Politecnico di Torino

INTEGRATIVE URBAN SPACE

Multifunctional facilities and public art for the urban regeneration of post-industrial area Ex Scalo Vallino

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Fui un viajero
En la constelación lejana de tu ser,
En los alrededores tuyos,
Donde deteníamos el tiempo
En caricias y en palabras,
Con miradas infinitas.

Ero un viaggiatore
Nella lontana costellazione di te,
Nei dintorni della tua geografia,
Dove abbiamo fermato il tempo
Con le carezze e le parole,
Nei nostri sguardi infiniti.

I was a traveler
In your distant constellation,
In your surroundings,
Where we stopped time
In caresses and words,
With our infinite glances.

Ángel Hernández, 2023.

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PART 1 INTRODUCTION



Abstract

Over the decades, changes in the global industrial production and means of transportation have left empty spaces within urban fabrics. Urban transformation has not been able to integrate some of those abandoned areas into the modernization process, according to changing times. Those areas in decay contain not only sheds or old factories structures but also remnants of the late 19th century railway transportation system used to move or store goods, as the railway yards, close to important train stations and large enough to frame a noticeable void in urban landscape.

At present, abandoned railway areas within or near urban centers represent an opportunity for intervention to generate main or complementary projects. New activities can regenerate and revalue the nearby territory and establish symbiotic connections, to stimulate the encounter of the past with the present, in some communities. Considering the proximity that many of these areas have to central urban sectors, the possibilities for urban regeneration and transformation are numerous and can range from parks to commercial and residential areas.

In Italy, as in other European countries, disused railway areas are scattered in different metropolitan areas, with varied dimensions and conditions. For this thesis, the chosen study and intervention area is Ex Scalo Vallino, a ex railway yard area located in the multi-ethnic neighborhood of San Salvario, in Turin. Through an analysis of the place's history and its urban context, the present and future possibilities of transformation will be addressed as an argument to generate the design hypothesis: a multipurpose project with various commercial and residential uses, integrated with the rest of pre-existing structures in the site and connected with the surrounding city through a public space designed as a dynamic meeting place. It could also favors the development of artistic and recreational activities, creating at the same time a promenade that highlights the identity of the place with different project concepts, artifacts, and components.

INDUSTRIAL IDENTITY

RAILWAY YARD

URBAN VOID

ABANDONED AREA

DISUSED RAILWAY HERITAGE

URBAN REGENERATION

CITY TRANSFORMATION

PROMENADE

URBAN SPACE

PUBLIC ART

Fig. 1. Ex Scalo Vallino Area. Own ellaboration, 2023.

Objectives

General Objective

Design an architectural project with different uses that allows the regeneration of the Ex Scalo Vallino area (Turin) through an integrative public space for creative activities.

Specific Objectives

- Apply innovative design strategies to generate the integration of the existing urban space with the new architectural proposal, considering spatial, social, economic and environmental variables.

- Achieve an improvement in the environmental conditions of the area by implementing innovative approaches for the design and use of public space.

- Promote the historical memory by applying design criteria to rebuild the identity of the place.

- Design an open public space that integrates the different uses of the surrounding buildings and transforms the promenade into a useful route for artistic activities.

- Enhance the economic and social dynamics of the area with new buildings for commercial, residential and service uses.



Fig. 2. Ex Scalo Vallino Area. Own ellaboration, 2023.

Methodology

- Research on bibliographical material about the problem of disused railway spaces in different scales and locations.
- Review the history of the place and its use as a railway warehouse, to understand the changes it has undergone over time and its historical and cultural value.
- Analyze the urban variables of the place and the context that surrounds the intervention area to recognize problems and opportunities and to establish criteria in terms of regeneration and integration with the environment.
- Create a conceptual framework with the themes of intervention ideas and reference case studies.
- Proposal of an architectural and urban project that promotes the site's regeneration through multifunctional facilities and public art in an integratate urban space.



Fig. 3. Ex Scalo Vallino Area. Own ellaboration, 2023.

PART 2

THE PROBLEM

Disused Railway Areas

*The **theoretical framework** of the main **problem addressed** by this research work is defined in this chapter with the collection and presentation of data and references to authors who have previously worked on this subject.*
*Through a **literary review,** the problem is **conceptualized** and **contextualized** in temporal and spatial scenarios, to understand **the process of abandonment of the railway system heritage** at different scales: **global, national, and local.***



Fig. 4. Railway lines, Torino-Genova Route. Own ellaboration, 2023.

2.1

THE ROLE OF RAILWAY SYSTEM

IN CITIES DEVELOPMENT

The second Industrial Revolution was carried out with the generation of great changes in the way of producing and manufacturing goods and services. It was a time of significant advances and innovations that stand out for their enormous contribution to the history of technological progress of humanity. This period encouraged our civilization to interpret the world from its different scales, exploring the possibilities of knowledge to comprehend the world from the closest to the farthest elements, thus defining the propitious scenario to start the modern era (Andrei, 2010, p. 2). This period was characterized by the development of new technologies and the use of mechanics as a development tool, but it also had an impact on many other aspects of human life, including the economic system, the cultural sphere, the social relations, the habitat, and the city.

The city as an entity was the laboratory where a large part of the revolutionary inventions of the industrial era took place, and it was not exempt from its main transformation. Since the Industrial Revolution, the development of new modes of transportation has been usually related to the expansion and morphological definition of cities. The railway has stood out in this historical context as the mode of transportation with the most strong influence because of its significant contribution in the quick processes of territorial occupation, for the conformation and development of cities, suburbs, and towns (Dragan, 2017, p. 57).

During the Industrial Revolution, the railway represented an unprecedented advance fostering the economic growth of many societies, establishing a system for commercial and social exchange, also the implementation of a large-scale infrastructure and territorial occupation, connecting landscapes, towns, cities, and industry along many axes of movement. This was a considerable defining aspect in the history of transport and commerce. The railways not only helped with the transportation of passengers and goods but also defined the lines for new urban settlements and shaped the development and growth of the cities where their trajectory was marked.

Economic growth and prosperity of urban centers dotted with railways are somewhat reminiscent of the advantages obtained by ancient civilizations. They settled near rivers not only to have access to natural resources but also to establish commercial trade routes. With this reference, we could understand that the railway represented for the society of the 19th and 20th centuries a way for economic progress. It was the beginning of an era where speed would take on leading importance in the way of making city, capital, and society. The railway, a symbol of the movement, oriented the criteria for the urban transformation of many cities based on variables of commercial exchange, displacement, migration, merchandise transport, and leisure. This transformation process, undoubtedly, conditioned the morphological conformation of many the urban fabrics, and configured a symbiosis between the transport system and the urbanism of many city territories.

*“In addition, railway stations constitute a **form of connection with the spatial structure of a city,** and their mutual interaction adjoins the area of the railway station”.*

(Dragan, 2017, p. 57).

Railway systems should not be understood solely as train tracks and platforms, because some of these routes were also accompanied by much more complex facilities, such as central stations, railway yards, interchanges places, services, warehouses, and offices. Railway stations and yards are, perhaps, the most notable components of all the elements that constitute this transport system infrastructure and with which the city shares a direct connection as places of transition and storage. Railway stations have also played a pivotal role in the urban fabric as a service facility that connects the city to other locations (Lunardon et al., 2023, p. 1), manifesting the legacy of the railway industry through its functioning and materiality, while its territorial occupation and location, together with the railway yards, have conditioned the urban development of its contexts according to the scales of its dynamics, creating boundaries, edges, entrances and exits in its interaction with the city landscape.

"I think that understanding how railway and city interact with each other in a specific urban context means also becoming aware of ***the identity of the place*** *through the analysis of transformation processes. When the* ***first railroads*** *were built nobody was really aware of what exactly was going on in the city. The construction of an important* ***urban artifact*** *for the city was made following only the utilitarian needs, considered at that time far more important then all other discussions about the beauty of the city. Nevertheless* ***the railway as an urban artifact determined the development of the city in a strong way"****.*

(Cavallo, 2008, p. 184).

Fig. 5. Current state of Ex Scalo Vallino historical buildings. Own ellaboration, 2023.

2.2

DEFINING

RAILWAY AREAS

The development of the railway transportation involved the construction of buildings and the occupation of areas for the system's operativity and the supply chain, that are stations, logistics areas such as railway yards, warehouses, depots, and complementary structures. **Railway stations** are the components of this system with which we have had the closest proximity for decades, probably because their presence within urban and rural settlements has meant a milestone of identity. Railway stations could be defined as operational buildings, service buildings, passageways, or merely technical structures for the supply of the railway system that were built systematically and widespread in many nations, materializing the first example of industrial building heritage produced to complement the invention of the locomotive (Erdogan & Erdogan 2013, p.1).

Delving into a more conceptual analysis, the railway stations played a role in shaping the city, that is, they directly affected the dynamics of its immediate environment, establishing a radius of influence for commerce, tourism, and daily life. These structures also express the architectural language of an era, highlighting technological advances through their materiality, structure, and systems for their operation. According to Dragan (2017), "railway stations are landscape dominants and at the same time are facilities connecting rail transport with urban space. These buildings are very often showpieces and impose their character on their surroundings'' (p. 58). This imposed character can be interpreted in a variety of ways, because it is characterized by a variety of elements that are intrinsically part of the places' composition. The railway station marks a milestone: architectural style, mobility, spatiality, connectivity, and the presence of a modern ideal that would progressively and considerably redefine the influence of industrial development in the expansion of cities, leaving a legacy and a pattern in many urbanisms around the world.

The spatial and functional components of the railway infrastructure must be better defined. The definition of each one allows us to understand the railway station's functionality as a support structure for this transportation system. In turn, the station, or the concept of station, may be interpreted as divided into two antagonistic elements that together make it up an entity within the territory. On the one hand, the railway station is a node that functions as an input and output interchange for the trains that travel on the network. At the same time the station is also a place that can be inhabited, it is a portion of the city constituted by elements of infrastructure, facilities, constructions, and public spaces that are related to the immediate environment (Bertolini and Spit, 1998, p. 9).

Railway stations have generally been built following a functional logic of the infrastructure, but their activation as an urban facility awoke different mechanisms of interactions and dynamics. In a certain way, redefined its original merely technical-industrial concept to a type of building with possibilities much larger and with the capacity to generate not only an economic impact on the environment but also a social and placemaking role. According to Dethier (1981) as cited by Alexander (2015) railway stations became *"volcanoes of life", "palaces of modern industry",* and *"cathedrals of humanity"* (p. 2). Railway stations are not only related to the transport system, they also have an important value in the urban context composition, either due to their location, their ability to be *"a node"* and *"a place"* (Bertolini and Spit, 1998, p. 9) and for being *"an object combining mobility and centrality"* (Duby, 1985, as cited in Lunardon et al., 2023, p. 2).



Fig. 6. Lingotto railway station among non-urbanized areas, 1956. © Archivio Storico della Città di Torino.

Railways stations may be part of or be connected in proximity to areas denominated railway yards. **Railway yards** can be defined as logistics areas located at strategic points in the city territory where maintenance, loading and unloading of freitghs, merchandise warehouses, locomotive storage, and other complementary services can be carried out. Cavallo (2008) defines a railway yard as "a sequence of buildings, that are influencing the development and the form of the surrounding urban spaces" (p. 19), and that could also be understood as "an element of transition and not necessarily as a barrier" (p. 20). Being large areas and due to their proximity to the city, railway yards generate a technical assembly in the urban landscape, accompanied by railway tracks, cables, and booths, in a harsh and impenetrable panorama different from that offered by stations open to the public, that shape their dynamics with greater affinity towards the city dweller.

All the conceptualizations carried out by the aforementioned authors allowed reaching the conclusive idea that railway stations, yards, and their components, being part of the infrastructure of the railway system, are buildings and areas of yesterday and today that have complemented the operation of this transport system worldwide. At the same time, they have also played an important role in their immediate urban environment, consolidating themselves as landmarks of cities and towns, structures that house various functions. They also contain a historical and cultural legacy within their limits and even outside them: affecting or conditioning how processes of urban planning, commercial activities establishment and the configuration of roads for the new means of transport were developed, and also generating a place of social exchange that would define a large part of Western culture for some decades, consolidating new dynamics of modernity in cities with scenarios of continuous changes.

Fig. 7. Porta Nuova station, view of the metal covering on the rail side.
© Archivio Storico della Città di Torino.



*"The **railway station** is one of the rare public buildings produced by the industrial revolution which illustrates admirably, over a hundred and fifty years, **the gropings, fluctuations and transformations of our Western society.** Stations reveal the myths and realities of the epic times we live in. **A veritable microcosm of industrial society, a public place where all social classes rub shoulders,** the station has been throughout its history at the heart of the present, the many faceted mirror of a striking array of achievements".*

(Dethier, 1981, p. 6).

2.3

FROM USE

TO ABANDONMENT

Although the era of the railway marked a before and after in the urban configuration of cities, especially in Western urban planning, paradoxically, the speed of progress also generated some guidelines to continue the development of new means of transport. They were coupled not only to the historical moment but also to the social and technological changes that in the middle of the 20th century began to be increasingly accelerated in our civilization. The changes in the infrastructure of local transport systems generated by various economic, social, and technological factors gave rise to the process of abandonment of the industrial railway system in many territories on a national and global scale (Oppido & Ragozino, 2014, p. 424). Those infrastructural changes influenced the development of new innovative proposals to satisfy the needs of each time and place.

Railway infrastructure have entered stages of abandonment for multiple reasons, most of them had a boom at the end of the 19th century and the beginning of the 20th, but according to Walmart (2007) and Devisme (2000) as cited in Lunardon et al., (2023), “after WWII, the railway industry declined to leave space to an increasingly car-based society” and a “huge dissociation between transport centrality and urban centrality appeared, making train stations invisible” (p. 2). Bertolini et al., (2012) mentioned the effect of the invention of the automobile on the development and implementation of the “car-dependent urbanization patterns” (p. 34) as one of the reasons for the abandonment of the railway system including their stations and railway yards. Also, the Delaware Valley Regional Planning Commission (1997) explains two reasons related to car innovation and its influence on the increasing railway infrastructure abandonment: “By the late 1930s, trucks, and barges began to absorb a considerable share of the market for rail freight” and “when the U.S. Post Office discontinued its use of the trains to carry mail in favor of trucks” (p. 4). The development of new technologies applied to means of transport such as automobiles and heavy-duty vehicles marked the beginning of an innovative race to replace the use of the rail system with cars in the mid-20th century, also promoting the construction of new infrastructures such as roads and highways and the closure of kilometers of railway lines, thus initiating a crucial stage that would cause the progressive abandonment of the railway industry (Eizaguirre et al., 2017, p. 1018). The growth and expansion of the large automobile industry was one of the most significant turning points in the railway sector. The individualism of the car, as well as its ability to penetrate territories and cities almost without limits, was so attractive to the society of the time that it provoked an accelerated demand for the innovative means of transport, consequently generating enormous changes in the conformation of the urban fabric, that by then had to adapt to the spatial demands of the new paradigm of the modern city.

Other reasons leading to the abandonment of railway stations and yards may include some government proposals –such as the Beeching Axe in Great Britain in the 1960s–, armed conflicts, and territorial fragmentation –such as the case of the Berlin Wall during the Cold War–. The lack of inputs to keep the train lines and stations running, displacement or substitution of services, changes in the urban planning of the cities, sale and privatization of the infrastructure –as in the case of Argentina during the 90s–, blockades in the railway concession systems by the government or state companies and the low economic profitability as compensation for the provision of the service, made the investment in this type of infrastructure unattractive.

The abandonment and decay of railway stations, yards, and tracks in many geographic locations may also be related to the wide territorial reach of the railway infrastructure. In some circumstances is favorable in terms of territorial connection but in others may not compensate for the cost of maintaining the railway service network, for example, because they connect with remote areas that do not generate an important economic benefit or routes that were originally created for the transport of goods that are no longer commercialized or have switched to a more effective distribution method (Bianchi & De Medici, 2023, p. 1). On the other hand, the displacement of some industries outside urban centers and the rise of electric trains that do not need repetitive maintenance have also left large areas of empty railway yards in significant points of the cities (Cavallo, 2008, pp. 5, 53), defining a contradictory encounter between the past and the present, in the urban landscape.

According to this literary analysis, it seems inevitable that the automobile rise and new technologies would have a negative effect on the railway industry in many nations, increasing other levels of mobility and accessibility. Even when at the end of the 20th century, high-speed trains revitalized investment in railway transport (Oppido & Ragozino, 2014), on a global scale there are many linear and square kilometers of areas in disuse, representing a challenge for urban planning and territorial connectivity of this century. Although part of this railway heritage is completely degraded, especially in areas far from urban centers, some disused stations and railway yards have a favorable and central location within the urban fabric, and a potential that can be developed by applying reuse strategies and activating new uses within this abandoned infrastructure, thus increasing the value of these places and their immediate context.



Fig. 8. Ex Scalo Vallino building offices in the entrance.Own ellaboration, 2023.

*“At present, many **railway stations,** in spite of being architecturally valuable, **are subject to de-capitalization and degradation, which increasingly leads to demolition** including elements or even entire railway stations of historical importance. Therefore, there arises a need to **transform these facilities** – as well as their nearby surroundings – **into service areas** not only for railway passengers but also for the consumer or tourist”.*

(Dragan, 2017, p. 57).

2.3.1

ABANDONED RAILWAY AREAS

IN GLOBAL SCALE

UNITED STATES

1916

434.522 Kilometers in use

After Mid-20th Century

241.401 Kilometers abandoned

Data from "*Secrets of Successful Rail-trails: An Acquisition and Organizing Manual for Converting Rails Into Trails"*. Ryan & Winterich, 1993.

"...20th century economics and politics have led to a major contraction of the rail network. *Railroads have disposed of more than 150.000 miles of track and thousands more likely to be abandoned in the near future".*

(Lee Ryan & Winterich, 1993, p. 3).

ARGENTINA

1947

47.000 Kilometers of rail network

Nowadays

18.000 Operational kilometers

Data from article *"Hace 29 años perdíamos el tren".* El Cronista, 2022.

"In August 1989, during the presidency of Carlos Menem, Law 23.696 of State Reform was promulgated, which proposed the privatization or concession of state companies... ***More than 300 towns disappeared after the interruption of long-distance and interregional rail services."***

(Rojas, 2022).

UNITED KINGDOM

1960

2.128 Stations and **7.200** Kilometers of railway closed

Data from article *"Beeching cuts map: Which railway lines closed after the report?".* The Sun, 2020.

"British Rail was losing £140million a year *when Dr Beeching took over as a chairman of the British Transport Commission. His solution, announced in 1963, was to "make railways pay" and led to 67,000 British Rail job cuts.* ***The cuts came amid a rapid growth in car ownership and the opening of the UK's first motorways".***

(Christie, 2020).

CANADA

From 1990

160 Designated stations

63 In use

68 Alternatie use

18 Not in use

11 Unknown

Data from *Historic Sites and Monuments Board of Canada.* Site: https://parks.canada.ca/

"Heritage Railway Stations Protection Act *was proclaimed into law in 1990, over 150 heritage railway stations have been designated across Canada".*

Text from *Historic Sites and Monuments Board of Canada.* Site: https://parks.canada.ca/

SPAIN

1993

7.600 Kilometers of disused railways

Nowadays

4.500 Kilometers in abandonment

Data from article *"¿Cómo sería España si no hubieran desaparecido 7.600 kilómetros de vías de tren? Este mapa lo muestra".* El Diario, 2021.

"The Spanish Railways Foundation —financed to a large extent with contributions from Renfe and Adif— has ***converted more than 3.100 kilometers of route into paths and cycling tracks:*** *the so-called Vías Verdes, pleasant conditioned paths that run away from the roads".*

(Plaza, 2021).

2.3.2

DISUSED RAILWAY HERITAGE

IN ITALY

In Italy, the railway system has played an important role in the industrial development of the country. Since 1905 it is managed by the Ferrovie dello Stato Italiane, which in turn has a physical heritage that is in a state of disuse or abandonment due to changes in the railway industry since the last century, especially due to the decline in the use of this infrastructure, mainly related to the rise of the automotive industry. This heritage, managed by FS Sistemi Urbani, consists of a large number of areas and structures with locations scattered throughout the national territory, which are partially unused and constitute an inventory of stations, yards, booths, and railways out of operation. Due to the economic importance of this heritage, its historical and cultural value, and its presence within the urban context of many Italian cities – Turin, Milan, Rome, Naples, and Florence, to name a few–, FS Sistemi Urbani has launched some initiatives that involve various actors and strategies to revalue this heritage and generate multiple scenarios of urban regeneration. The objective is to bet on providing structures accounted for this purpose, with new uses, and prioritizing the benefit that the places and nearby communities can obtain from these interventions. New uses being proposed to repurpose this disused railway heritage include residential, cultural, and commercial activities, recreation areas, and public open space.

To better understand the complexity of the disused railway heritage of the Italian state, it can be categorized into three large groups:

UNATTENDED STATIONS OPERATING WITHOUT STAFF

This tendency has occurred throughout the Italian territory, especially in stations in the middle of railway lines far from the most populated urban centers, where the permanence of staff has been replaced by technological devices such as ticket dispensers and automatic controllers, which significantly reduce the operating costs of having permanent employees. Some of these stations are regularly supervised by a manager to verify the conditions of the place, but most of the year they are operating in complete autonomy. For the year 2015, newspaper headlines stated that the inventory was made up of more than **1.700** partially serviced or empty stations, with an approximate value of **120 million euros** (Redazione Tecnica di Ediltecnico, 2015). To date, they were intended for “free” use to carry out projects that benefit the social contexts close to these structures. By 2022, this initiative to reuse abandoned heritage had achieved positive results, as described in the *“Rapporto di sostenibilità”,* 2022 (p. 178) of Gruppo FS. To date, **465 stations** had already been activated with projects of a social, cultural, and environmental nature, in cooperation with different local authorities and institutions, totaling an area of **189.102 m²** dedicated to the heritage requalification.

CLOSED AND ABANDONED RAILWAY TRACKS

These components of the railway system are probably the most difficult asset to manage due to the implications of distancing from populated centers and the few possibilities for reuse that they due to physical characteristics. These are sections of railways that have been closed and abandoned for different reasons: changes in routes, lack of maintenance, termination of service provision and the industrial supply chain in certain areas of the national territory, and the consequent closure of the route, among others. In the *“Rapporto di Sostenibilità”,* 2022 (p. 178) of Gruppo FS, **1.170 kilometers** of disused railway tracks were counted as available to be used for social use and new mobility projects.

To date (2022) approximately **537 kilometers** of disused railway tracks had already been reused and integrated into the well-known **Greenways** project, which consists of paths for walkers and cyclists that follow the route of these disused tracks and connect different geographical points in an ecological and tourist route.



Fig. 9. Ex Scalo Lambrate, Milan. Imagery ©2023 Google Earth.



Fig. 10. Ex Scalo San Paolo, Turin. Imagery ©2023 Google Earth.

LARGE STATIONS AND LOGISTICS AREAS

This heritage includes large structures and logistic areas such as railway yards within consolidated urban contexts or on the outskirts of some cities, representing a great challenge for the cohesion between the urban fabric and these gaps in the past of the railway industry. The potential of these areas lies mainly in their location and the size of the occupied territory. During the dawn of the railway industry, the infrastructure was frequently established in strategic points of the cities, mainly in the centralities and in what could be considered entrances and exits of the urban territory.

Over the years, cities have grown and evolved around these areas, which have progressively lost their value and use, remaining surrounded by the complexity of the urban context that continues to develop along the limits of these post-industrial voids.

At present, many opportunities are visualized in these areas of railway heritage and the debates around this topic have generated ideas for the realization of large residential, commercial, multifunctional, cultural, and sports complexes, trying to guide the reuse process, to achieve long-term sustainability goals and an effective and beneficial integration with the rest of the city.

In 2020 FS Sistemi Urbani published the *“Real Estate Opportunities Book”* where they compile **70 disused areas** throughout the Italian territory classified as investment areas for urban development, in addition, they complement the catalog with the different urban requalification scenarios that could be achieved in each area, to reuse these important assets.

2.3.3

THE CASE OF INDUSTRIAL ABANDONMENT

IN TURIN

During the post-war period of the 1950s, Turin's industrial sector was able to quickly recover and achieve predominance within the great productive machinery of the country, even though some important industrial areas were affected and abandoned after the bombings of World War II. The primary industrial activity in Turin in the 1950s were metallurgy and the automobile industry; the latter, on the one hand, favored recovery and economic growth during the post-war period but also affected the railway sector, which saw its popularity diminished by the growing demand for vehicles, resulting in the abandonment of many portions of the railway system, a scenario mirrored in other cities in Italy and numerous industrialized nations. This dynamic differentiates the changes that have occurred in Turin's industrial sector, because while progress and innovation were being generated in the automobile industry, a factor that would cause a temporary setback in the railway industry was also being introduced, resulting in a progressive abandonment of many complementing sections of this transportation system.

However, after the industrial resurgence of Turin, in the 80s the abandonment of industrial areas within the urban fabric of the city increased considerably for more complicated causes; areas and structures belonging mainly, according to Dansero (1993), to the metallurgical industry **(10 areas, 451.593 m²),** the chemical, rubber, plastic and paper industry **(23 areas, 283.761 m²),** and the mechanical industry **(49 areas, 239.945 m²).** Dansero's census counted a total of **127 disused industrial areas** within the territory of the city for the year 1989, which meant a total area of **1.076,915 m².**

This scenario was caused by various economic reasons, logistical factors, operational needs, changes in marketing, new guidelines in automobile production at the European level, and a transformative disarticulation of the industrial sector at national level, thus increasing the number of industrial areas in disuse due to the decrease in the demand for urban land use, while the restructuring of the industry was taking place.

The heritage of disused industrial areas located in the city of Turin not only includes warehouses and structures that were once used for manufacturing –mostly metallurgical and automotive plants– such as the Fiat building complexes, the Nebiolo factories, the establishments of Ex Westinghouse, Ex Diatto, Ex OSI-Ghia, Ex Manifattura Tabacchi, to mention a few, but also those areas that served as operational and logistical facilities to the industrial city's railway system, for example, Ex Scalo Vanchiglia, Ex Scalo San Paolo, and Ex Scalo Vallino. It should be mentioned that the literature consulted does not usually combine the figures for these areas in a single categorization, that is, the problem of disused industrial areas can generally lead to one or many readings depending on the census or the files that are consulted.

Since the end of the 80s to today, demolitions and post-industrial transformations have affected at least four million square meters of surface area. The transformation processes are long and situations of total and partial abandonment are still found today. From this perspective, temporary reuse strategies have a significant role.

*"A Torino abbiamo **aree e fabbricati inutilizzati** o utilizzati al di sotto delle loro potenzialità. Gli effetti positivi di questa scelta sono molti, primo fra tutti quello di **restituire alla comunità, soprattutto per usi sociali e culturali,** la possibilità di utilizzare aree ed edifici di proprietà privata in attesa di trasformazione, anche per **usi diversi da quelli previsti dal piano regolatore in vigore".***

Stefano Lo Russo, sindaco di Torino. (From article *"Aree dismesse, il Consiglio comunale approva una delibera per l'utilizzo immediato"*, TorinoToday, 2022).

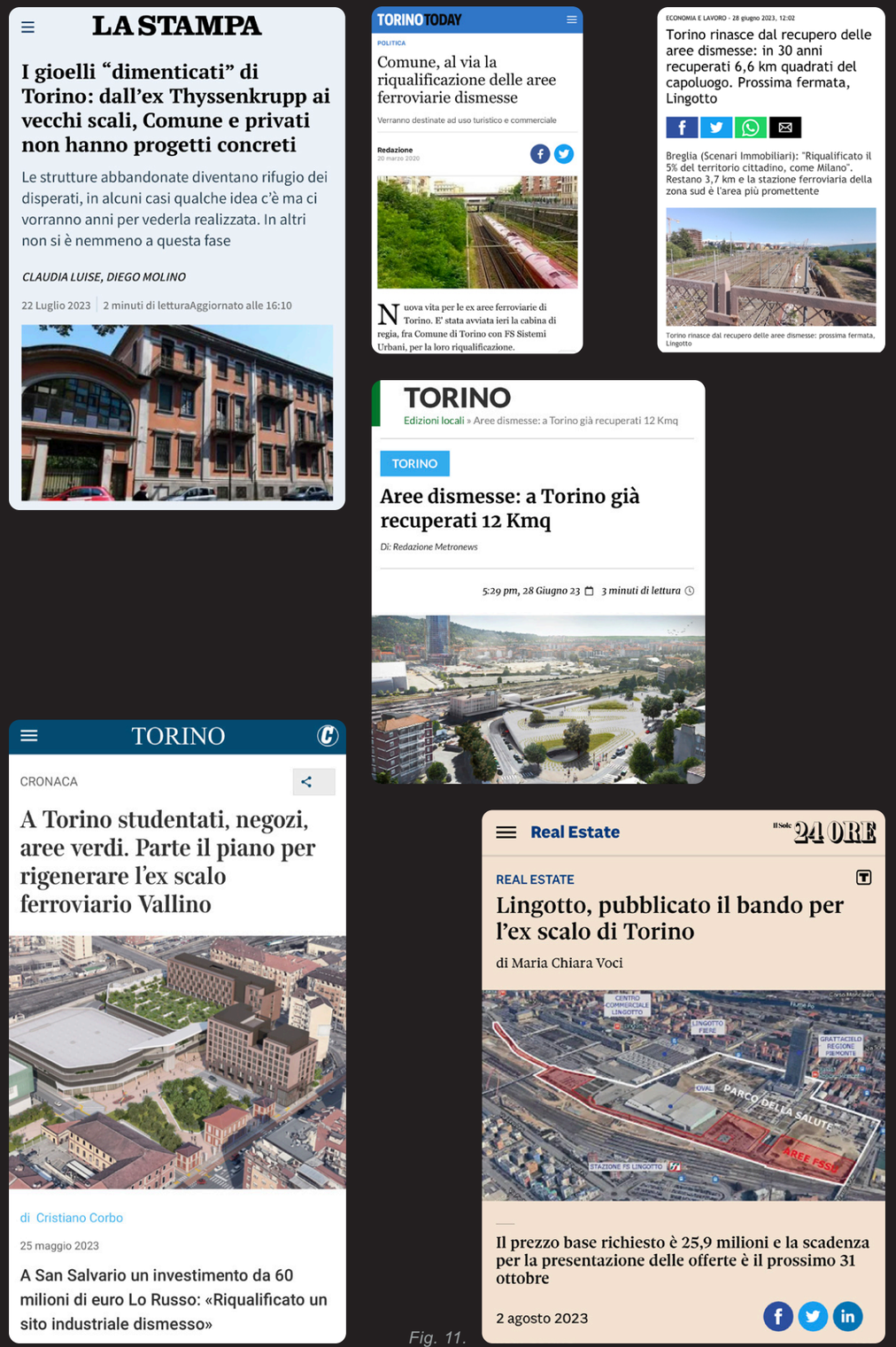


Fig. 11.

In keeping with the preceding argument and to organize information and ideas, Turin's abandoned post-industrial areas can be classified, at least, into the following two categories:

1. The structures and areas that fulfilled an autonomous role in the industrial activity, such as establishments, factories, and warehouses, especially those that belonged to private companies. The first census conducted by Egidio Dansero in 1989 provides a quantified and detailed state of abandonment of these structures and areas, dimensioning the actual scenario that affected the industrial sector of the city at that time. The Comune di Torino in its portals and documents has information about these structures and their current condition.



Fig. 12. Area Osi-Ghia, Corso Dante. Own ellaboration, 2023

2. The structures and areas that were once connected to the railway system but that are considered industrial since they serve an annexed and complementary function to the industrial sector, such as railway tracks, stations, freight yards, train yards, and warehouses for logistics or materials. Ferrovie dello Stato Italiane is the owner of the majority of this heritage, and its catalogs, booklets, and annual reports contain detailed information about them.



Fig. 13. Edificio Storico 8, Ex Scalo Vallino, view from Via Nizza. Own ellaboration, 2023.

SCENARIO OF CURRENT TRANSFORMATIONS IN TURIN

The existence of industrial voids inside the urban fabric is one of the major subjects of analysis and discussion for Turin's urban planning. The recovery of urban land in the city and its regeneration encounter a considerable challenge because of cultural, historical, economic, and environmental considerations in addition to the fact that they quantitatively occupy a substantial portion of land in core areas.

The city of Turin's development is framed within the *"Piano Regolatore Generale of 1995",* a document that determines the use, organization, and layout of urban land in the city and with which building and landscape interventions that take place within the metropolitan territory can be properly ruled. This document has undergone numerous revisions and is frequently updated in response to changes the city goes through. Abandoned industrial areas are a particular case under these regulatory criteria since they contain, in addition to spaces with huge potential, a history inherent to their origin and location, which increases the difficulty when implementing regeneration proposals due to the complexity of these places and the limitations that can affect innovation attempts.

The urban transformation scenario in Turin is oriented towards giving great importance to the visual identity of the city and to the redevelopment and, in recent years, to environmental sustainability. Disused post-industrial areas and structures are, without a doubt, a great opportunity to speak and project awareness about the principles of reuse, regeneration, recycling, and energy efficiency. The act of repurposing abandoned buildings and areas already demonstrates a motivation to design considering the buildings useful life, their relationship to the environment, and their usage in the future by implementing the necessary procedures to improve the natural and urban surroundings. Numerous interventions have been carried out in abandoned post-industrial areas in Turin over the past few years. This topic has garnered widespread attention and interest in the local media and it has also inspired a desire among locals citizens to voice their thoughts and opinions to participate in the decision-making processes concerning these vacant spaces, that are part of the city's memory for several generations.

Regarding industrial areas of **Category 1**, many of these areas, or their constituent parts, have recently undergone partial or total regeneration and now house new uses for culture, education, research, and business. To mention a few examples, the former DAI, in the Mirafiori complex, has been partially recovered thanks to the efforts of different actors such as the Regione Piemonte and the Comune di Torino and currently the Centro del Design del Politecnico di Torino (2011) works within the recovered structures. However, the project for this post-industrial complex is still being developed and contemplates further functions and services for the community. Another example is the Lingotto Shopping Center (Ex 8Gallery), located in a building that was once a Fiat establishment from 1923 until its final closure and relocation in 1982, renovated by a first project led by the architect Renzo Piano and which also shares the spaces for higher education (University and Polytechnic of Turin), hotel hospitality and temporary exhibitions.

Spina Centrale of Turin (1995) and Officine Grandi Riparazioni (2017) are the best examples of buildings, structures, and areas reused for urban regeneration that could be included in **Category 2.** Covering approximately 12 kilometers in a north-south direction in the city's territory, the Spina Centrale is an infrastructural urban project that was planned intending to transform and reorganize the city's urban landscape from the requalification and undergrounding of the railway's line and areas. The project has defined part of the urban development of Turin in the last twenty years and has marked one of the main axes of the city's expansion.

2.3.3

The Spina Centrale project was included in the *“Piano Regolatore Generale of 1995”,* and is conformed by four main areas with specific interventions: Spina 1 (begins in Largo Filippo Turati); Spina 2 (the most complex section, from Corso Inghilterra, Corso Vittorio Emanuele II to Piazza Statuto, includes the Porta Susa station and the Intesa Sanpaolo Skyscraper); Spina 3 (the section with the largest area, from Corso Principe Oddone to Piazza Baldissera, includes the 450.000 m² of Parco Dora); Spina 4 (from Corso Venezia to Parco Sempione, that connects the city center with Turin - Caselle Airport, and includes the 45.000 m² of Parco Peccei).

Taking as reference the catalog published in 2020 by the Sistemi Urbani of the Gruppo Ferrovie dello Stato Italiano entitled *“Real Estate Opportunities Book”*, which includes the heritage of seven disused railway areas within Turin managed by Ferrovie dello Stato, the infrastructure and areas of **Category 2** in Turin that are currently pending for requalification projects, can be quantified as around **836.000 m²** of **total surface area (TSA),** and **653.000 m²** of **gross floor area (GFA).**

With the aim of discussing the opportunities for redevelopment and urban regeneration that these seven abandoned areas represent within the territory of the Piedmontese capital, the **Rail City Lab** was held in May 2019, an event in cooperation with FS Sistemi Urbani, the Città di Torino, and the Urban Lab di Torino to generate a discussion forum around three main themes: *“la città del vivere, la città delle connessioni e la città della sostenibilità”.* In the conferences also surfaced throughout the conversations possible solutions to problems related to energy efficiency, the diversity of uses that these places can accommodate, the construction of new public spaces, and the application of new technologies. The final result of this laboratory of ideas was the compilation of a series of theoretical guidelines that can be put into practice for the recovery of these seven areas that are part of the city’s urban fabric, counted for the event as **564.608 m².**

The Rail City Lab created a compendium of ideas that propose **strategies** and **solutions** to address the great challenge of urban planning in the following years, taking into account the potential of these vacant post-industrial areas within the urban landscape. The diversity of ideas generated in the Rail City Lab reflects the **diversity of contemporary cities,** but it also outlines the principles for a **city of the future,** which connects with its past to improve the **management of its spatial resources,** and motivates the following generations to **activate critical points** of the city that have been excluded of urban interventions for long time.

Fig. 14. Ex Scalo Lingotto, Palazzo della Regione Piemonte, and railway lines. Own ellaboration, 2023.

2.3.4

REUSING ABANDONED RAILWAY AREAS

FOR URBAN REGENERATION

Regardless of the causes, the deindustrialization, abandonment, and decline that the railway industry underwent in many regions of the world has left a legacy and a perceptible heritage in both rural and urban places. Many elements of this infrastructure are now part of the urban landscape of large cities, keeping the narrative of a past of prosperity and innovation that for several decades was connected to its surroundings and favored commerce, mobility, and life in general in these areas. However, only a small number of these facilities have been entirely saved from oblivion and integrated, in some manner, in an urban regeneration or architectural reuse process, and many others continue to be abandoned, decaying, stopped by bureaucratic procedures, or just left with an uncertain future.

Today the railway heritage represents a growing dilemma in urban regeneration approaches, favoring the application of contrary verbs: reuse - demolish, respect - forget, exclude - include. Regardless of polarized ideas, the keys to the reuse of these empty urban spaces can be found in understanding not only their historical and cultural value within the urban context to which they belong or of which they were once a part, but also the potential they can offer in a future scenario based on the use of its location and the connectivity, that can be generated from reusing strategies. Part of the potential of these abandoned areas comes in their ability to provide connectivity with real places through their trajectory, establishing links between towns and consolidated urban centers that were part of the original sites in the 19th Century, or between geographical areas outside of the cities and suburbs that were created around them during the 20th Century (Steuteville, 2022).

The abandoned heritage left by the railway industry could be divided into two categories: the intangible legacy that concerns the cultural and social aspects and the tangible components, which is related to the infrastructure and building heritage. When talking about the building heritage left by the abandoned railway system, in general terms it includes all the infrastructural elements that make up the system network operativity, from rail lines to stations, office buildings, warehouses and small service structures (Bianchi & De Medici, 2023, p. 2). In this research work, step by step, the focus of attention is directed specifically to the areas that served as warehouses or railway yards for main train stations within the railway network located in Turin, Italy.

The presence of these abandoned structures and elements in urban centers or their surroundings has been the object of study for many intervention cases to recover and preserve part of the memory of these places. In locations where industrialization processes had a substantial influence, the traces of industrial development are evident and may be seen in the urban fabric as a part of a heritage that cannot be removed from the context's morphology, even if industrial activities have ceased or been relocated to other areas (Merciu et al., 2014, p. 165). Sometimes this indelible legacy has allowed the preservation of the abandoned industrial heritage because it contains elements of great cultural significance for the context and the history of the place (Cardoso de Matos & Lourencetti, 2021, p. 14), maintaining a nostalgic dialogue between the past and the present.

The industrial heritage can represent in urban centers or near cities, there are numerous reasons primary to acknowledge the value and preserve their legacy, to promote soil conservation and reuse of these abandoned spaces within the urban fabric, by avoiding unusable voids that could promote an unnecessary urban growth of the city, and cause an environment impact that could be prevented if the cohesion of the urban fabric is maintained (Cardoso de Matos & Lourencetti, 2021, p. 15). This route of ideas, strategies that promote sustainable local development can be implemented to favor contexts with areas in decline and thus revitalize the local environment (Oppido & Ragozino, 2014, p. 424).

*"The **understanding of the site** (locus) becomes a fundamental issue when dealing with urban artifacts like the railway yards".*

(Cavallo, 2008, p. 184).

***"The location of industrial facilities is an element that may be put to best use in the course of reusing them,** especially those located close to the central areas of towns. **Even if their location is not central,** a converted industrial building can attract both the local population and tourists, by means of the cultural services it can offer".*

(Merciu et al., 2014, p. 165).

PROPOSED STAGES FOR REUSING

To begin the process for reusing these urban voids belonging to the heritage of the railway industry, some important aspects could be defined taking into consideration the reviewed literature:

UNDERSTANDING THE HISTORY OF THE PLACE AND THE COMPONENTS THAT CONSTITUTE THE SPACE FOR INTERVENTION. The historical past can give us a better understanding of how to start a categorization of the most relevant elements –physical-nonphysical, natural-artificial, infrastructural-architectural–, and the impact that this place had on the context, either due to its influence in spatial, economic, and cultural terms.

INTERPRETING THE PLACE'S LOCATION. Disused railway areas and other industrial buildings are, generally, occupying sizable areas inside consolidated urban contexts and this can determine their scope within the city (Cardoso de Matos & Lourencetti, 2021, p. 16), as well as determine the impact and limits of any reuse action that is carried out.

DEFINING THE INTERVENTION STRATEGY ACCORDING TO THE NEW USE. Many abandoned railway spaces can reveal their development potential and positively improve the dynamics of the surrounding urban context, with the activation of new spaces for new purposes, functions, and activities (Bianchi & De Medici, 2023, p. 1), with a significant role in successful given to those uses intended for green urban spaces, commerce, tourism, and transportation (Zhang et al., 2020, p. 109).

The post-industrial heritage of the railway system can be reused in many ways and by applying a wide variety of approaches and strategies. However, the reuse projects for **stations and railway tracks** that have achieved the best results are related to cultural, innovative and recreational purposes.

This trend of recovering post-industrial abandoned places and renovating them for cultural, innovative and recreational activities has had a favorable impact in many cities contexts across the world, and it has also been observed that there is a correlation between financing cultural heritage projects and an increase in jobs positions and revenue, which incentivizes the local investment and economy in positive ways (Bowitz & Ibenholt, 2006, p. 2). Furthermore, if these interventions are complemented by the establishment of a network of services, and diverse equipment that connect to the refurbished spaces, their potential to integrate and contribute positively to the immediate context can be enhanced (Bianchi & De Medici, 2023, p. 31).

The list of some relevant examples of the reuse of railway areas post-deindustrialization with cultural and public spaces purposes can include the Musée d'Orsay and the Promenade Plantée, Paris; High Line, New York; Beltline, Atlanta; The Goods Line, Sydney; to name a few. Many of these projects have had notable success in the cities where they are located, providing not only new places of urban public space but also reactivating the local economy and promoting the economic development of the recovered area.

Regarding **railway yards,** these areas have found a second opportunity in projects preferably intended for residential uses integrated with public spaces and commerce. Some of these ideas are based on the premise of generating new residential centers with the greatest number of services nearby, to avoid the use of transportation and encourage travel on foot or by bicycle.

In addition to the initiatives mentioned in previous pages about the Rail City Lab in Turin, in Milan the reclamation concerns seven rail yards – Farini, Porta Genova, Porta Romana, Lambrate, Greco, Rogoredo and San Cristoforo – and opens the way for a new possible transformation of the city. The Porta Romana's master plan – called Parco Romana –, regards an area with more than 100 years and approximately 190,000 m², that will house the 2026 Winter Olympic Games village and which is projected to be converted into a student residence after the event, in addition to complying with a series of environmental and energy efficiency standards that make it a project with high innovation rate.

In the city of Regina, Canada, the Yards Neighborhood Plan will recover a railway area that will be converted into a residential area equipped with new infrastructure, park and pedestrian corridors that will complement the urban landscape of the city center. Examples of smaller-scale neighborhoods that will be planned in abandoned train yards are the Ashton Rail Yard (Bristol, UK), which will house around 200 homes in a former train depot, and Heaton Down Yard, (Newcastle, UK), where 143 residential units will be built.

With these references, it is possible to argue that investing in regeneration projects of areas and buildings that remain of the railway infrastructure has a significant impact on many indicators: from spatial, social, and cultural to economic improvement.

The spaces that offer the city new places for culture, leisure, and housing as activators of local regeneration, give us an idea of the possible new functions that these sites could perhaps adopt for the benefit of its immediate context. In addition, the transformative and innovative potential that can be developed by establishing new criteria for land use and energy, promoting alternative means of transportation, creating efficient connections with the urban fabric, and generating a renaturalized environment, mitigating the impacts.

Reusing abandoned spaces for adequate social coexistence, in today's increasingly digital world, could well imply a positive reunion with the spirit of the past. Alternatively, we could construct a narrative, because the time and the historicization often confers different chances and each generation and community can contribute to the history of the city by modifying, improving, reactivating, and living its places.

*"Some of the **biggest urban development success stories** over the last two decades have involved abandoned railways. The 22-mile Beltline in Atlanta, a rail-to-trail conversion, reportedly has generated more than **$8 billion in economic development** around the city as of 2020. The 1.4-mile High Line in Manhattan attracted **$2.2 billion in economic development** as of 2014".*

Steuteville (2022).



Fig. 15. A view looking north along the High Line from around 19th St. Photo by unknown photographer.

*"The **redevelopment of railway stations and their surroundings** has been high on the agenda of European cities for more than two decades. An evolving set of factors has fuelled these initiatives. Driving forces include the expansion and upgrading of rail infrastructure, the reduced demand for industrial space in central urban locations, the privatization of railways, eff orts to increase the att ractiveness of cities, the quest for sustainable development and – last but not least – **the spatial dynamics of contemporary society".***

(Bertolini et al., 2012, p. 31).

PART 3

THE PLACE

Ex Scalo Vallino. Turin, Italy

*This chapter **reconstructs the place's identity** using a combination of methods. The development of the San Salvario neighborhood and the intervention area, Ex Scalo Vallino, is narrated chronologically using historical dates and images. Urban context layers are then analyzed by interpreting fundamental elements and data; final section is a presentation of the urban instruments and criteria that govern the area requalification including some specifications for the architectural and urban project.*

SAN SALVARIO

From the name of a church to a multi-ethnic neighborhood

Constituted formally in 1851, San Salvario is located near to the city's historic center and is one of Turin's most multi-ethnic and young neighborhoods. It is also considered one high density urban area and one greenest urban zonesof the city because of its proximity to the Parco del Valentino and the Po river. The Porta Nuova railway station, an important structure that offers connectivity with the national rail network, is located within its boundaries. Delimited by Via Nizza and Corso Massimo d'Azeglio, Corso Vittorio Emanuele II, Corso Bramante, and the Po river, San Salvario has been an important center for Turin's residential, commercial, manufacturing, and industrial car development.



Fig. 16. San Salvario. Google Maps. Map data ©2023.



Fig. 17. Parco del Valentino.
© Archivio Storico della Città di Torino.



Fig. 18. Church and convent of San Salvario. © Fondazione Torino Musei - Archivio fotografico.

1790

There are traces of expansion attempts dating back to this year around a church and convent from 1646 that was located in the current Via Nizza with Corso Marconi angle. The church building was dedicated to **San Salvatore di Campagna,** translated into the Piedmontese dialect as San Salvari, from which derives the name of the neighborhood. The church of San Salvatore was built by the architect Carlo di Castellamonte and the Convento dei Servi di Mari was a work of his son Amedeo di Castellamonte.

1840

After the total demolition of **the walled city strip,** San Salvario experiences its first urban expansion and from that moment it becomes a residential, commercial and manufacturing area for the bourgeoisie of Turin (Chiappini & Frazzei, 2013, p. 6). As the north was occupied by industrial activity and the west by military zones, in 1846 the *"Piano Regolatore pel Borgo San Salvatore"* was approved to continue the neighborhood growth to the south following the existing roads: Via Madama Cristina, Via Academia Albertina, and Via Calandra.

1856

Parco del Valentino is transformed into a public garden and undergoes some notable additions and expansions that give it the dimension and features it retains today (Miletto, 2017, p. 6). It also became a popular location for the execution of international exhibitions that displayed the remarkable advancements in technology, arts, and culture at the epoch.



Fig. 19. Porta Nuova station. Photograph by Mario Gabinio, 1931. © Fondazione Torino Musei - Archivio fotografico.



Fig. 21. The Corso Sommellier flyover as it was in 1906. It was demolished and rebuilt and widened in 1940. On the right: the Ferrato wood factory, demolished in the 1920s. On the left: the Vallino railway yard. Unkown Author.

Fig. 22. Via Nizza, FIAT Lingotto “2” plant collapse 1^ phase”. Effects produced by the bombing of the air raid of 29 March 1944. UPA 4427_9E05-57. © Archivio Storico della Città di Torino/Archivio Storico Vigili del Fuoco.





Fig. 20. Fiat factory in Corso Dante. © Fondazione Torino Musei - Archivio fotografico.



Fig. 23. Exhibition of 1911 at Valentino Park. © Archivio Storico della Città di Torino.

1868

With the completion of the Torino-Genova route and the inauguration and operation of the **Porta Nuova railway station,** the neighborhood experienced noticeable urban expansion and demographic growth. The Alessandro Mazzucchetti and Carlo Ceppi-designed new station, which is located in front of Corso Vittorio Emanuele II, increased population mobility and made it necessary to renovate or occupy existing buildings in the surroundings for offices, warehouses, and other railway-related services (Cossu & Lampis, 2018, p. 22).

1876

The market of Piazza Bodoni was transferred to **Piazza Madama Cristina** to soon become the second most important market in the city (Miletto, 2017, p. 5), favoring the commercial character of the neighborhood’s urban fabric.

1900

The Fiat building in Corso Dante initiates industrial activity within San Salvario (Chiappini & Frazzei, 2013, p. 6), attracting migrants due to the new jobs available in the sector and defining the industrial and commercial characterization of the area. The demographic growth driven by the promotion of Turin as the country industrial pole, generates an increase in the demand of buildings for housing, industry and services, which contributed to completing the second expansion of the neighborhood to corso Bramante –already begun in 1861–. (Cossu & Lampis, 2018, p. 28).

