysis including quantitative data might contribute to improved environmental, economic, and social sustainability through the development of structural elements that are linked to the territory. The outcomes of this project do not intend to diminish the cross-disciplinary complexity of the subject, to complete the amount of available information, or to define a unique process. Future studies on the relation among these aspects could highlight new disciplinary alliances or methodological guidelines to interpret the need for a virtuous bond between the natural environment and built-up space.

### Acknowledgements

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### Notes

1) In the lecture Italo Calvino gave in English to the students of the Graduate Writing Division of Columbia University in New York on 29 March 1983, he gives us a compass with which to orient ourselves in his work, with basic indications of its genesis, content, and its particular structure.

2) The Master Plan for the Cadorna – Triennale Milano area has been prepared as part of the agreement between La Triennale Milano Foundation, FERROVIENORD S.p.A., and the Municipality of Milan to ensure better permeability between the Cadorna station, Parco Sempione and the Triennale. Prof. Davide Bruno of the Politecnico di Milano coordinated the scientific activity of a multi-disciplinary research team involved in the development of the Master Plan.

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