1911

Parco del Valentino is the place for the **“Esposizione internazionale dell’industria e del lavoro di Torino”** in commemoration of the 50th anniversary dell’Unità d’Italia. Some structures that had been created for previous Expositions were reused, such as the Borgo Medievale (Expo 1884) and the Fontana dei Dodici Mesi (Expo 1898). Additionally, provisional pavilions were built for the occasion and other structures such as the Ponte monumentale sul Po and the Fontana monumentale della collina.

XX

During **World War II,** Turin was attacked at several points. San Salvario was a zone of aerial bombardments, affecting residences, industrial buildings and railway infrastructures (Porta Nuova, Scalo Vallino). After the war, the railway system favored industrial recovery and economic growth. Since the 1950s, internal and foreign migratory flows transformed the local essence. In the final decades of the 20th century, some industrial areas within the urban fabric were abandoned due to the economic changes experienced in the industrial sector of Turin.

XXI

The increase in the **immigrant population** within the neighborhood has generated different social tensions in recent decades (IRES, 2002, p. 92). At the same time, it has given it a cultural heterogeneity, that characterizes this multi-ethnic neighborhood, a visible aspect in the way of living the public space of the area, especially during the nightlife, which in turn has generated some microcrime problems.

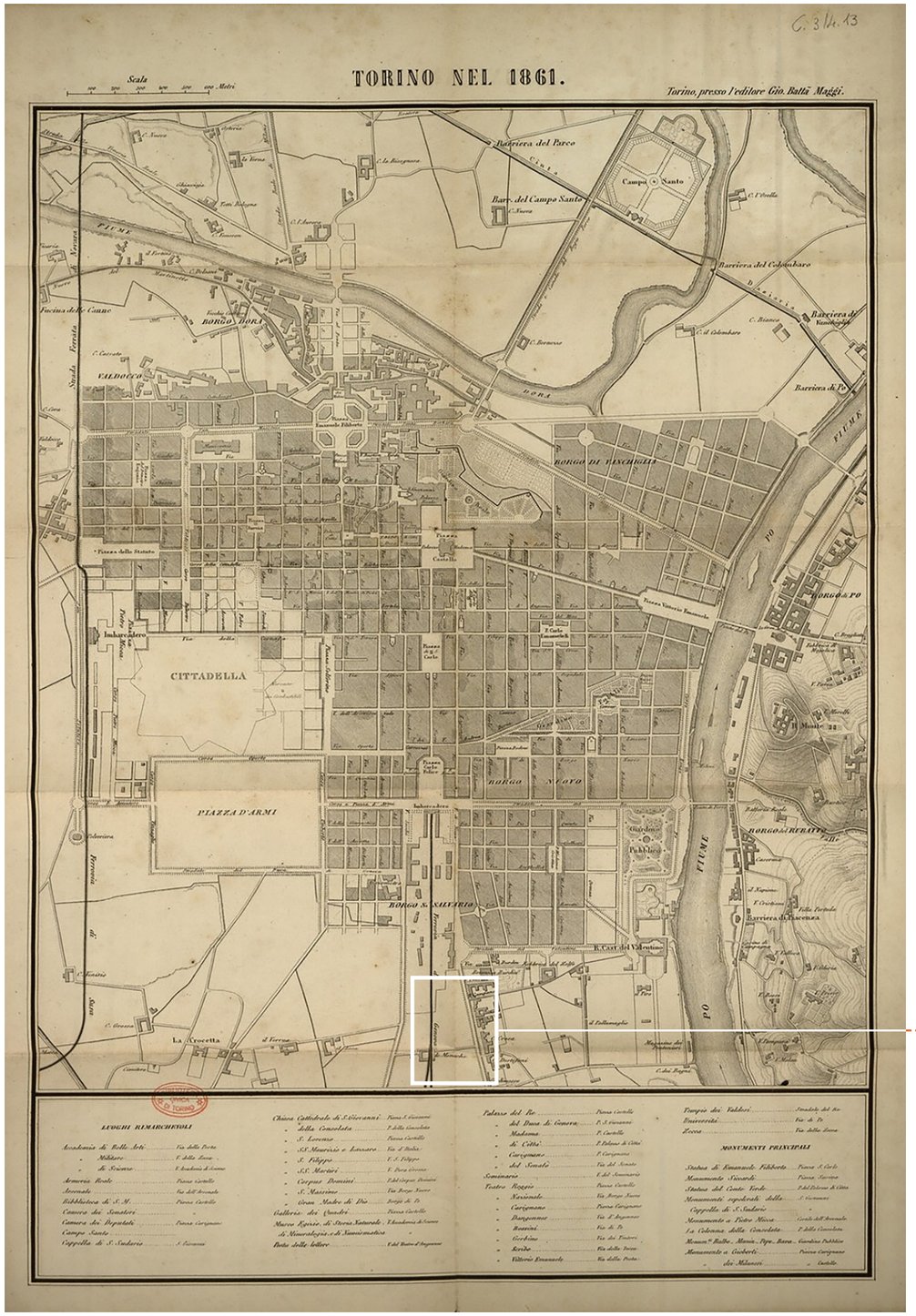


Fig. 24. Turin in 1861. Biblioteca Civica Centrale, Cartografico 3/4.13.01. © Biblioteche Civiche Torinesi.

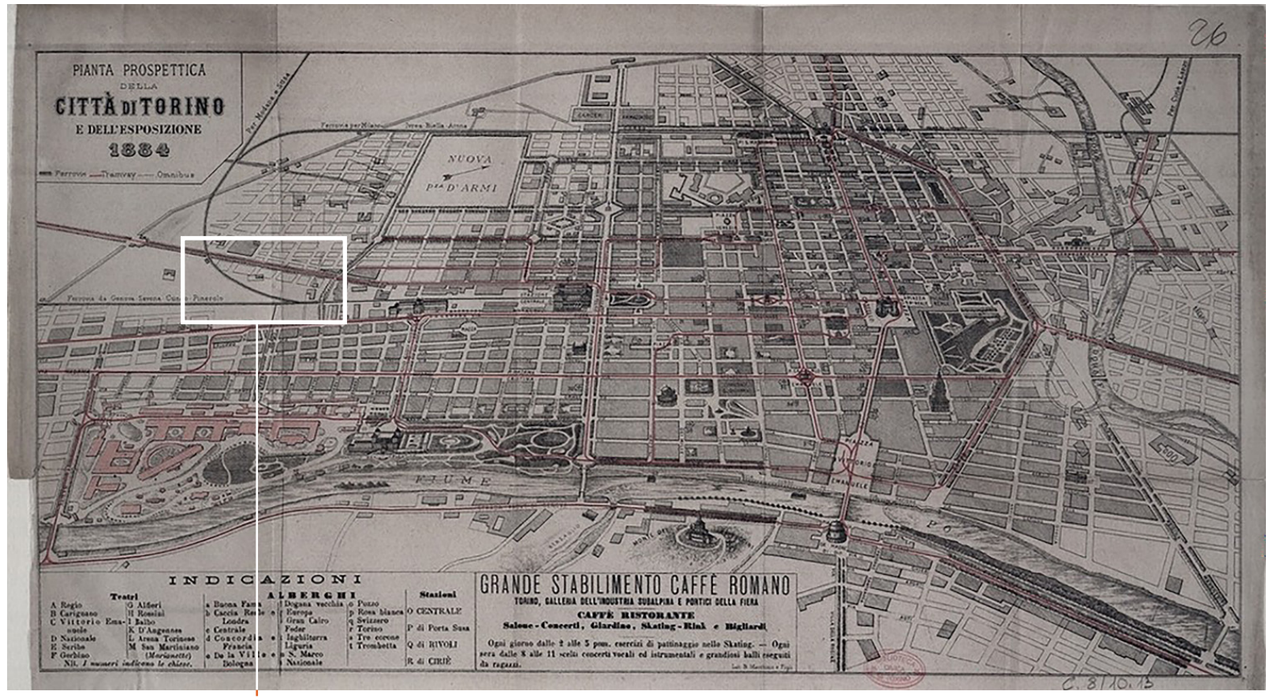


Fig. 25. Perspective plan of the City of Turin and the 1884 Exhibition. Biblioteca Civica Centrale, Cartografico 8/10.13. © Biblioteche Civiche Torinesi.

TURIN 1884

SCALO VALLINO AREA

TURIN 1861

Fig. 26. Porta Nuova station and Corso Vittorio Emanuele II. Brogi photography. © Archivio Storico della Città di Torino.

"Il borgo ***San Salvario è una specie di piccola 'city' di Torino,*** *dalle grandi case annerite, velato dai grandi nuvoli di fumo della grande stazione della strada ferrata, che lo riempie tutto del suo respiro affannoso, del frastuono metallico della sua vita rude, affrettata e senza riposo;* ***una piccola città a parte, giovane di trent'anni,*** *operosa, formicolante di operai lordi di polvere di carbone e di impiegati accigliati, che attraversano le strade a passi frettolosi, fra lo scalpitio dei cavalli colossali e lo strepito dei carri carichi di merci che fan tintinnare i vetri, barcollando fra gli omnibus, i tramvai e le carrette, sul ciottolato sonoro."*

(De Amicis, 1880, p. 40).



TURIN 1898

SCALO VALLINO AREA

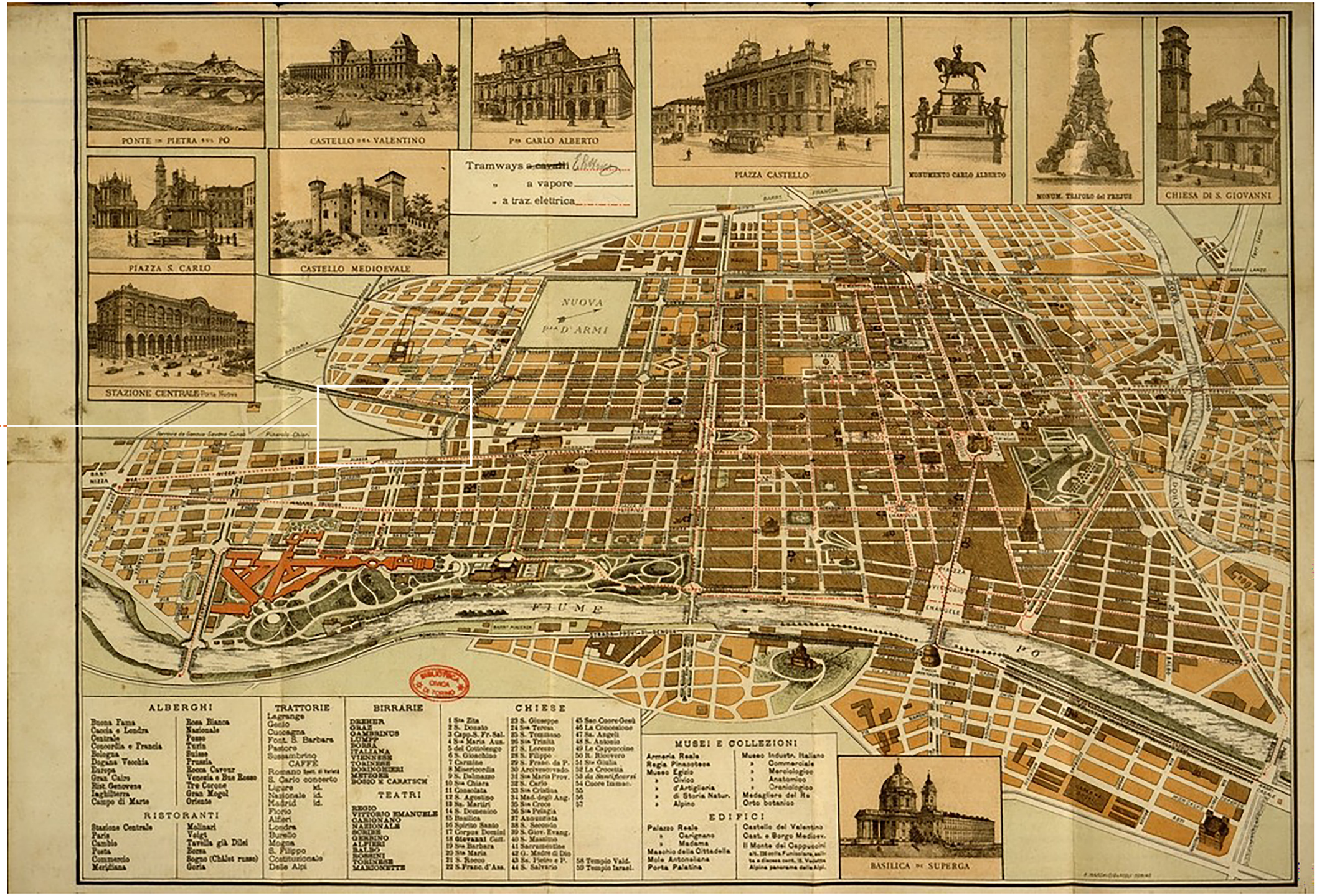


Fig. 27. New map of Turin, 1898. Biblioteca Civica Centrale, Cartografico 3/4.11.01. © Biblioteche Civiche Torinesi.



TURIN 1910

SCALO VALLINO AREA

Fig. 28. Map of Turin, circa 1910. Biblioteca Civica Centrale, Cartografico 3/4.3.01. © Biblioteche Civiche Torinesi.

TURIN 1942-1945

BOMBING DAMAGE DURING WWII (ZONE 2)

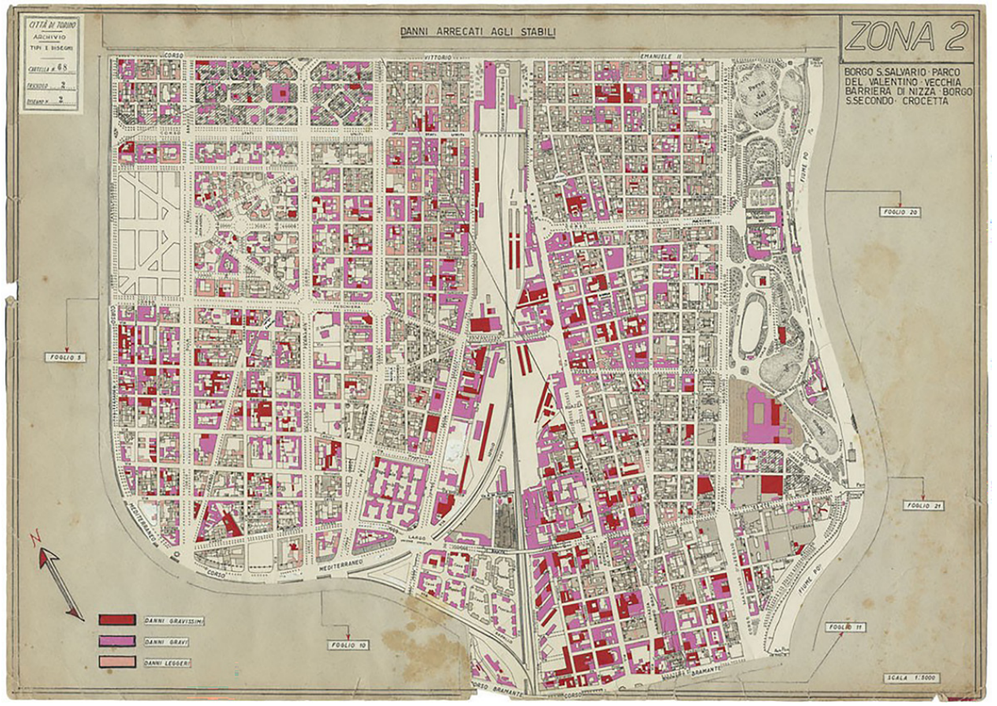
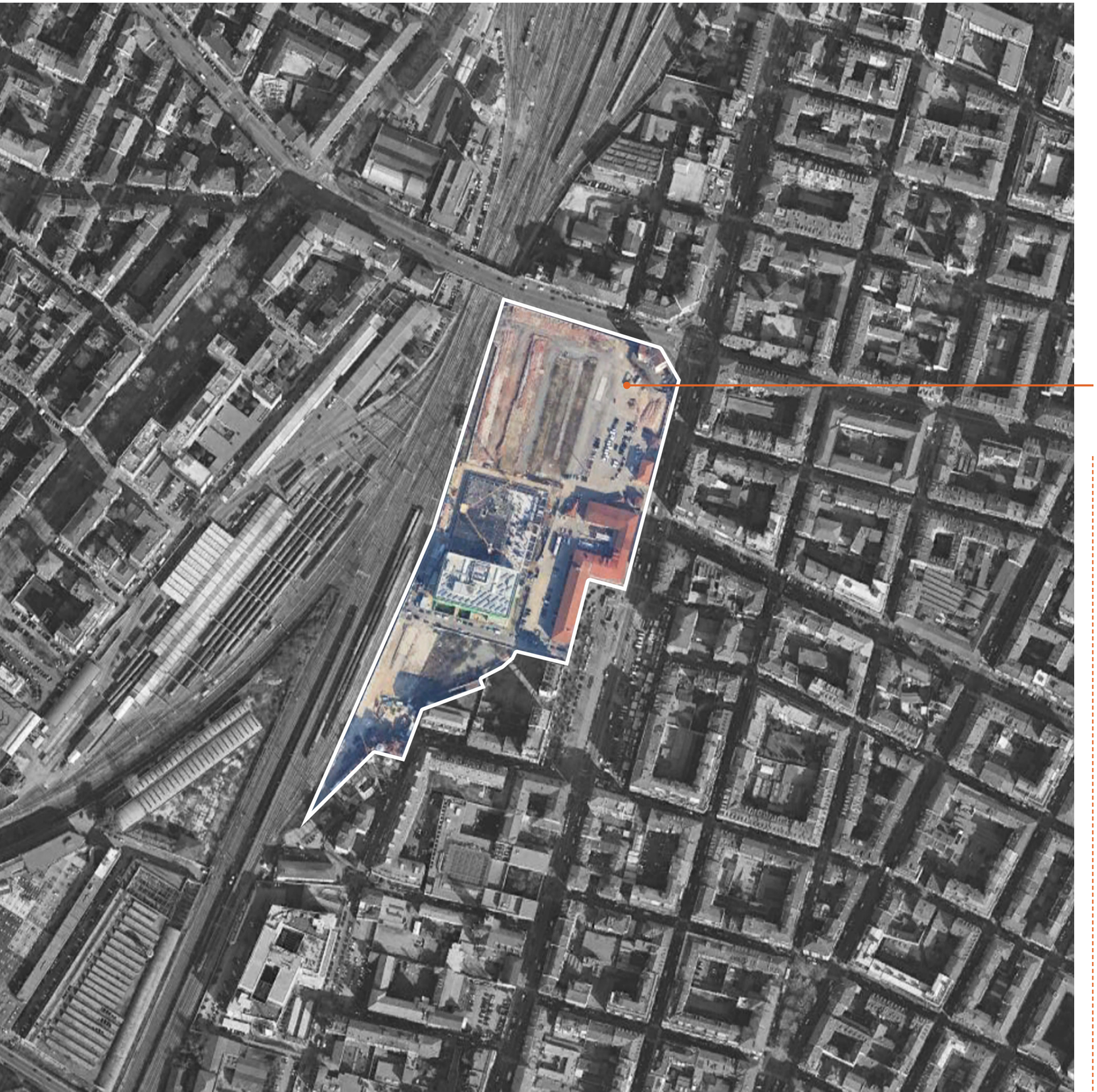


Fig. 30. Map of the damage caused by the bombings in the area during WWII (Danni arrecati agli stabili 1:5000, 1942-1945. Zona 2: Borgo San Salvario, Parco del Valentino, Vecchia Barriera di Nizza, Borgo San Secondo, Crocetta). ASCT, Tipi e disegni, cart. 68, fasc. 2 disegno 2. © Archivio Storico della Città di Torino.



Fig. 29. Piazza Carlo Felice, Porta Nuova station. Effects produced by the bombing of the air raid on 8 August 1943. UPA 3811_9E02-22. © Archivio Storico della Città di Torino/Archivio Storico Vigili del Fuoco.

Fig. 31. Centro Storico FIAT, Corso Dante.
Own ellaboration, 2023.



SCALO VALLINO

From railway yard to multifunctional urban center

This area that was initially planned as a railway yard to expand the services facilities of the Porta Nuova station, is located in San Salvario, Turin, between the railway line, Corso Sommeiller, and Via Nizza. Over time and due to the need of spaces for the railway system logistics, it was necessary the construction of new buildings and the occupation of service areas as Scalo Vallino, specifically with loading yards, repair offices and warehouses. After some transformations and changes from its original use, it went through a stage of abandonment to become once again interesting for projects that benefit the city. At present, it is one of the disused industrial areas within Turin's territory with the most agitation due to the projects that are being carried out to complete the total site regeneration in the coming years.

1881

With a project by the engineer Tarozzi, the company Strade Ferrate Alta Italia starts the occupation and expansion of Scalo Vallino.

1882

The Uffici Edilizi del Comune di Torino approved engineer Tarozzi's project proposal, which consisted of the construction of three modest buildings that would define the entrances to the scalo from Via Nizza: the two side buildings would be used for the customs guard and the central building for offices. This project also included the construction of a pavilion and four covered freight floors along the Corso Sommeiller connected to a system to move cargo and merchandise to the train tracks. Those four floors were not built.

1887

After the demolition of the military cargo area that was still inside the Scalo Vallino, the Società Italiana per le Strade ferrate del Mediterraneo begins the construction of a new building (known as *Edificio storico, 8*) which represents an extension of the project made by Tarozzi in the direction of Piazza Nizza. The new building with a U-shaped plan and built in brick with a hipped roof, was designed by the engineer Pozzi and was intended for offices, a warehouse for merchandise, heavy material, and spare parts. The raillyard is the subject of subsequent expansions of the storage installations and rooms.

Fig. 32. Ex Scalo Vallino, Turin.
Own ellaboration from Imagery ©2023 Google Earth.

1940

During the World War II conflict, many railway areas were affected by the bombing of Turin. Scalo Vallino was not exempt from these attacks during August 1943 and several elements of the area suffered various levels of structural damage: very serious damage to the loading plants, the merchandise warehouses, and material depots; serious damage to the structures located along Corso Sommeiller and in front of Piazza Nizza and light damage to the small buildings on Via Nizza.

1945

The Piano Regolatore of this year proposes returning the Scalo Vallino to its pre-war configuration, taking as a reference the *“Piano Regolatore of 1926”*. The covered loading floors and the merchandise warehouse were re-built.

1959

The construction of new structures within the Scalo Vallino is completed following indications included in the Piano Regolatore of this year: a structure intended for use as offices and accessories, an electrical cabin, and a residential unit in the site corner.

1970

As a result of the national industrial crisis, some railway areas in the city were abandoned. The covered structures built inside the Scalo Vallino in 1959 underwent some important interventions and changes.

1990

The area began to be used for undetermined and improvised purposes such as parking lots and warehouses.

2012

The buildings of Scalo Vallino 3, 4, 5, and 8 are declared of cultural interest in accordance with art. 10-12 of D.Lgs. 42/2004 and remain in guardianship under Legislative Decree 473/2012.
In 2013, the project between Fondazione CIRPark and the Università di Torino for the construction of the “Centro di Biotecnologie Molecolari - Incubatore di Ricerca” was presented and approved.

Dates and historical documentation derivated from *Relazione storico-artistica: Torino - Scalo Vallino - Edifici 3, 4, 5 via Nizza, 40 - Edificio 8 via Nizza 40, 42, 44*. Ministero dei Beni e le Attività Culturali. (2012). [Allegato al D. D. R. n. 473/2012].



Fig. 33. Molecular Biotechnology Center of Università di Torino, view from Edificio Storico 8. Own ellaboration, 2023.

2023

Scalo Vallino has been transformed from a component of the railway system to an experimental area for the urban regeneration of the city, completely losing its original purpose. The covered structures that functioned as warehouses have already been demolished. The original façades of the smaller buildings along Via Nizza, as well as the internal configuration of the spaces, have experienced several modifications. The Piazza Nizza building currently has office functions and an Orange gym, and the basement part is used as a temporary gallery for exhibitions and conferences. However, some of the floors of this historical building are still completely empty and unoccupied. Currently, in the area, the completion of the Centro di Biotecnologie Molecolari - Incubatore di Ricerca is being carried out. Preliminary works have begun to build the architectural project of Nova Coop and and other real estate developers (Z.U.T.AMBITO 13.2/A “NIZZA”), that will include a commercial area, student housing, parking lots, and public spaces for the community.

SCALO VALLINO

TRANSFORMATION TIMELINE



Fig. 34. Scalo Vallino area in the 1906 Turin's map.

1906

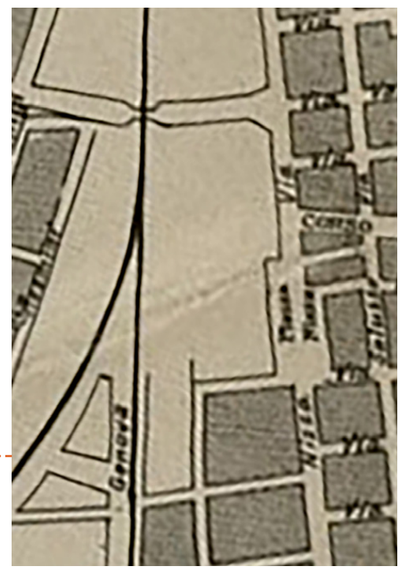


Fig. 35. Scalo Vallino area in the 1910 Turin's map.

1910



Fig. 36. Scalo Vallino area in the 1930 Turin's map.

1930



Fig. 37. Map of the bombings in the area during WWII. Red: Very serious damage. Pink: Serious damage.

1945



Fig. 38. Ex Scalo Vallino area with the buildings made during the 20th century. The lot has indeterminate functions.

2008



Fig. 39. Partial demolition of the old structures and beginning of the works for the Biotechnology Center.

2015



Fig. 40. Progress of the Biotechnology Center works and creation of the lateral access road.

2018



Fig. 41. Total demolition of the old structures preserving only the historical buildings of Via Nizza. Current state.

2022

Fig. 42. Ex Scalo Vallino historical buildings from parking area.
Own ellaboration, 2023.

CONTEXT LAYERS

San Salvario has seen continuous urban, social, cultural, and economic transformation since it was originally established. It is not possible to talk about this neighborhood without referencing its ability to assimilate the changes of each passing era and its long-standing contributions to the local economy and industry for many decades. In its streets and facades, part of the city's history can be read as a stamp, and it is easily recognizable in its human capital the diversity of cultures but also the different ways of inhabiting the neighborhood's spaces. San Salvario is commercial, bohemian, resilient, hectic, changeable but nostalgic, it is a portion of Turin that stands between tradition and innovation.

The neighborhood has an approximate area of 2.350 km², belongs to District 8 of Turin, and its urban perimeter is delimited by the railway tracks, Corso Vittorio Emanuele II, Corso Bramante, Corso Massimo d'Azeglio, and the Po river. San Salvario has a good position within the urban plan of the city, very close to the historic center, which favors it to be connected through the local and national public transport system –due to the availability of rail routes from the Porta Nuova station–. This urban area is frequently referred to as one of Turin's high density and east greenest neighborhoods, possibly because Parco del Valentino and Po river bamks occupies a significant portion of its territory.

San Salvario's population is diverse and multiethnic, and its local economy is based primarily on retail sales, manufacturing, hotels, and restaurants. Is also one of the most important student areas in Turin, housing renowned univerties, institutes, and services related to education, research, and knowledge development, which is why it could be considered one of the city's innovation hubs. The neighborhood's identity is also defined by its culture, which produces an interesting context for leisure and entertainment in spaces dedicated to the arts and meetings. In addition, the aesthetics of the neighborhood and the presence of landmarks within its limits help to compose San Salvario's bohemian atmosphere. Regarding general services, the neighborhood is well equipped with most of the necessary services for a residential area, making it a good place to live, especially for students.

Despite all the neighborhood's positive aspects, some social and environmental issues have negatively impacted the community for several decades, among them the bad move that deteriorated the nightlife of the area, migration and integration problems, an increase of vehicular traffic and noise in the streets, the lack of an efficient parking system, and the lack of improvements in recreational green areas within the built context, that could promote the habitability of open public space to achieve effective collective integration and participation.

In the following pages, a more comprehensive and detailed urban analysis is presented explaining some of the points mentioned above to better comprehend the San Salvario's composition.

The **urban analysis** describes eight layers of the neighborhood's urban context: social, economy, mobility, green, innovation, culture, urban form, and services; to identify the neighborhood's strengths, weaknesses, opportunities, and threats; to later summarize them in a **SWOT** diagram that can be useful during the project phase for design criteria and decision making.

The **analysis methodology** included statistical data review, reading documents and newspapers articles, consulting maps to recognize key features, visiting the location, taking direct photographs, and diagramming the research results.

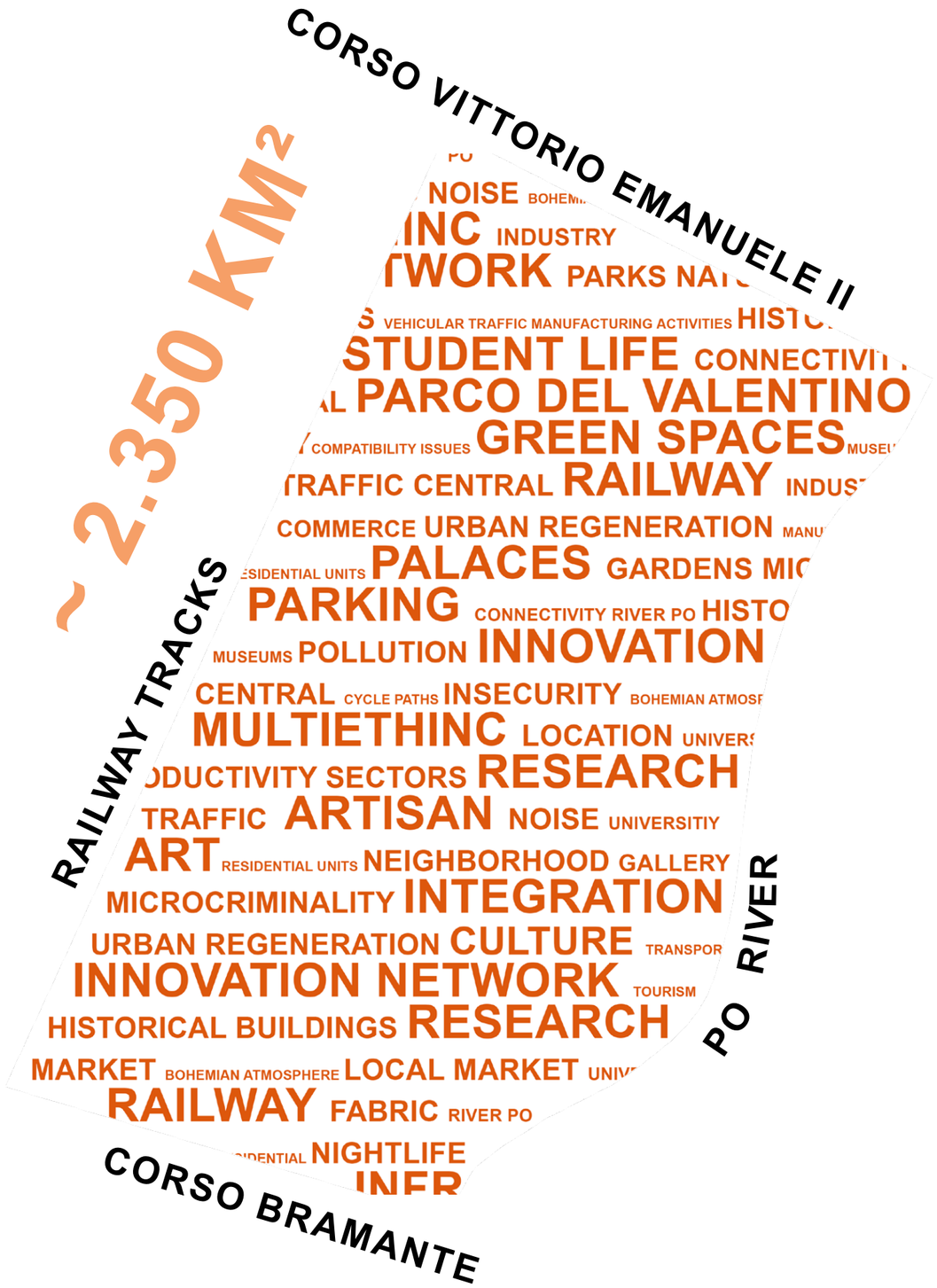


Fig. 43.

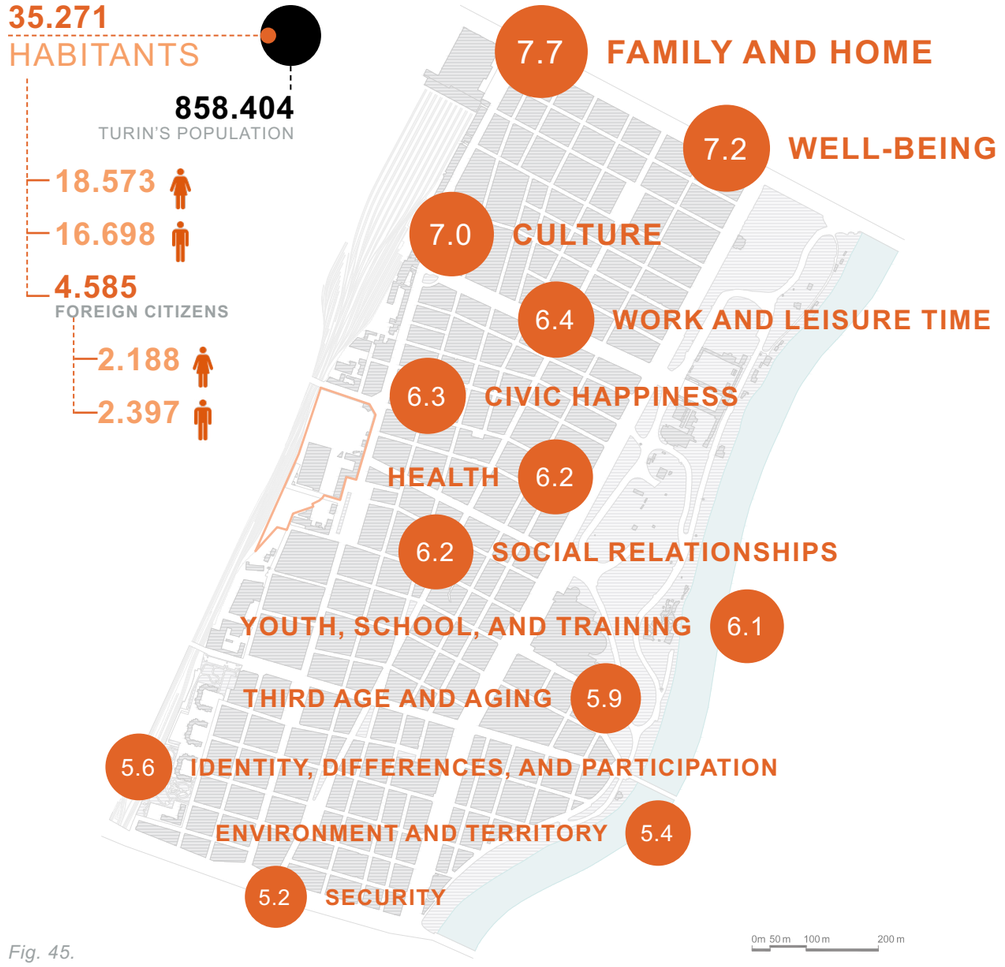


Fig. 45.

SOCIAL

According to the Servicio Statistica della Città di Torino, by the end of 2022, the population of the San Salvario neighborhood is **35.271** people, of which **18.573** are female and **16.698** are male. **13%** of this population are **foreign citizens (4.585)** and in turn, the number is made up of **2.397** males and **2.188** females. In terms of **social indicators,** according to the *"Primo Rapporto sulla Felicità Civica a Torino"* of the year 2023 developed by the Associazione Nessuno in collaboration with the Dipartimento di Psicologia dell'Università di Torino, the neighborhood reveals the following results on a scale of values from 1 to 9.9: civic happiness (6.3); well-being (7.2); social relationships (6.2); environment and territory (5.4); family and home (7.7); health (6.2); security (5.2); culture (7.0); youth, school, and training (6.1); work and leisure time (6.4); identity, differences, and participation (5.6); third age and aging (5.9). These numbers demonstrate that San Salvario's urban area is particularly affected by **social issues** related to the environment, public space, and security –as reported in local newspapers where insecurity and bad behavior have been repeated headlines for a long time–. These issues may be caused by low environmental quality, a lack of public urban spaces and recreational areas, high rates of insecurity and microcrime, and bad nightlife, which have a negative impact on residents' life quality and generate some critical points in the neighborhood's social structure.

Fig. 44. People in Piazza Nizza. Own ellaboration, 2023.

Fig. 46. Residential buildings with commerces on ground floor, Via Nizza. Own ellaboration, 2023.

€25,000
IRPEF TAX INCOME

47
MANUFACTURING ACTIVITIES INDEX

38.33
COMMERCIAL ACTIVITIES INDEX

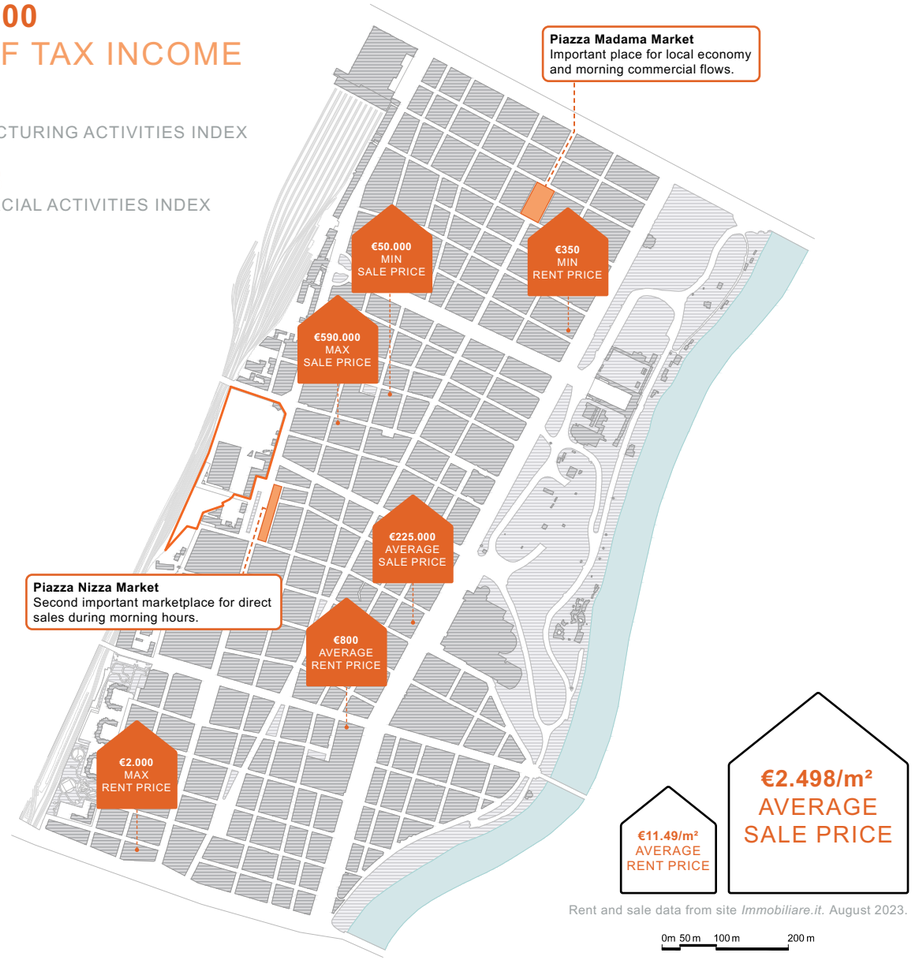


Fig. 47.

ECONOMY

Due to its proximity to the city's main economic poles and historic center, San Salvario is located in the city's urban core, which is advantageous for the neighborhood's economy, labor market, and services. According to the report *"Indicatore socioeconomico della città di Torino"* by the Comune di Torino for the year 2022, the neighborhood has an average **IRPEF** taxable income of **€25.000** and a **socioeconomic index** of **48.26** –on a scale from 0 to 100–. This value is composed by sub-values as **demography** (60.71); **income** (42.82); **staffings** (46.83) and **activity** (42.67). Regarding the most outstanding productive sectors of San Salvario, the same report indicates –on a scale from 0 to 100– that commercial activities represent 38.33 points while manufacturing activities represent a score of 47. Currently, restaurants, hotels, cafés, bars, boutiques, and retail shops in the area are responsible for the main commercial activities, including the open **marketplaces** at Piazza Madama and Piazza Nizza, which promote the local production and artisan sales. Additionally, the area has a balanced concentration of commercial ventures, corporate offices, specialized studies and alternative jobs for youth. Regarding the **real estate market,** according to Comollo (2023), on the Immobiliare.it website for June 2023, the **average sale price** is €2.498/m² and the **average rental price** is €11.49/m², with an offer of properties available for August 2023 of 448 for sale and 121 for rent.

4
METRO STATIONS

+30
BUS STOPS

+20
TRAM STOPS



Fig. 49.

MOBILITY

Due to its central location, San Salvario is well-served by some important roads that cross the urban fabric, favoring access to various means of transport. Line 1 of Turin's **Metro** which connects the city from Piazza Bengasi to Fermi station, follows the route of Via Nizza and has 4 stations in the neighborhood: Dante, Nizza, Marconi, and Porta Nuova –this last one offers connectivity with the **national railway network–**. The GTT **bus system** also has stops within San Salvario's limits and covers some important roads: Line 8 (route Via Madama Cristina), Line 35 (route Via Nizza); Line 42 (route Corso Dante). Regarding the **tram service**, GTT's Line 9 and Line 16, primarily go along Via Valperga Caluso, C. Massimo d'Azeglio, and C. Vittorio Emanuele II. Alternative mobility routes are the **pedestrians and bicycle paths** –part of Turin's bikeways network– that run along Via Nizza from Porta Nuova station to Piazza Carducci, Via Principe Tommaso, Via Ormea, C. Vittorio Emanuele II, C. Marconi, and C. Massimo d'Azeglio. Other means, such as electric scooters, have been available for a while. When it comes to **vehicular traffic,** the intersection of Corso Sommeiller, which connects Crocetta and San Salvario, as well as the C. Bramante's roundabout, and C. Massimo d'Azeglio, particularly at their ends, can be considered critical points. Numerous parts of the neighborhood are also affected by the lack of effective **parking infrastructure**, leading to the use of roadways as parking places.

Fig. 48. Tram of GTT's Line 16 in Corso Sommerlier. Own ellaboration, 2023.



Fig. 50. Giardino Luigi Firpo, Corso Dante. Own ellaboration, 2023.

0.447 km²
GREEN AREAS

2.29%
TURIN'S PUBLIC GREEN

12.66 m²/hab
IN SAN SALVARIO

Some green areas look like **residual spaces** without planning and in a **state of deterioration** (vegetation, street furniture).



Fig. 51.

GREEN

San Salvario neighborhood is considered one of the greenest urban areas in Turin. Its green areas **(0.447 km²)** represent approximately **2.29%** of the total public green of the city **(19.5 km²).** But analyzing the amount and distribution of green within its limits, it can be said that the adjective *"greenest"* has only been attributed to the notable presence of **Parco del Valentino (421.000 m²),** but not for the green areas within the conformation of the urban fabric, which are actually small and scattered. Some **gardens** stand out such as the Giardino Giorgio Anglesio; **parks** and **squares** like Piazzale Ferruccio Parri; and reduced green areas within the building's courtyards. The neighborhood also has some tree-lined streets and roads such as C. Dante, C. Raffaello, C. Marconi, C. Bramante, C. Vittorio Emanuele II, and C. Massimo d'Azeglio. Within the urban fabric of San Salvario there are few green areas and many of them are perceived as residual spaces without planning, in addition, they lack differentiating elements that invite the use of public space in an innovative way and not only as a place to sit. In several areas there is also evidence of deterioration (vegetation, urban furniture). This result can be a project premise to create a system of urban green in the Ex Scalo Vallino area, that could provide the neighborhood with a renewed and vital urban space to promote an integrative collective experience, within nature and urban context, and improve the area's environment quality.

+20 STRUCTURES
HIGHER EDUCATION

+80.000
UNITO ENROLLED STUDENTS

+38.000
POLITO ENROLLED STUDENTS

The neighborhood is connected to **Turin's dynamic network of innovation** through the presence of numerous academic institutions.



Fig. 53.

INNOVATION

San Salvario has a significant concentration of **elementary** and **secondary schools,** as well as **university** and **research facilities,** particularly in the scientific fields. The Liceo Classico Vittorio Alfieri, Scuola Pubblica Elementare Silvio Pellico, and Liceo Statale Regina Margherita are worth mentioning. The **university pole** is composed of several faculties of the Università di Torino: Biotechnology, Molecular Biotechnology and Health Sciences, Science and Pharmaceutical Technology, Earth Sciences, Chemistry, and Physics; some of these are located near Corso Massimo d'Azeglio. The Faculty of Architecture and Design of the Politecnico di Torino is located in Parco del Valentino's area. University infrastructure is complemented by libraries and spaces such as the Salas di Studio EDISU; student housing (Residenza Universitaria Ghirardi, Residenza Universitaria EDISU); and canteens (Mensa "La Stampa" EDISU). Regarding innovation in the business sector, the Heat Garden of Gruppo Iren, 2i3T Incubatore Imprese, and Collins Aerospace - Microtecnica are notable examples. In terms of transformation, **Scalo Vallino** is the area with the most potential for change, and because of its position, new constructions may be designed to integrate with the entire network of university services, focusing on improving the neighborhood's student life, by increasing the number of spaces available for student accommodation, local businesses, and complementary public places.

Fig. 52. Molecular Biotechnology Center of Università di Torino. Own ellaboration, 2023.



Fig. 54. Teatro Colosseo, Via Madama Cristina. Own ellaboration, 2023.

+10 PLACES
FOR ART EXHIBITIONS

VIA SALUZZO
THE MOST ARTISTIC ROAD

PERFORMING ARTS
ARE NOTABLE IN THE AREA



Fig. 55.

CULTURE

San Salvario has a creative and bohemian character. It is possible to walk around and find a variety of spaces dedicated to visual arts, theater, dance, music, and photography, and see installations like *“The Big Bear”* and *“Black Machine”*, which are examples of the neighborhood’s **urban art**. In the site analysis, at least 12 galleries stand out, especially for **contemporary art** such as Opere Scelte Art Gallery, and Galo Art Gallery. Parco del Valentino forms a **cultural pole** by tradition with a natural route, monuments, gardens, the Castello del Valentino, the Fontana dei 12 Mesi, and the Borgo Medievale. In addition, the Torino Esposizioni complex is located nearby, where **international art fairs** such as The Others Art Fair and The Phair are held. Other **places of interest** are the Museo di Antropologia Criminale, Museo di Anatomia Umana, Museo della Frutta, Istituto Elettrotecnico Nazionale Galileo Ferraris, and Centro Storico Fiat. The Teatro Colosseo on Via Madama Cristina is a renowned location for the **performing arts,** and there are also various **dancing academies** like Il Laboratorio Della Danza. There are stores in the district that cater to leisure and culture, including bookstores, art studios, graphic design, and printing. As focal points for **community cultural integration,** can be mentioned the Casa del Quartiere di San Salvario, Polo Culturale Lombroso 16, and San Salvario Emporium in Piazza Madama Cristina, that promotes the local artisan encounter and market.



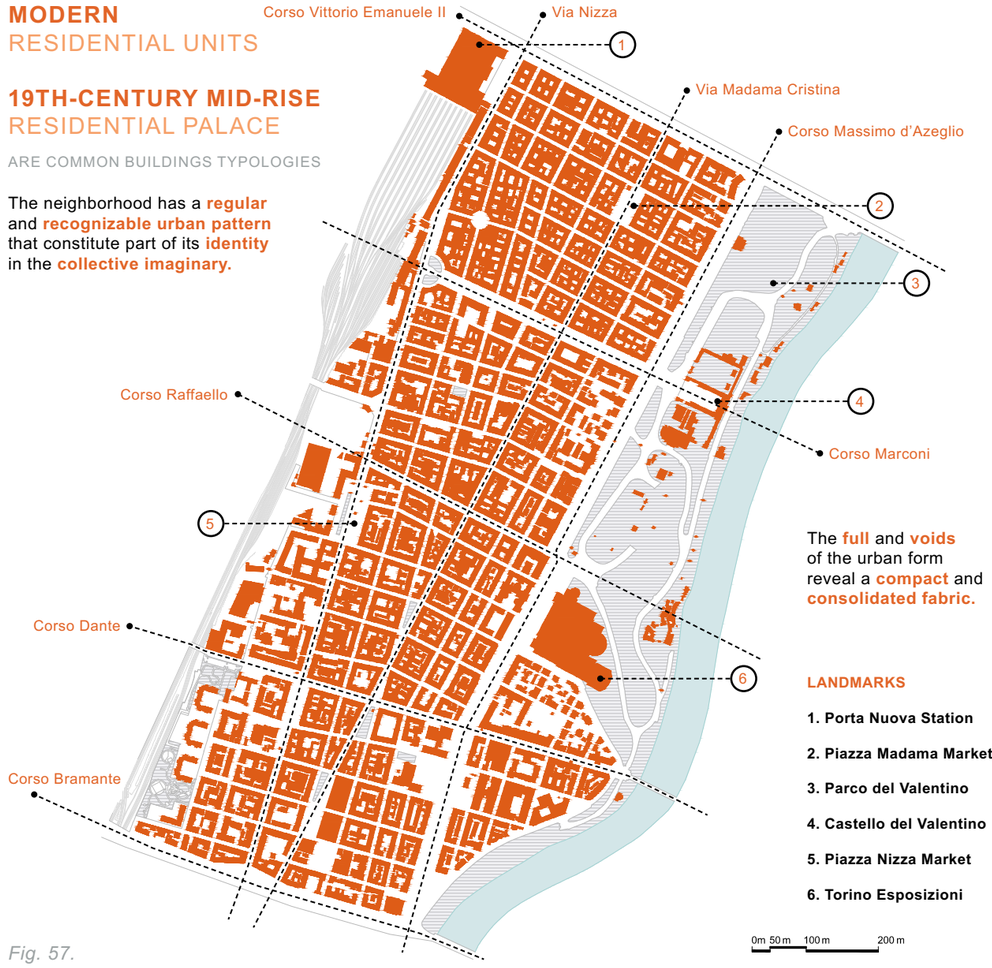
Fig. 56 View from Edificio Storico 8, Piazza Nizza. Own ellaboration, 2023.

MODERN
RESIDENTIAL UNITS

19TH-CENTURY MID-RISE
RESIDENTIAL PALACE

ARE COMMON BUILDINGS TYPOLOGIES

The neighborhood has a **regular** and **recognizable urban pattern** that constitute part of its **identity** in the **collective imaginary.**



The **full** and **voids** of the urban form reveal a **compact** and **consolidated fabric.**

LANDMARKS

1. **Porta Nuova Station**
2. **Piazza Madama Market**
3. **Parco del Valentino**
4. **Castello del Valentino**
5. **Piazza Nizza Market**
6. **Torino Esposizioni**

Fig. 57.

URBAN FORM

San Salvario's urban form is composed of **regular streets** and **blocks,** typically with four facades and internal courtyards between the building units, creating a zero-shaped block and a regular building pattern in almost all of the area's urban fabric. The common **building's typologies** are **modern residential units** and **19th-century mid-rise residential palace,** with a commercial area on the ground floor. This typology creates spaces for commerce that activates the local economy, and also **characterizes** the urban life and the nightlife of the neighborhood. The **urban fabric** is divided transversally by three major arteries (Corso Marconi, Corso Raffaello, and Corso Dante); while in the longitudinal sense, the arteries Via Madama Cristina and Via Nizza stand out. These roads organize the neighborhood into smaller fragments, help to define the urban morphology in the **collective imaginary,** and mark reference axes for locals and visitors. In addition, they are the main **axes of connectivity** with the rest of the city. Another aspect that defines the urban form of the area is the presence of Parco del Valentino, which constitutes the main neighborhood's **urban landmark**, followed by the Porta Nuova railway station, and the Piazza Madama Cristina Market. Other elements that **characterize** San Salvario are its bohemian atmosphere, university life, spaces for arts, and the multiculturalism visible in the variety of religious temples and multiethnic businesses on the streets.

+20
HEALTH FACILITIES

+50
PRIVATE MEDICAL STUDIOS

+15
PLACES FOR SPORT

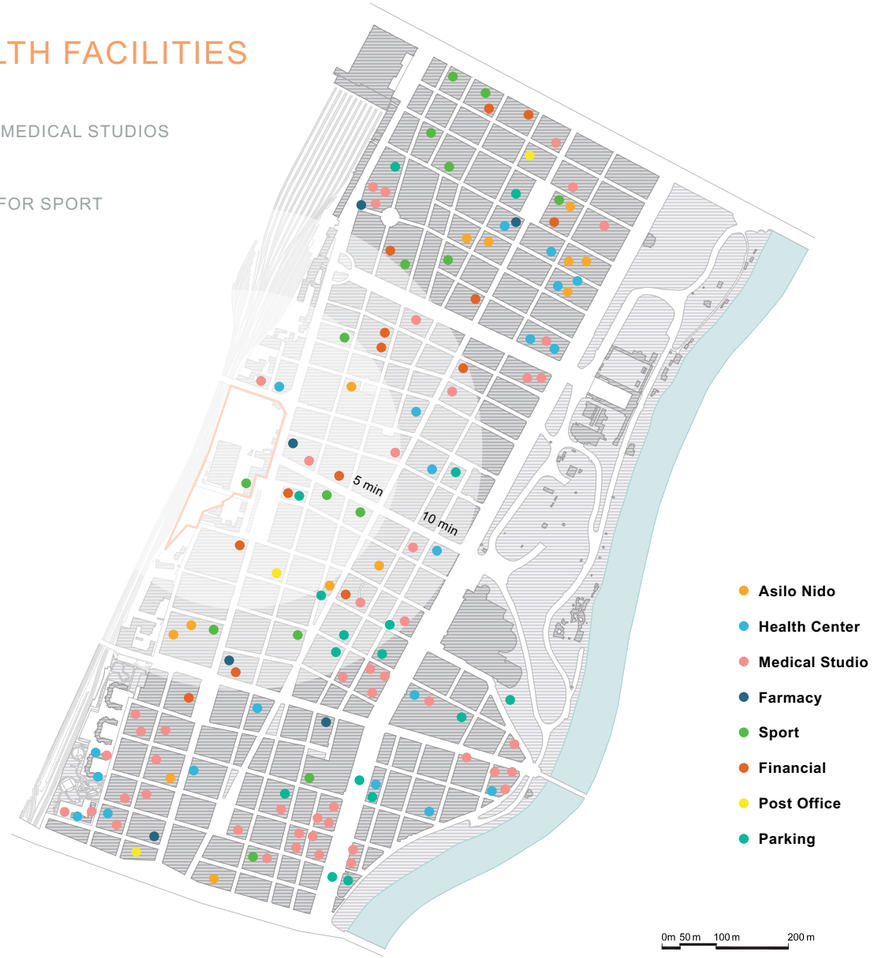


Fig. 59.

SERVICES

The San Salvario community has access to a wide range of services, both public and private, including those of the public administration, health, commerce, tourism, business, finance, education, culture, and leisure sectors. **Public services** include ASL Città di Torino, Poste Italiane offices, and the Anagrafe Circoscrizione 8. With multiple neighborhood ambulatories, clinics, and private medical studios, as well as the close vicinity to the Ospedale Molinette, the **health sector** is adequately served. The retail, restaurant, manufacturing and local marketplaces constitute the majority of the productive and economic sector. There is also a significant number of hotel services that benefit the accommodation for visitors. The neighborhood has a considerable number of bank offices, making it much easier for people to access **financial services.** The **educational sector** includes a wide range of building structures for all educational levels as well as equipment and services like libraries and study rooms. **Culture** has important spaces within the neighborhood: galleries, museums, and local theaters. The neighborhood also has **sporting facilities** such as gyms and sports fields. However, there is little wide range of **outdoor recreation,** and some of the neighborhood's public spaces are few and lifeless. Understanding this is important for the Scalo Vallino project, which has the potential to **establish a different landmark** for the urban public space in the area.

Fig. 58. Marketplace of Piazza Madama Cristina. Own ellaboration, 2023.

SAN SALVARIO

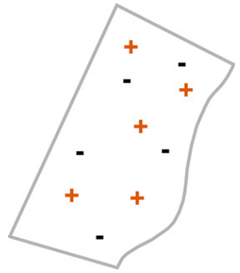
INTERNAL ORIGIN

HELPFUL TO ACHIEVE THE OBJECTIVES

S

STRENGTHS

+ Easy access and connectivity with the local, regional, and national transport system.
+ Presence of a high number of services in the area.
+ Important level of economic activities, innovation, education, and culture.
+ Consolidated local identity and image.



HARMFUL TO ACHIEVE THE OBJECTIVES

W

WEAKNESSES

- Lack of an efficient parking system.
- Unattractive green spaces within the urban fabric.
- High level of pollution and noise from vehicular traffic.
- Social tensions due to various integration problems.

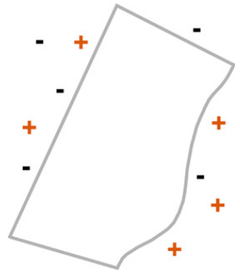
EXTERNAL ORIGIN

HELPFUL TO ACHIEVE THE OBJECTIVES

O

OPPORTUNITIES

+ Central location within the city's urban territory.
+ Connection with important road arteries and cycle paths.
+ Urban redevelopment of disused areas.
+ Integration with the innovation network and productivity sectors.



HARMFUL TO ACHIEVE THE OBJECTIVES

T

THREATS

- Problems of microcriminality and insecurity.
- Increase in visitors and chaos during the nights and weekends.
- Dirt in the streets after the nightlife.
- Slowness in the processes of urban transformation.

Fig. 60. Via Madama Cristina. Own ellaboration, 2023.

Fig. 61.

Fig. 62. Torino Esposizioni, Corso Massimo d'Azeglio.
Own ellaboration, 2023.



Fig. 63. Current scenario in the Ex Scalo Vallino site. Own ellaboration, 2023.

EX SCALO VALLINO TRANSFORMATION

IN RECENT YEARS

The initial transformations that took place in Ex Scalo Vallino in recent times were related to adjustments in the infrastructure of the Porta Nuova station, to which this area of warehouses and yards of the city's railway system belonged. Porta Nuova station lost its significance while Porta Susa assumed the status of the new central station for the city of Turin (Minello, 2022). This scenario led to the reduction of the number of rails available in the Porta Nuova area, freeing up a large space within the territory of the city that entered a phase of urban revision for its assimilation as a disused post-industrial area, with the possibility of being intervened and regenerated in the near future.

The newly unoccupied area became a place of interest for the development of a new scientific innovation project, the Centro di Biotecnologie Moleculare - Incubatore di Ricerca. The Università di Torino, which already had other facilities close to Ex Scalo Vallino, and the Fondazione CIRPark collaborated on the initiatives for the construction of this new research center. Together with the Città di Torino and the property's owner, FS Sistemi Urbani S.r.l., the procedures for purchasing the land were carried out, and in 2013 the *"Accordo di Programma in variante al Piano Regolatore Generale finalizzato al Progetto per l'ampliamento del Centro di Biotecnologíe Moleculare - Incubatore di Ricerca dell'Università di Torino ex Scalo Vallino di via Nizza",* was approved. This was the first scenario of transformation in the area and one of the first regulation frameworks that would determine the following changes.

Preliminary works for the new headquarters of the Università di Torino began in 2014; the same year in Deliberazione del Consiglio Comunale (mecc. 2014 03118/00928 of July 2014) the **Atto di Indirizzo** was approved to determine the perimeter of the *"Programma di Rigenerazione Urbana, Sociale ed Architettonica per l'Area Scalo Vallino e Piazza Nizza",* which in turn would serve to start the process of the "*Variante Urbanistica del P. R. G.".* This program included the area called **Ambito 13.2 DANTE** (115.950 m² TS), and subsequently a variant to the previous program including two new Z. U. T., called **13.2/A NIZZA** (42.727 m² TS) and **13.2/B LUGARO** (4.761 m² TS)**,** was proposed.

With the new technical subdivision of the Ex Scalo Vallino area, the investment potential was determined as well as the transformation hypotheses and scenarios that could be carried out within the site. With this new urban variant, FS Sistema Urbani S.r.l., was able to present a precise sale offer for each area. In 2015, Novacoop s.c., bought almost the entire area for sale, which included **Ambito 13./A NIZZA** (31.814 m²), and the building rights of this area that belonged to Fondazione CIRPark (10.000 m² ter, 7.000 m² GFA). The purchase also included the areas **13.1 PORTA NUOVA** (420 m²), and the **Area Normativa "Misto M1"** (109 m²), remaining in the property of FS Sistema Urbani S.r.l., only 3.388 m² GFA of building rights that were later transferred to **Ambito 4.13 /2 SPINA 3 - Oddone.**

After several years of proposals and revisions, the preliminary works to start the Nova Coop project in the Ex Scalo Vallino area are currently being carried out. The investment was approximately **60 million euros** of private capital and will develop commercial and service areas (10.000 m² GFA), student housing (10.500 m² GFA), public and green areas (7.500 m² GFA), sport facilities (5.000 m² GFA), and parking. The new project is expected to comply with the ITACA and LEED standards protocols for sustainable development and be completed by the fall of 2025.

EX SCALO VALLINO

CURRENT PERCEPTION

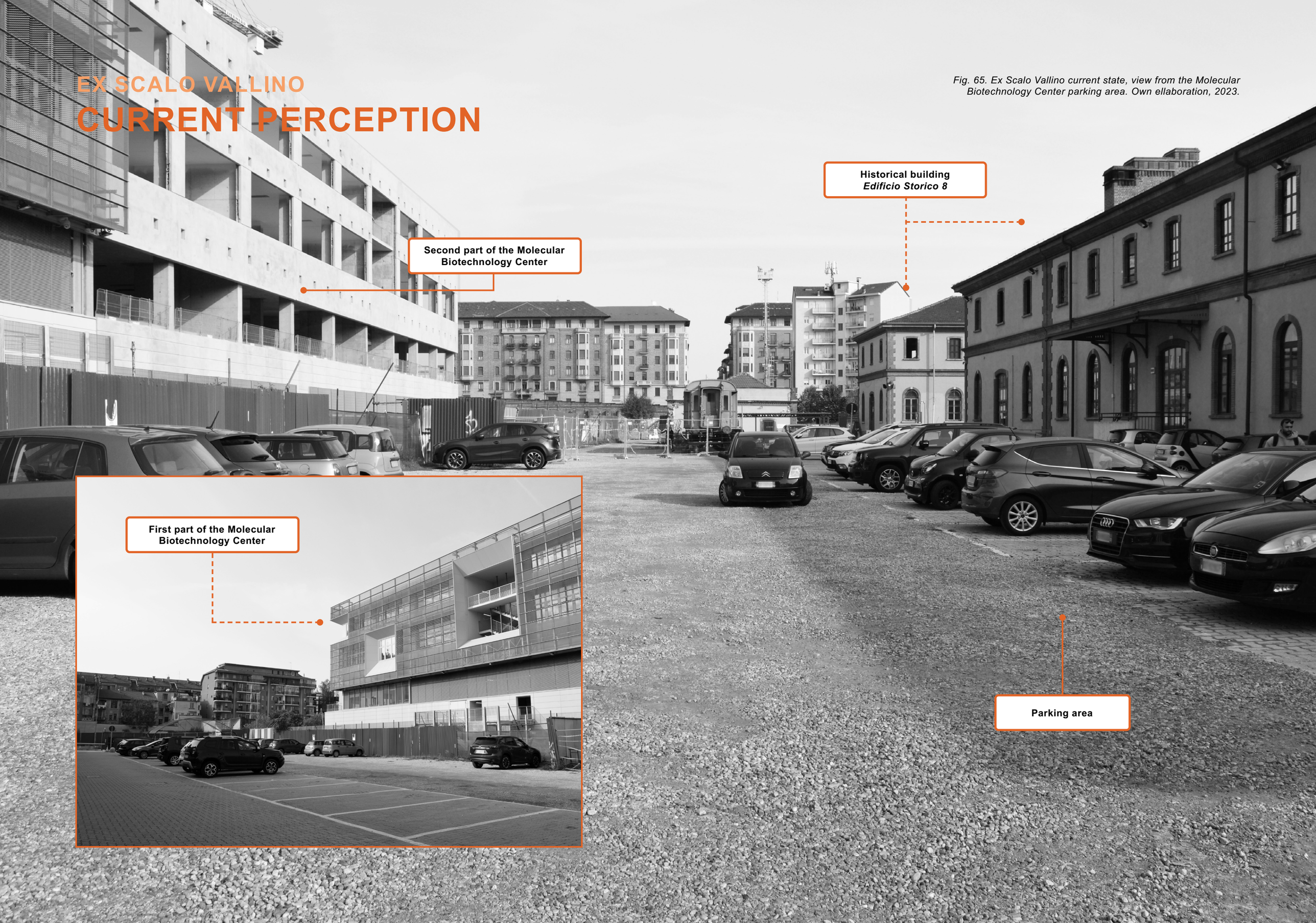
Fig. 64. Ex Scalo Vallino current state, view from Edificio Storico 8. Own ellaboration, 2023.



EX SCALO VALLINO

CURRENT PERCEPTION

Fig. 65. Ex Scalo Vallino current state, view from the Molecular Biotechnology Center parking area. Own ellaboration, 2023.



EX SCALO VALLINO

INTERNAL ORIGIN

HELPFUL TO ACHIEVE THE OBJECTIVES

S

STRENGTHS

+ Central location within the neighborhood's territory with access to road arteries.
+ Proximity to a wide variety of services and means of transport in the near radius.
+ Intervention areas available with regular shapes and perimeters.
+ Presence of buildings of historical and cultural interest within the area.



HARMFUL TO ACHIEVE THE OBJECTIVES

W

WEAKNESSES

- Exposure to noise pollution due to proximity to railways and road arteries.
- The area is not close to natural ecosystems.
- Presence of structures with different uses that can generate compatibility issues within the site.
- Different topographic heights in the accesses to the intervention area.

EXTERNAL ORIGIN

HELPFUL TO ACHIEVE THE OBJECTIVES

O

OPPORTUNITIES

+ Notable presence of visitors, young people, and students in the sector.
+ Improve the urban fabric environmental quality, with the design of a recreational green axis in an area with mostly artificial surroundings.
+ Complement the university and innovation infrastructure network with new student housing and service spaces.
+ Strengthen the neighborhood's economic dynamics with the activation of a new economic pole connected to the local market.



HARMFUL TO ACHIEVE THE OBJECTIVES

T

THREATS

- Urban prescriptions suggest crossing the area with road arteries extension.
- Types of investment initiatives are not that diverse.
- Increase in traffic and noise in the area due to the new commercial activities.
- Problems of microcriminality, insecurity, and social integration.

Fig. 67.

Fig. 66. Edificio Storico 8, view from Piazza Nizza. Own ellaboration, 2023.

Fig. 68. Ex Scalo Vallino historical central small building of the entrance, view from Via Nizza. Own ellaboration, 2023.

Fig. 69. Edificio Storico 8 and Ex Scalo Vallino historical small building of the entrance, view from Via Nizza. Own ellaboration, 2023.

Fig. 70. Ex Scalo Vallino historical buildings,
view from the site internal area. Own ellaboration, 2023.



Fig. 71. Edificio Storico 8, 2nd floor internal view. Own ellaboration, 2023.



Fig. 72. Edificio Storico 8, underground floor internal view.
Own ellaboration, 2023.

URBAN INSTRUMENTS

FOR INTERVENTIONS

Turin's urban planning is regulated by the "*Piano Regolatore Generale di 1995"* (PRG or General Regulatory Plan), which establishes the criteria, limits, and conditions for land use and urban regulations within the city's territory. This technical document has had several updates over the years, and in the 2018 version, it is possible to find the incorporation of the **Ambito 13.2/A NIZZA** derived from the fragmentation of **Ambito 13.2 DANTE** in **Variante Urbanistica N. 291,** which determines the percentages of uses and the construction guidelines that must be considered for the execution of architectural and urban projects within the Ex Scalo Vallino intervention area.

The **Variante Urbanistica N. 291** has as its main objective the reuse and requalification of areas that once belonged to the railway system and that have been excluded for several years from any intervention that could integrate them into the context's urban landscape. This variant manifests, among other things, a significant effort to improve the sector of the city where these empty spaces are located, proposing, for example, to complete the urban profile of the adjacent roads, the conformation of new commercial, residential and innovation poles, the possibility of containing an important public space to increase the environmental quality of the context, and the incorporation of new service facilities for the communities.

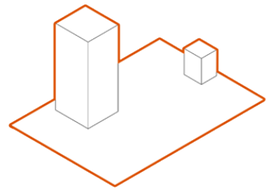
MAIN REGULATION SCHEME:

- PIANO REGOLATORE GENERALE, 1995
- VARIANTE URBANISTICA N. 291, 2014
- AMBITO 13.2/A NIZZA

To understand the most important values of this regulation framework, some concepts can first be defined:

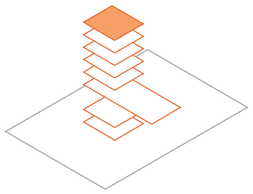
ST = Superficie Territoriale (mq)
TS = Territorial Surface (mq)

Actual surface of a land area that is transformable into an urban setting. It covers both the already-existing structures and the portion of the ground that can be modified.



SLP = Superficie Lorda di Pavimento (mq)
GFA = Gross Floor Area (mq)

It is the total area of all covered surfaces, which includes all floors, above and below ground.



Indice Territoriale Massimo (m² SLP/m² ST)
Maximum Territorial Index (m² GFA/m² TS):

The volume or building density is regulated by using this value, which represents the maximum building index for a determined territorial area, including the pre-existing constructions.

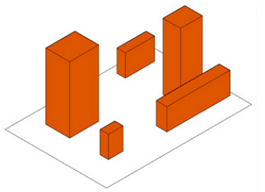


Fig. 74. ST, SLP, ITM. Own ellaboration, 2023.

Fig. 73. Residential building in a corner of Ex Scalo Vallino area. Own ellaboration, 2023.

VARIANTE URBANISTICA N. 291.

(AI SENSI DELL'ART. 17 BIS DELLA L.R. N. 56/ 77 MODIFICATA CON L.R. 3/2013). Area Scalo Vallino - Piazza Nizza. (CIRCOSCRIZIONE AMMINISTRATIVA 8 – CAVORETTO- SAN SALVARIO - BORGO PO). Città di Torino. Direzione Urbanistica e Territorio, Area Urbanistica, Servizio Pianificazione, 2014.

CURRENT STATE
SCALA 1: 5.000

Fig. 75.

PLANIMETRIC EXTRACT OF TABLE NO. 1: *"AZZONAMENTO AREE NORMATIVE E DESTINAZIONI D'USO"* OF PIANO REGOLATORE GENERALE FOGLI 12 B (PARTE) E 13 A (PARTE).

KEY DETAILS

- In this version of the variant, **buildings that had no relation** to the categorization of the area destined to be transformed had been included: Ferrol 7 floors building facing Piazza Nizza, the small heritage buildings of police and railway customs in Via Nizza, and the Edificio Storico 8 from 1887.
- The **historical buildings** of Scalo Vallino in Via Nizza and the Edificio Storico 8, were **declared of cultural interest** in accordance with art. 10-12 of D.Lgs. 42/2004 and remain in guardianship under Legislative Decree 473/2012.

Città di Torino

PRG

Nuovo Piano Regolatore Generale

Progetto: Gregotti Associati Studio
Augusto Cagnardi
Pierluigi Cerri
Vittorio Gregotti
Architetti

il Sindaco

il Segretario Generale

Azzonamento Legenda

Tavola n. 1

Foglio n. 0

Nuovo PRG approvato con deliberazione Giunta Regionale n. 3 - 45091 del 21 Aprile 1995 pubblicata sul B.U.R. n. 21 del 24 maggio 1995.

Elaborato informatizzato aggiornato con le variazioni al PRG approvate alla data del 28 Febbraio 2014

Zone normative

Zona urbana centrale storica

Zone urbane storiche ambientali

Zone urbane consolidate residenziali miste:

2.00 2,00 mq SLP/mq SF

1.1 **Zone urbane di trasformazione:** (denominazione ambito)

Viabilita'

Residenza

Attrezzature di interesse generale (Universita', Casa della Musica, ecc.)

Servizi

Aree normative

Residenza R1

Residenza R3

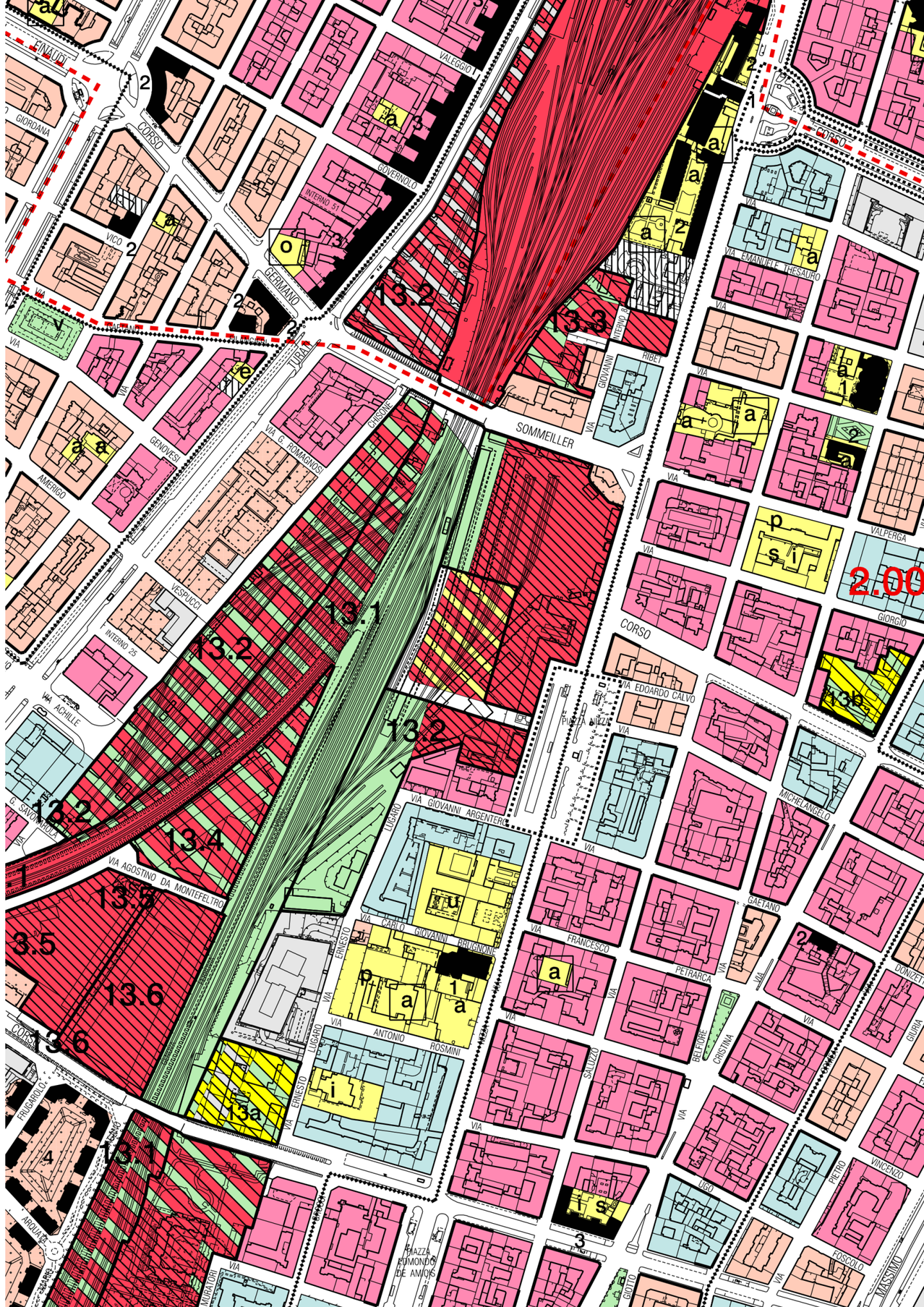
Misto M1

Edifici di interesse storico

Edifici caratterizzanti il tessuto storico

Altre prescrizioni

Percorsi pedonali



VARIANTE URBANISTICA N. 291.

(AI SENSI DELL'ART. 17 BIS DELLA L.R. N. 56/ 77 MODIFICATA CON L.R. 3/2013). Area Scalo Vallino - Piazza Nizza. (CIRCOSCRIZIONE AMMINISTRATIVA 8 – CAVORETTO- SAN SALVARIO - BORGO PO). Città di Torino. Direzione Urbanistica e Territorio, Area Urbanistica, Servizio Pianificazione, 2015-2022.

VARIATION

SCALA 1: 5.000

Fig. 76.

PLANIMETRIC EXTRACT OF TABLE NO. 1: *"AZZONAMENTO AREE NORMATIVE E DESTINAZIONI D'USO"* OF PIANO REGOLATORE GENERALE FOGLI 12 B (PARTE) E 13 A (PARTE).

KEY DETAILS

- The Comune di Torino, with the aim of **limiting the use of the car** to avoid the increase in traffic in the area and to **promote the use of public transport,** introduces in the *"Accordo di Programma del Centro di Biotecnologie Moleculare - Incubatore di Ricerca dell'Università di Torino"*, the prescription of a **standard parking quota of 18 m²/ inhab,** considering that the area is well connected to the city's transport system and is easily accessible.

Città di Torino

PRG

Nuovo Piano Regolatore Generale

Progetto: Gregotti Associati Studio

Augusto Cagnardi

Pierluigi Cerri

Vittorio Gregotti

Architetti

il Sindaco

il Segretario Generale

Azzonamento Legenda

Tavola n. 1

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Elaborato informatizzato aggiornato con le variazioni al PRG approvate alla data del 28 Febbraio 2014

Zone normative

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Zone urbane consolidate residenziali miste:

2.00 2,00 mq SLP/mq SF

1.1 **Zone urbane di trasformazione:** (denominazione ambito)

Viabilita'

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Servizi

Aree normative

Residenza R1

Residenza R3

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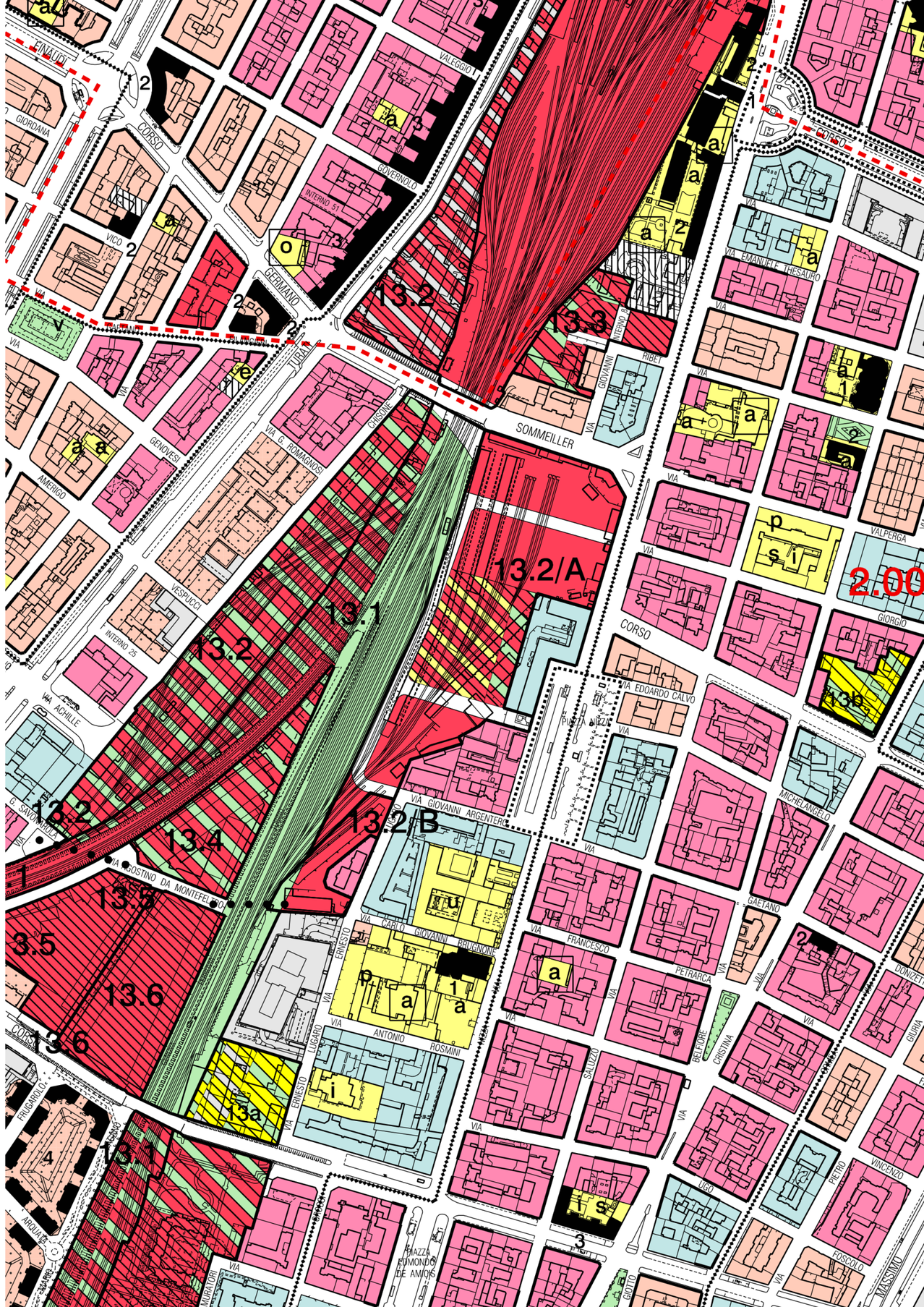
Edifici di interesse storico

Edifici caratterizzanti il tessuto storico

Altre prescrizioni

Percorsi pedonali



PRG_Z.U.T. 13.2

Ambito 13.2/A NIZZA

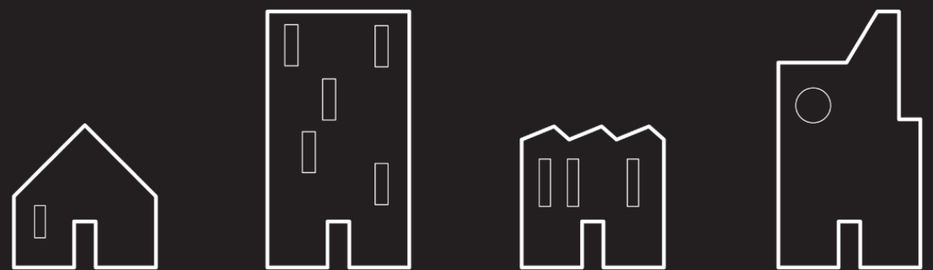
(Direzione Urbanistica e Territorio Città di Torino, pp. 429-430).

Maximum Territorial Index (m² GFA/m² TS): **0.7**

Estimation of Territorial Surface (TS): **42.727 m²**

Estimation of Gros Floor Area (GFA): **29.909 m²**

GFA FOR INTENDED USE



RESIDENCE	SERVICE ACTIVITIES FOR PEOPLE AND BUSINESSES	EUROTORINO	EQUIPMENT OF GENERAL INTEREST (ART. 3, PUNTO 7, LETTERE H,B, CR).
min 40%	min 20%	max 60%	20.000 m²
11.963 m²	*5.981 m²*	*17.945 m²*	
max 80%			
23.927 m²			

MINIMUM AREAS FOR SERVICES (INTERNAL NEEDS)

Residence (A): **18 m²/hab**

Service activities for people and businesses (B): **80% GFA**

Eurotorino (H): **80% GFA**

Services for the city (% minimum ST): **10%**

Eurotorino (according to Art. 3., P.R.G.), is a mixed-use destination that includes research centers, productive and innovative activities, hospitality activities, tertiary activities, exhibition and congress activities, universities.

Fig. 77. Uses icons. Own ellaboration, 2023.

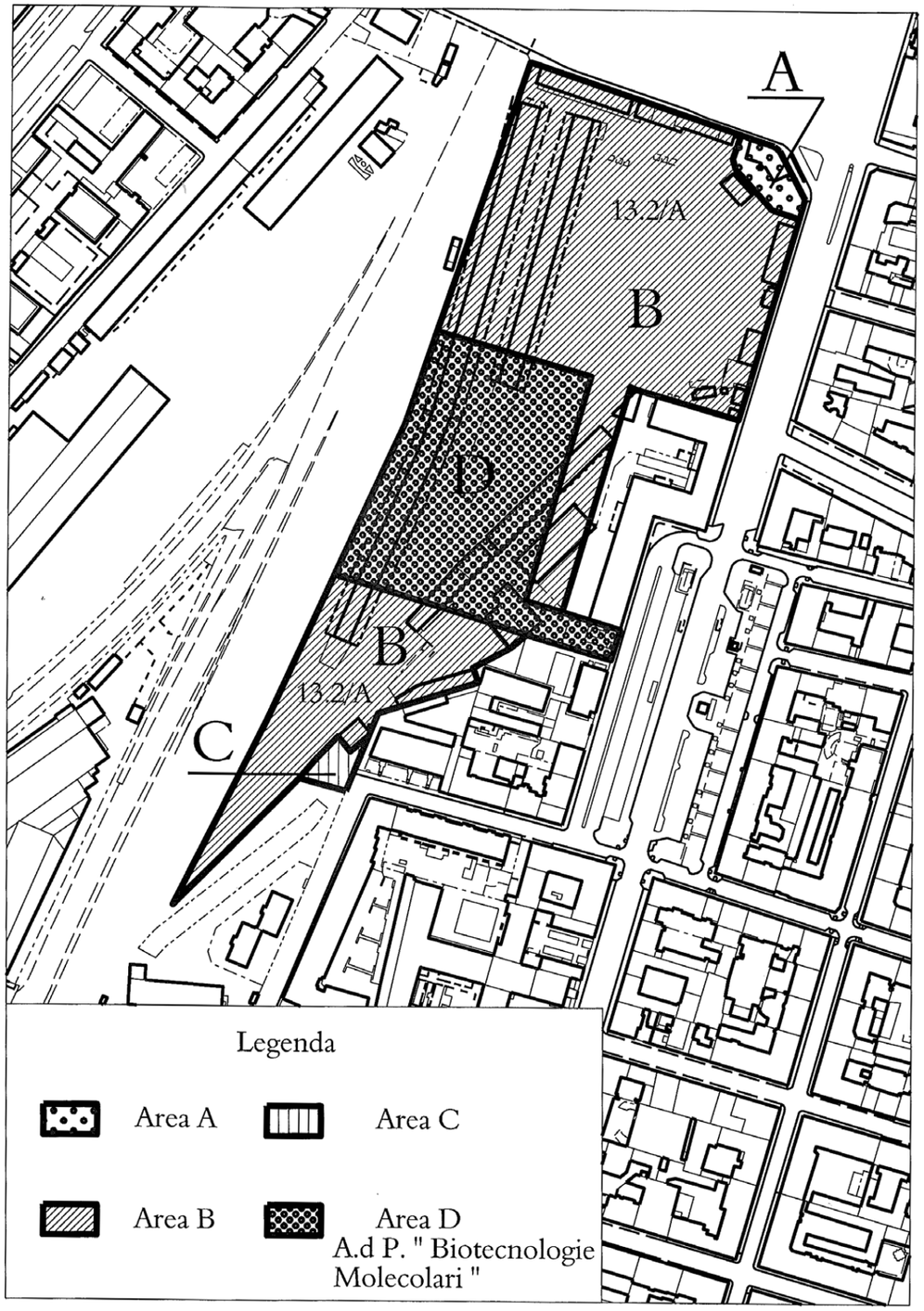


Fig. 78. New regulatory sheet "Ambito 13.2/A NIZZA". Variante Urbanistica N. 291. Area Scalo Vallino - Piazza Nizza. Città di Torino. Direzione Urbanistica e Territorio, 2014.

TYPE OF SERVICES PROVIDED

For this area, the following uses are allowed:

PARKING

PRIMARY EDUCATION

PUBLIC PARK

PUBLIC SPACE

SOCIAL ASSISTANCE

GAMES AREAS

SOCIAL SERVICES

SPORTS

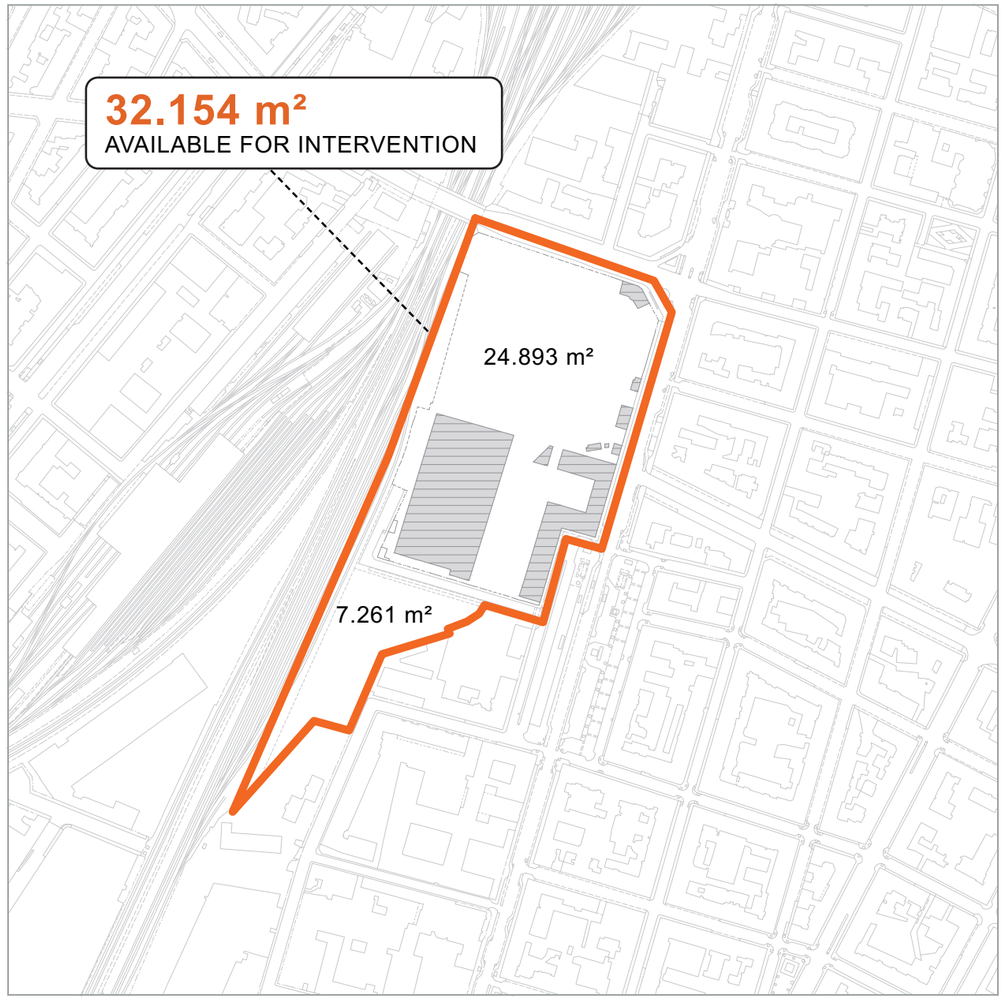
ACTIVITIES OF GENERAL PUBLIC INTEREST

COLLECTIVE RESIDENCES

STUDENT HOUSING

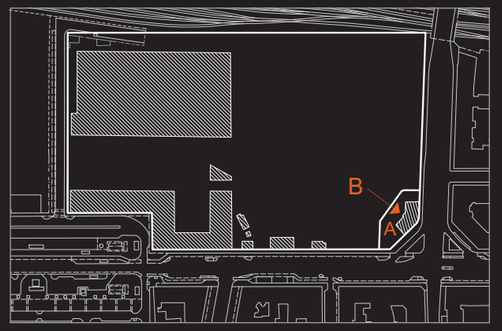
SPORT FACILITIES

Fig. 79.

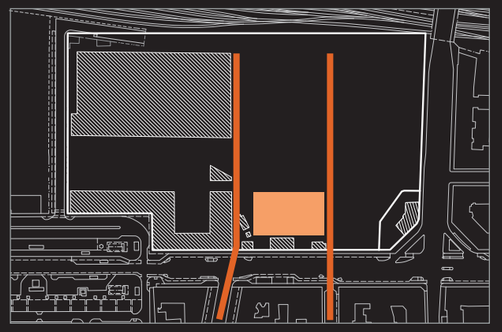


PARTICULAR PRESCRIPTIONS

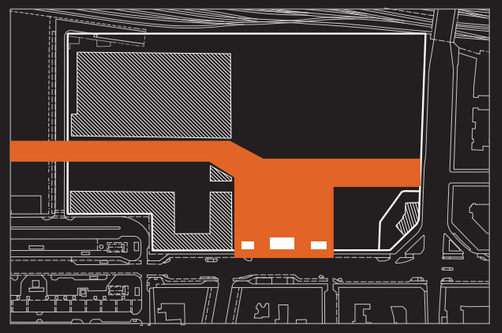
- If necessary, it is possible to use building rights from area “B” in area “A” **to improve the urban morphology of the area.**



- Between the extension of Corso Raffaello and Via Bidone, **the construction of a significant public space (square)** in front of Via Nizza must be taken into consideration.



- The **three protected historical buildings** that are facing Via Nizza must be integrated into the new public space proposal.



- A new **road system** is planned to be built to serve the new buildings and also must be created new **routes for cyclists and pedestrians** by connecting the elevated pass from Corso Sommellier along the railway lines to the Via Nizza and Piazza Nizza.

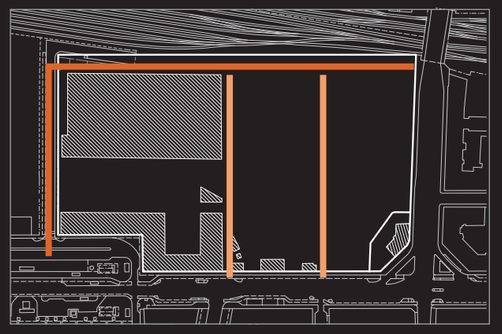


Fig. 80.

IMPLEMENTATION RULES

URBAN MASTER PLAN - P. R. G. 1995

URBAN INTERACTIONS
In the technical annex *“Allegato Tavola n. 7, Foglio N. 13A, del P.R.G.”,* which includes the *“Fasce di rispetto”,* indicates particular prescription on the area, therefore it is not subject to the *“Norme Urbanistiche Edilizie di Attuazione”.*

AREA OF ARCHEOLOGICAL INTEREST
The Ex Scalo Vallino area falls within the categorization of areas susceptible to archaeological discoveries, according to the technical annex *“Allegato Tavola n. 15, Foglio unico, del P.R.G.”.*

HYDROLOGICAL CRITERIA
In the technical annex *“Carta di sintesi della pericolosità geomorfologica e dell'idoneità all'utilizzazione urbanistica”* of Variante 100 al P.R.G., ai sensi degli artt. 15 and 17 of the L.R. 56/77 e s.m.i., *“Adeguamento alla Circolare P.G.R. 8/05/1996 no. 7/LAP ed al Piano per l'Assetto Idrogeologico - P.A.I.",* the area is classified in the category “CLASSE I” –Sottoclasse I (P)– which applies to areas that do not present flood risks and do not have geomorphological dangerous conditions. In these areas, urban interventions are allowed in accordance with the regulations of the D.M. 11/03/88 and D.M. 14/01/2008 *“Approvazione delle nuove Norme Tecniche per le Costruzioni”.*

OTHER DOCUMENTS

PIANO PAESAGGISTICO REGIONALE (P.P.R.)
ADOTTATO CON D.G.R. N. 53-11975 IN DATA 04/08/2009

This regulation in *“Table P4.0 Componenti paesaggistiche”,* includes Ex Scalo Vallino in the category of areas *“Urbane consolidate dei centri maggiori m.i.1”* **(art. 35 delle Norme di Attuazione di P.P.R,),** with a compact fabric morphology.

PIANO TERRITORIALE REGIONALE (P. T. R.)
APPROVATO CON D.C.R. N. 122-29783 IN DATA 21/7/2011

This regulation does not specify particular prescriptions regarding the Ex Scalo Vallino area but classifies the area as *"aree urbanizzate"* close to rail transport infrastructure.

BICIPLAN
The *"Piano della Mobilità ciclabile (Biciplan)"* approved in 2013, comprises projects and actions for the development of the cycle paths system in Turin. As regards the Ex Scalo Vallino area, its proximity to the Via Nizza cycle path makes it suitable for completing the section between Corso Sommeiller and Piazza Nizza.

NORME DI ATTUAZIONE DEL P.P.R, ART. 35

ADOTTATO CON D.G.R. N. 20-1442 IN DATA 18/05/2015

ITALIAN
AREE URBANE CONSOLIDATE

[1]. Il Ppr individua, nella Tavola P4, gli insediamenti urbani consolidati, costituiti da tessuti edificati compatti, quali componenti strutturali del territorio regionale, distinguendo tre tipi di morfologie insediative (m.i.):

a. urbane consolidate dei centri maggiori (m.i. 1);
b. urbane consolidate dei centri minori (m.i. 2);
c. tessuti urbani esterni ai centri (m.i. 3).

[2]. La disciplina delle aree di cui al presente articolo è orientata al raggiungimento dei seguenti obiettivi:

a. qualificazione dello spazio pubblico e dell’accessibilità pedonale ai luoghi centrali, con contenimento degli impatti del traffico veicolare privato;
b. caratterizzazione del paesaggio costruito con particolare attenzione agli aspetti localizzativi tradizionali (crinale, costa, pedemonte, terrazzo, ecc.) e agli sviluppi urbanizzativi.

Indirizzi
[3]. I piani locali garantiscono:

a. il potenziamento degli spazi a verde e delle loro connessioni con elementi vegetali esistenti;
b. la riorganizzazione della mobilità con formazione sistematica di aree a traffico limitato;
c. il potenziamento della rete degli spazi pubblici, a partire da quelli riconosciuti storicamente, anche con la riorganizzazione del sistema dei servizi, delle funzioni centrali e dei luoghi destinati all’incontro, con il coinvolgimento delle aree verdi, la formazione di fronti e di segni di rilevanza urbana.

Direttive
[4]. I piani locali garantiscono il mantenimento e la valorizzazione dei caratteri edilizi diffusi con particolare riferimento alle parti di città precedenti al 1950 e verificano e precisano la delimitazione delle aree interessate dalle m.i. 1, 2 e 3, tenendo conto anche dei seguenti parametri:

a. presenza nelle carte IGM 1881-1924 della Carta Topografica d’Italia alla scala 1:25.000;
b. dotazione di spazi pubblici fruibili con continuità per i centri dei nuclei Maggiori;
c. prevalenza di tipologie edilizie e di impianto di carattere extragricolo.

ENGLISH
CONSOLIDATED URBAN AREAS

[1]. The Ppr classifies, in Table P4, the consolidated urban settlements, consisting of compact fabrics, as structural components of the regional territory, distinguishing three types of settlement morphologies (m.i.):

a. consolidated urban major centers (m.i. 1);
b. consolidated urban minor centers (m.i. 2);
c. urban fabrics outside the centers (m.i. 3).

[2]. The regulation of the areas referred to in this article is aimed at achieving the following objectives:

a. qualification of public space and pedestrian accessibility to central places, with containment of the impacts of private vehicular traffic;

b. characterization of the built landscape with particular attention to the traditional localization aspects (ridge, coast, foothills, terrace, etc.) and to urban developments.

Addresses
[3]. Local plans guarantee:

a. the enhancement of green spaces and their connections with existing natural elements;
b. the reorganization of mobility with the systematic formation of restricted traffic areas;
c. the strengthening of the network of public spaces, starting from those historically recognized, also with the reorganization of the system of services, of the central functions and of the places intended for meeting, with the involvement of green areas, the formation of fronts and signs of urban relevance.

Directives
[4]. The local plans guarantee the maintenance and enhancement of the widespread building characteristics with particular reference to the parts of the city prior to 1950 and verify and specify the delimitation of the areas affected by the m.i. 1, 2, and 3, also taking into account the following parameters:

a. presence in the IGM 1881-1924 of the Topographic Map of Italy at a scale of 1:25,000;
b. provision of public spaces that can be used continuously for the centers of the major context;
c. prevalence of non-agricultural building and plant typologies.

PETITIONS OF
SAN SALVARIO CITIZENS

In May 2023, a petition signed by more than 500 people to request a new review of the project that has begun in the Ex Scalo Vallino, generated a debate between some citizens who are detractors of the current renovation proposal and the city government. Concerns raised included: insufficient green areas intended to benefit public space, potential *"heat island"* effect of proposed volumes, height of new buildings, elevated parking instead of underground parking, the possible negative impact on traffic on adjacent roads and the negative effect on local commercial activities. Despite this inconvenience, a few days later Nova Coop, the entity that owns and leads the investment project, presented the new version of the urban regeneration plan with some changes and improvements compared to the previous version.

From the presentation day of the new intervention plan, can be highlighted the following **comments:**

*"Ero assessore all'Urbanistica io quando approvammo la **variante urbanistica** e sono molto contento che dopo tutto questo tempo lo Scalo Vallino venga finalmente riqualificato. Soltanto lavorando con il **capitale privato** –ha sottolineato il primo cittadino– si può **riqualificare Torino"**.*

Stefano Lo Russo, sindaco di Torino. (Levi, 2023).
(From article *"L'ex Scalo Vallino rinasce con studentati, negozi e una piazza 'green'"*, TorinoCronaca, 2023).

*"Sarà **bello, ecosostenibile, ricco di servizi e con un'offerta commerciale** che non si pone al centro dell'operazione ma offrirà un importante supporto per permetterne **la fattibilità".***

Antonio Audo, direttore tecnico di NovaCoop. (From article *"Student housing e spazi commerciali per l'ex scalo Vallino"*, RaiNews, 2023).

Fig. 81. Largo Saluzzo, San Salvario. Own ellaboration, 2023.

*"Abbiamo già **ridotto la superficie planivolumetrica** di 4,500 metri quadri rispetto al Piano Regolatore: il 18% in meno, passando da 26mila e 21,500 metri quadri complessivi, Ciò ci ha consentito di **destinare oltre 7.500 metri a spazi pubblici e servizi per la collettività".***

Antonio Audo, direttore tecnico di NovaCoop.
(From article *"L'ex Scalo Vallino rinasce con studentati, negozi e una piazza 'green'"*, TorinoCronaca, 2023).

*"La riqualificazione dello Scalo Vallino rappresenta un fondamentale tassello della strategia di **trasformazione urbana dei siti industriali dismessi.** Il completamento dell'investimento universitario rappresentato dal centro di Biotecnologie e la realizzazione di uno studentato contribuiscono ad **una delle vocazioni strategiche di Torino come città universitaria".***

Stefano Lo Russo, sindaco di Torino.
(From article *"Student housing e spazi commerciali per l'ex scalo Vallino"*, RaiNews, 2023).

*"L'ambizione che abbiamo è di essere un **elemento di valore aggiunto per la comunità** che ospita i nostri punti vendita: per far si che questo avvenga non dobbiamo violentare il territorio con nuove strutture ma dobbiamo renderle **armoniche e integrate,** percepite dai cittadini come un elemento che migliora **la qualità della vita".***

Ernesto Dalle Rive, presidente di Nova Coop.
(From article *"Studentato e negozi nel nome della "rigenerazione sostenibile": così si trasformerà lo Scalo Vallino"*, Torino Oggi, 2023).

PART 4

THE CONCEPT

Integrative Urban Space

Ideas, concepts, and projects make up the ***repertoire of references*** *that support the design intention of this thesis, emphasizing* ***urban space*** *as the main axis of an urban regeneration project, and giving prominence to its capacity to* ***integrate, unite, complement, and change*** *the nearby urban environment, not only because of its spatial dimensions but also because of the uses it can host, for example,* ***creative activities*** *that allow* ***the appropriation of public space*** *and* ***social interaction.***

CONCEPTUAL FRAMEWORK

Integrative Urban Space

=

It is a portion of the urban fabric that is projected as a membrane that connects physical elements of the environment, existing structures, services and community in an integrative synthesis. It promotes economic, social, cultural, and political dynamics to improve the quality of life of the place. It allow the citizen partici-pation and democratize access to a pleasant, quality city space, accessible to everyone, where citizens stop being just spectators and can be protagonists.

Public space permeable in the abstract dimension of its construction, visitors not only observe, it can have a role in a place-making scenario, allowing equal participation and in line with convincing values.

With contemporary art we can transgress the spatial dimensions of the museum or gallery: it is an art that involves the visitor, to think, to touch, to destroy the discourse, to change the idea, to take any place as an scenario for art.

An open surface that has the capacity to arouse interest in the community to appropriate the physical dimensions and components of the urban space and build identity links with the environment.

The activation of an urban space benefits from commercial and residential activities on its edges, which in addition to attracting a flow of visitors, can revalue the site by giving it dimensions that go beyond the physical space, connecting in the collective imagi-nation with certain information biases related to the activities that happen around that public space. Businesses would also adjust the dynamics for sale and purchase art in the place, generating external and direct micro-commerce between artists and visitors.

Author Voice



Text from UN Sustainable Development website.

https://www.un.org/sustainabledevelopment/cities/

United Nations 2030 Agenda on Sustainable Development
GOAL 11: MAKE CITIES INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

*"**11.3** By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries". (*United Nations, 2015).

*"**11.4** Strengthen efforts to protect and safeguard the world's cultural and natural heritage". (*United Nations, 2015).

*"**11.6** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management". (*United Nations, 2015).

*"**11.7** By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilitie". (*United Nations, 2015).

Public Urban Space + ART

"Public spaces – including streets – are, and must be seen as, multi-functional areas for social interaction, economic exchange and cultural expression among a wide diversity of people. It is for urban planning to establish and organize these public spaces, and for urban design to facilitate and encourage their use, in the process enhancing a sense of identity and belonging". (UN-Habitat, 2015, p. 4).

"Throughout history, public space was called upon to be the scene of the meeting between art and people. In the public sphere, this relationship is a three variable equation (art, the public, and the built context in which individuals coalesce into the public) which, due to recent societal changes, is beginning to splinter into countless facets". (Mitrache, 2012, p.1).

"The very visibility of public art deals with the fact that it is a leading vehicle through which minority groups can affirm their history and physically mark their place within the layered histories of the urban space - the past being a keystone upon which to build for the present and future". (Mazzucotelli Salice, 2011, p. 71).

"Public art is gradually popularized because it can improve city grade and connotation. Meanwhile, it has become an important topic of city image construction, realizing landscape and humanistic value of city. It is the product of urban culture and life style". (Wu, 2016, p. 221).

"Nonprogrammed use. Equipping the surface with services and furnishings that can be appropriated and modified by the public enables a diverse and flexible range of uses. Instead of comprising elements serving only one function, a design that can accommodate many functions is both economical and enriching of social space". (Wall, 1999, p. 245).

"Public art can also offset the hard edges of an urban environment. In areas with little nature and lots of dull concrete, public art can make a neighborhood more colorful, softer, and more inviting. Some instances of public art can even increase the sense of trust in a community". (Lee, 2023).

\+ Commercial Areas

\+ Student Housing

"University student living is an evolving form of housing, subject to significant investment and design experimentation. In Italy, Law 338/2000 gave a strong stimulus to the construction of student residences, incentivised the renovation of the existing building stock and produced significant results in terms of architectural and urban redevelopment throughout the country". (Bologna, 2022, p. 198).

= *Urban Regeneration*

Other Authors

CASE STUDY 1

CIUDAD UNIVERSITARIA UCV

Designer
CARLOS RÁUL VILLANUEVA

Year
1944-1967

Location
CARACAS, CAPITAL DISTRICT
VENEZUELA

Stage
COMPLETED


Fig. 82.

Listed as a World Heritage Site by UNESCO in 2000, this university campus reveals one of the best examples of modern architecture in dialogue with the avant-garde art of the 20th century. The university campus, in addition to having large-scale buildings, houses an internal urban landscape that serves as a setting for murals, sculptures, and installations by national and international artists. They come together in an inexhaustible visual narrative, accompanied by a play of tropical lights that make every area a different space. Architecture, art, nature and urban space find in this site one of the most coherent discourses of project interrelation.


Fig. 83.

PROJECT HIGHLIGHTS

- Synthesis of arts and architecture at different project scales, from urban spaces to interior spaces.
- Incorporation of visual art and sculptures in the urban landscape of the complex to democratize access to art, creating project instances that function as a museum setting.
- Clear and evident materiality discourse.
- Nature dialogues with the built work.
- The human scale determines the scope of design decisions to create spaces without intimidation.


Fig. 84.

KEYWORDS

URBAN PLANNING - ART - ARCHITECTURE
NATURE - HUMAN - CONNECTIVITY - URBAN
LANDSCAPE - ARTISTIC SYNTHESIS
VANGUARD - MATERIALITY


Fig. 85.

CASE STUDY 2

SKULPTUR PROJEKTE

Designer
VARIOUS

Year
1977-AT PRESENT

Location
MÜNSTER, NORTH RHINE-WESTPHALIA, GERMANY

Stage
CONTINUOUS


Fig. 86.

Started from a protest action to raise public awareness about contemporary art, this initiative has become one of the most important places for the exhibition of sculptures in public spaces on the European continent. It takes place every 10 years in a transgressive format that has been spread across the Münster's city territory, leaving some works in a permanent state of exhibition. Many of the works presented address social and political criticism and themes about human beings, loneliness, and consumption, sometimes making use of everyday and ordinary objects to highlight certain discourses.


Fig. 87.

PROJECT HIGHLIGHTS

- Direct link with urban spaces.
- Diversity of artists and works.
- Continuity of actions over time.
- Art promotion.
- Appropriation of public spaces with a variety of speeches.


Fig. 88.

KEYWORDS

TERRITORY - ART - INTERVENTION - NATURE
HUMAN - PERFOMANCE - URBAN LANDSCAPE
RECYCLE - VANGUARD - MATERIALITY


Fig. 89.

CASE STUDY 3

ARTLINE MILANO

Designer
VARIOUS

Year
2016

Location
CITYLIFE PARK, MILAN
ITALY

Stage
COMPLETED



Fig. 90.

ArtLine is integrated into the urban regeneration process carried out in the CityLife area of Milan in recent years. It offers to visitors and the community an open-air public art collection composed of 12 sculptural works by different national and international artists that stimulate the perception of the urban landscape and function as meeting and social interaction point. The works have scales and materials that dominate the public space creating landmarks. Some of them present discourses about human beings, others invite observation, and some can be crossed to expand the multisensory experience of visiting the place.



Fig. 91.

PROJECT HIGHLIGHTS

- Landmark points.
- Scales and expressive materials.
- Integration with urban regeneration process.
- Variety of discourses and approaches
- Contact with the natural environment and visual link with the built context.


Fig. 92.

KEYWORDS

PUBLIC SPACE - ART - NATURE - MATERIALITY
URBAN LANDSCAPE - SOCIAL INTERACTION
LANDMARK - EXHIBITION - MULTISENSORY

Fig. 93.

URBAN REGENERATION

REUSED RAILWAY YARDS

SCALO DI PORTA ROMANA

FROM RAILWAY YARD TO MULTIFUNTIONAL URBAN CENTER

Designers
OUTCOMIST, DILLER SCOFIDIO + RENFRO, PLP ARCHITECTURE E CARLO RATTI ASSOCIATI E ARUP

Year
2020-AT PRESENT

Location
MILAN, ITALY

Stage
IN PROGRESS

This urban requalification project stands out for the importance given to the surface destined for public space in which a design of green parks, pedestrian corridors, cycle paths, floating walkways, ecological zones, and squares is proposed, thus allowing the integration of architecture with natural elements in a constant dialogue. Due to its location within the city, the project will also serve as an urban interconnector between two areas that have been separated by the railway yard former use, thus improving connections and continuity within the urban fabric. The area redevelopment also includes residences, commerces, offices, and the construction of an Olympic Village for the 2026 Winter Olympic Games, which after the event can be reused as a residential area for students, thus readapting some proposal initial uses in this new phase of the project more linked to university life and cultural activities.

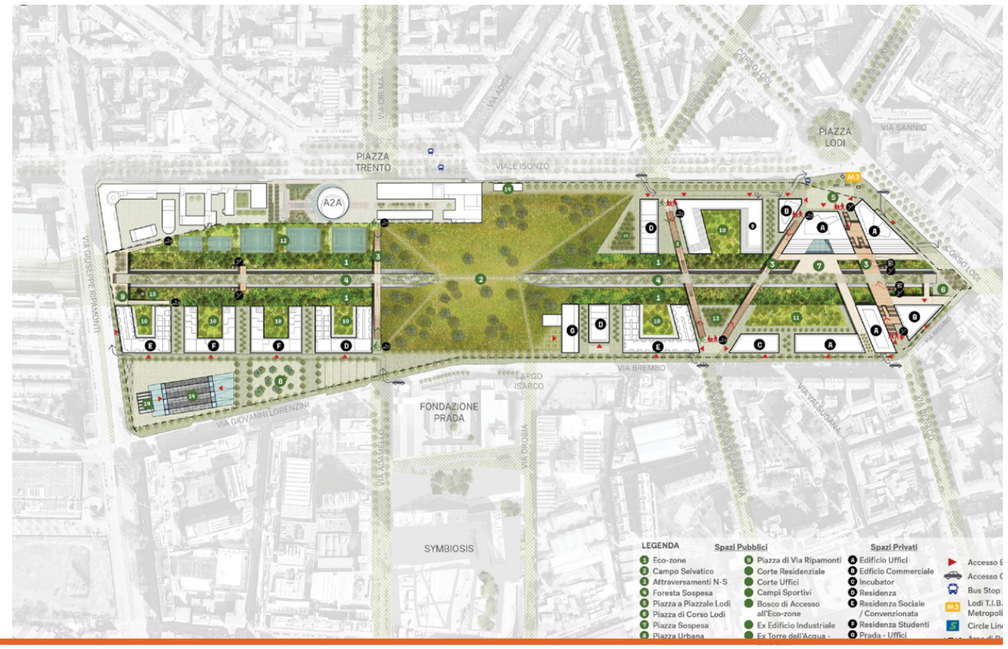


Fig. 94. Ex Scalo di Porta Romana Master Plan. Image by © Outcomist, DS+R, PLP, CRA, and Arup.

BIG LIGOVSKY

FROM RAILWAY YARD TO RESIDENTIAL DISTRICT

Designers
KCAP ARCHITECTS & PLANNERS + ORANGE ARCHITECTS

Year
2019

Location
ST.PETERSBURG, RUSSIA

Stage
PROJECT

The project focuses special attention on the conformation of a multifunctional urban center with all the necessary services and facilities for a residential area and at the same time integrates green spaces throughout the intervention site to improve the quality of public spaces. The site's industrial memory is incorporated into the project discourse using the old railway tracks of the train yard as axes, thus generating the main axes of movement within the proposal accompanied by public greenery in corridors and linking with the proposed buildings. On the other hand, the architectural proposal reveals a constant dialogue of scales and materials and allows the linking of the residences with the urban environment through facades with mixed heights. The residential proposal was designed to house approximately 8,600 people and would have areas for education, sports, plazas, cafes, and other small businesses.



Fig. 95. Big Ligovsky Master Plan View. Image by © KCAP + Orange Architects.

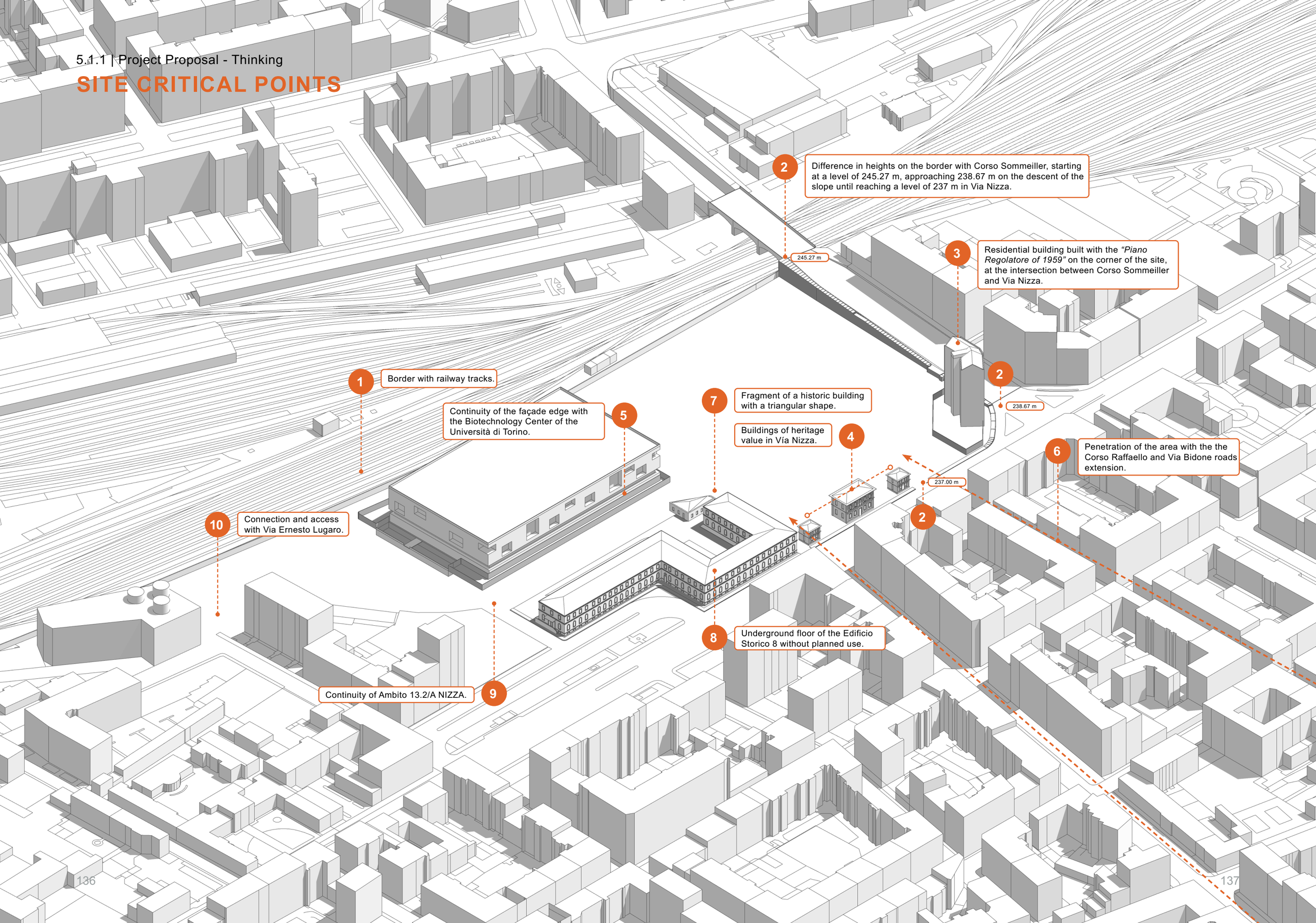
PART 5

THE PROJECT

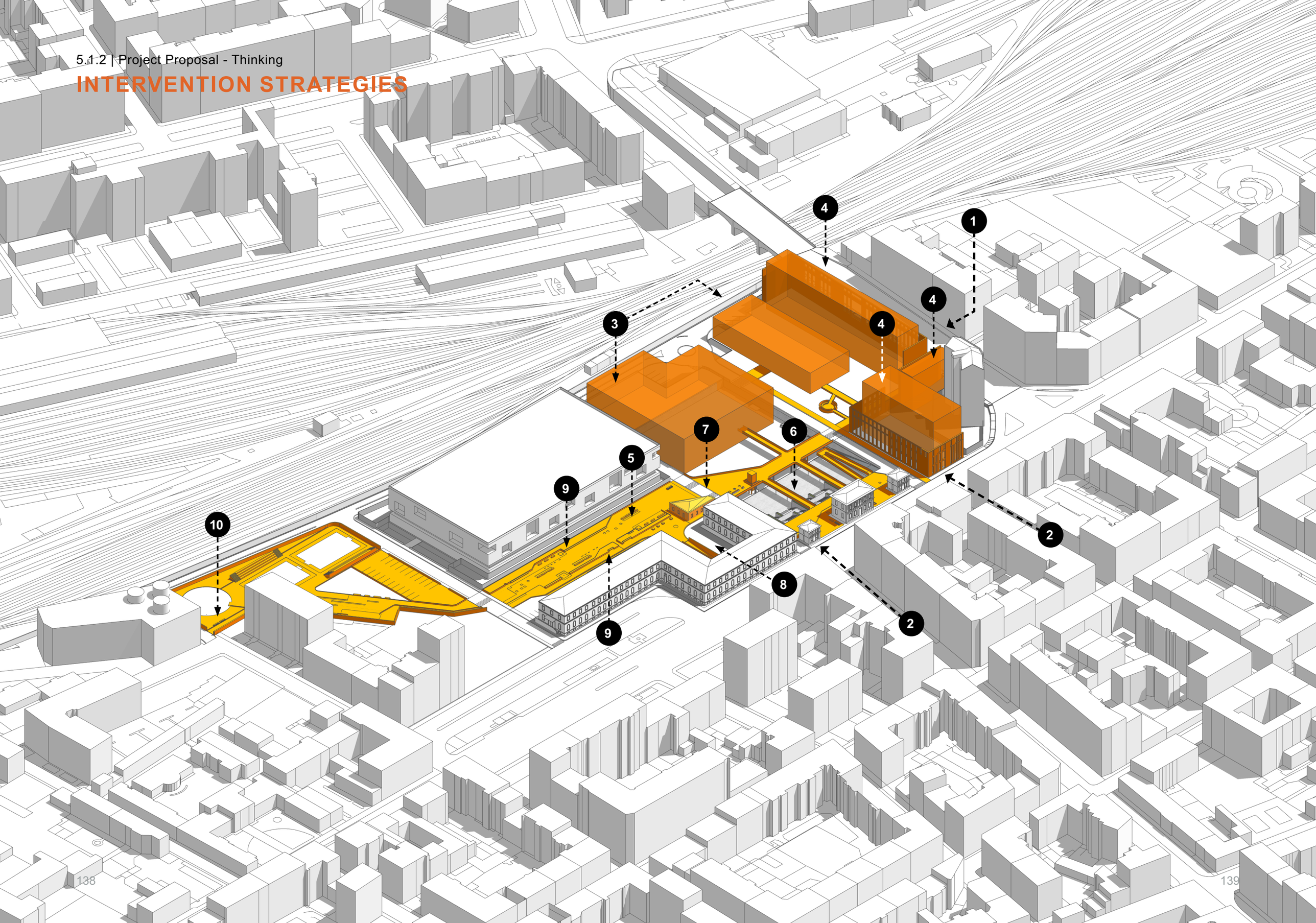
Multifunctional Urban Center

The place history, the urban analysis, the normative conditions for the site intervention, and the conceptual ideas and axes, have been useful ***information layers*** *for the* ***urban regeneration project*** *proposed in the* ***post-industrial area Ex Scalo Vallino,*** *which would pass from being an* ***abandoned railway yard*** *to an* ***urban center connected to the context,*** *and hosting* ***multiple uses*** *and* ***functions*** *established from different* ***strategies*** *and* ***design*** *decisions explained in this chapter.*

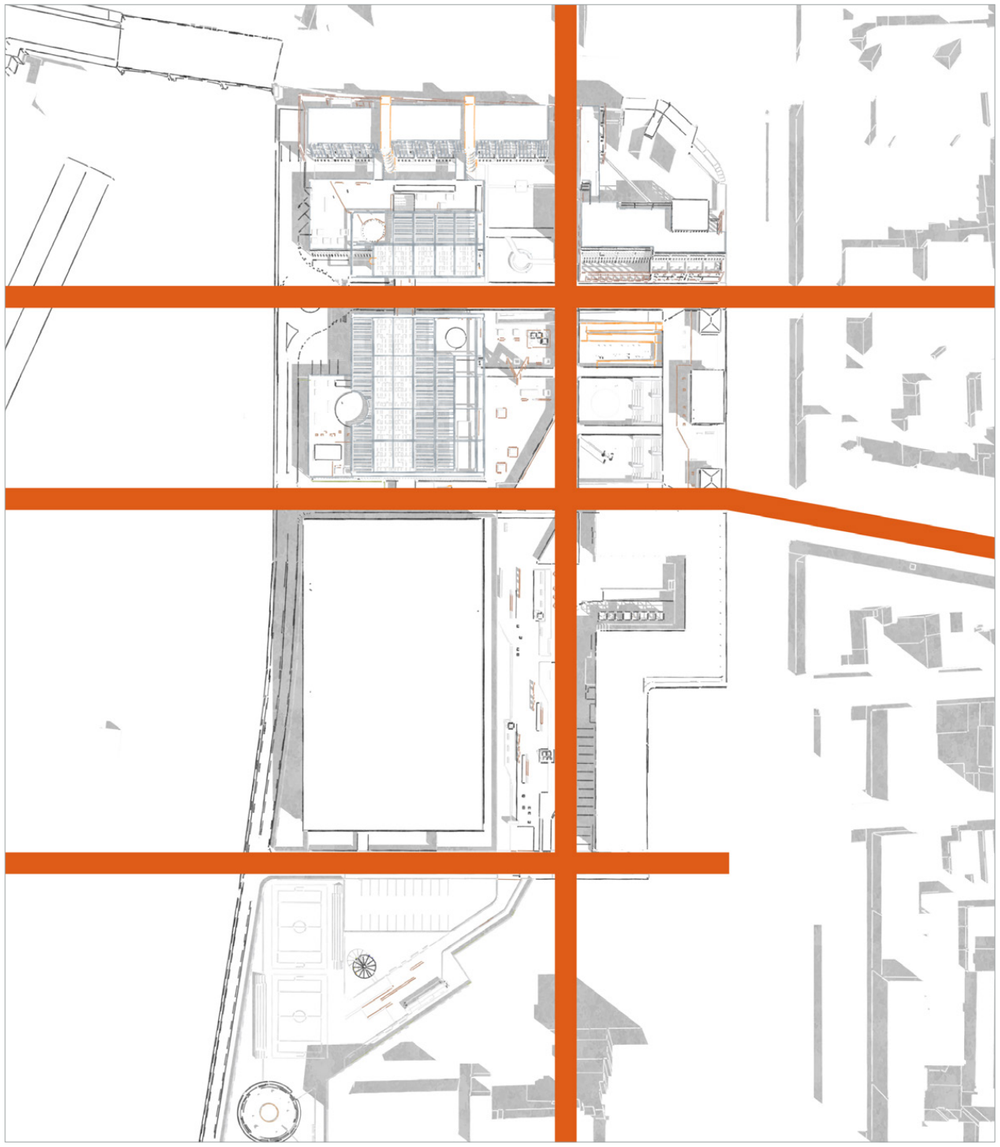
SITE CRITICAL POINTS



INTERVENTION STRATEGIES

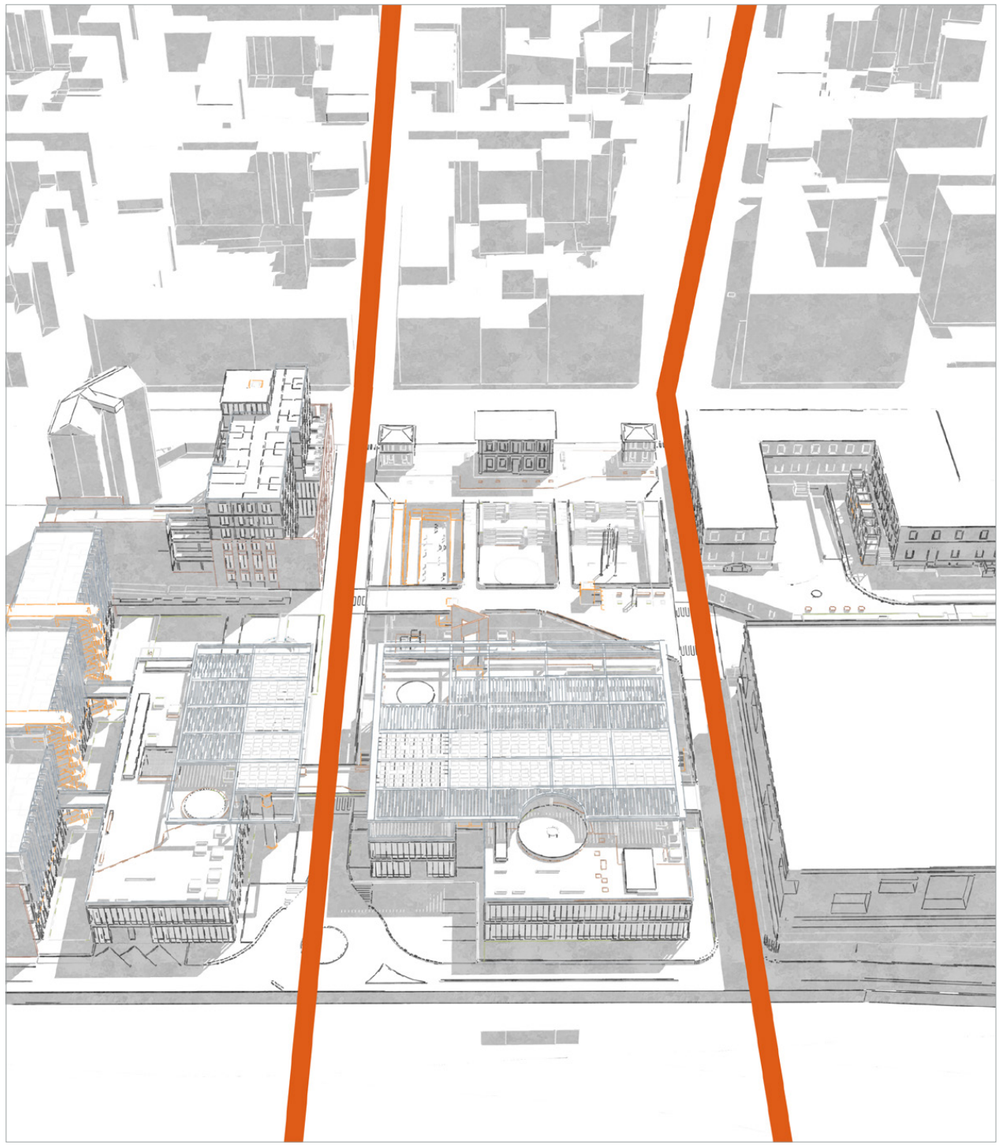


INTERVENTION STRATEGIES



1

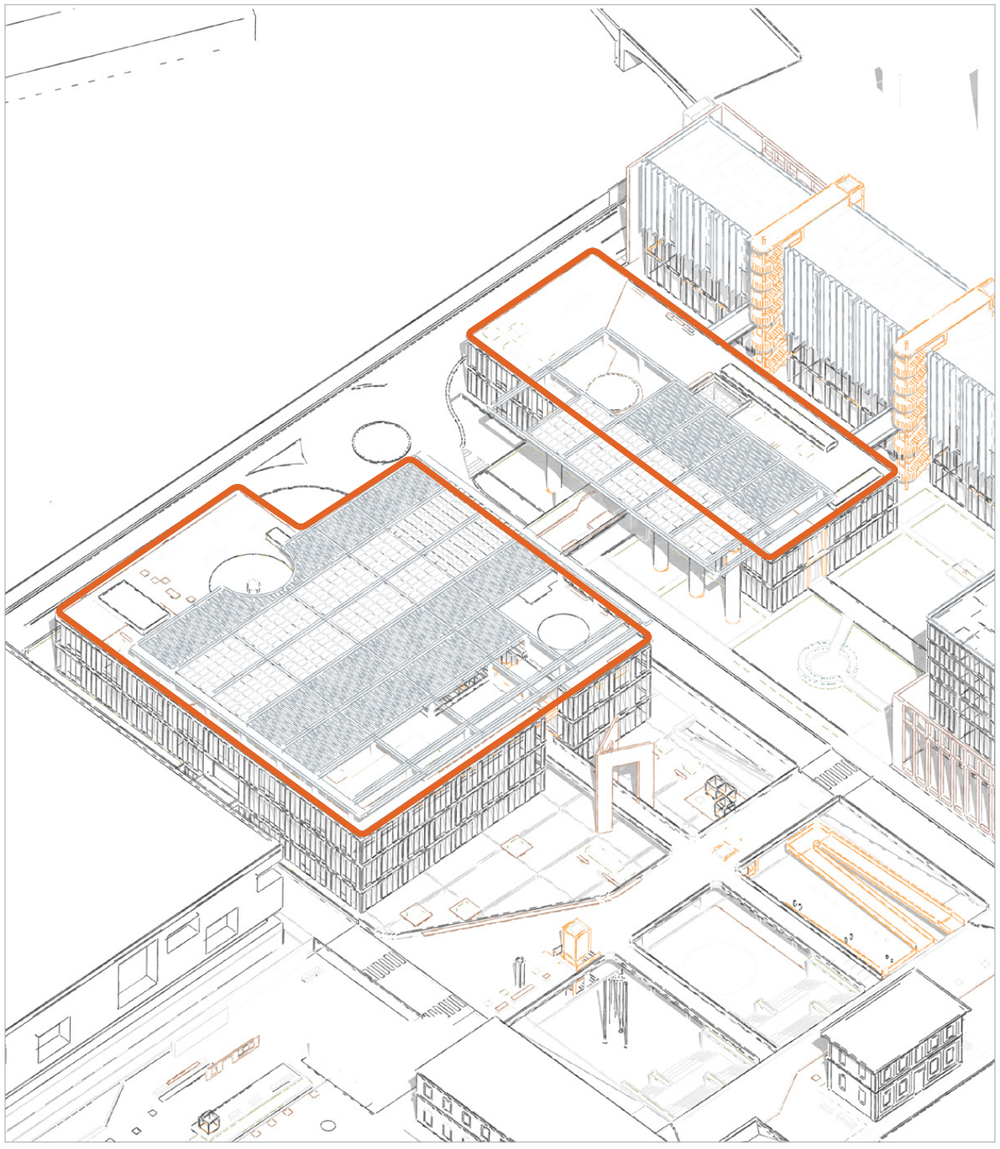
Use of the urban fabric dominant compositional lines to establish axes of project action within the site, such as the main entrances, the borders/edges completion, and the views.



2

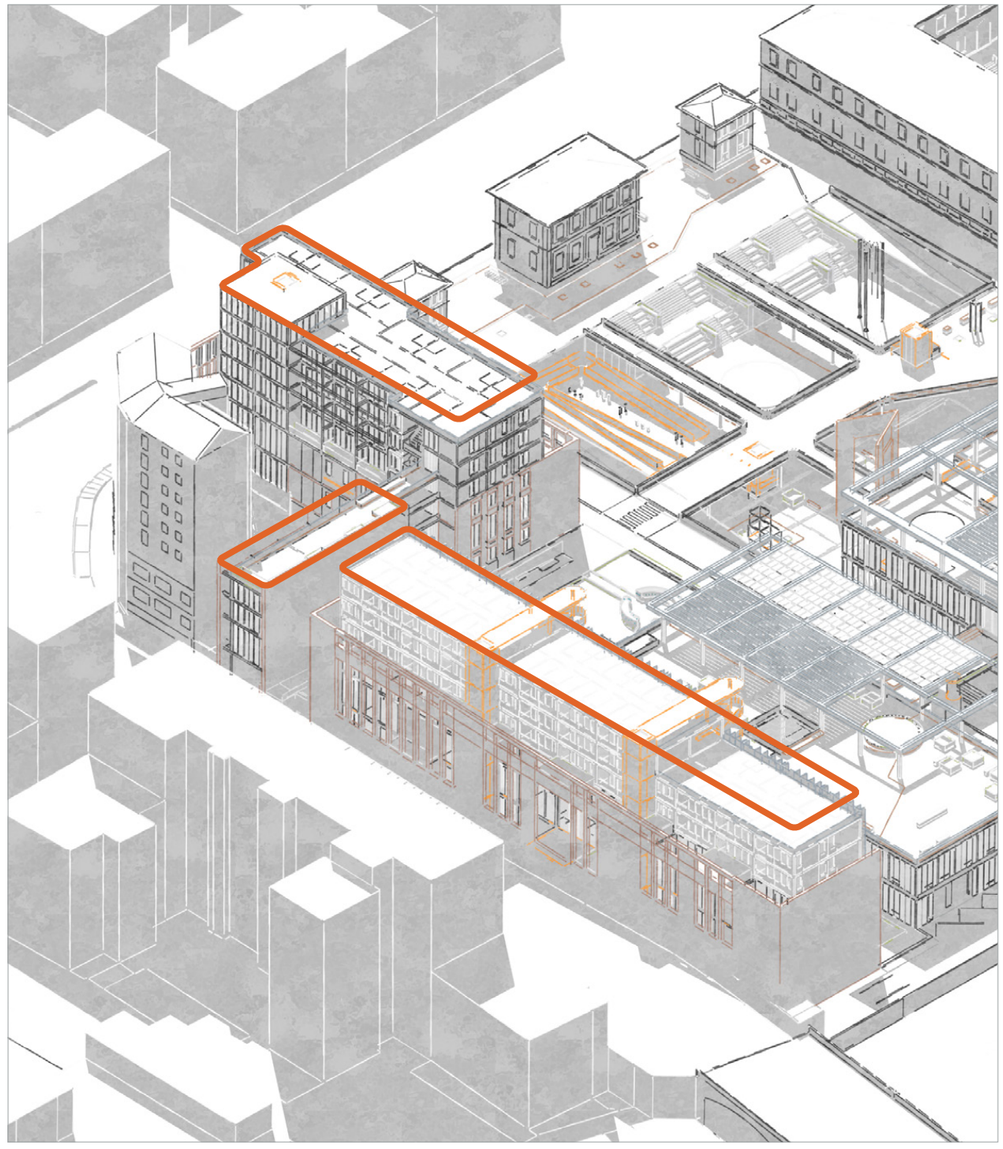
Extension of Corso Raffaello and Via Bidone inside the area as established in the urban planning variant, to generate the new land division with these two one-way axes roads, also connected with a new two-way street at site background, following the railway tracks parallel route until the opening on Via Ernesto Lugaro.

INTERVENTION STRATEGIES



3

Projection of two volumes intended for commercial uses with a central location on the area, but aligned with the existing Biotechnology Center façade, to generate compositional unity in this new internal visual edge.



4

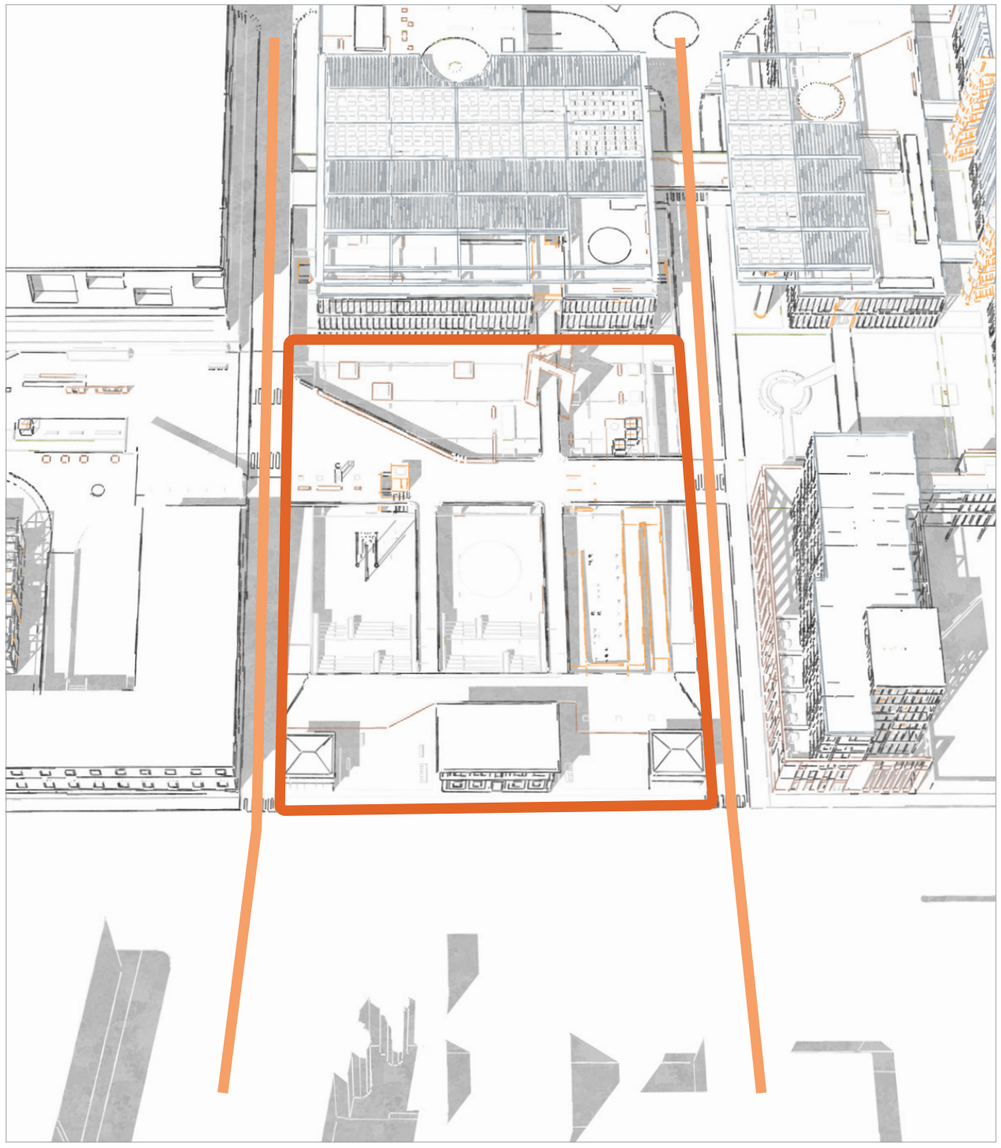
Projection of three volumes intended for student residential and coworking uses, which are assembled in an architectural dialogue supported by the use of a wall façade that connects with he place's memory. It is a reference of the current wall that borders Corso Sommeiller, with a materiality that is also linked to the nearby urban fabric aesthetics.

INTERVENTION STRATEGIES



5

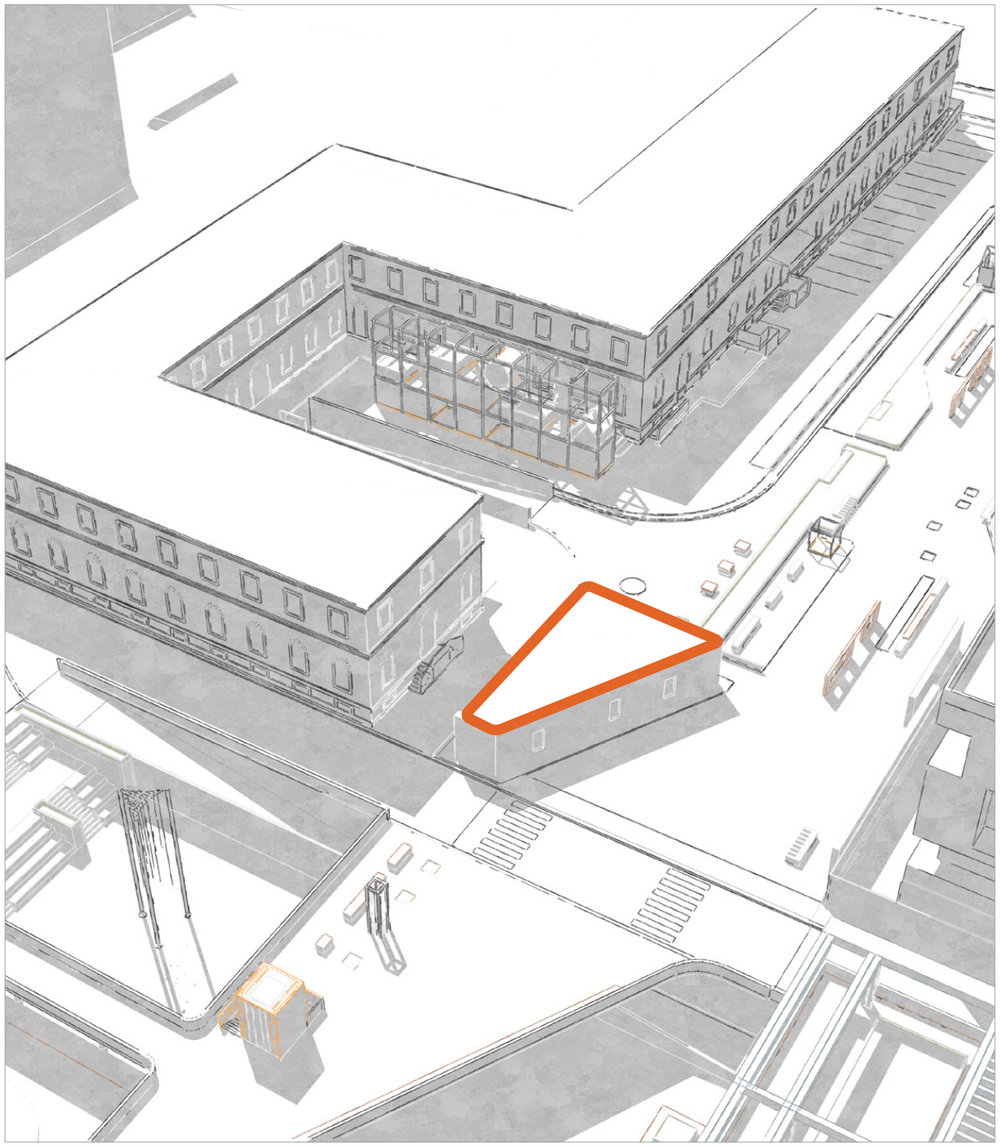
Design of a pedestrian promenade with a creative and artistic character, that begins from an access in Corso Sommeiller and ends with an opening towards Via Ernesto Lugaro. It connects some parts of the context separated by the area's former use as railway yard, and generates an important route-line with a variety of functions, scales, views, artifacts, and links, both with the new elements of the project as well as with the existing buildings and the surrounding urban fabric.



6

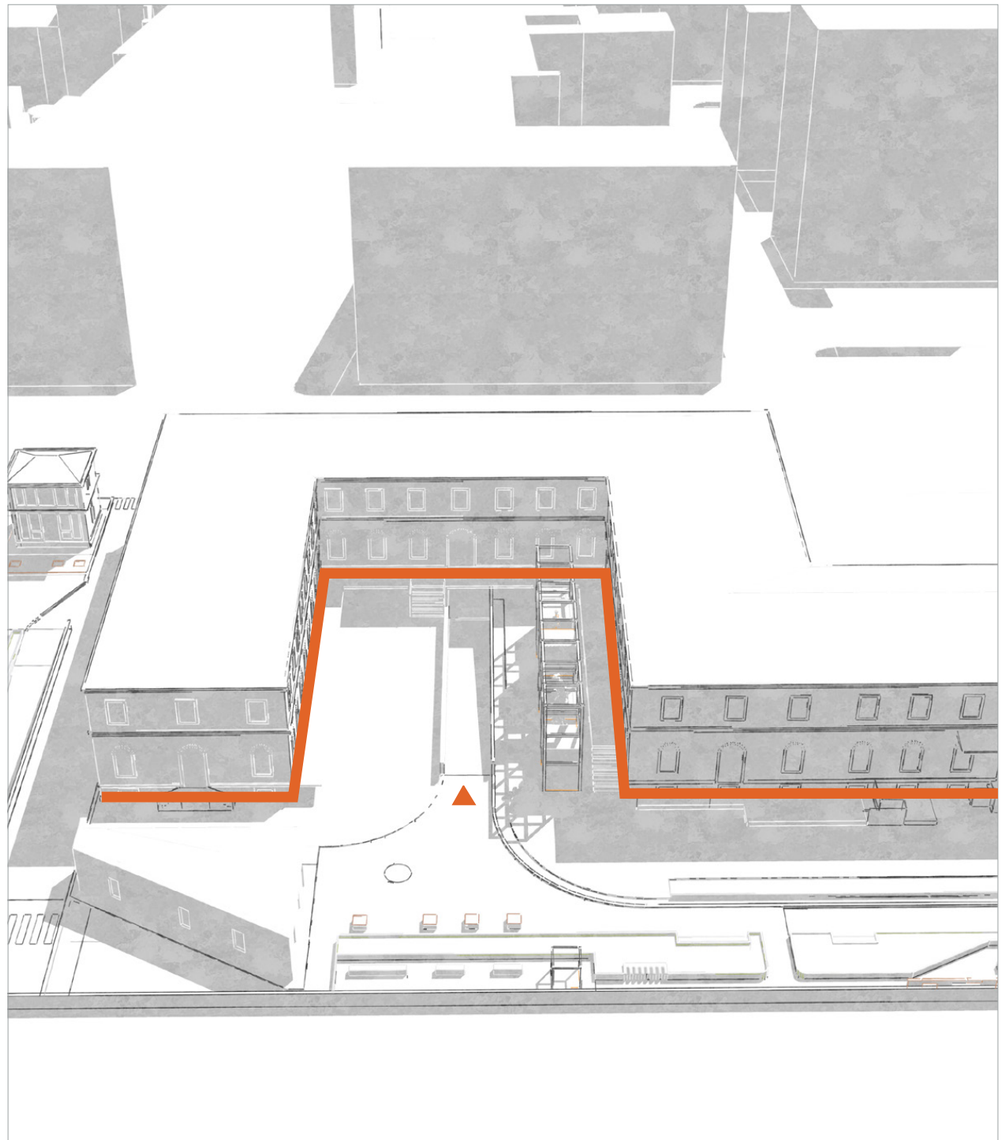
As part of the prescriptions of the urban variant, a central square is projected between the new roads extension within the area. This square has a mixed functionality between commercial and cultural spaces, and is connected on two levels with the new proposed volumes and with the site's historic buildings. This square defines an important open public space with potential for multiple events and activities.

INTERVENTION STRATEGIES



7

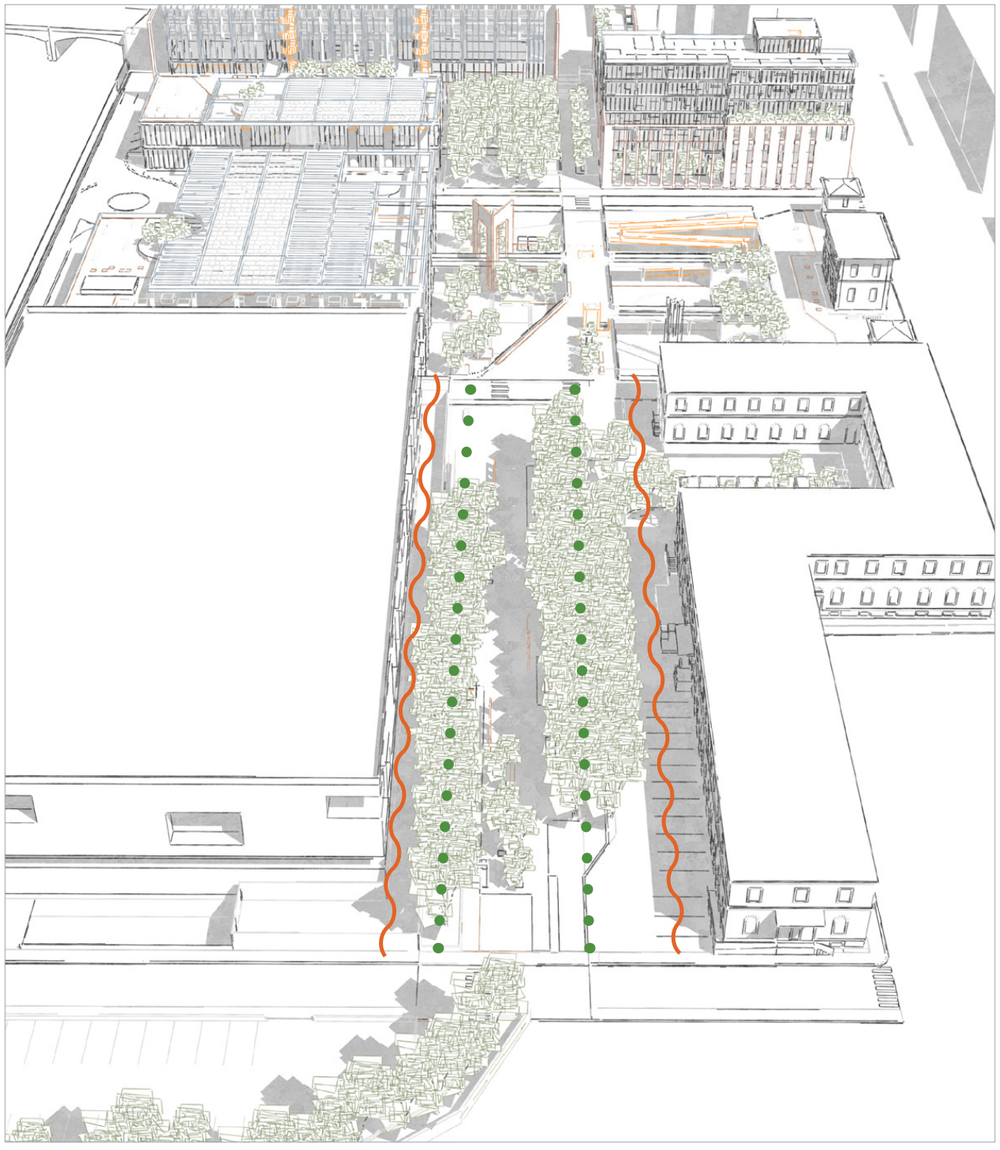
The reuse of the historic building small fragment (the customs of the goods terminal) with a triangular shape is proposed, to offer a bar or cafeteria service that can complement the promenade. It links with the small square that is generated in the new access to the Edificio Storico 8 underground floor.



8

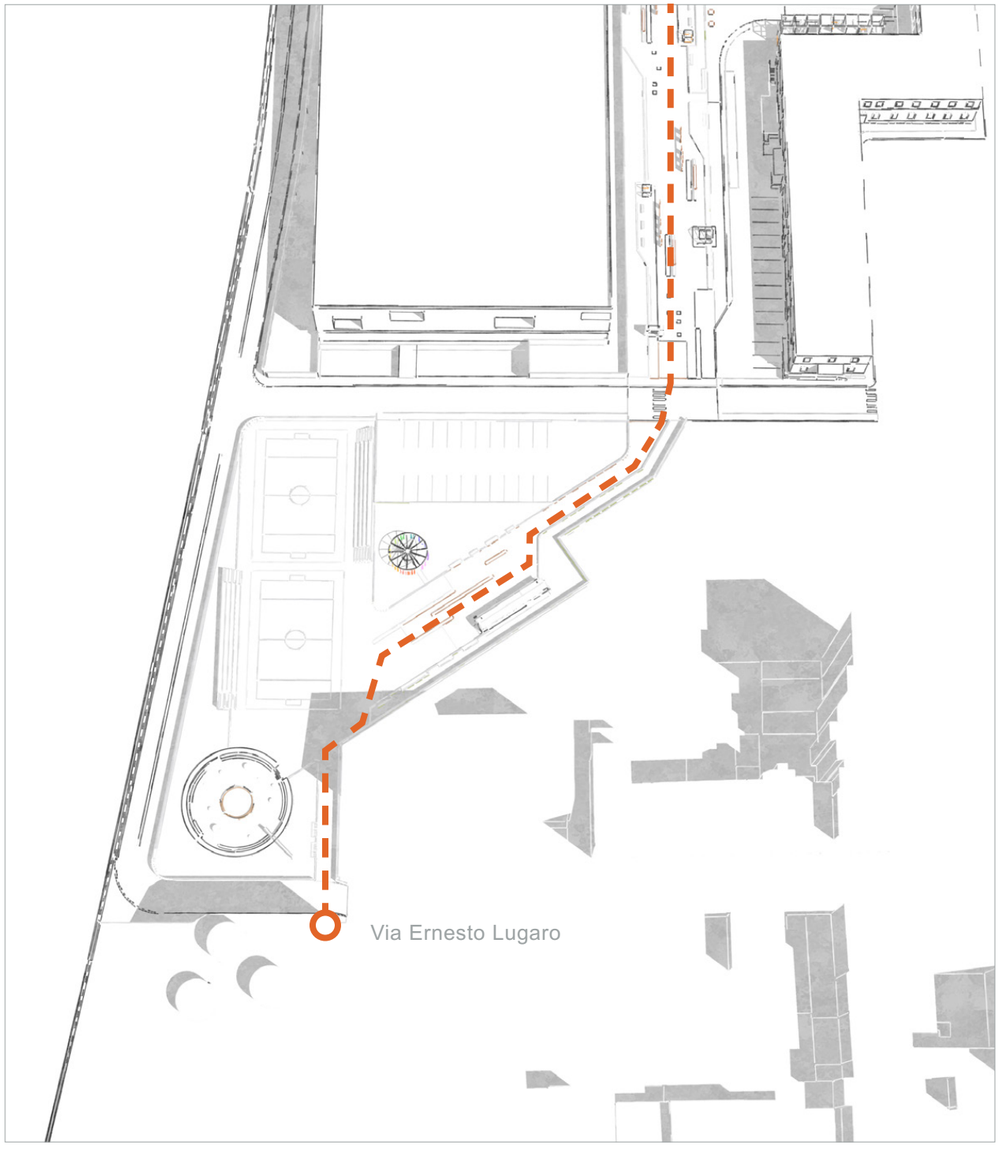
To continue the historical buildings regeneration and recovery, is also proposed the Edificio Storico 8 underground floor restoration. Currently used as an improvised space for exhibitions and events, the new use that could be linked to the project main idea is a community art gallery, connected to the new promenade through the currently existing ramp as proposed in this master plan. In the new access for this floor as an art gallery, is located one of the proposed artifacts titled *“Things”*, a visual synthesis between functional, historical, and artistic manifest, following the idea of historical elements reuse.

INTERVENTION STRATEGIES



9

The promenade is complemented by lines of tall vegetation that can function as an acoustic, temperature, and visual barrier concerning existing buildings –Edificio Storico 8, and Biotechnology Center of the Università di Torino–, to separate the different visual areas and benefit the internal atmosphere of the new spaces.

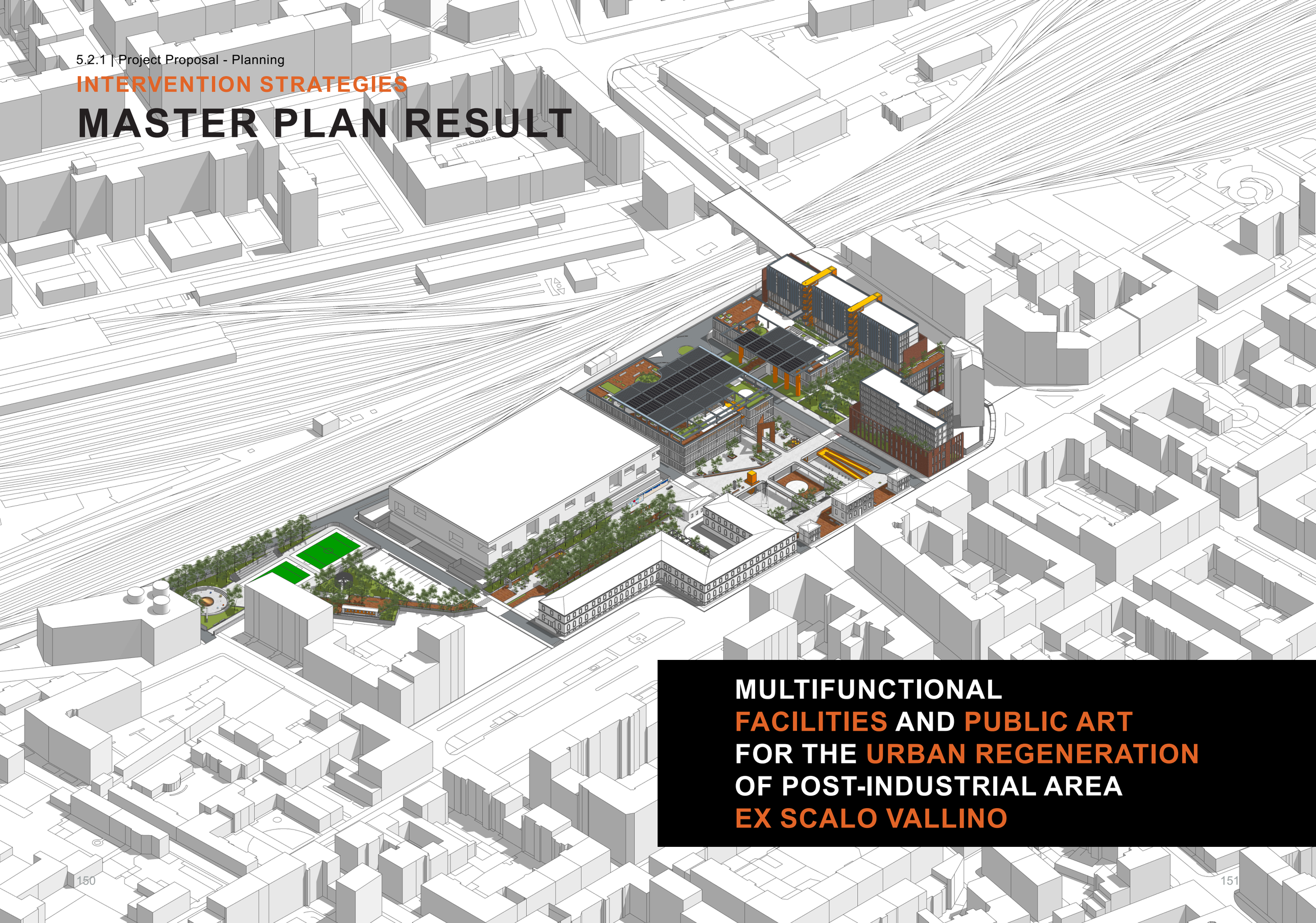


10

To connect with the residential area near Via Ernesto Lugaro, an access to the new project is proposed in this direction. In this part of the land is planned a more recreational than cultural zone, making two soccer fields, and some leisure and play artifacts available to the community.

INTERVENTION STRATEGIES

MASTER PLAN RESULT



MULTIFUNCTIONAL
FACILITIES AND PUBLIC ART
FOR THE URBAN REGENERATION
OF POST-INDUSTRIAL AREA
EX SCALO VALLINO

5.2.1 | Project Proposal - Planning

MASTER PLAN DESCRIPTION

The intervention area has several reference points that have served to determine the main compositional axes that allow the project set organization, responding to the immediate context and linking with the site's existing structures, to establish connections not only of spatial criteria but also for mobility both pedestrians and vehicular.

In this sense, for the initial projection ideas the following points have been taken as references:

- The streets/roads that intercept the intervention area in compositional and spatial terms, either by direct extension of the roads or by reference to the area's urban planning pattern.

- The facades and edges of the area's existing volumes to understand the limits and possible encounters with the new proposal, this includes the historic buildings of Ex Scalo Vallino, the building of the Department of Biotechnology of the University of Turin, and the residential building of the corner between Via Nizza and Corso Germano Sommeiller.

- The edges that delimit the intervention area and the edges of the nearby blocks that determine the average height of the closest urban fabric and also express the context's materiality.

As it is an urban regeneration project with a notable dimension and a prominent location within a residential neighborhood with a visible history in its physical components, the context and the intervention area materiality were interpreted as a manifesto of local identity, linked to the historical past not only of the built material but also of the modus vivendi and the previous uses that were developed in the project site. For this reason, the consideration of materiality has been part of the strategy to define some design and construction gestures that complement the intention of the project, such as the use of steel and bricks, very common materials in industrial constructions and present in many San Salvario's buildings.

Understanding that the previous references dialogue with the intervention site from inside and outside, some compositional axes were drawn from these references to fragment the area into smaller zones and create a spatial organization for the internal distribution of the different areas that make up the project, with scales, dimensions, hierarchies, and varied uses. These areas were designed to give rise to different uses and activities, to achieve an urban regeneration project with varied qualities and approaches, generating a center of actions that promotes the transformation of the place through medium and large-scale local commerce, new residential units intended for the important student population that frequents the neighborhood. Especially, a large integrative public space that is projected as an articulating node between the new project, the site's existing buildings, and the rest of the urban fabric, directly increasing the quota of quality public space that is needed within San Salvario neighborhood's urban context.

The new regeneration project for the Ex Scalo Vallino area is proposed as an urban center that houses different uses designed to take advantage of the important location within the San Salvario neighborhood as well as to improve the quality of public space in the area. In this sense, the proposal includes several elements that make up a master plan with innovative proposals that, if carried out, would give this urban void differential characteristics within the urban context and would reinforce the idea of a city that changes, and accepts different proposals in their transformation processes.



To interpret and understand the spatial and material factors that could connect or disrupt the architectural proposal, it was necessary and useful to analyze the place from a spatial, material, and mobility point of view. This helped to delve into the possible vocations that the intervention area may have regarding the axes of connectivity, articulations, dynamics, and uses that are largely determined by the already existing internal and external context.

MASTER PLAN

ACTION AXES

1

Design of a urban space with an integrative intention that could improve the quantity and quality of the San Salvario's public space quota, proposing innovative ideas for the area, with a creative, artistic, and recreational character and an environmental approach to generate a landmark within the urban fabric, consolidating an integrative public space that connects parts of the context separated by the area's former use and invites the visitor to take action and the temporarily appropriation of that city's fragment.

2

Proposal of commercial areas that can help to reactivate the area and give the project a position within the neighborhood's local market, also connecting it with the medium and large-scale commercial network of the entire city. These commercial areas also benefit artists who make use of the public promenade to show their art, guaranteeing the influx of visitors to the place due to the commercial activities.

3

Considering the large presence of university institutions and the influx of students that characterize the San Salvario neighborhood, and taking into account the large number of empty apartments that are not offered for rent in the city of Turin, that according to the newspaper Torino Cronaca in its article *"Servono 30mila case popolari. E a Torino le abitazioni sfitte sono 54mila",* the number of unused housing units in the city, for the year 2022 was approximately 54,000 (Romanetto, 2023). The proposed master plan includes residential units intended for temporary use for students and workers, providing this part of the project with internal services, and also linking it with the added value of being part of the rest of the urban proposal.

4

Integration of the site's existing historical buildings –some in use and others empty– as a complementary part of the architectural and public space proposal, to recovery and revalue these structures and somehow link the new proposal with the place's memory and identity.

5

Within the framework of the UN 2030 Agenda for Sustainable Development, the master plan is mainly framed within **Goal 11: Make cities inclusive, safe, resilient, and sustainable,** points 11.3, 11.4, 11.6, and 11.7. They promote a process of sustainable urbanization where citizen participation is of great importance for the urban environment transformation processes, also allowing universal and inclusive access to a quality public space, as well as the protection of elements of historical heritage, and the incorporation of components that could reduce the negative environmental impact within the city.





MASTER PLAN

RESULTS OF THE ACTIONS AXES

1
CREATIVE PROMENADE AS AN OPEN PUBLIC SPACE

11.810 m² of public space and pedestrian promenade + 3.981 m² of green areas, proposed as a surface that promotes the staging of creative and artistic activities in a temporary way, as well as areas for observation and rest, and areas that encourage community integration through social contact with different levels of interaction.

2
COMMERCIAL AREAS

10.610 m² net for large-scale commercial and retail areas, complemented by 3.072 m² of terraces accessible to visitors. The commercial areas have several design decisions that help with energy performance such as the double ventilated façade, interior gardens, and terrace covers with solar panels.

3
RESIDENTIAL UNITS

6.543 m² net for residential use complemented by 6.608 m² of services such as study rooms, coworking rooms, gym, university dining room, and terraces, occupying a quota of 13.151 m² of the total available GFA.

4
REUSE OF STRUCTURES WITH HERITAGE VALUE

The recovery and reuse of 1.830 m² of the Edificio Storico 8 underground floor is proposed to give it a new use to house a community art gallery with direct access from the project's new promenade. The reuse of a 118 m² triangular-shaped historical building fragment located on the promenade surface is also proposed and could be reused as a fast-moving commercial point (bar/cafe) that would benefit the new public space.

5
INTEGRATIVE PUBLIC SPACE AND TECHNOLOGICAL PROPOSALS TO REDUCE ENVIRONMENTAL IMPACT

With the intention of framing some project decisions within Goal 11: Make cities inclusive, safe, resilient and sustainable of UN for Sustainable Development, the proposed master plan contains instances that promote the achievement of some objectives of this agenda.



11.3 AIM can be achieved with an urban regeneration process that includes citizen participation and opinion from the initial project phases, in addition to providing a public community space where citizens can enjoy the new urban development and manage the resources of the proposed space by themselves: for example, the artifacts maintenance and their protection through collective actions so as not to depend on external agents that manage these urban space components.

11.4 AIM can be achieved with the reuse of heritage structures in a state of improvised use or abandonment, as mentioned in previous paragraphs, to integrate them into the architectural proposal in a way consistent with the discourse of integrative public space, activating new uses such as a community art gallery in the buried floor of the Edificio Storico 8 and a bar/cafe in the triangular-shaped building fragment that is located on the promenade.

11.6 AIM can be completed with the proposed green areas within the area, which would generate a significant green barrier to mitigate the effects of harmful substances in the air, considerably improving the new project environmental quality and its surroundings. For this point, the use of photocatalytic concrete paving blocks with titanium dioxide is also proposed for the surface of the pedestrian promenade, which would help block, oxidize, and neutralize substances harmful to human health that are found in the air such as nitrogen oxides (NOx) and benzene, to convert them into inert oxidized substances compatible with the natural environment. This innovative resource would considerably help to improve the environmental quality not only of the new project but also of its surroundings, since an area of approximately 4,880 m² with this technology is proposed, generating a large public space that will function as a filter to purify the air in the place. On the commercial volumes terraces, two cover roofs with solar panels are proposed to improve the project energy efficiency. For rainwater treatment a collecting system is proposed on the cover of the commercial volume B terrace: this cover would help capture water and store it in the four orange pillars that are proposed as sculptural elements on one façade of this volume. The collected rainwater can be stored in underground tanks and be used later for heating systems, cleaning of public surfaces, and irrigation of green areas.

11.7 AIM is consolidated in this urban regeneration project as an important and main guideline to carry out the proposal of integrative public space. Artifacts and areas that give the community and visitors the possibilities of interacting, appropriating the open urban space and live it in many ways. This promenade has been conceived as a public urban space that democratizes access to art, both for those who observe it and for the artists who create it. It is a proposal that demands free and equal access to a museum and cultural experience, where every person becomes the protagonist of the stage, where it is possible to leave a mark, a writing, to think and contemplate. The proposed promenade is a synthesis between art, nature, architecture and people, and aims to become a meeting place for all those looking for something different within the city: a landmark, a catalyst, a laboratory of ideas, actions and talents.

MASTER PLAN

DESCRIPTION

POSITIONING

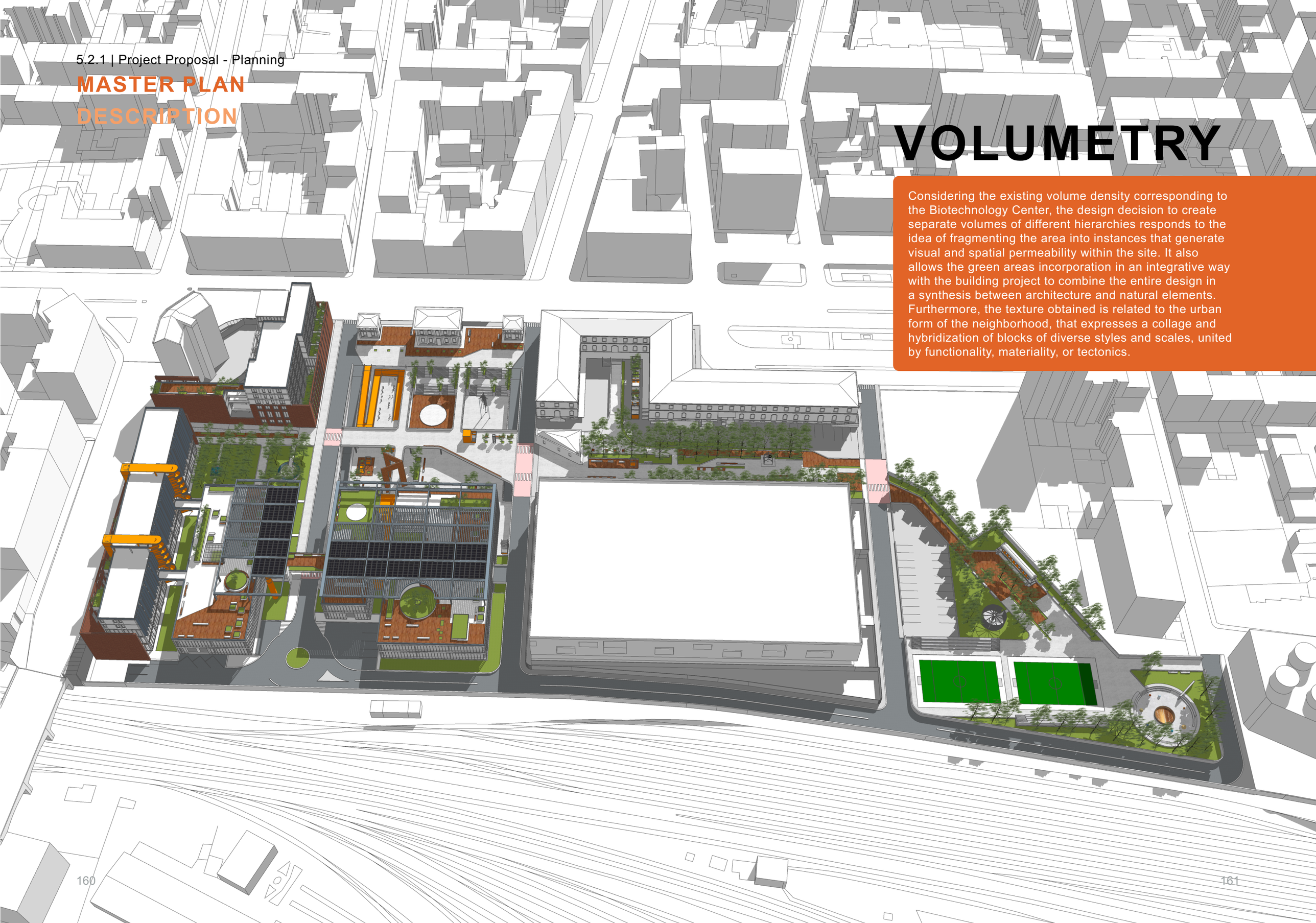
The new commercial volumes are aligned with the Biotechnology Center to complete the new edge within the area and build the boundary of the proposed promenade. The frontal distancing with Via Nizza is also an important consideration that helps to mitigate the noise of urban traffic and the new commercial areas due to the agglomeration of people. The new residential buildings of the proposal are closer to the context of the neighborhood, following the border with Corso Sommeiller and forming the corner with Via Nizza. This new residential edge has heights similar to those of the context to complete the urban profile absent in the intervention area perimeter, thus creating a visual barrier between the commercial area of the project with nearby residential buildings that helps to mitigate the commercial and public space acoustic impact, and also establishes the permeability levels of the new proposal concerning the urban context.

MASTER PLAN

DESCRIPTION

VOLUMETRY

Considering the existing volume density corresponding to the Biotechnology Center, the design decision to create separate volumes of different hierarchies responds to the idea of fragmenting the area into instances that generate visual and spatial permeability within the site. It also allows the green areas incorporation in an integrative way with the building project to combine the entire design in a synthesis between architecture and natural elements. Furthermore, the texture obtained is related to the urban form of the neighborhood, that expresses a collage and hybridization of blocks of diverse styles and scales, united by functionality, materiality, or tectonics.



MASTER PLAN
DESCRIPTION

GREEN

The main criteria for the green areas design and layout within the project is to integrate the volumes and routes in a spatial and visual combination to avoid residual configuration of green spaces. The green spaces design fragmentation also accompanies the buildings permeability, generating a dialogue consistent with the integration idea between the architectural proposal components and the external elements that are part of the public space. Green elements also help to generate borders on the routes, visual barriers between existing buildings, and particular atmospheres in the promenade instances arranged for creative activities.

PARKING

Two levels of underground parking are proposed only in the project area where the largest commercial volume and the central plaza are located, each level with 6,112 m², 92 regular parking spots, 4 spots for the disabled, for a total of 12,224 m², 184 regular parking spots, 8 spots for the disabled. Parking columns rise to the commercial levels and the plaza level that covers this area. In the area of the second commercial volume and the rest of the site, no underground parking is proposed in order to have a green surface with the soil substrate necessary to plant large trees. At Level 0 m, a parking area is proposed near to the Play Area and Edificio Storico 8 back facade.

MASTER PLAN
DESCRIPTION

RAINWATER HARVESTING (1)
On the terrace of commercial volume B, a double cover roof is proposed that, in addition to containing solar panels, has an available surface area of 338.85 m² to collect rainwater through the four sculptural pilasters that are in front of the volume. The collected rainwater can be stored in underground tanks and later be used for heating, green areas irrigation, or cleaning.

Turin's average amount of annual precipitation: **1170 mm** (According weather-and-climate.com website).

Roof surface for rainwater harvesting: **338.85 m²**

Total estimated rainfall capture: **396.454 litres/year**

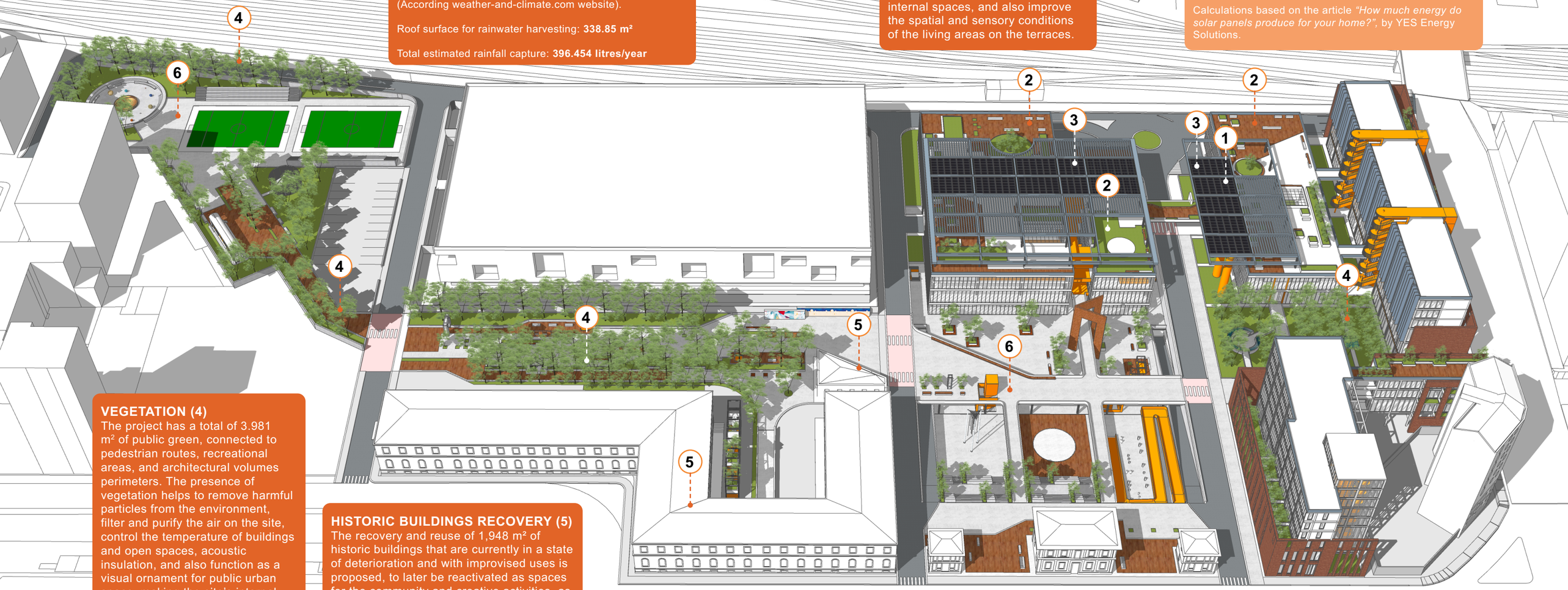
SOLAR PANELS (3)
On the roofs of the commercial terraces, 864 m² of solar panels are proposed (540 panels of 1.6 m² each) that can complement the energy supply system for the project.

SINGLE PANEL OUTPUT
Panel total area 1.6 m²: 1.6 x 1,000 = 1.600
If panel is 20% efficient: 1.600 x 0.2 = 320 watts
If panel gets 4 peak sun hours: 320 x 4 = 1.280 watts
Divide by 1,000: 1.280 ÷ 1,000 = 1,28 kWh per day
1,28 kWh x 30 days = 38.4 kWh per month
1,28 kWh x 365 days = 467.2 kWh per year

GREEN ROOFS (2)
767 m² of green roofs are proposed on the terraces of the commercial volumes to control heat in the internal spaces, and also improve the spatial and sensory conditions of the living areas on the terraces.

TOTAL SYSTEM OUTPUT
1,28 kWh panel/day x 540 panels = 691.2 kWh/day
38.4 kWh panel/month x 540 panels = 20.736 kWh/month
467.2 kWh panel/year x 540 panels = 252.288 kWh/year

Calculations based on the article *"How much energy do solar panels produce for your home?"*, by YES Energy Solutions.



VEGETATION (4)
The project has a total of 3.981 m² of public green, connected to pedestrian routes, recreational areas, and architectural volumes perimeters. The presence of vegetation helps to remove harmful particles from the environment, filter and purify the air on the site, control the temperature of buildings and open spaces, acoustic insulation, and also function as a visual ornament for public urban space, making the site's internal atmosphere more pleasant.

HISTORIC BUILDINGS RECOVERY (5)
The recovery and reuse of 1,948 m² of historic buildings that are currently in a state of deterioration and with improvised uses is proposed, to later be reactivated as spaces for the community and creative activities, as a community art gallery and a bar/cafe.

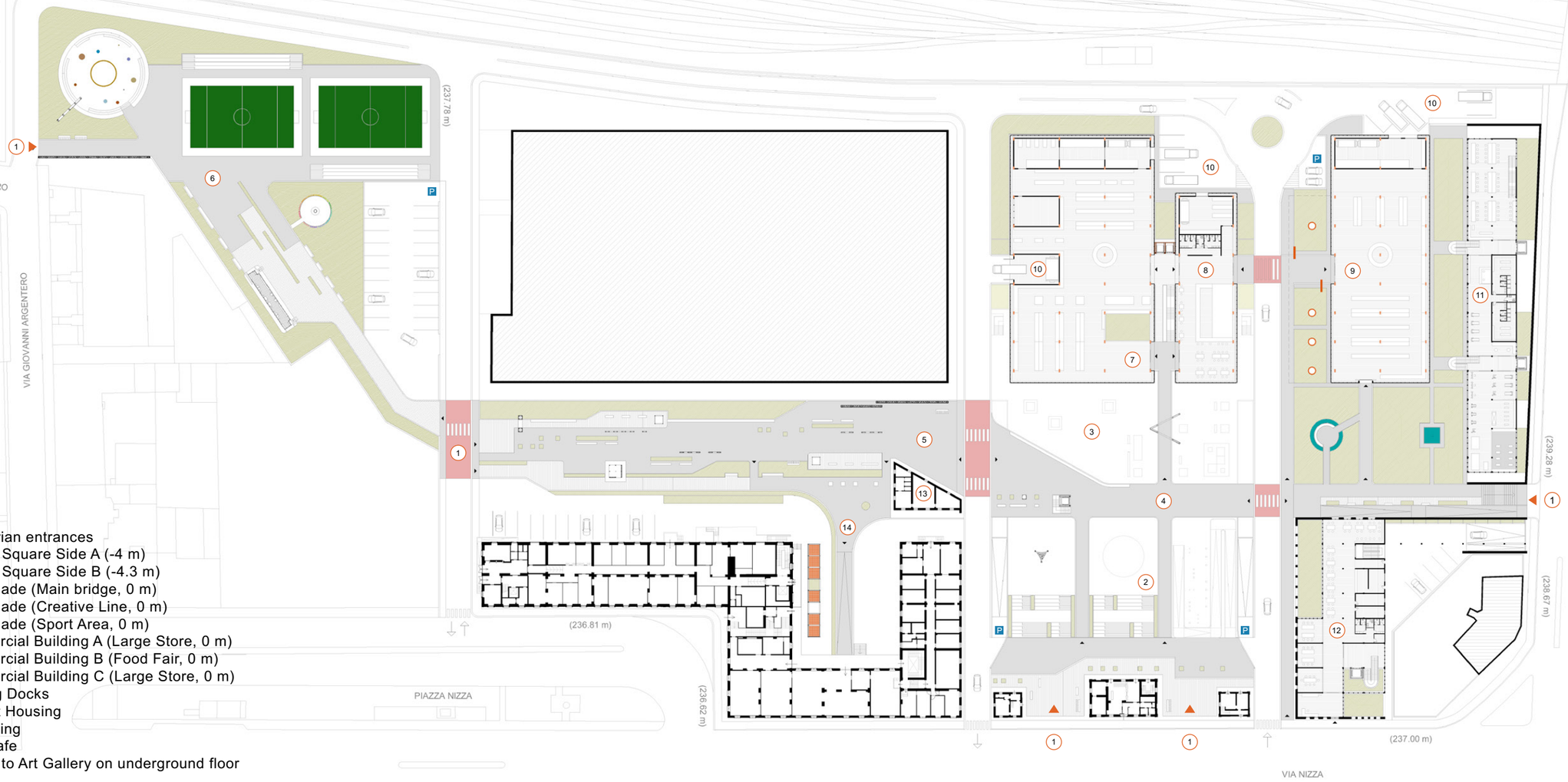
PAVEMENT TO FILTER THE AIR (6)
4,880 m² of photocatalytic concrete paving blocks with titanium dioxide are proposed to capture, block, oxidize, and neutralize harmful particles in the air through the photocatalysis process that is activated by solar radiation, thus improving the air quality of the site and its environment.

According to the *"Photocatalytic Communication Kit"* by GPI HeidelbergCement Group (p. 15), 10 m² of photocatalytically active surface are equivalent to 0.8 - 1 urban street tree in terms of particulate pollution removal and air quality improvements.

In this sense, the 4.880 m² photocatalytically active surface proposed are = 488 urban street trees.

SUSTAINABILITY

MASTER PLAN
CONFIGURATION



1. Pedestrian entrances
2. Central Square Side A (-4 m)
3. Central Square Side B (-4.3 m)
4. Promenade (Main bridge, 0 m)
5. Promenade (Creative Line, 0 m)
6. Promenade (Sport Area, 0 m)
7. Commercial Building A (Large Store, 0 m)
8. Commercial Building B (Food Fair, 0 m)
9. Commercial Building C (Large Store, 0 m)
10. Loading Docks
11. Student Housing
12. Cohousing
13. Bar / Cafe
14. Access to Art Gallery on underground floor

P. Parking / Parking Entrances

1:850

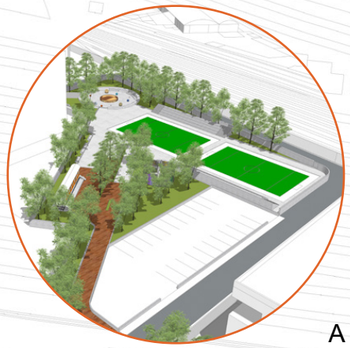
MASTER PLAN
GREEN AREAS

5.617 m²
OF GREEN SURFACES

3.981 m²
GFA OF PUBLIC GREEN SURFACE

767 m²
GFA OF PUBLIC GREEN SURFACE ON TERRACES

869 m²
GFA OF PRIVATE GREEN



A



B



C



PIAZZA NIZZA

CORSO RAFFAELLO

VIA GIORGIO BIDONE

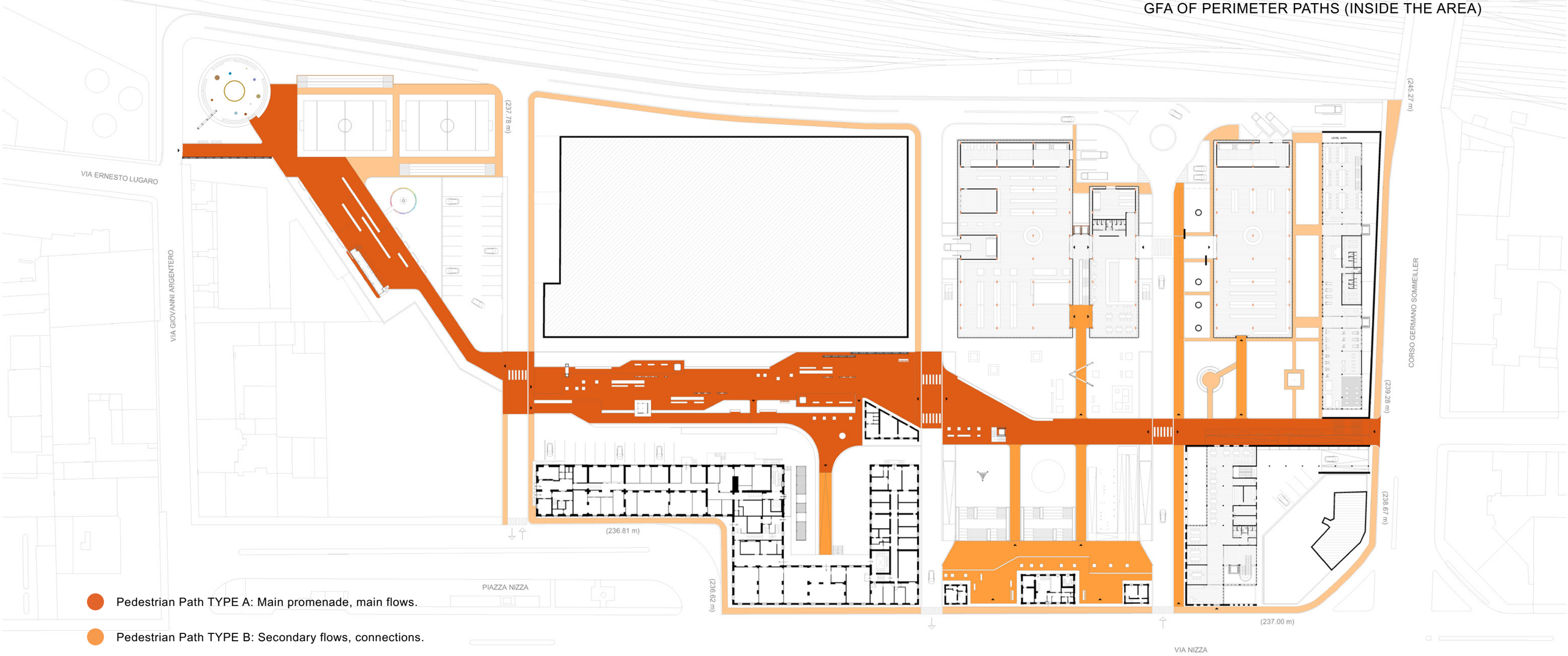
1:850

MASTER PLAN
PEDESTRIAN SURFACES

4.530 m²
GFA OF MAIN PROMENADE

1.655 m²
GFA OF SECONDARY PATHS

1.298 m²
GFA OF PERIMETER PATHS (INSIDE THE AREA)



- Pedestrian Path TYPE A: Main promenade, main flows.
- Pedestrian Path TYPE B: Secondary flows, connections.
- Pedestrian Path TYPE C: Borders, perimeters.

1:850

MASTER PLAN
VEHICULAR FLOWS

Customers vehicular flows

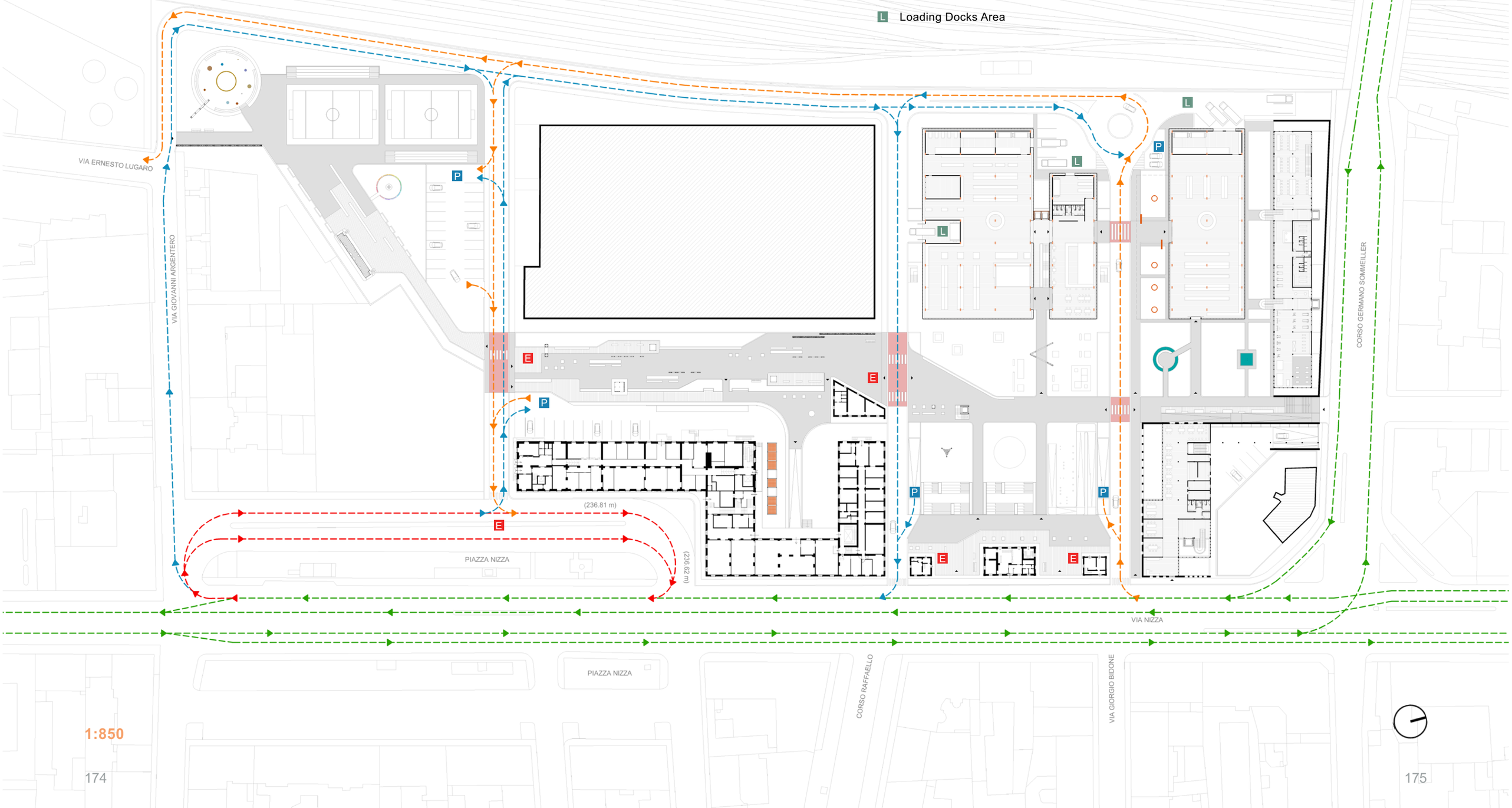
Emergency vehicular flows

City vehicular flows

P Parking Access / Area

E Emergency Access / Area

L Loading Docks Area



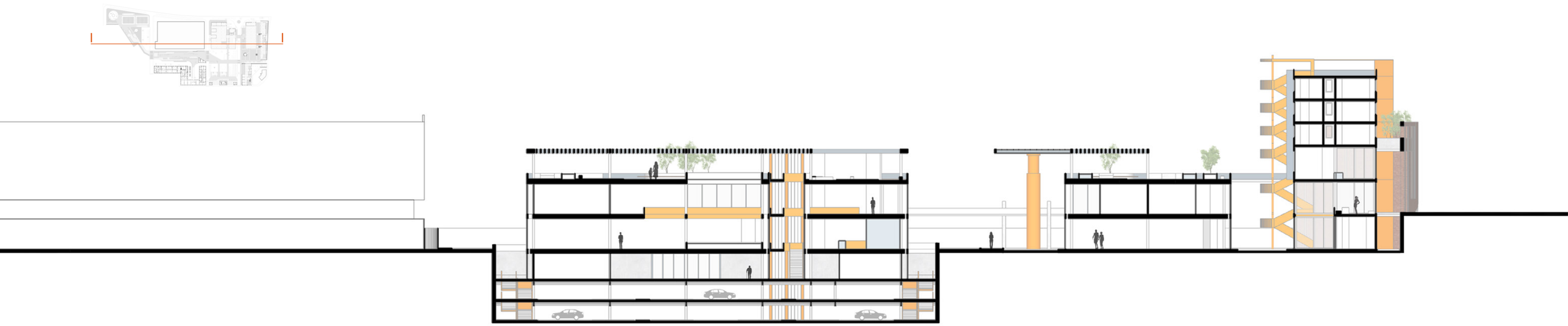
1:850

MASTER PLAN

SECTIONS



SECTION A-A' / 1:500



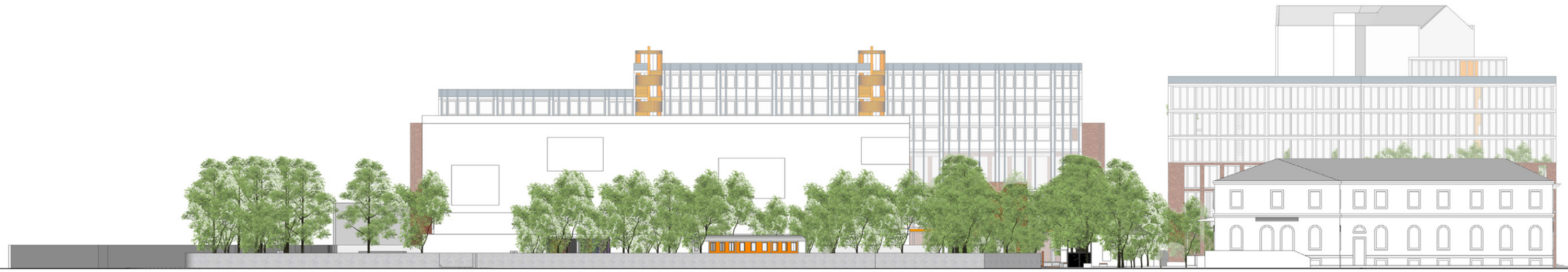
SECTION B-B' / 1:500

MASTER PLAN

FACADES



FACADE NORTH / 1:500



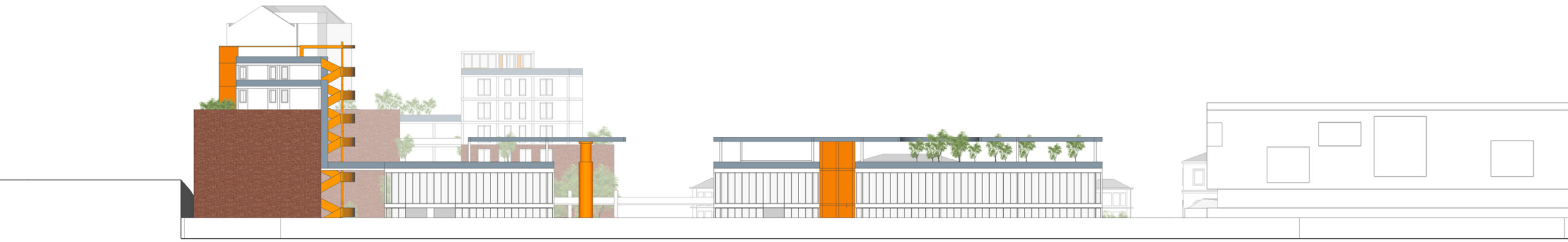
FACADE SOUTH / 1:500

MASTER PLAN

FACADES



FACADE EAST / 1:500



FACADE WEST / 1:500

INTEGRATIVE PROMENADE DESCRIPTION

The proposed promenade functions as a membrane that integrates the city, the area's existing structures, and the new buildings through accesses and routes that stimulate the space perception and connect with different sculptural, architectural, and natural elements, thus configuring an open public space that offers the San Salvario neighborhood a new setting for social life, commerce, and housing.

For the public space, a multi-use surface is proposed, designed mainly for the development of medium-scale artistic activities such as temporary interventions, workshops, or stage presentations, with the intention of democratizing access to art and access to spaces. The artists can carry out their activities without the need for excessive bureaucratic obstacles –for example in the form of a temporary *"wall of fame"*, as already authorized by *"Torino Creativa"* –. Visitors and inhabitants of the area can access recreational and cultural areas for free and continuously, with a management that can be carried out mainly by independent local groups or community associations, such as in the Collaboration Pacts for Common Goods.

The designed surface contains elements and artifacts that favor the place's tour but also fulfills an integrative function for the new architectural complex, functioning as an internal and smaller-scale urban fabric that connects with the historic city through several important accesses. The new projected surface provides the area with a new relief on 2 public levels: one at the level of Via Nizza and the lower level at -4.3 m.

LEVEL 0 - VIA NIZZA

Level 0 is the surface connected with Via Nizza and is in the first instance the connection with the city and the main accesses level to Ex Scalo Vallino area. It has immediate proximity to the streets and opens to the city's context without complications from different points.

This level has been projected as a longitudinal promenade that crosses the entire site from an access on Corso Sommeiller to Via Ernesto Lugaro and allows transition and permanence complemented by a varied functions artifacts set, that can favor the execution of artistic activities within the open public space. These artifacts are components with specific intentions, which can be used by the place's visitors spontaneously and temporarily, both to create art if you are an artist and to observe and interact with the pieces if you are a visitor.

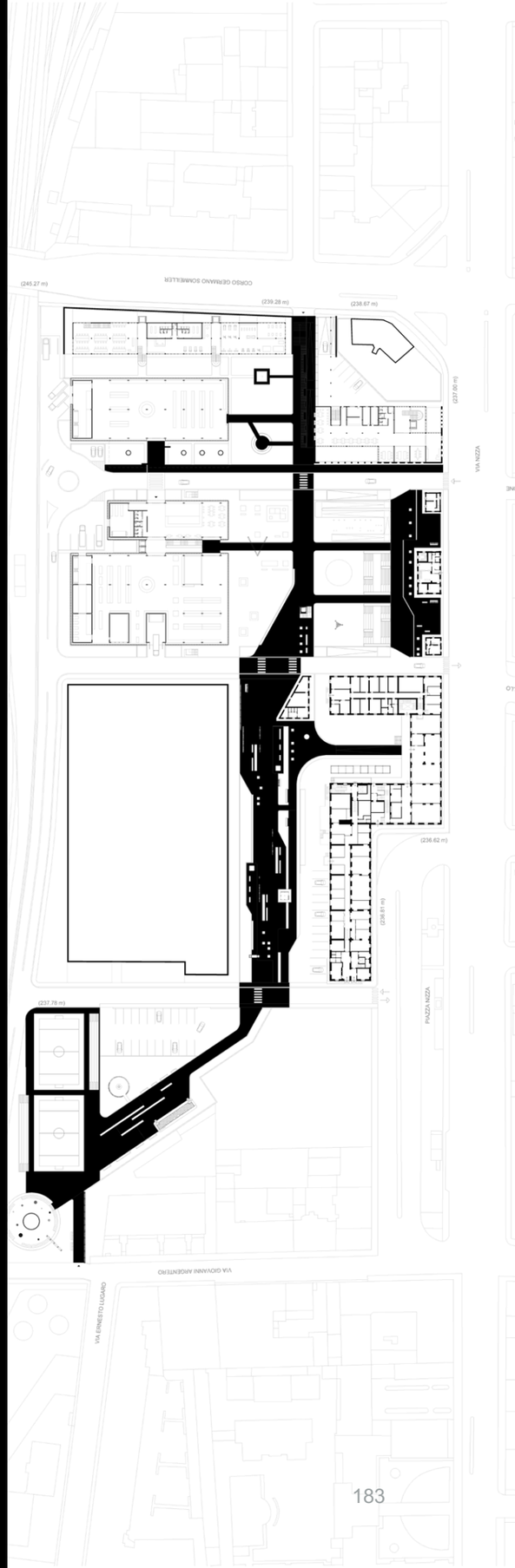
The route also contains green spaces that delimit edges, cover permanence zones, and provide positive environmental qualities for the project, such as control of air flows, useful shades for the summer season, natural variability of internal temperature, and green ornamentation.

This level has two specific physical qualities: 1. It is the main access, and 2. It also becomes a floating surface on Level -4.3m. This transformation of the earthly promenade into a floating surface is closely related to the intention of generating a new texture in the urban fabric. The floating promenade is designed as a connecting node between the main access, the commercial volumes, and the longitudinal axis of the project, and also functions as a roof/cover for the -4.3 m level: you can walk on this surface that at in turn, it serves as a cover for the activities and uses that occur on the lower level. The floating promenade is supported by a metal structure and contains green and sitting furniture. This surface has a contemplative and transitional function, located in the central space of the project area, it has the dimensions and qualities necessary for social activities of moderate time, such as conversations, sitting, or reading. The central location of this fragment of the promenade also provides a reading of the entire site: you can see the past and present in an architectural narrative that through the material and stylistic language. It can generate the feeling of visiting an open museum room, having the historical buildings in some angles, and other angles the new buildings and the urban landscape of the city as a background panorama.

The distance between the commercial volumes and the main entrances towards Via Nizza is approximately 70 m, generating a large open public space in the center of the site, which benefits both temporary visitors and the neighborhood community. The public space is presented as a scheme that revalues the area but also promotes citizen participation to complete the idea of the project through artifacts that invite interventions in the place. The commercial, residential, and service volumes have economic and technical importance for this project but the public space is projected as the protagonist.

LEVEL -4.3 M - VIA NIZZA

This level is proposed below the main access level that connects to Via Nizza. The main function of this surface is to generate a variation in the promenade that also doubles the area intended for public use, thus favoring the development of a broader route and generating two different atmospheres in the same place. Unlike the upper level, which is a primary, transitory, and dynamic promenade, this level offers spaces for longer stays and also benefits from the covers on the upper level to protect from the sun and rain. It is also an area with green spaces noticeable from this level to the upper level, creating a visual and spatial integration of the complex. This surface is also the entrance level for those using the underground parking, from which you can exit and reach this square that connects with commercial activities. The main characteristic of this level is that it generates a new texture in the urban fabric of the area, a texture that invites the discovery of the place and generates different spatial conditions, in addition to marking a limit in the main access that separates the historic buildings from the new project, creating a virtual plane with scenographic nuances, visually constituted by the heritage facades and the proposed square.



INTEGRATIVE PROMENADE

CONCEPTUAL AXES

CREATIVITY

Physical or virtual components that allow the development of activities related to art and creativity.

SOCIAL

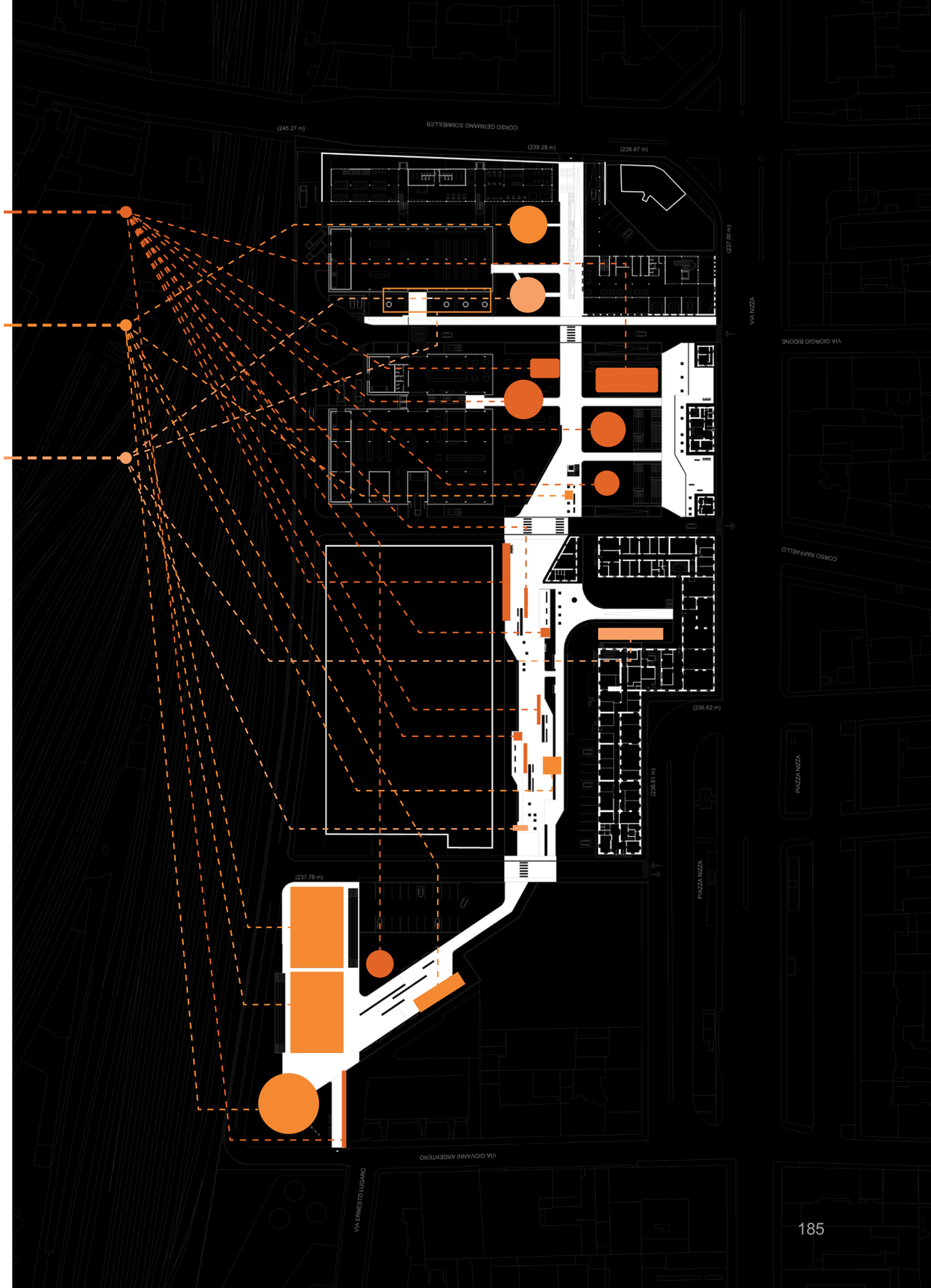
Components that promote social interaction, the experiences exchange, thinking on social issues, and integration within public space.

UTILITY

Physical components that improve the public space quality such as urban furniture and components that have a performance that improves the place's environmental quality such as the type of pavement, water collection systems, and green areas.

IMPACTS

CITY	SOCIAL	ENVIROMENT	CULTURE	ECONOMY
Increase in the quota of available urban space and green areas with universal access.	Consolidation of an open public space ideal for community interaction to reduce the integration and participation gap.	Improvement of air quality, and water and energy savings due to the incorporation of innovative technologies in the project.	Activation of a public space where diverse recreational activities can be carried out by everyone.	New jobs and housing units that would help with the regeneration of the urban void through commerce and rentals.



INTEGRATIVE PROMENADE PARTITIONS

ENTRANCES

The pedestrian entrances to the new proposal are designed to create direct connections with the city's urban fabric, in spatiality, visual, and aesthetic correspondence, generating a direct link with the external context and the area's internal spaces. All accesses to the new project are integrated into the pedestrian promenade and reinforce the discourse of integrative public space. There are four main pedestrian accesses.

1. Access from Corso Sommeiller: this entrance is configured as a portal with a notable height of 8 m, made up of the sides of the new residential volumes. The access has a staircase and ramp, and upon entering it opens spatially and visually to the interior of the site.

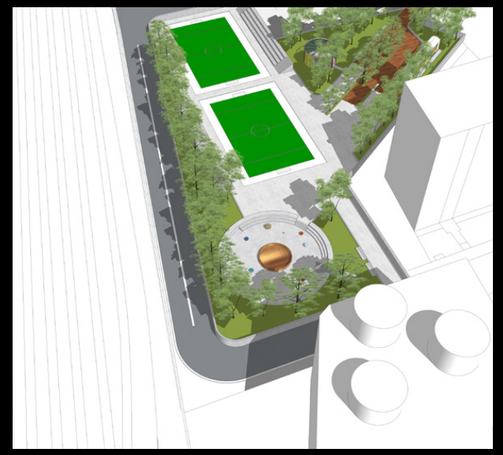
2. Access from Via Nizza: this entrance generates an important permeability to the interior of the project and constitutes a historical link with the original entrances to the Ex Scalo Vallino. The presence of the three heritage buildings generates two large openings that function as entrances to the new project. The passage from the external sidewalk to the interior of the area is smooth and continuous, then it stops in contact with the central square and the transitional bridges.

3. Access from Piazza Nizza / New street: this entrance is shaped by two entrances, divided by a new street planned for the project. Each access is the continuation of the other in the opposite direction, and in the continued route of the promenade, they constitute a pause to enter or exit the place.

4. Access from Via Ernesto Lugaro: this entrance allows connecting the proposed promenade with the residential area of Via Ernesto Lugaro, offering the community access to a project's zone that has a more recreational character and is relatively separated from the other proposed public spaces.









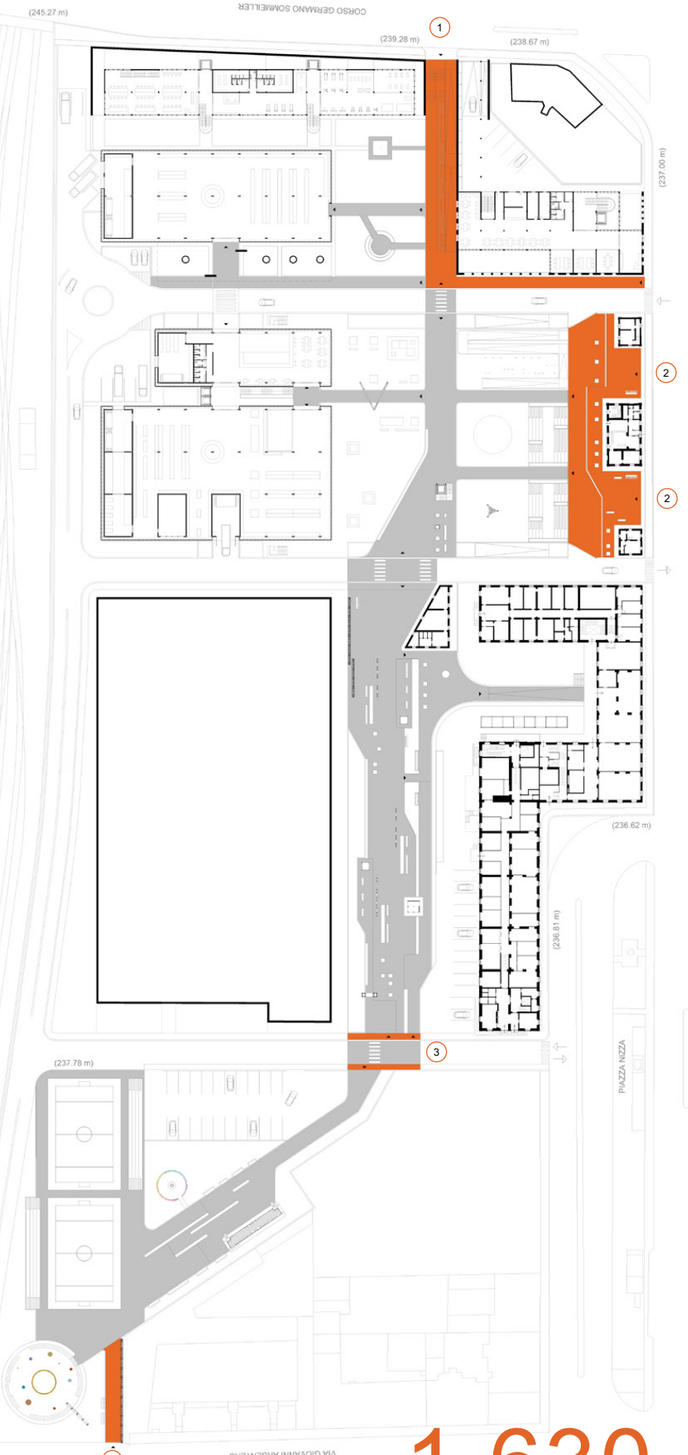
Walk



Look



Stay



1.630 m²

INTEGRATIVE PROMENADE PARTITIONS

TRANSITIONAL BRIDGES

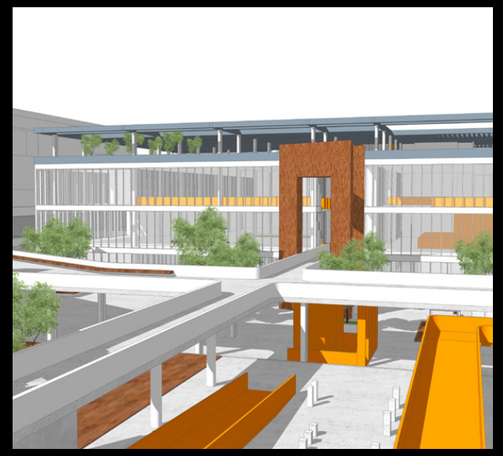
The promenade has three transverse bridges and one longitudinal bridge that connects different areas of the public space with the new commercial volumes and historic buildings.

These bridges complement the spatiality of the central level of the project, which is located at -4.3 m, and generate a variation in the public space perception that favors the proposed route. Bridges are not only passageways, they also become attractive visual elements for visitors.

In addition, to fulfilling a connectivity function within the architectural proposal, they visually play an important role in shaping the project image and in establishing a visual narrative with different reading angles. The variations of lights and shadows and the stereotomic appearance of the bridges create a texture within the promenade that cannot go unnoticed, and contributes greatly to the versatility of the proposed public space and the consolidation of a landmark in the urban context.









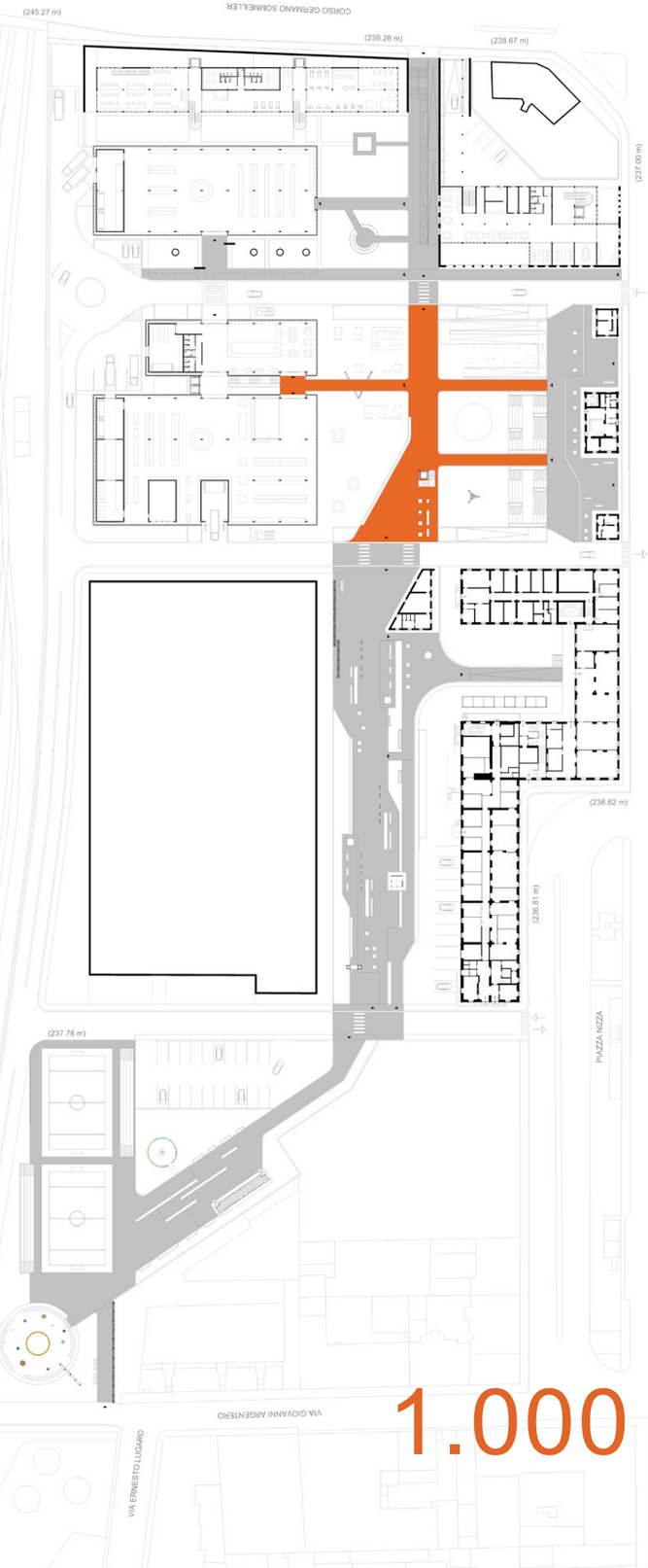
Walk



Look



Stay



1.000 m²

INTEGRATIVE PROMENADE PARTITIONS

ART SQUARE

This level of the promenade is located -4.3 m from the Via Nizza main access. The public space proposed at this level is a square with multiple uses that houses several areas for the development of artistic, observation, and stay activities. The first part of this space is delimited by the projection of the upper longitudinal bridge and contains three areas that are visually traced by the transverse bridges:

1. With a sculpture (Momentum).

2. With a space for art presentations brief (Epicenter).

3. A ramp of important presence accompanied by a system of pedestals for temporary sculptures display (Fragments).

The first part of the art square is completely dedicated to welcoming visitors in a different setting, without hesitation in indicating what the project is about: *a space for the development of creative activities.*

The first strip of this square is dynamic because it has axes of movement that cross it –the bridges– and specific instances for activities. Areas 1 and 2 are connected at the paving level, allowing the entire space to be used as the same area in the case of more organized events, and also has an area of stairs and stands that allow you to take a seat and observe the entire open space. While, area 3 is limited only to movement along the ramp and observation, referring to museum ramps that allow works of art to be appreciated when the tour is carried out.

The second strip of this art square is more linked to the commercial area that is nearby, serving as a public space for stay and observation, spatially separated by the projection of the main bridge and with fewer elements within the public space: this is an area for quieter activities.









Display



Stay



Observe

3.680 m²

INTEGRATIVE PROMENADE PARTITIONS

CREATIVE LINE

This promenade's partition is projected as an axis in a direction parallel to the railway tracks near the land and is a manifesto of the memory of the place as a railway yard. The new elements are distributed in an order that replicates the movement of trains towards Porta Nuova. The lines, panels, and volumes that make up this fragment of the promenade recreate from the abstract to the material, a visual narrative that with the movement of sunlight generates different scenarios with a play of lights and shadows. They build figures in the pavement that resemble wagons and merchandise boxes: a visual metaphor for the site's previous uses.

The promenade's Creative Line contains also some artifacts that allow the development of recreational activities, such as temporary atelier space that can be developed in the *"The Box"* modules and the voids for temporary exhibitions available in the *"Le Finestre Del Tempo"* structures. The main verb of this promenade's fragment is *"Create"*. It has the spatial conditions to be a path of moderate flow, where artists can find spaces available for quieter creative activities such as painting, sculpture, and writing. This promenade's fragment is also accompanied by lines of tall vegetation that create a closed atmosphere within the promenade, separating the buildings from the contour to establish a public space with visual autonomy. The tree lines also protect from direct sunlight and could benefit in terms of acoustics, wind, and temperature control.

In this promenade partition, the reuse of a remaining fragment of a historic triangular-shaped building as a bar/cafe is proposed, and is also proposed the access to a community art gallery that could be located on the underground floor of the Edificio Storico 8, which would be restructured to accommodate this new use.









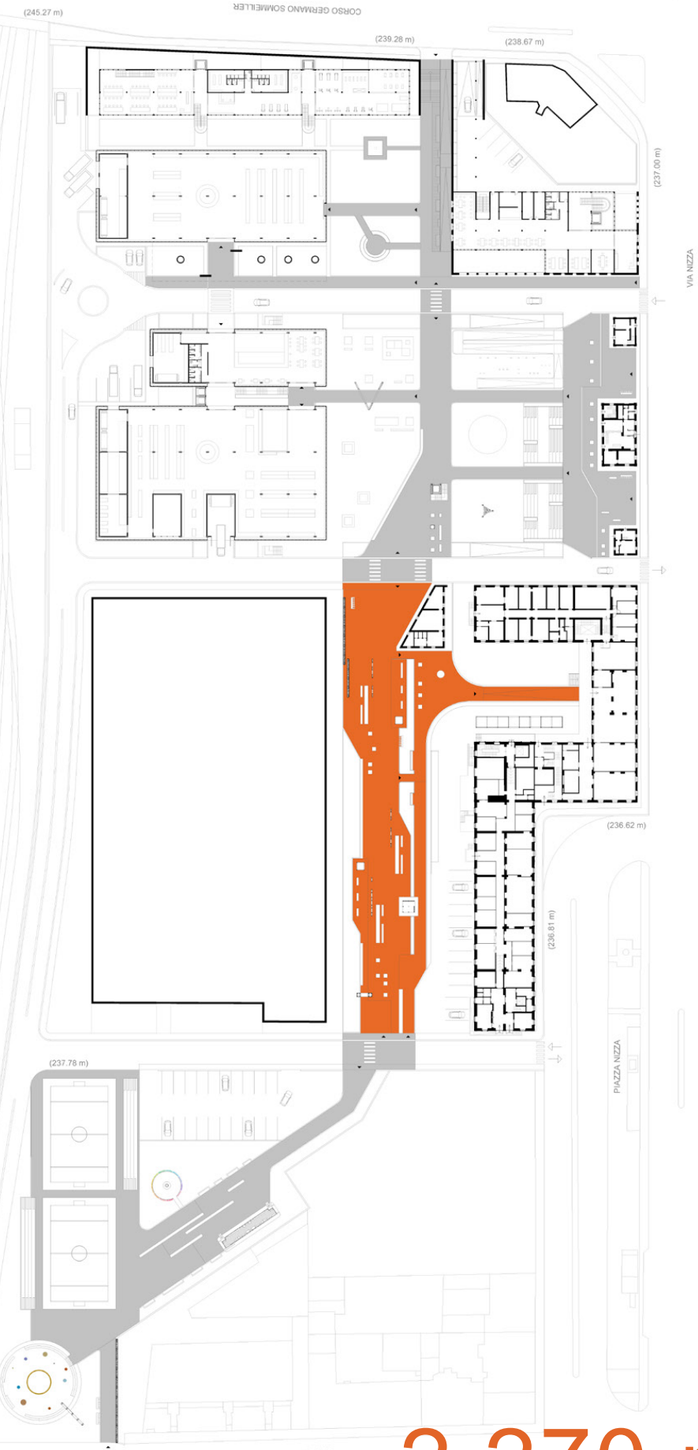
Create



Walk



Stay



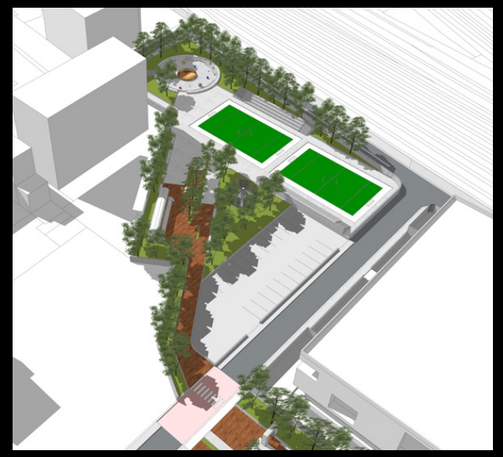
2.270 m²

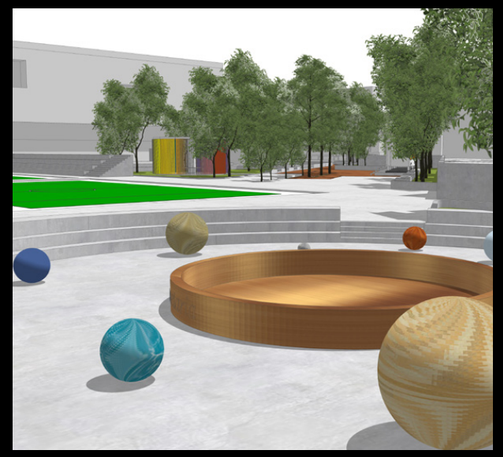
INTEGRATIVE PROMENADE PARTITIONS

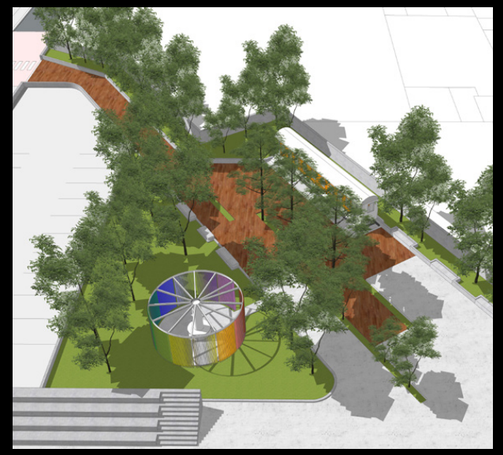
PLAY AREA

In Via Ernesto Lugaro's direction, the promenade of the project contains a public space designed to be linked to the neighborhood's residential area, separated from the previous fragment of the promenade by a pedestrian pause that is generated by the new vehicular road that is connected to Piazza Nizza: that is, you can continue the promenade route until Via Ernesto Lugaro or leave the promenade towards this road opening.

This fragment of the promenade contains two soccer fields, three creative artifacts, and a surface parking lot, and generates areas for play and closer social interaction, favoring encounters and community integration around a common public space.









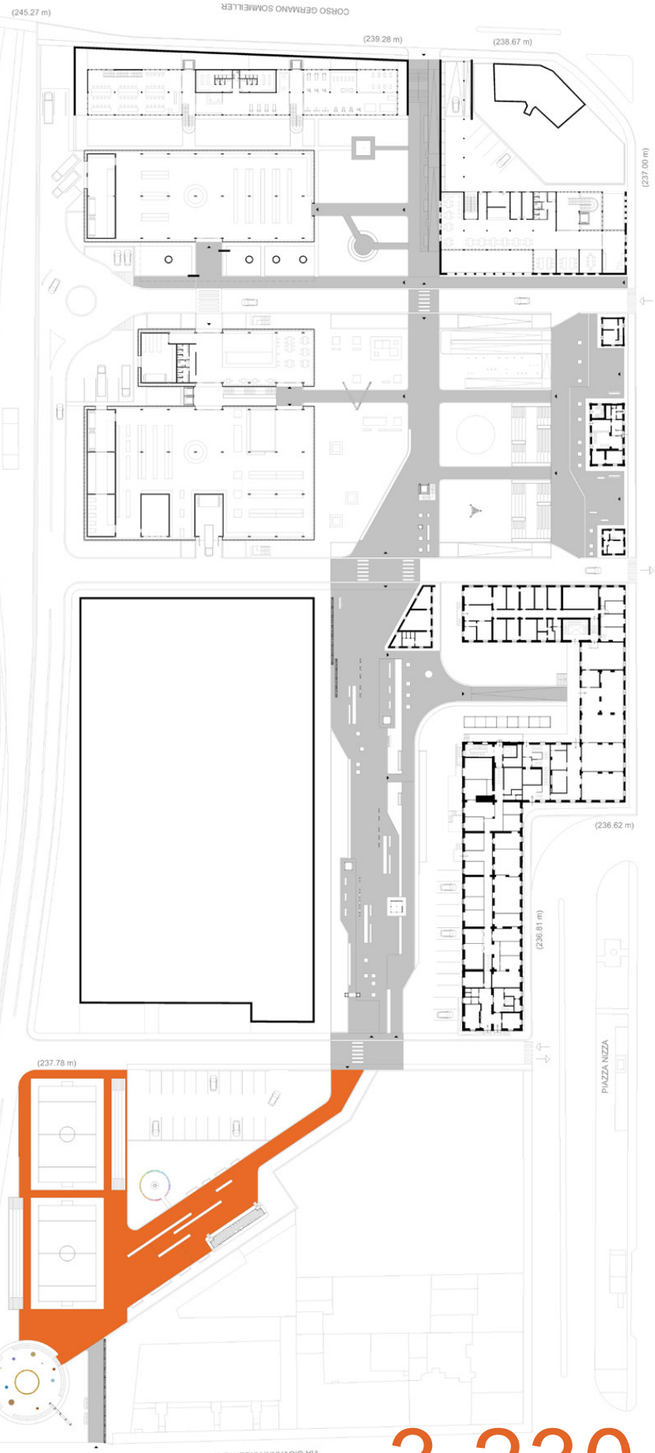
Play



Stay



Interact

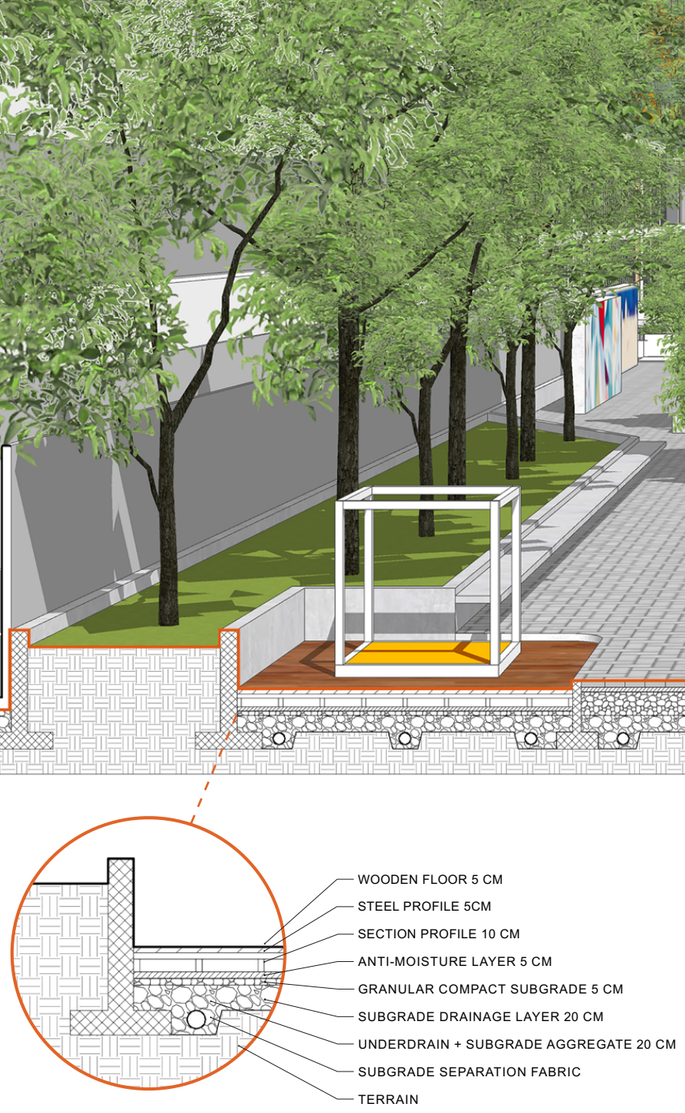


3.230 m²

INTEGRATIVE PROMENADE

SECTION DETAIL

1:75



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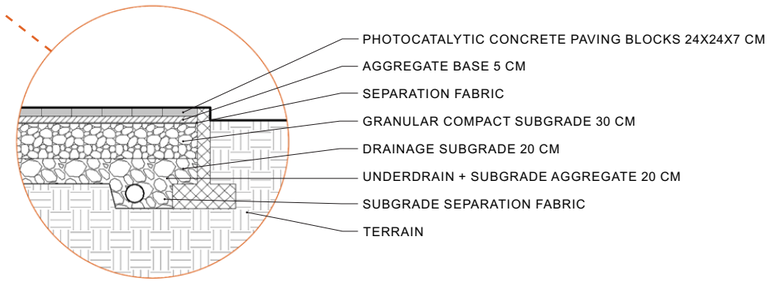

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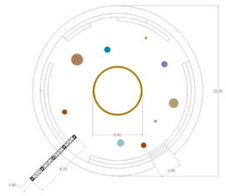
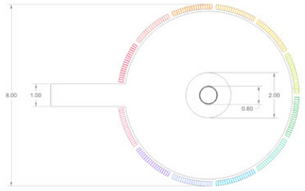
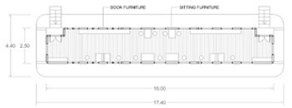
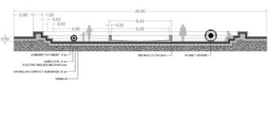
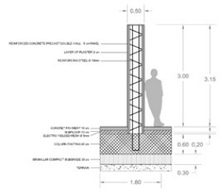
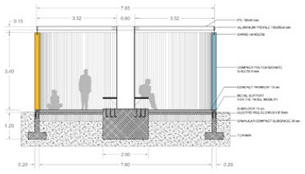
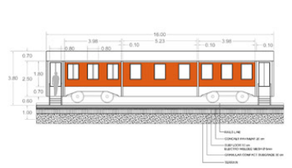
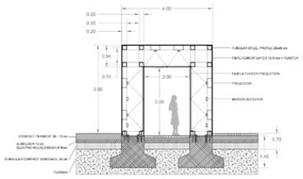
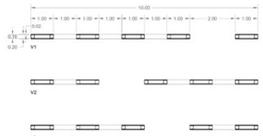
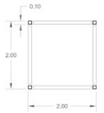
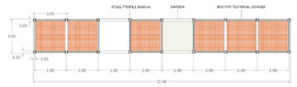
INTEGRATIVE PROMENADE

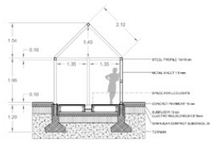
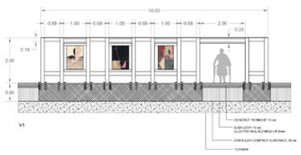
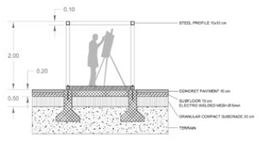
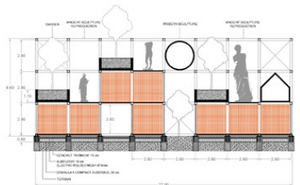
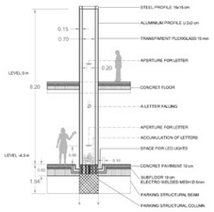
ARTIFACTS

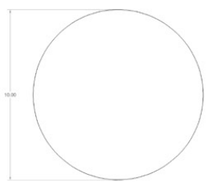
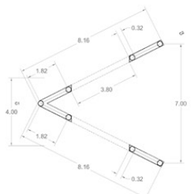
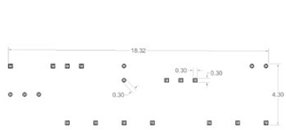
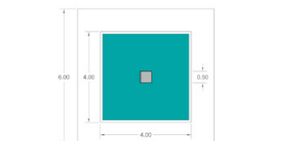
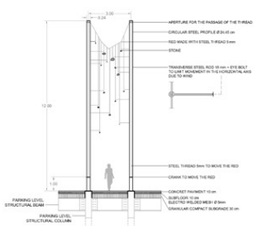
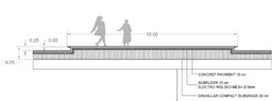
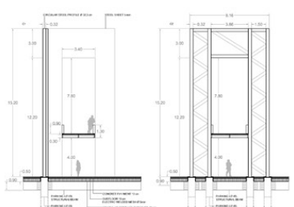
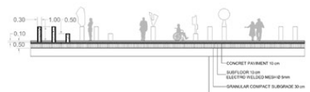
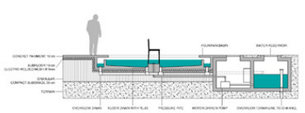


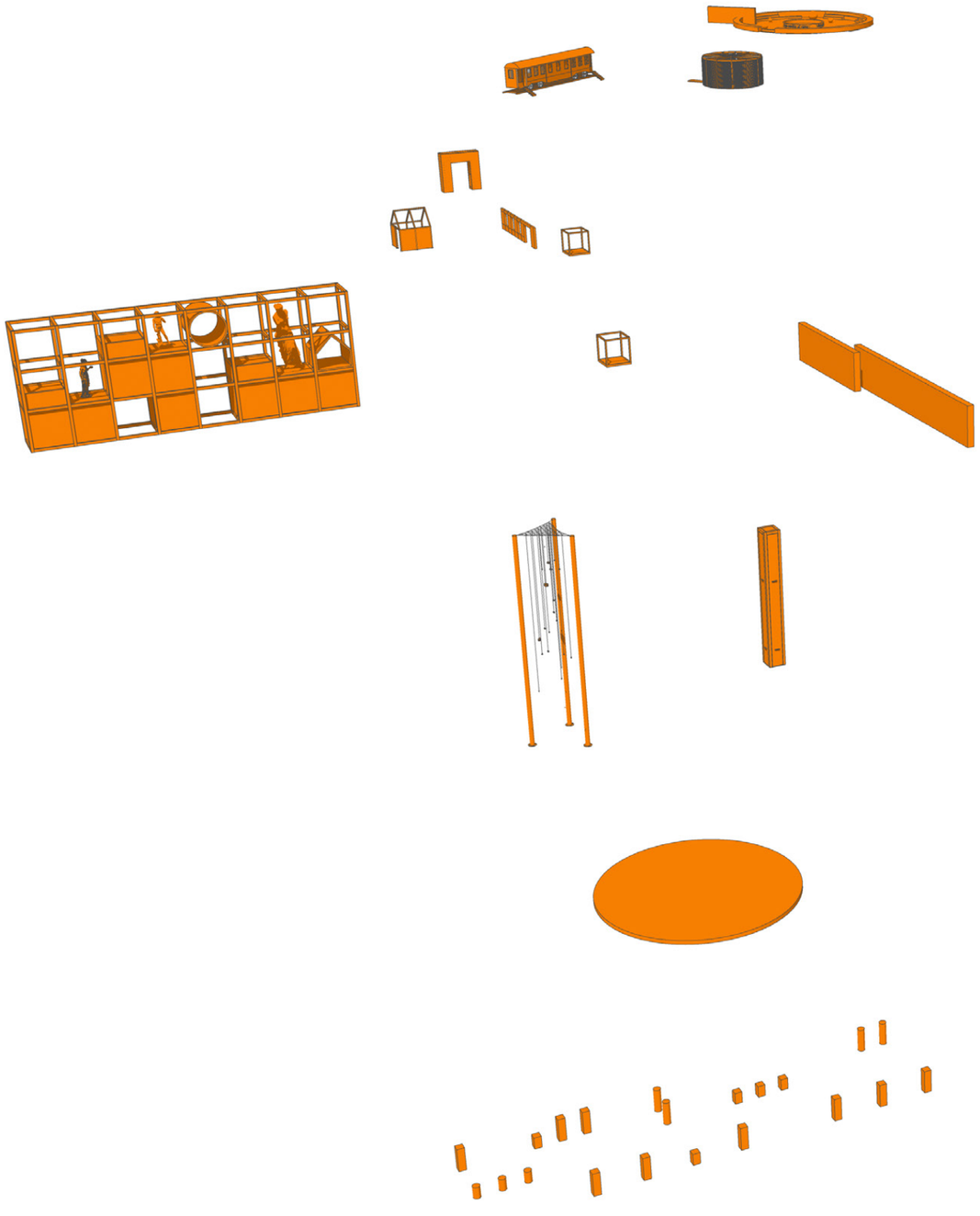






DEMOCRATIZATION OF ART
FOR ARTISTS AND VISITORS

INTEGRATIVE PROMENADE

ARTIFACTS



ORBITAL

COLOR-ARIUM

TRAIN OF BOOKS

THE PORTAL

LE FINESTRE DEL TEMPO

HOME IS

THE BOX

JUST FOR A MOMENT

THINGS

THE FUTURE

MOMENTUM

EPICENTRO

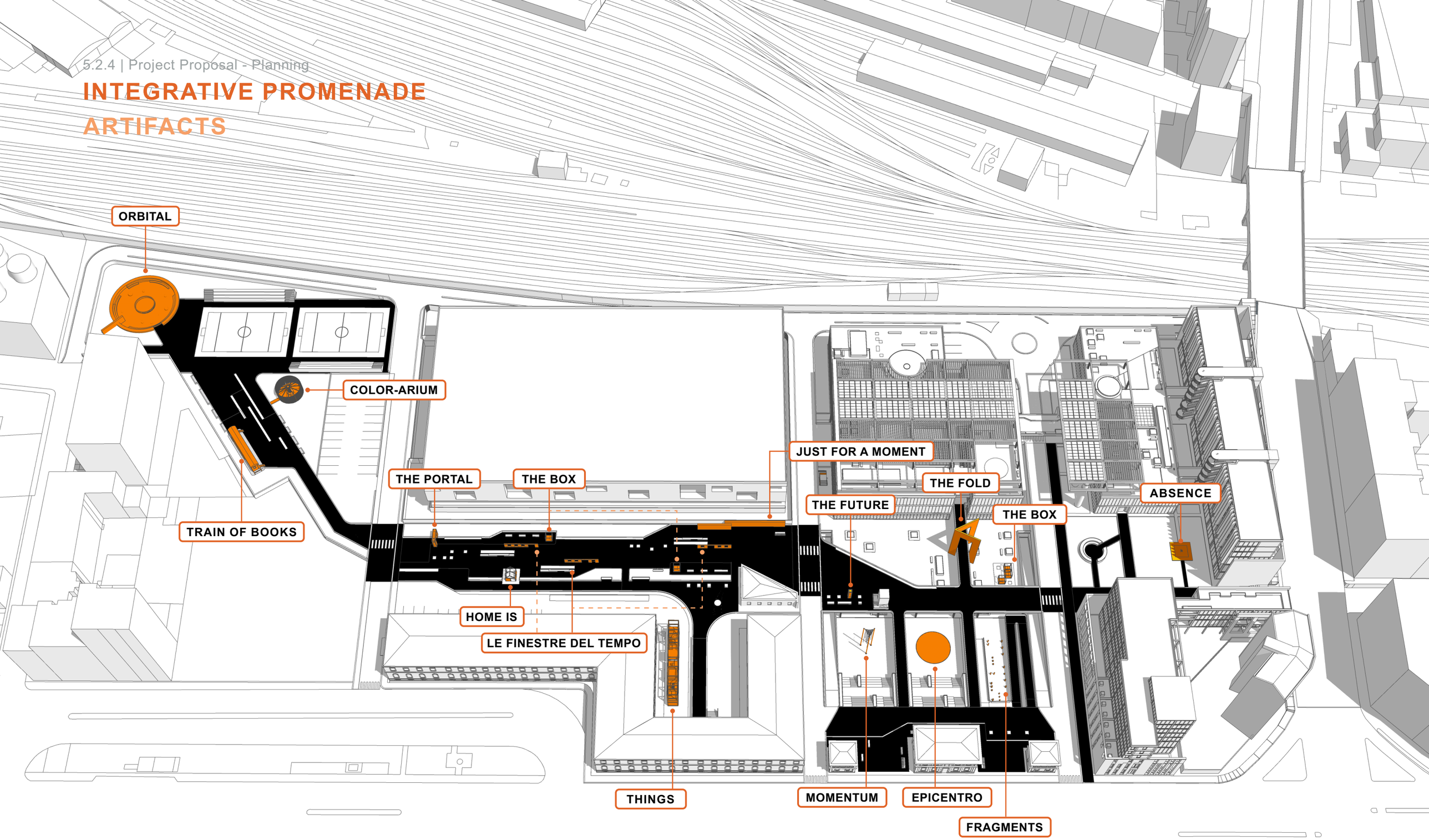
THE FOLD

FRAGMENTS

ABSENCE

INTEGRATIVE PROMENADE

ARTIFACTS



INTEGRATIVE PROMENADE - ARTIFACTS

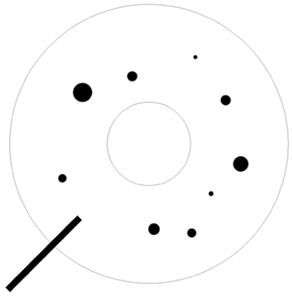
ORBITAL

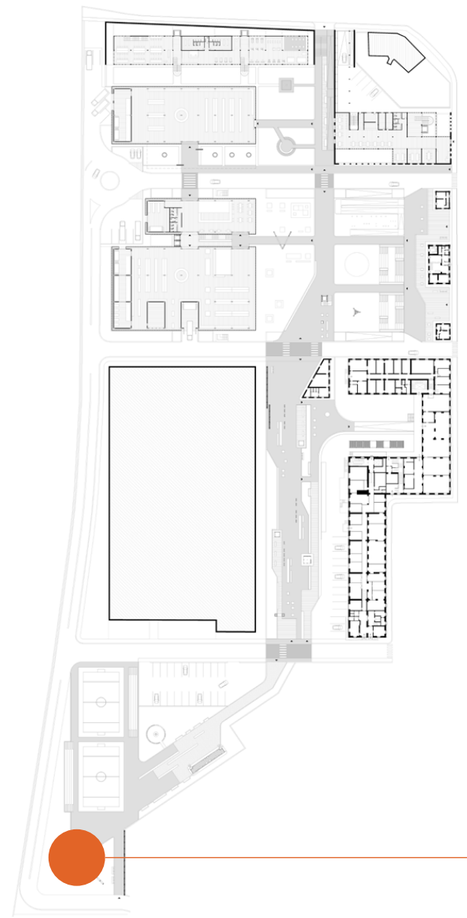
What?
Orbital is a system of sculptures that relate to each other to shape a solar system that can be modified by people who visit the place and can also be used as a small square for contemplation. It is an instance of play, thought, observation, and social contact.

Why?
Orbital invites us to reflect on our power to change the order of things. Playing with the planets –which are immense in scale compared to the human being–, the piece proposes thinking about how our actions can generate changes in different scenarios and how we can be protagonists of the destiny of many things in our lives, depending on the decisions that we take, such as, for example, moving the orbit of the planets in this composition, which in turn will affect how other people will observe the place. The central ring represents the sun and is a metaphor for the immovable, for what, due to force majeure, we cannot change.

How?
The art piece would be made of concrete, including the benches and the central ring. The central ring is similar to the work *"Anello"* by artist Francesco Arena at Parco archeologico del Colosseo. It would be covered with 1 - 3 mm thick bronze sheets with polished edges. On the front edge of the ring would be inscribed the phrase *"Tutto cambia al ritmo di una danza planetaria"* (Ángel Hernández, 2023).

The spheres of the planets would be made with 30x30x2mm steel profiles. Each sphere has a core with a weight proportional to its size that would allow movement of the sphere in place but enough to prevent it from being lifted and carried out of the area. The spheres would be covered with fiberglass and polyester resin, and painted according to each planet they represent.





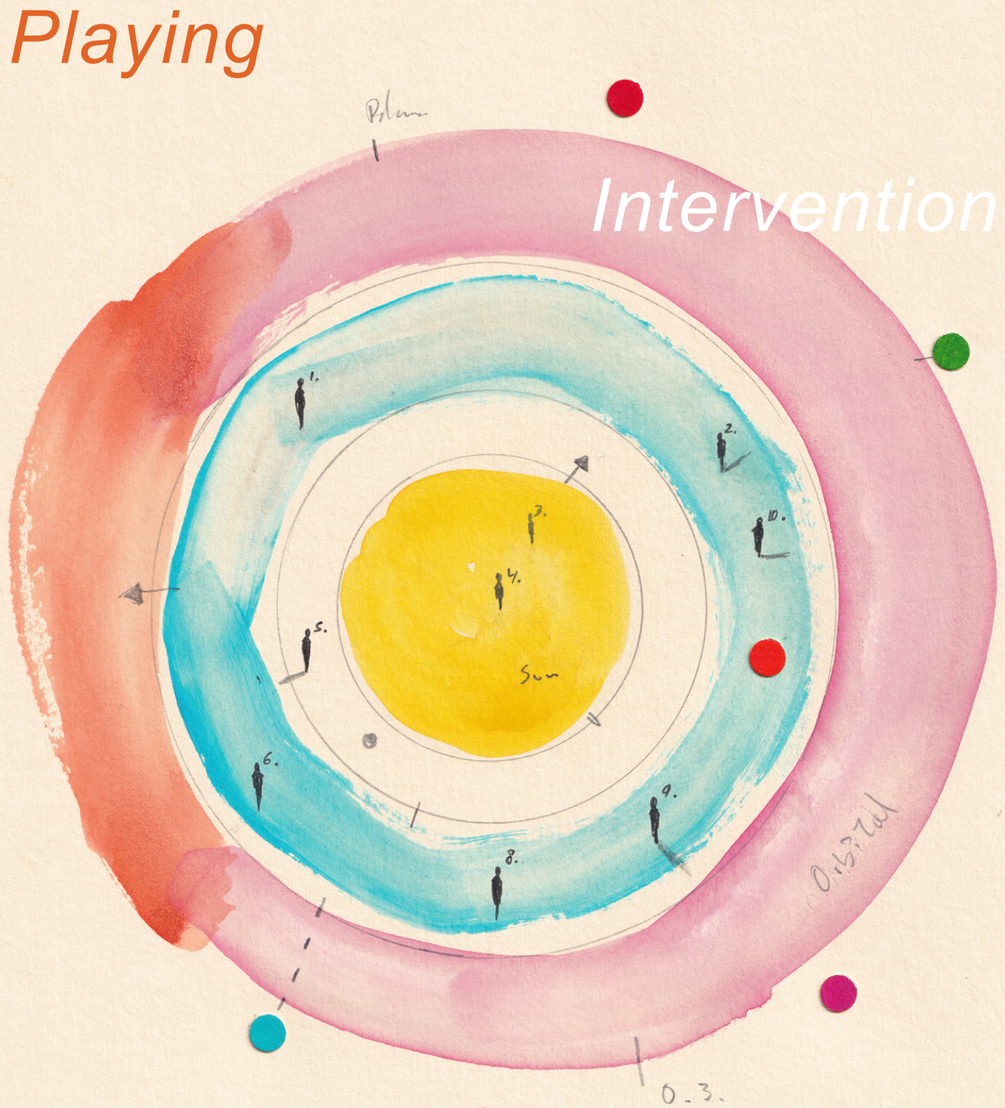
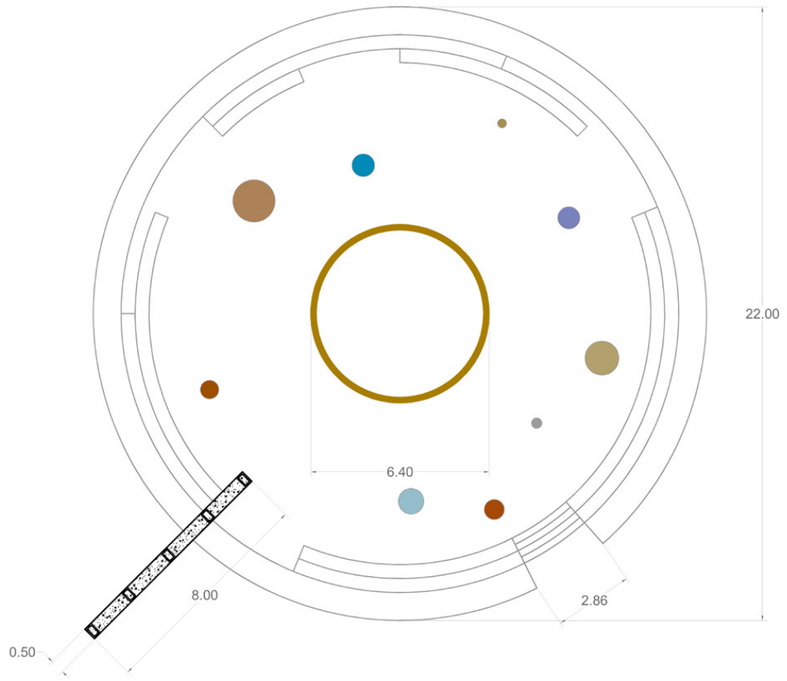
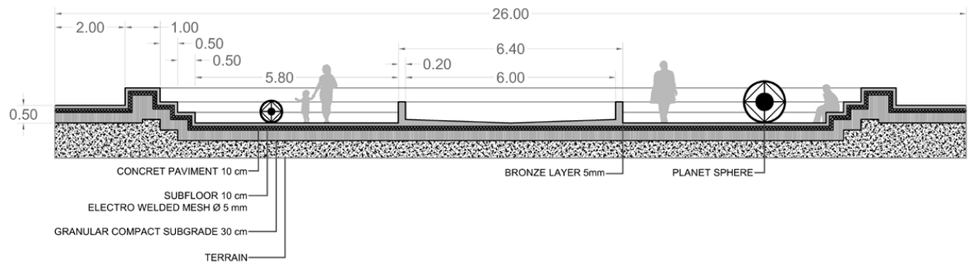


Fig. 96.



PLAN / 1:220



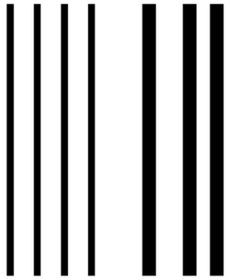
SECTION / 1:175

INTEGRATIVE PROMENADE - ARTIFACTS

COLOR-ARIUM

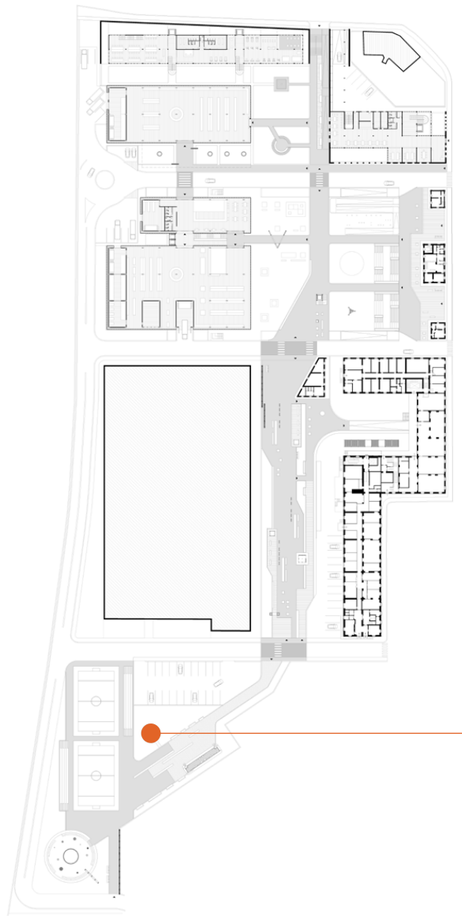
What?

Color-arium is a penetrable cylindrical sculpture that generates a closed area within a natural space, with the possibility of completing the play of light generated by the transparency of the colored panels. The name is composed of the word *“color”* –for the colored panels–, and *“arium”* –from the Latin ārium–, a place where something happens linked to the root of the word, defines the concept of this piece: a place where the colors mix with the sunlight.



Why?

The observation of colors can generate certain visual stimuli that condition our mood, as indicated by psychologist Miriam González in the article *“El lenguaje de los colores”* (Villena, 2023, El País). Considering this statement, Color-arium is a sculpture with the representation of the color wheel, composed of 12 colored partitions that generate different shades with the passage of light through the panels. The mixture of these colors when projected on the ground can generate a stimulus for attention, observation, and thought in the observer, creating an instance of tranquility within the hectic context of the city.



How?

The main structure of the artifact would be made with a round steel profile with a diameter of 80 cm, 10 mm thick, and 3.5 m high, which functions as a central support column. From this column, the 180x91mm IPE steel profiles are radially fixed that support the circular perimeter tape in a 150x50x4 mm aluminum profile. The eye bolts are placed on this tape to hang the panels. The lower perimeter is composed of a buried plinth where a metal profile rests and serves to fix the panels to a spring and tension mechanism, that would allow the panels movement.

The colored panels can be made with translucent compact polycarbonate sheets, 5 mm thick and 20 cm wide, with a hole at the top to be hung to generate a slight movement with the wind.

Following the perimeter of the central column, a bench is proposed as a seat. The surface of the artifact can be made with concrete poured on-site.

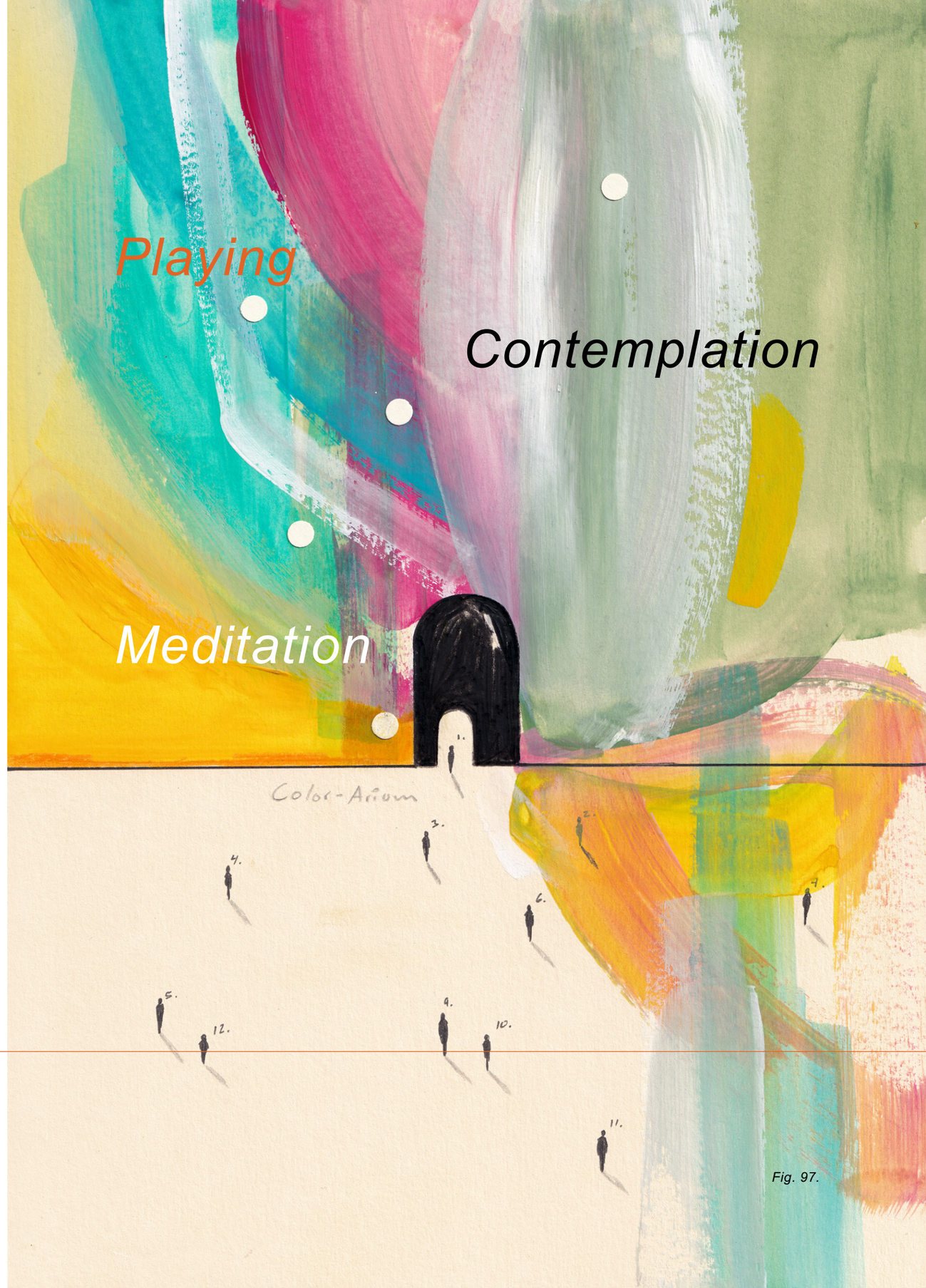
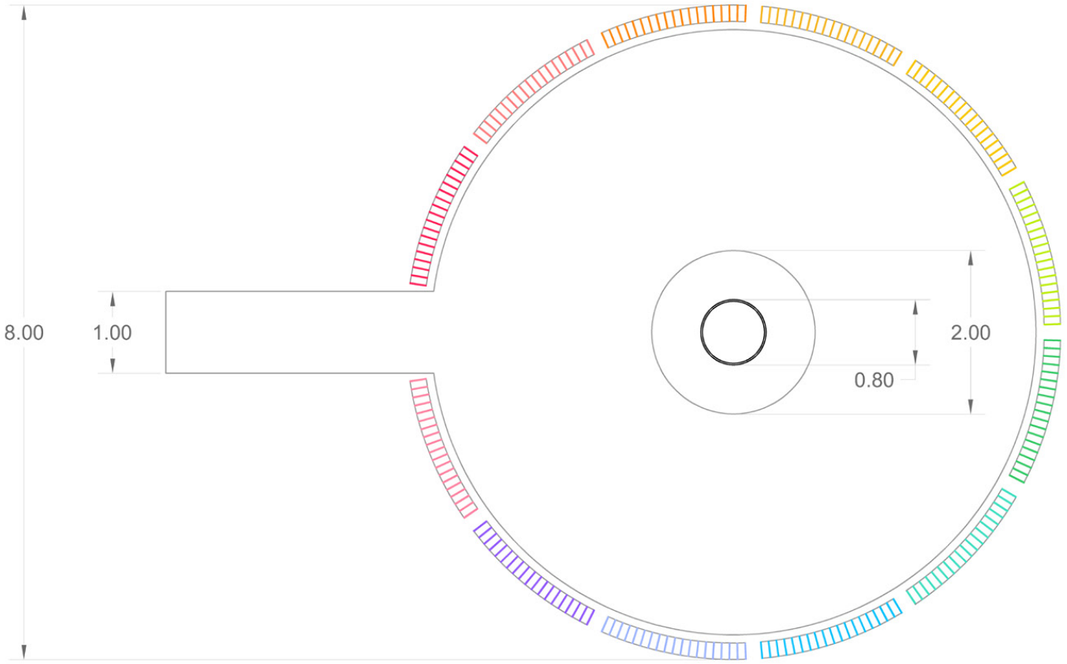
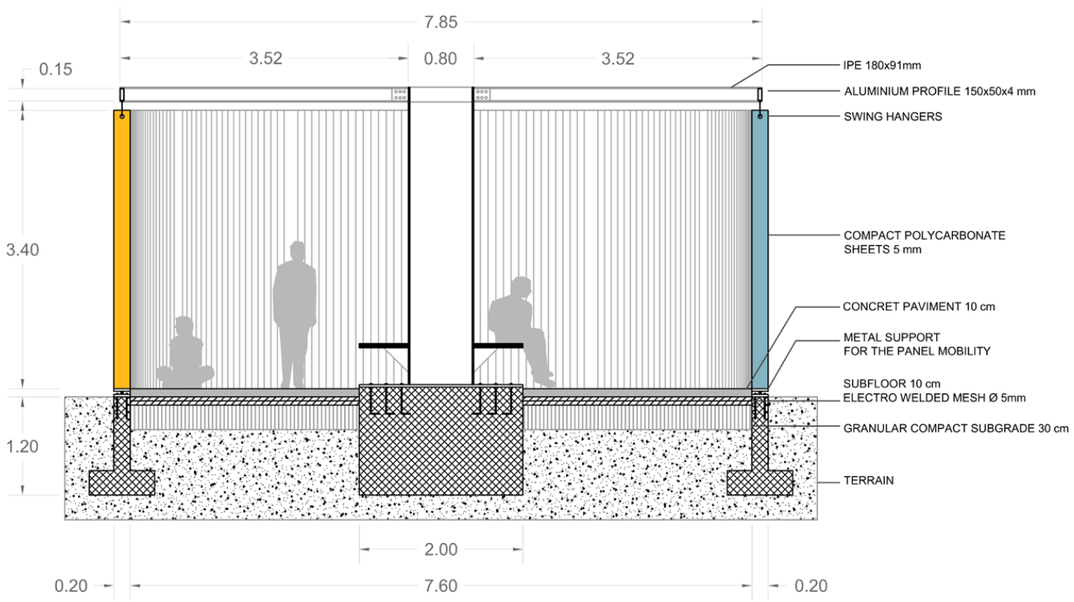


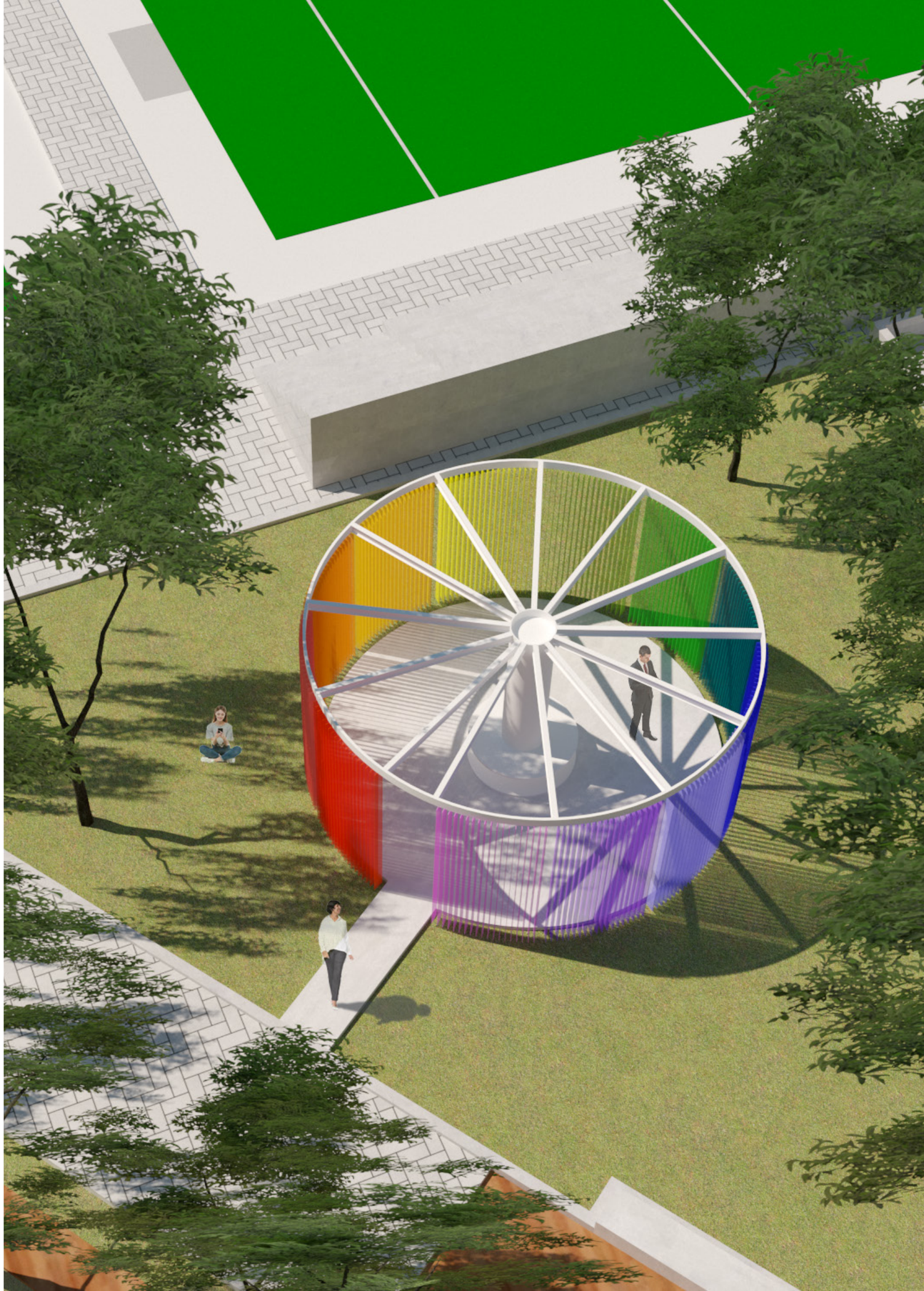
Fig. 97.



PLAN / 1:220



SECTION / 1:75



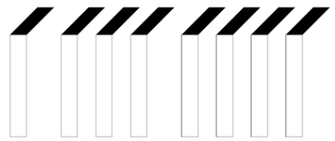
INTEGRATIVE PROMENADE - ARTIFACTS

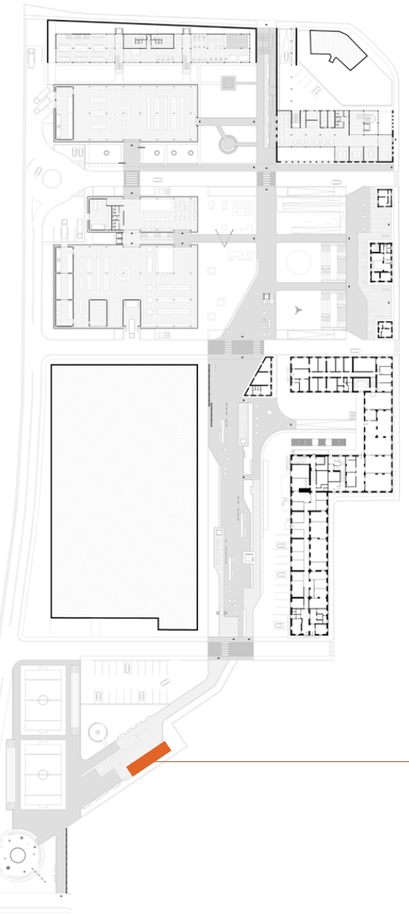
TRAIN OF BOOKS

What?
Train Of Books is a refurbished wagon that functions as a book-sharing space, promoting the reuse of parts of the old railway system as well as the reuse of books that can be left inside the wagon and removed by other visitors for free. The artifact is proposed as a meeting point for reading lovers, who have the possibility of sitting inside and sharing a moment of social exchange.

Why?
Inside Ex Scalo Vallino there is currently a train wagon in a state of deterioration that represents a part of the historical memory of the place. This wagon could serve a much more interesting function than just remembering the ancient use of this site, and could be a link between the past and the present if it is reused for a different function.

How?
The main action would be to renew in terms of materiality the entire wagon that is currently inside Ex Scalo Vallino. The second step would be to condition it to make it visitable and have spaces for books, tables, and chairs. The wagon could be promoted in the community as a drop-off point for used books and could be linked to different reading-related activities.





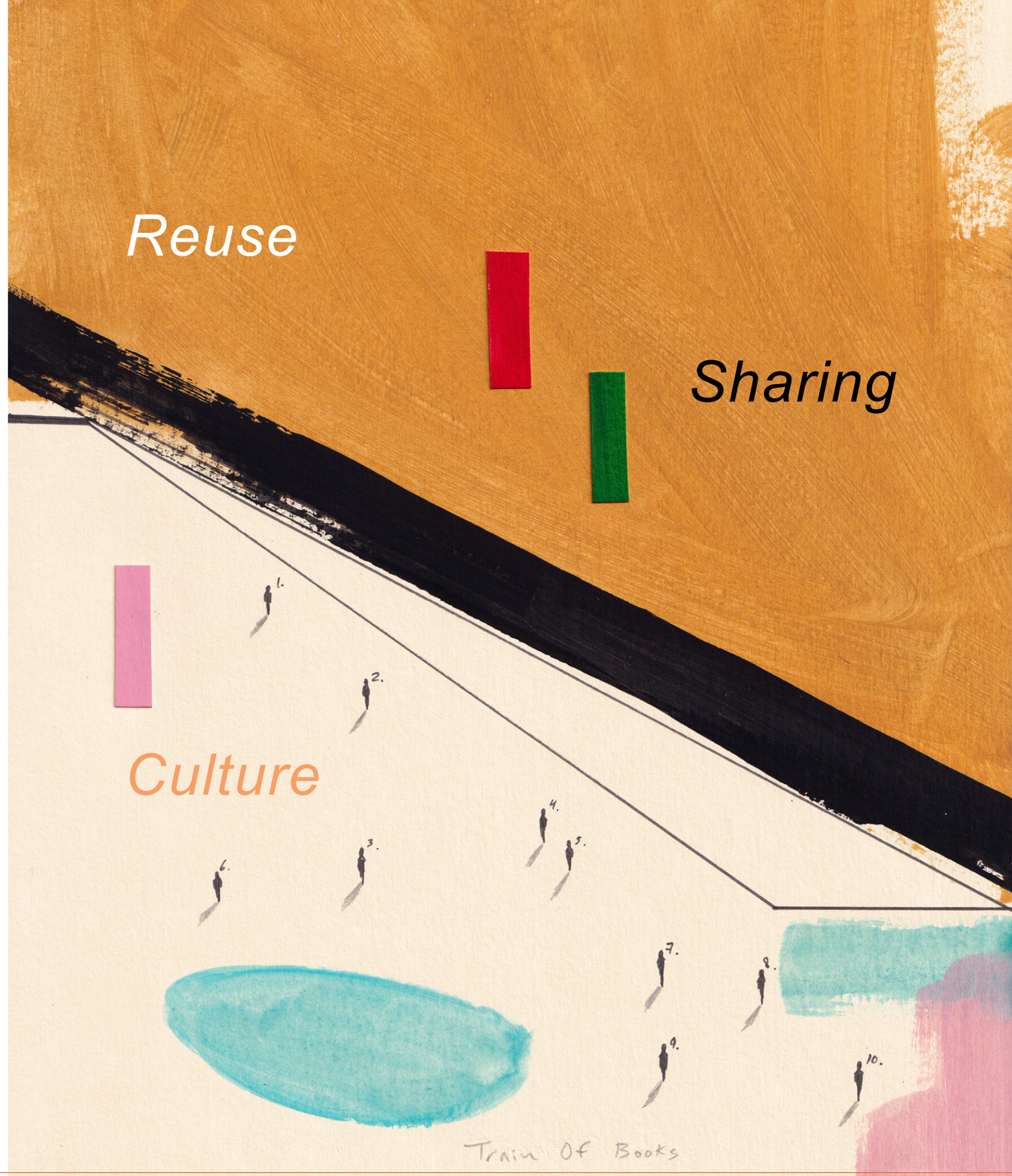
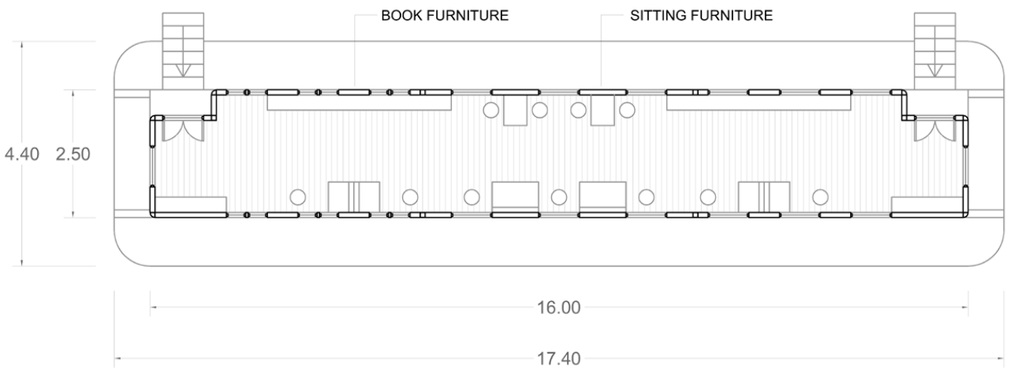
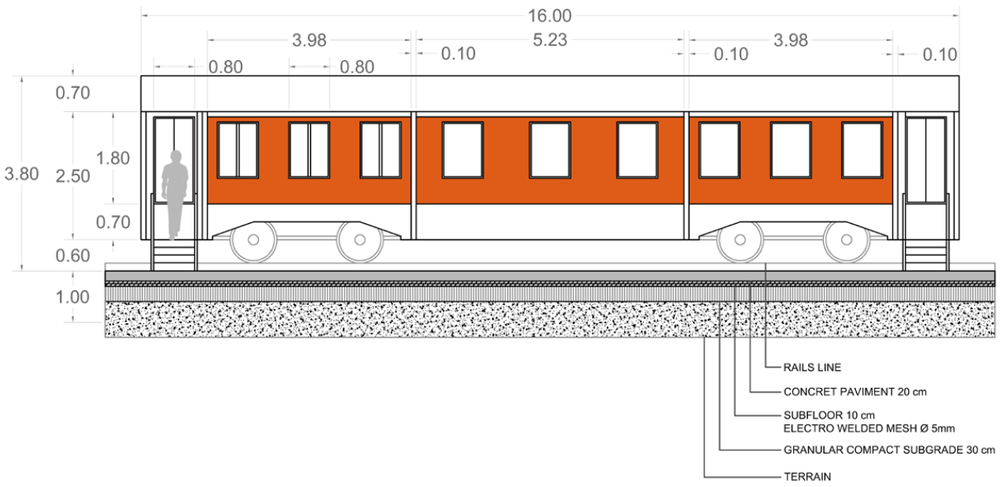


Fig. 98.



PLAN / 1:120



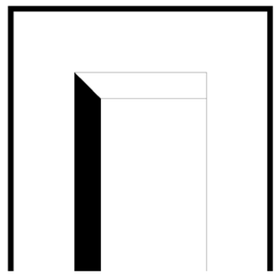
SECTION / 1:120



INTEGRATIVE PROMENADE - ARTIFACTS

THE PORTAL

What?
The Portal is an interactive sculpture that shows visitors a historical memory of Ex Scallo Vallino making use of retrojection throughout the interior frame of the artifact. The rear projection would start when movement is detected within the portal and would show important dates and the different transformations of the place, through historical maps and photographs.

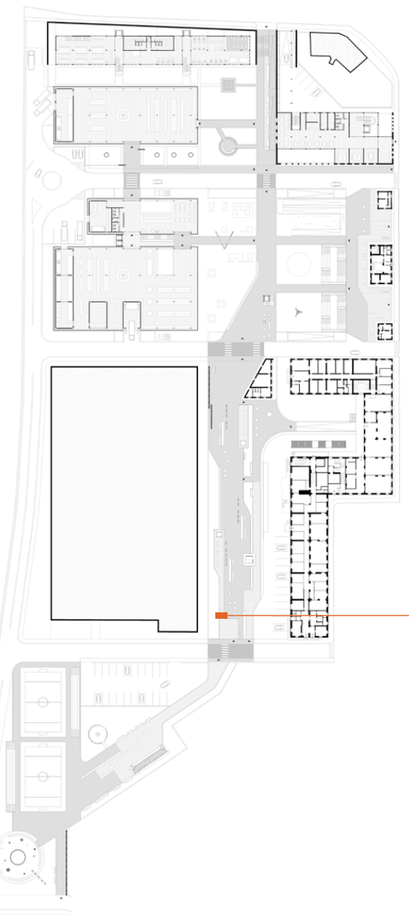


Why?
The main function of this artifact is to generate an informative point about the historical transformations that have taken place in the Ex Scalo Vallino site, to offer visitors an illustrated version of the memory of this fragment of San Salvario and thus establish a connection between the past and present of the place.

How?
The portal structure can be made with 20x20 cm square steel profiles anchored to a concrete basement with a metal sheet and bolts. This structure would serve as a frame for the 15x10x2mm aluminum auxiliary L profiles to fix the external covering, and 5x5 cm, 2x5 cm, and 2x2 cm profiles to create the projection frame.

The cover surfaces can be made with 12.5 mm thick fiber cement sheets with a layer of waterproofed plaster for exterior environments in a concrete finish.

The internal part of the portal is covered with a rear projection film and a layer of 10 mm thick transparent laminated glass. Inside the structure, there will be overhead projectors and a sensor system that will detect movement to start the projection.



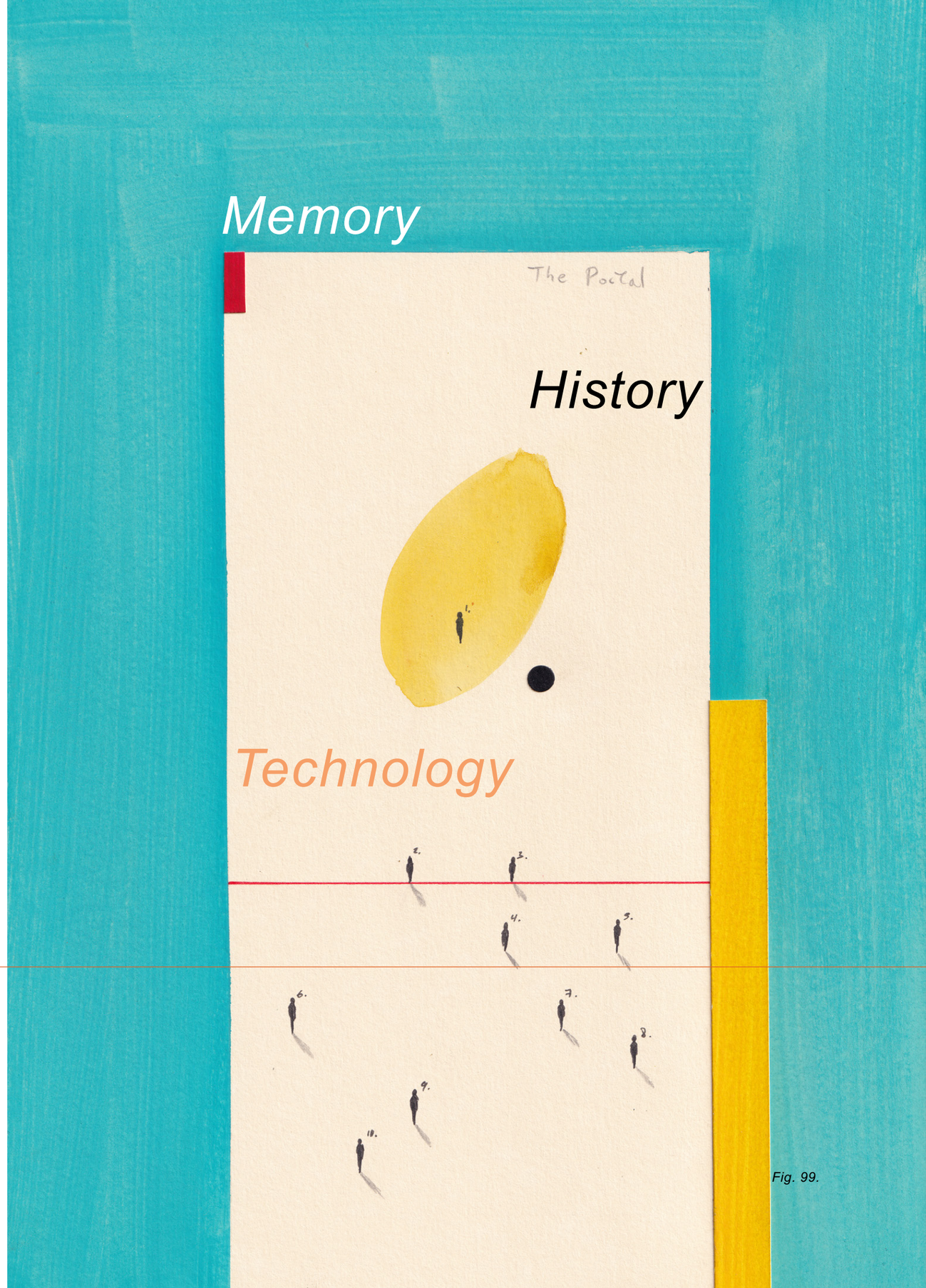
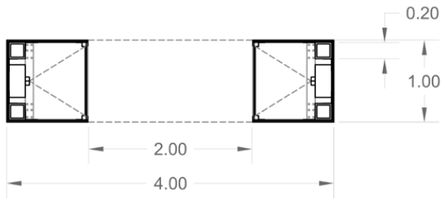
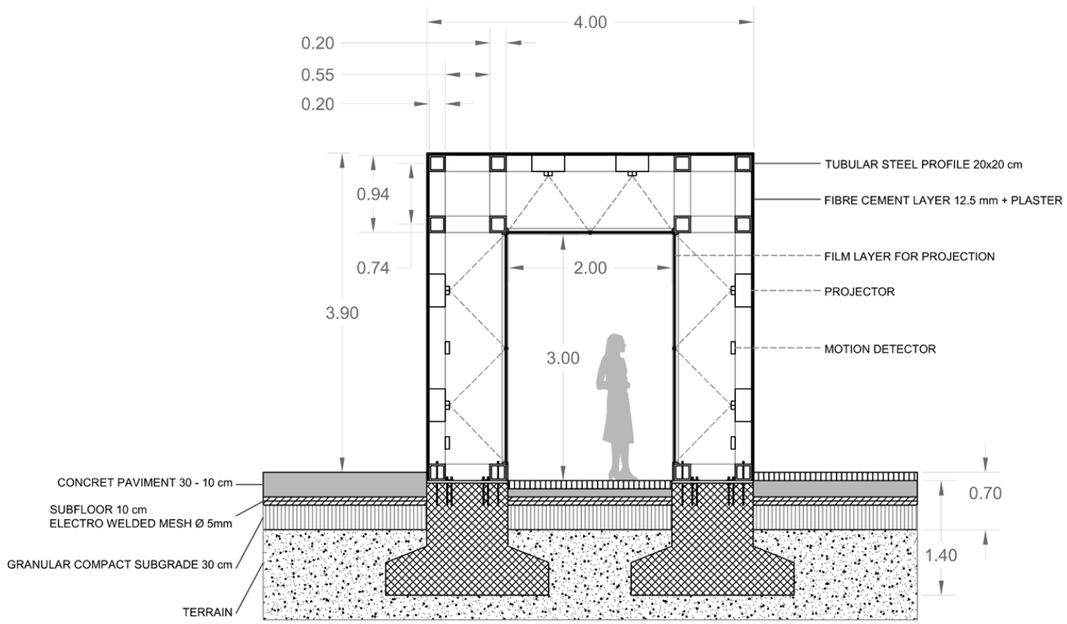


Fig. 99.



PLAN / 1:75



SECTION / 1:75

INTEGRATIVE PROMENADE - ARTIFACTS

LE FINESTRE DEL TEMPO

What?

Le Finestre Del Tempo are self-supporting sculptures that resemble the windows of train wagons and in their openings artworks by local artists can be hung temporarily.

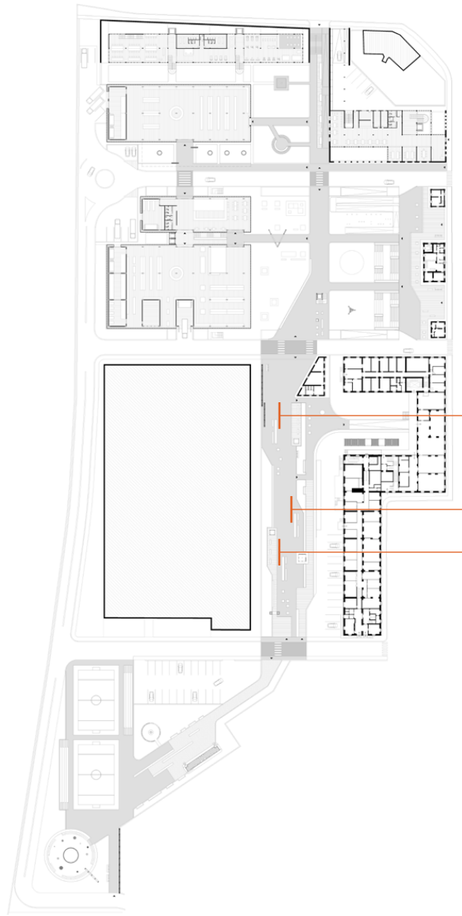
Why?

The availability of spaces for emerging artists to exhibit their art in the city is limited, often due to bureaucracy or because they are not considered to be of significant fame. These sculptures offer the possibility of exhibiting pieces by local artists for free and easily, in a fairly busy area of the city and within a project with commercial activity that can benefit the artists who exhibit their works for sale. Le Finestre Del Tempo are windows so that artists can be seen through them.



How?

The structure can be made with square steel profiles of 160x160x5 mm, and 50x50x5 mm, fixed to a concrete base with a metal sheet and bolts. The covering would be a 1.5 mm thick metal sheet to create a sandwich panel and recycled elements from old wagons could be added to these sheets to give texture to the pieces.



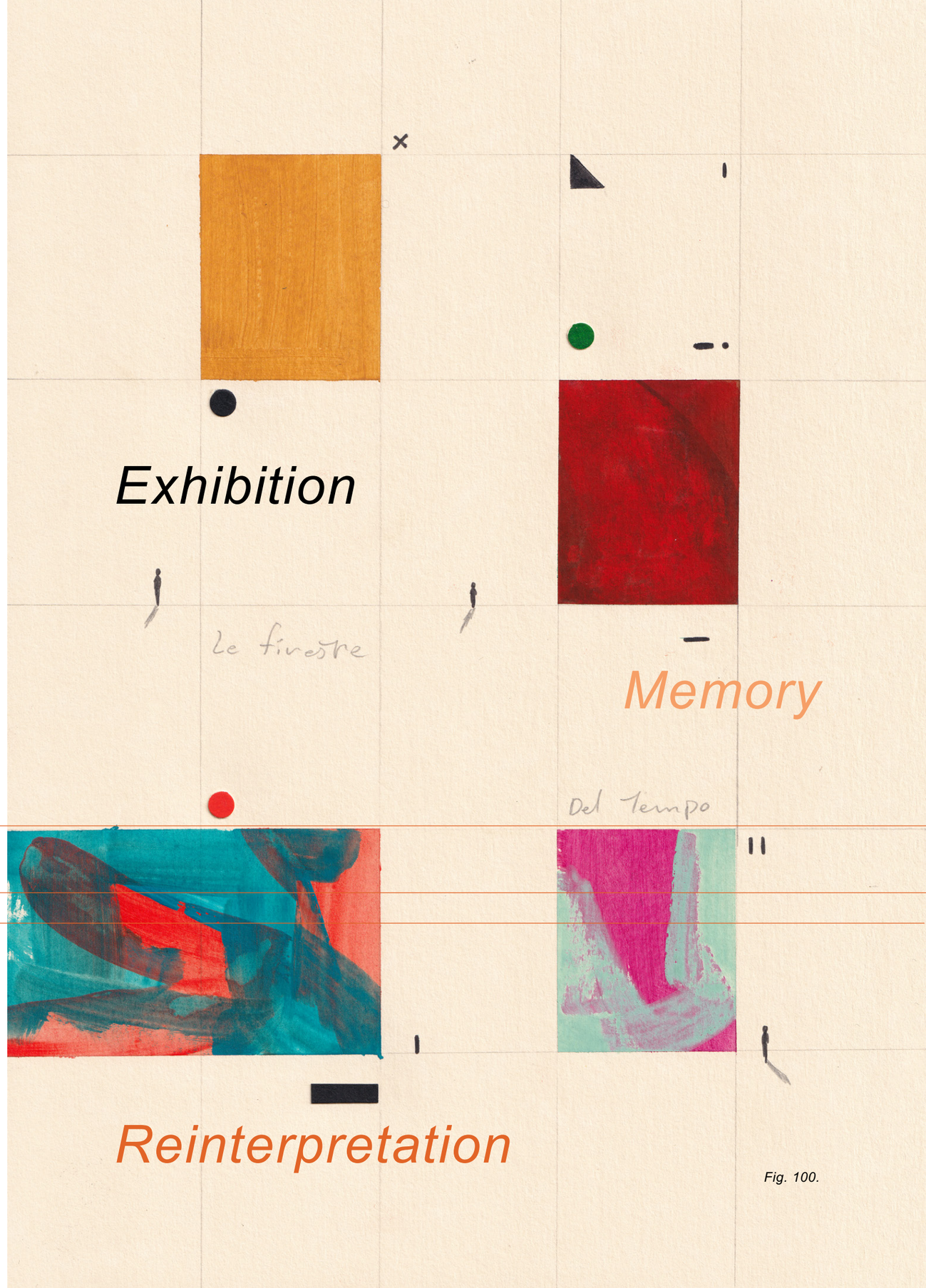
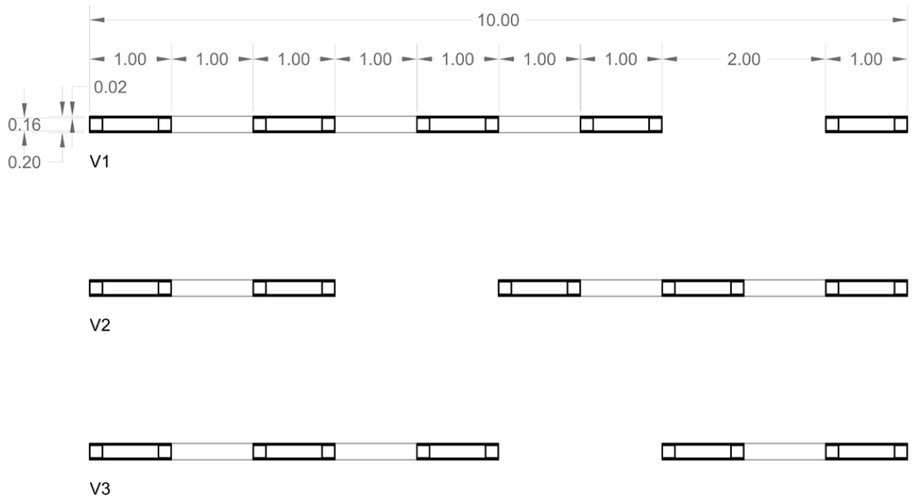
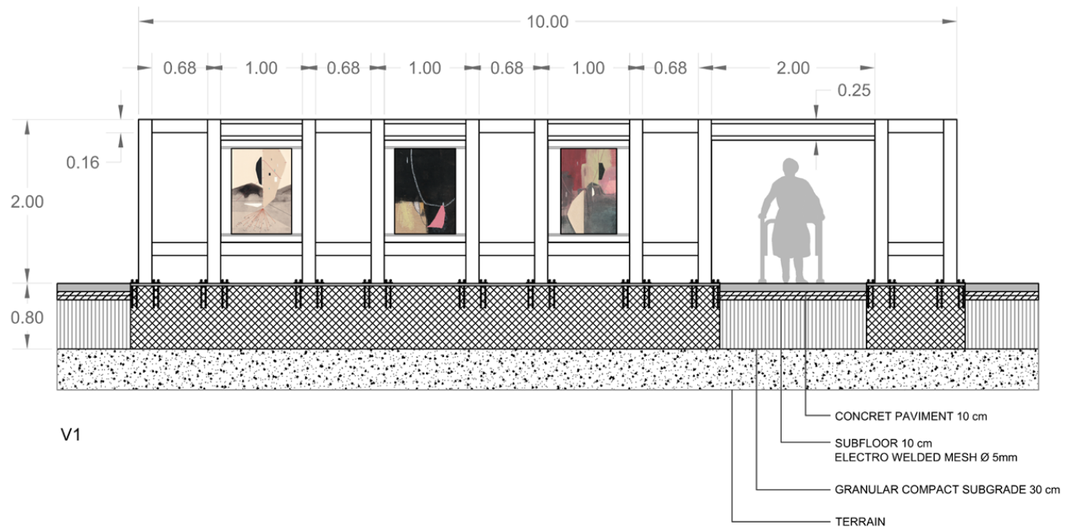


Fig. 100.



PLAN / 1:75



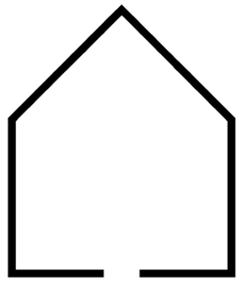
SECTION / 1:75



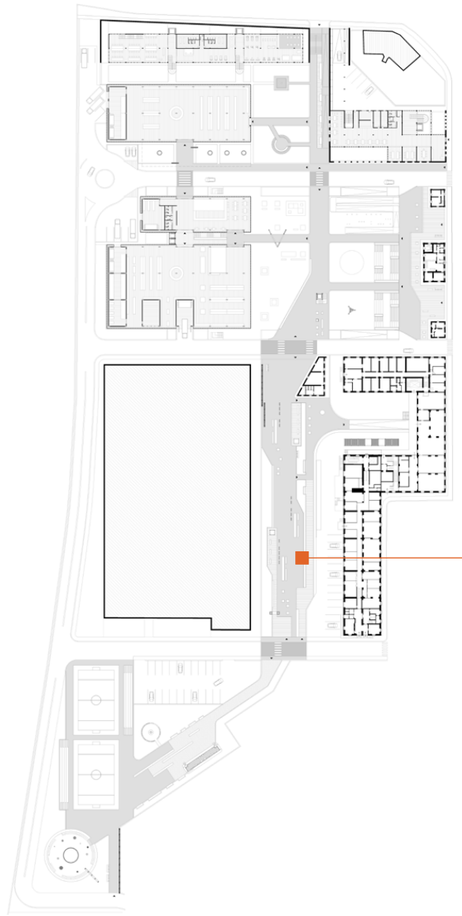
INTEGRATIVE PROMENADE - ARTIFACTS

HOME IS

What?
Home Is is proposed as a structural artifact that calls for the participation of people to fill the available panels with writing with the intention of defining the concept of home in the words of each visitor.



Why?
The discourse of this artifact is related to migration and the very definition of the word *“home”* that each person can have according to their experience. San Salvario is a multiethnic neighborhood, and Turin is a city with many migrant students, that is, there is a part of the population that can leave testimony of its concept of home in this piece. The black writing surfaces are inspired by the *“Before I Die”* black gate behind the Teatro Colosseo in San Salvario. The Spanish word *“hogar”* –in English *“home”*– derives from the Latin *“focus”*, which is related to fire, the heat that gives life inside the house, for this reason, the center of the artifact is a metaphor to that *“fire”* with an illuminated hole in the pavement.



How?
The structure can be made with 100x100x5 mm square steel tubes, joined with simple welding and bolting, and cross braces, anchored to a concrete basement with a metal sheet and bolts.

The walls that can be intervened would be made of 1.5 mm thick metal sheets welded to the metal structure and covered with matte black paint to make writing with different materials possible.

The artifact’s interior floor has a circular hole in the center, and to illuminate this circle with LED lights. This floor is composed of a concrete base and a floating platform supported on 240 mm IPE, in this way the lights can be placed within the void below the surface.

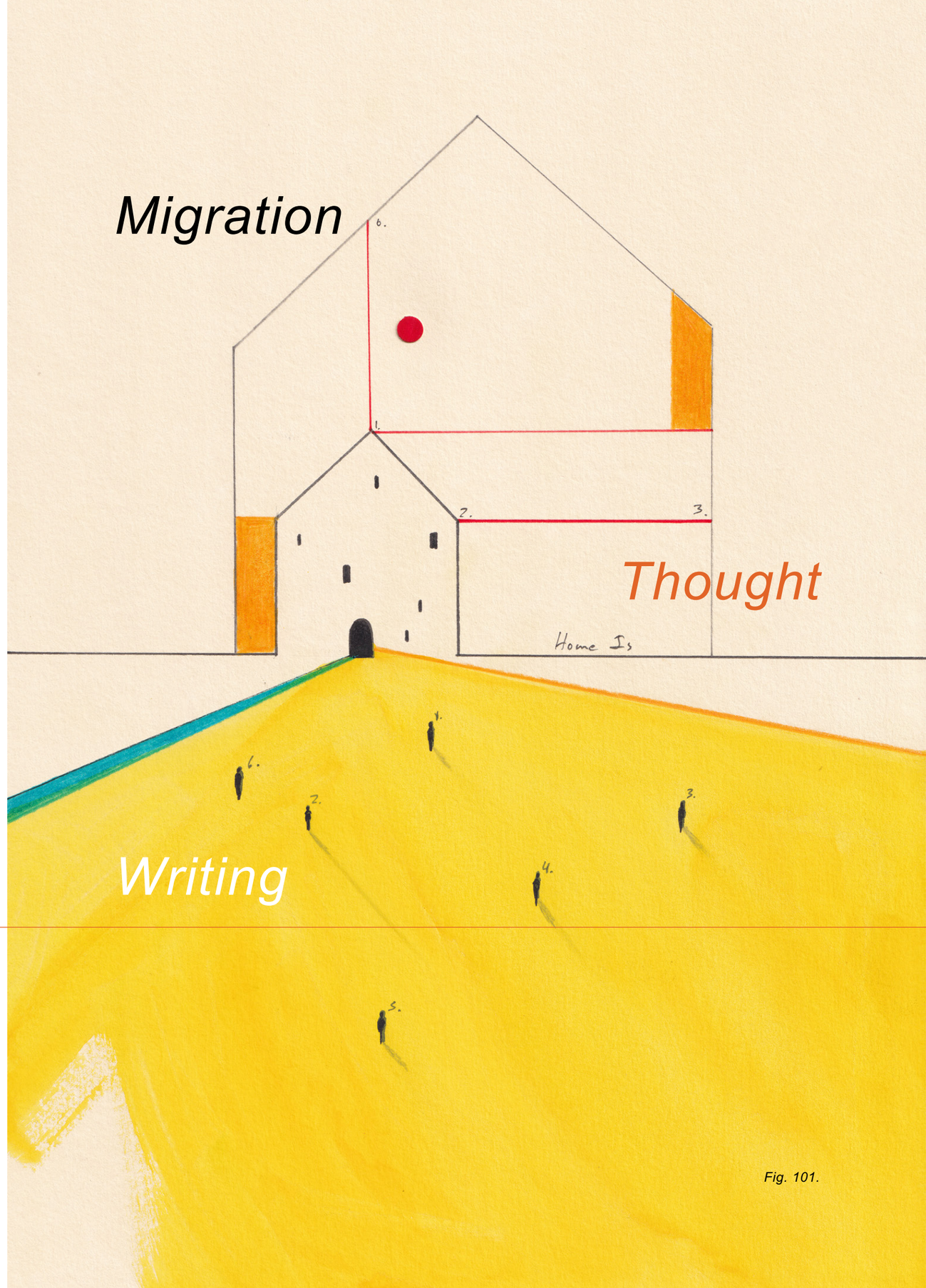
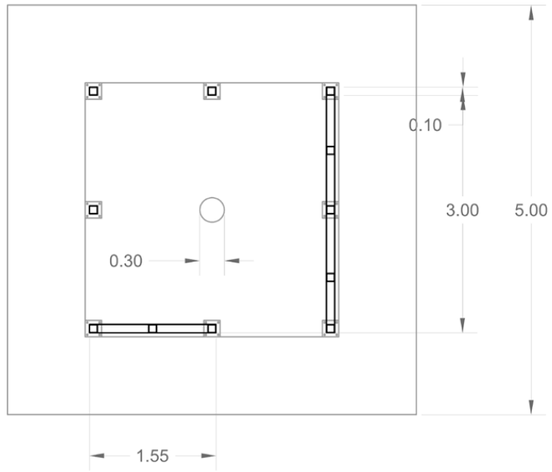
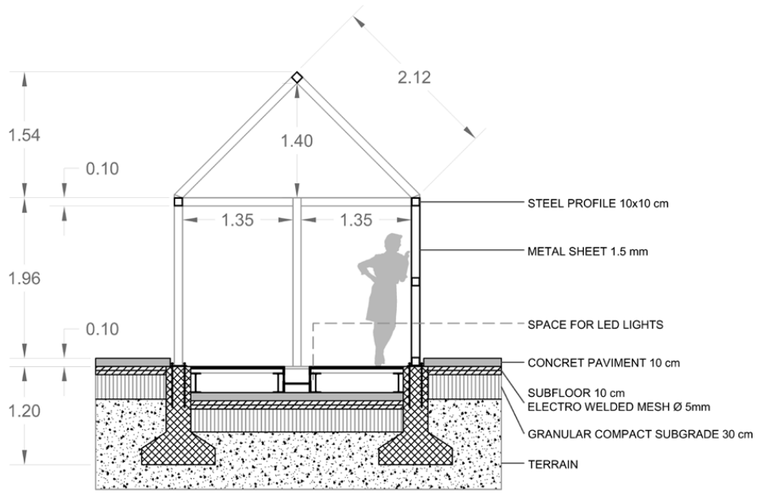


Fig. 101.



PLAN / 1:75



SECTION / 1:75

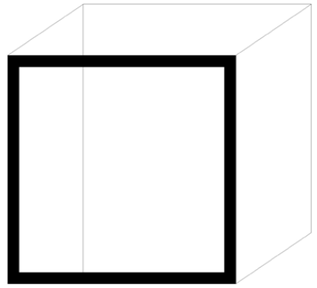
INTEGRATIVE PROMENADE - ARTIFACTS

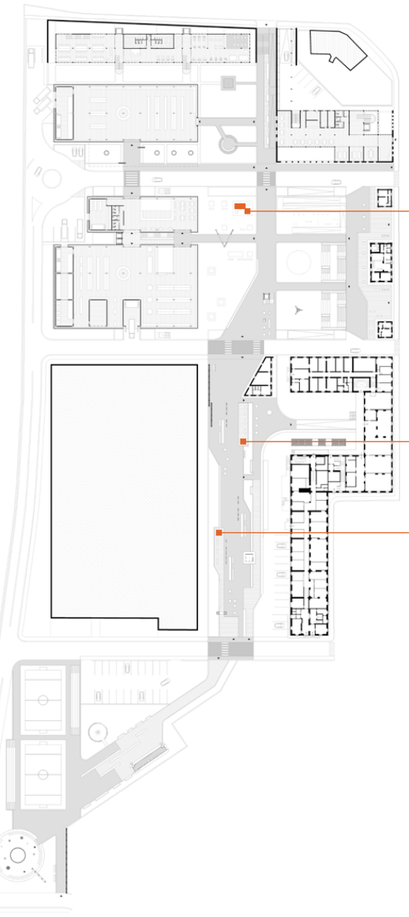
THE BOX

What?
The Box is a 2x2 m structural and sculptural module that allows visitors to appropriate a volume of space to carry out different activities, such as creating art, reading, contemplating, or being.

Why?
The artifact is mainly designed so that artists can use that portion of public space to carry out their creative activities, being able to occupy the space with materials or workshop furniture temporarily for hours. The module can be used by sculptors, sculptors, musicians, painters, or anyone who can develop a creative activity in the proposed space, staging an interesting performance for the public that visits the place.

How?
The structure can be made with 100x100x5 mm square steel profiles joined by simple welding and bolting, anchored with bolts to a concrete base on the floor.





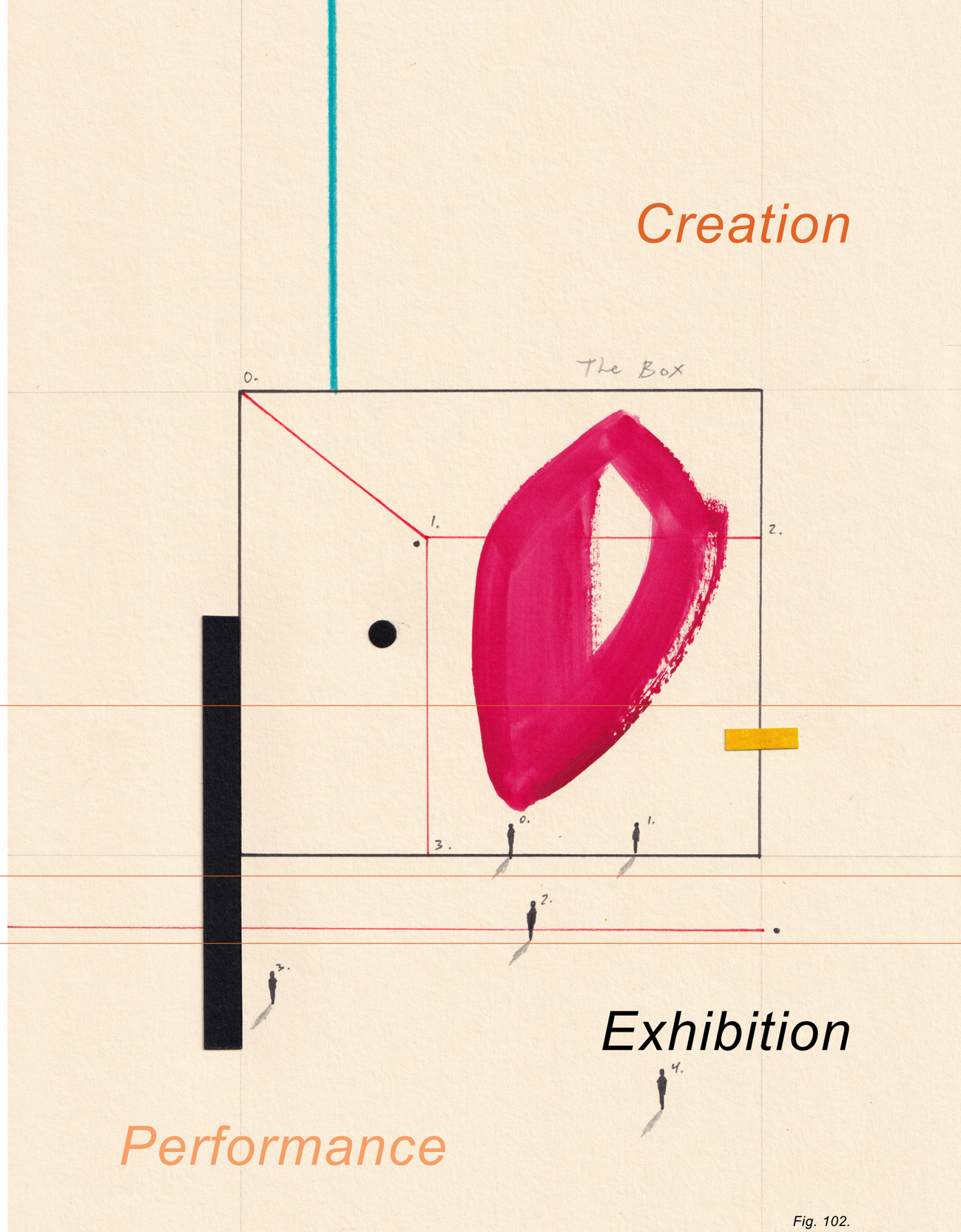
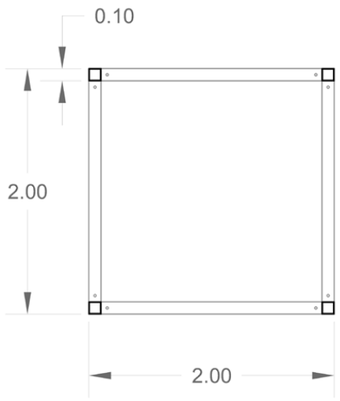
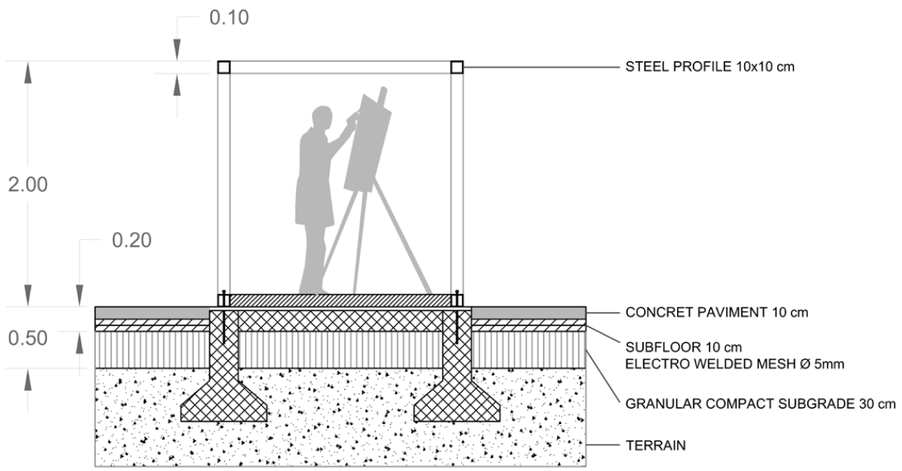


Fig. 102.



PLAN / 1:50



SECTION / 1:50

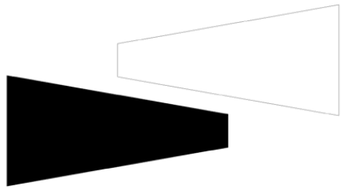
INTEGRATIVE PROMENADE - ARTIFACTS

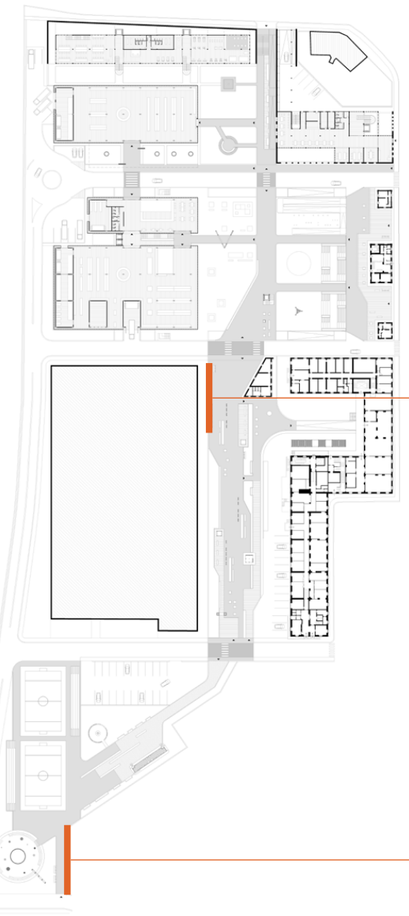
JUST FOR A MOMENT

What?
Just For A Moment is the title for some flat vertical surfaces intended to be used as “canvases” for wall art and graffiti. It is proposed that the surfaces can be used with the criterion of temporality, that is, the artists accept that their works can remain intact only for a short time, and can be covered or modified by works by other artists.

Why?
Mural art and graffiti art make up the urban atmosphere of many areas of Turin, with several examples in San Salvario. This manifestation of visual art can express everything from social to political issues, highlighting different discourses that concern the population in local or global scenarios. In a city that changes, allocating spaces for this type of art can mean respecting urban facades without excluding local talent that needs spaces to express themselves.

How?
Within the promenade, 2 instances are proposed for the creation of murals and graffiti, one surface is located in the sports area and the other is in the creative partition of the promenade. The surfaces are proposed as reinforced concrete precast double wall.
Twin walls are two slabs of concrete wall panel held together by a lattice. The gap between these two leaves is filled with concrete, after these units are installed on site. The size of every single precast element is 300x250x5 cm, covered with a plaster of 2 cm that allows the application of pigments. The total wall thickness is 50 cm.





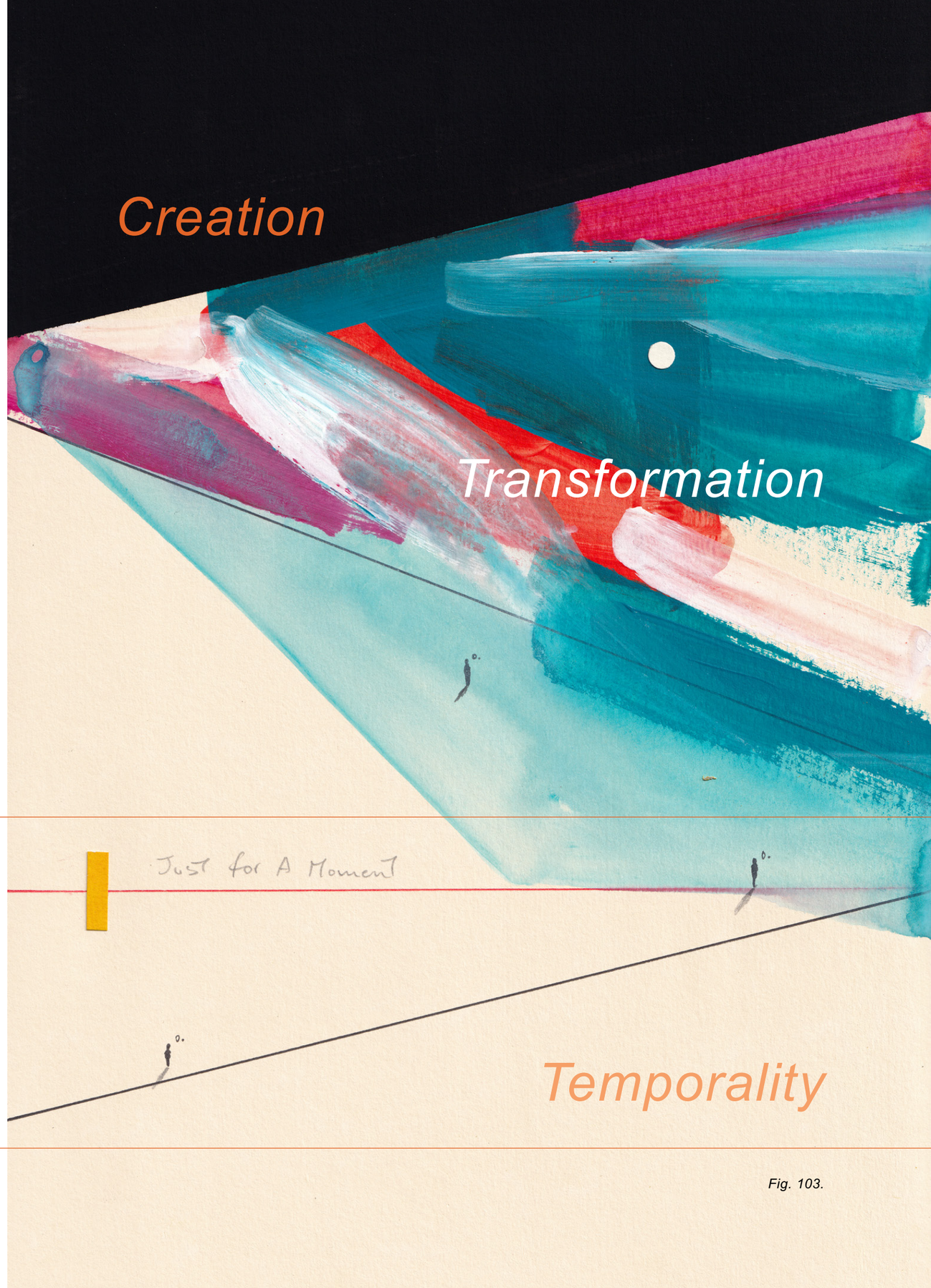
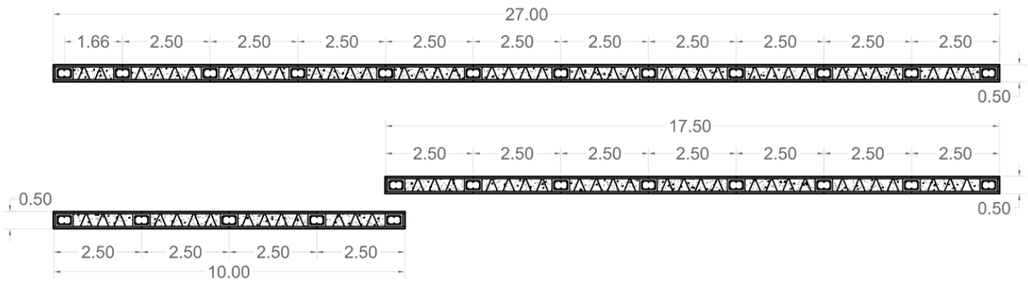
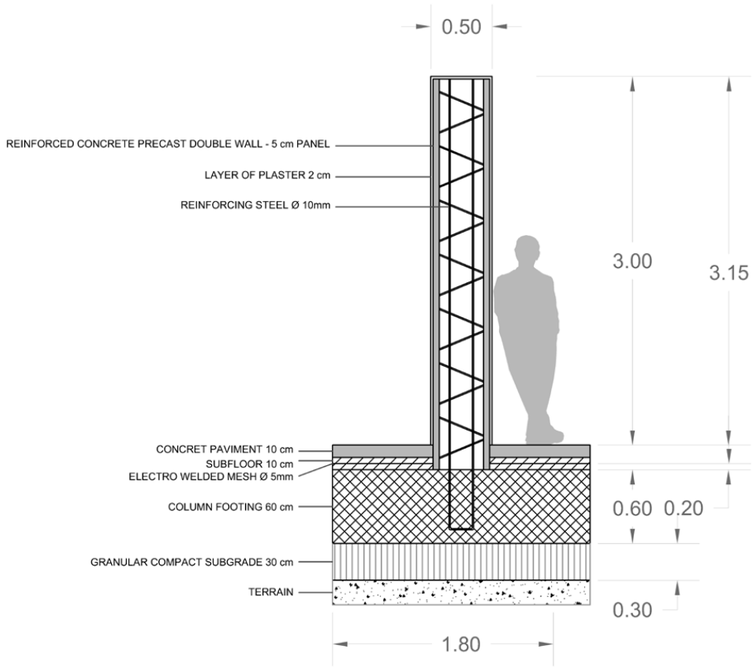


Fig. 103.



PLAN / 1:175



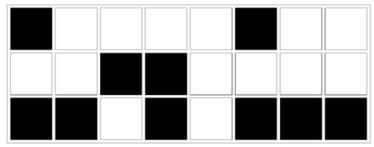
SECTION / 1:50

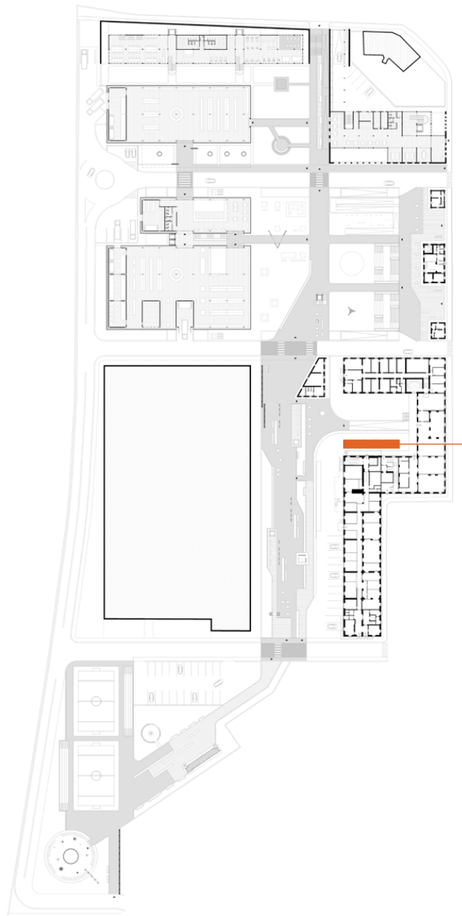
INTEGRATIVE PROMENADE - ARTIFACTS

THINGS

What?
Things is a structure that allows different uses to be placed within its modules in a manifest of functional utility mixed with the exhibition of art.

Why?
Currently, the place where this structure is proposed is covered by technical artifacts that serve for the operation of some floors of the Edificio Storico 8. However, considering the future restoration of the underground floor of that building and to improvement of the visual integration with the promenade proposal, this idea is presented to collect in one place and with a more orderly and aesthetic sense, all the technical components mentioned. Following the idea of creating a large “shelf”, the discourse is aligned with the idea of incorporating other “things” in this structure, referring to museum showcases where sculptures are placed, and in this case, also gardens.





How?
The structure can be made with 20x20 cm tubular steel profiles anchored with bolts to a concrete base on the floor. The section of the metal profiles and the presence of cross braces must be verified according to the weight of the various technical equipment and planters.

The modular spaces for storing technical devices would be covered on all four sides by 4 mm thick perforated steel sheets painted orange. On one side of each covered module, there must be a hinge system for opening and closing the interior space.

In garden modules, the garden shed can be made of wood or concrete, off-site, and then incorporated into the structure, with its proper drainage to the ground. The spaces to place the sculptures would have a metal platform as a base to support the objects. The replicated sculptures should correspond to different periods of art or cultures, to create a composition with different styles.

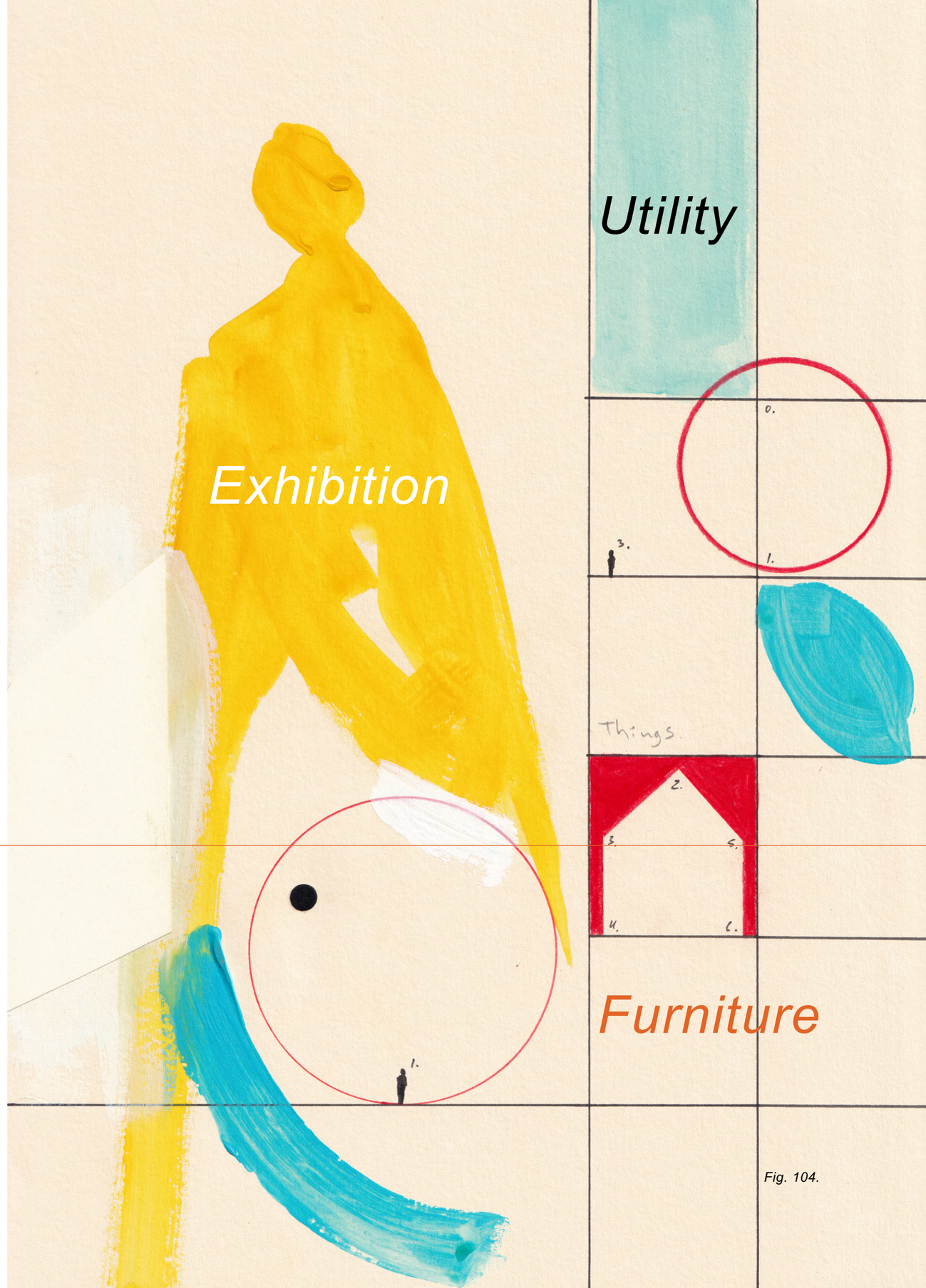
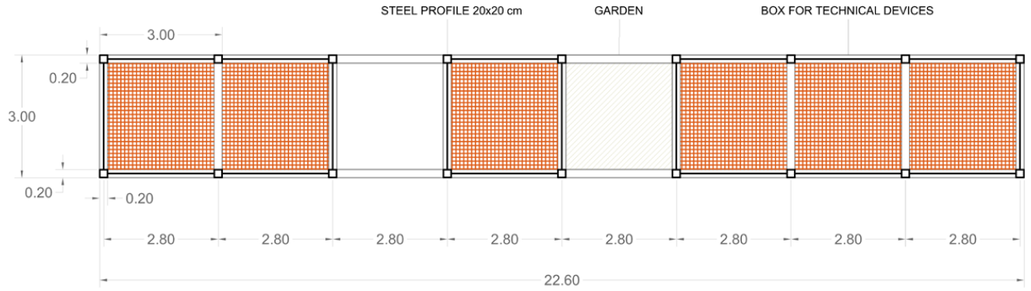
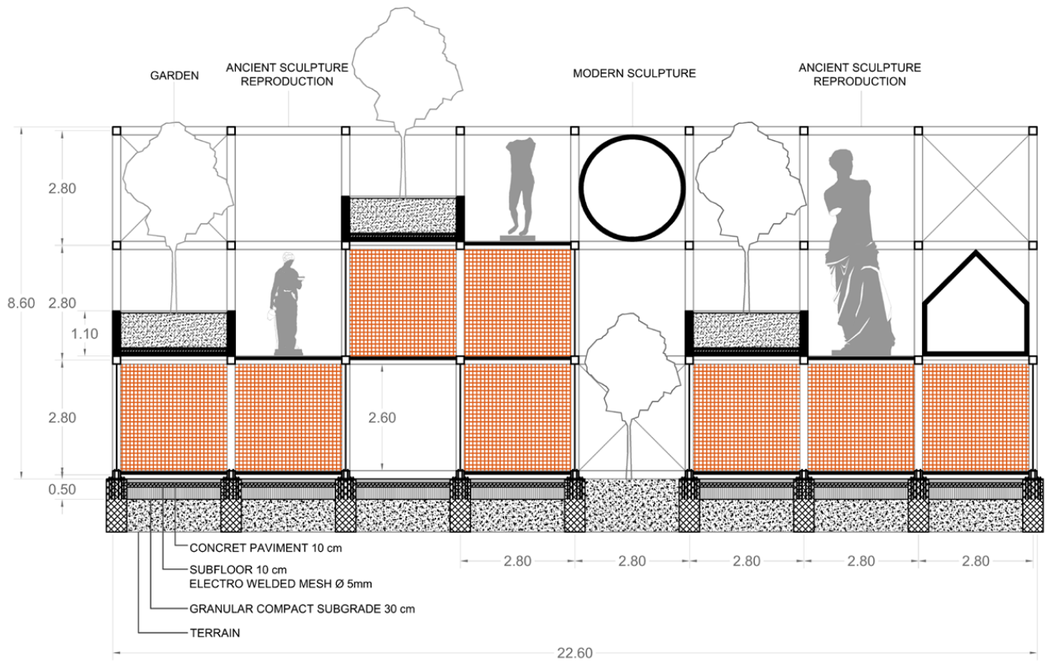


Fig. 104.



PLAN / 1:150



SECTION / 1:150

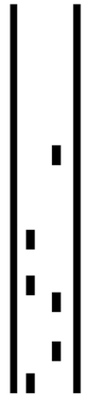
INTEGRATIVE PROMENADE - ARTIFACTS

THE FUTURE

What?
The Future is a translucent vertical artifact illuminated at the base that crosses two levels of the central square and where it is possible to insert notes/cards/letters inside to fill the column with papers written by visitors where they express their wishes for the future or their ideas of how will be the future.

Why?
Like other artifacts on this promenade, this piece aims to incorporate the visitor as the protagonist of the act of completing the work of art. The column alone expresses the emptiness that the future represents, and its materiality expresses the conditions with which our ideas of the future are often constructed. The future is uncertain –the methacrylate transparency–, its planes are fragile to support great purposes –the methacrylate fragility–, however, we are all participants in that time that has not yet arrived –the letters from visitors that fill the column with desires, ideas, thoughts–. This piece is completed with each written paper that each visitor inserts into the column, thus leaving a testimony that each one was once here.

How?
The construction of the 8.40 m high translucent column with a 1x1 m section can be carried out with 4 square steel profiles of 150x150x5 mm fixed to a concrete basement with a metal sheet and bolts. 20x20 mm U-type aluminum profiles are used to embed 15 mm thick plexiglass panels without color. The methacrylate panels must have 1 cm wide horizontal openings to introduce the papers into the column, with a small external canopy also made of methacrylate to prevent water entering. A relief measuring 20 cm wide x 20 cm deep would be made on the base of the artifact to leave a slot that allows a led-light to pass through and define an edge of light around the methacrylate column.



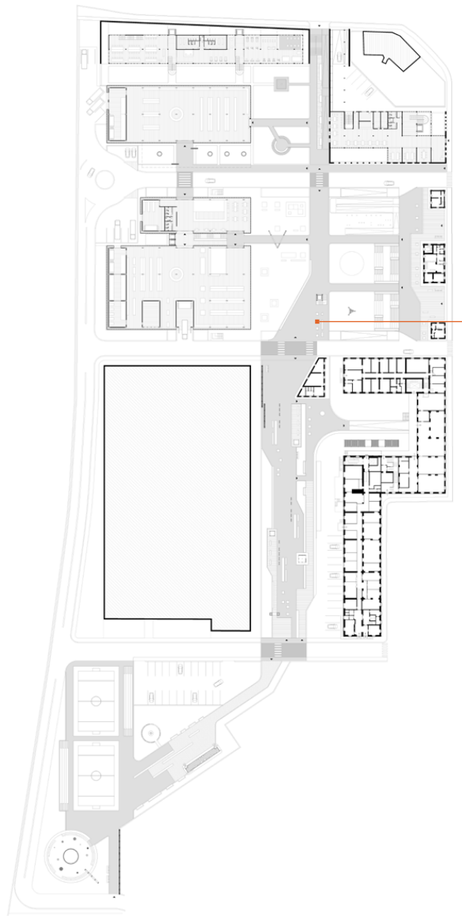
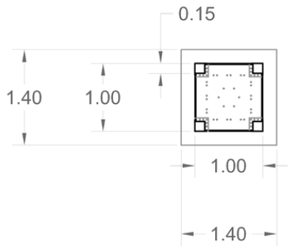
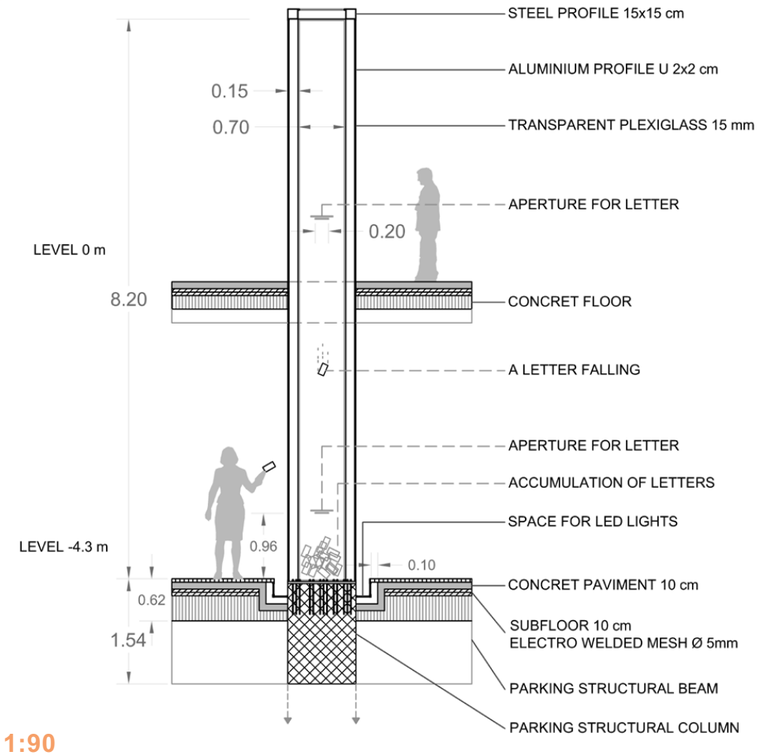




Fig. 105.



PLAN / 1:90



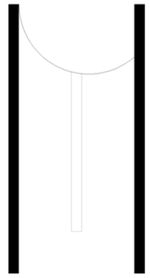
SECTION / 1:90

INTEGRATIVE PROMENADE - ARTIFACTS

MOMENTUM

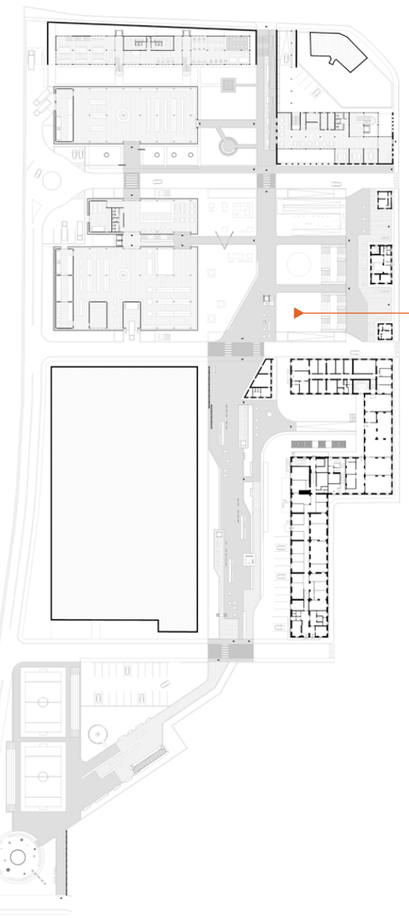
What?

Momentum is a contemplation sculpture that can be altered by visitors to the place through crank mechanisms that allow different suspension moments to be created in the elements that hang from the top of the artifact. This sculpture welcomes visitors to the central square, generating a visual axis of reference in the new architectural proposal, and also conditions the dimensions of the public space where it is located, which can be used as a meeting space, social interaction, or observation of the sculptural piece.



Why?

Traditionally, public art sculptures are not elements that can be intervened or altered by observers, that is, they have a version programmed by the artist who designs them. Momentum is a sculptural proposal that allows visitors to vary the initial configuration of the piece to generate changes in the height of the suspended elements and, therefore, in the range of shadows that are projected on the floor. This artifact proposes to stimulate a new perception of public art that does not necessarily have to be static but can move or transform according to the intentions of the observer of the piece.



How?

The three 12 m high pillars would be made with round steel profiles 24.45 cm in diameter and 10 mm thick anchored with metal sheet and bolts to the parking level structural beams and columns of reinforced concrete. A net made of 5 mm diameter stainless steel wire and a maximum resistance of 300 kg would be placed on the upper part of these profiles, with a mobile anchor in the upper part of the three pillars through an opening that allows the passage of the wire. The anchor cable has a maximum fixed suspension moment but can be changed with 3 cranks located on each pillar in the lower part at 1 m high, making it possible for people to move the cables and create different moments in the curvature of the grid.

20 stones of different shapes and colors hang from this network, suspended with 5 mm stainless steel strands. 18 mm transverse metal rods with an eye bolt at the tip are additionally added to limit movement in the horizontal axis due to wind.

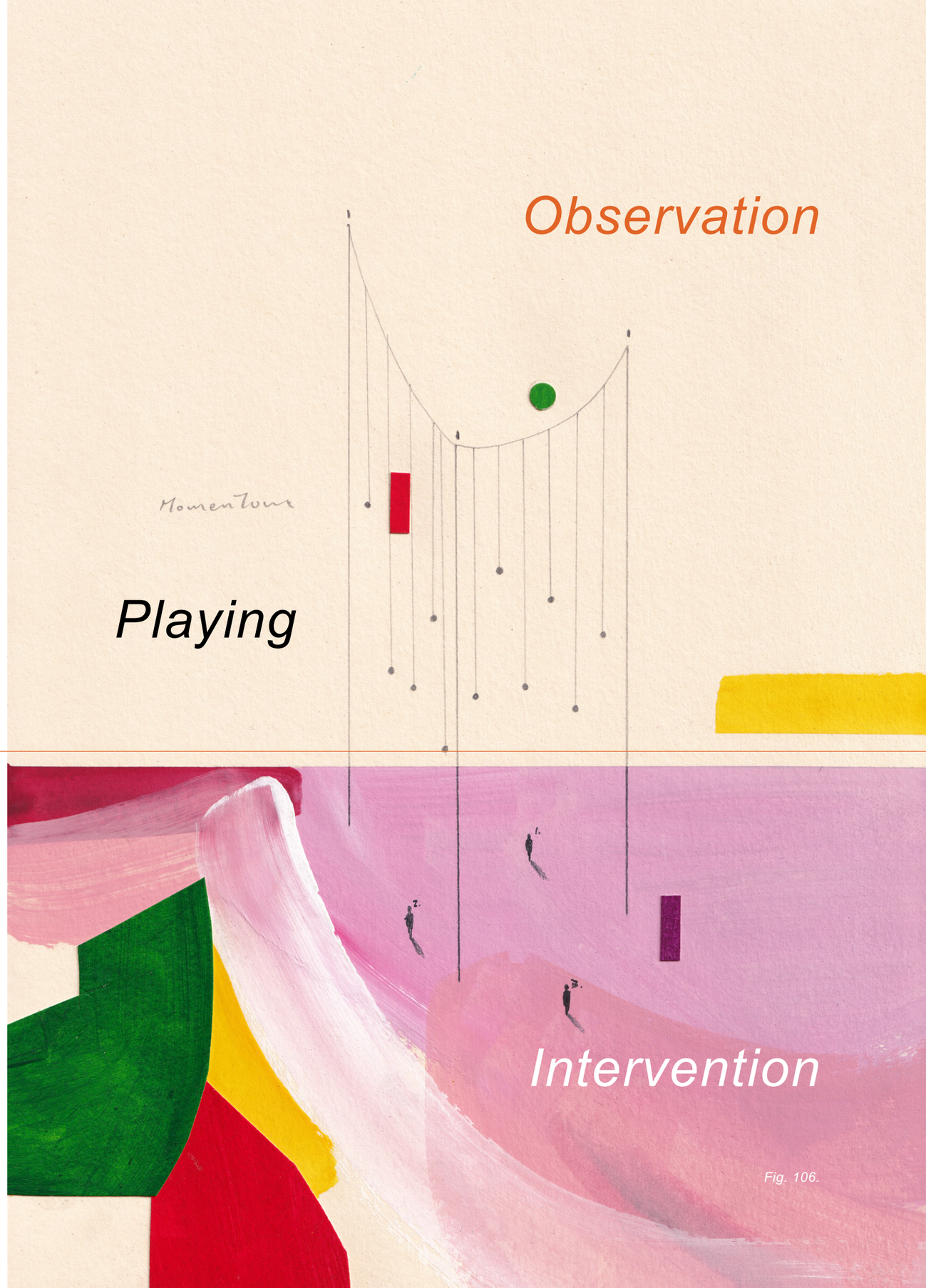
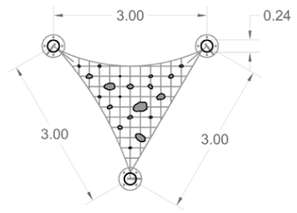
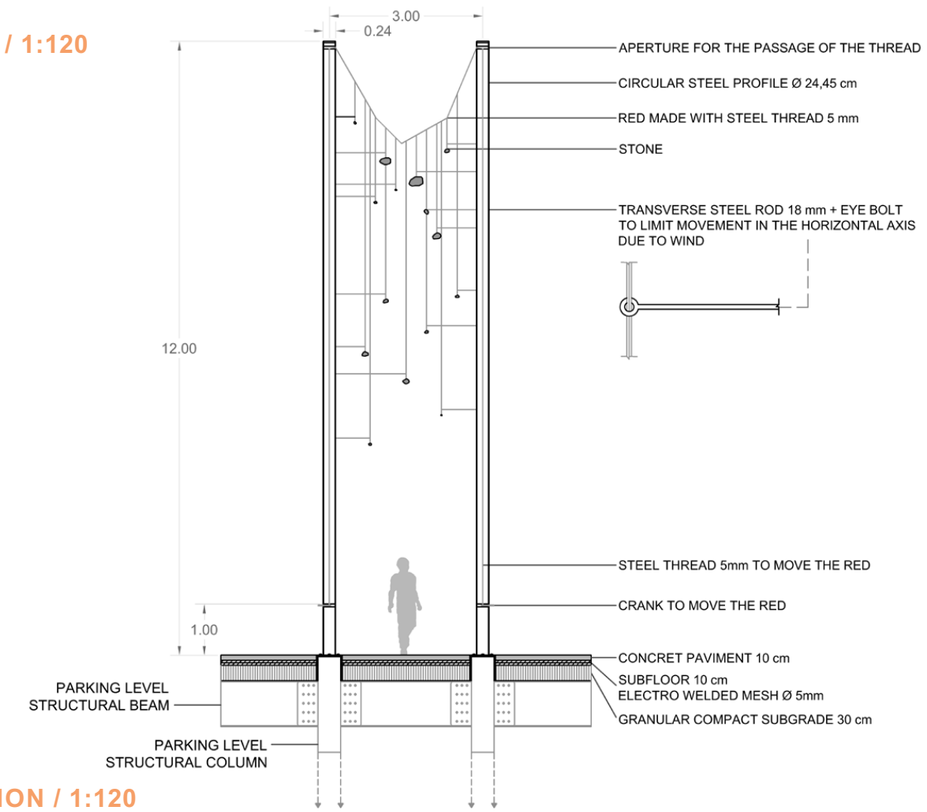


Fig. 106.



PLAN / 1:120

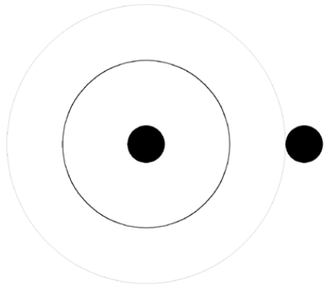


SECTION / 1:120

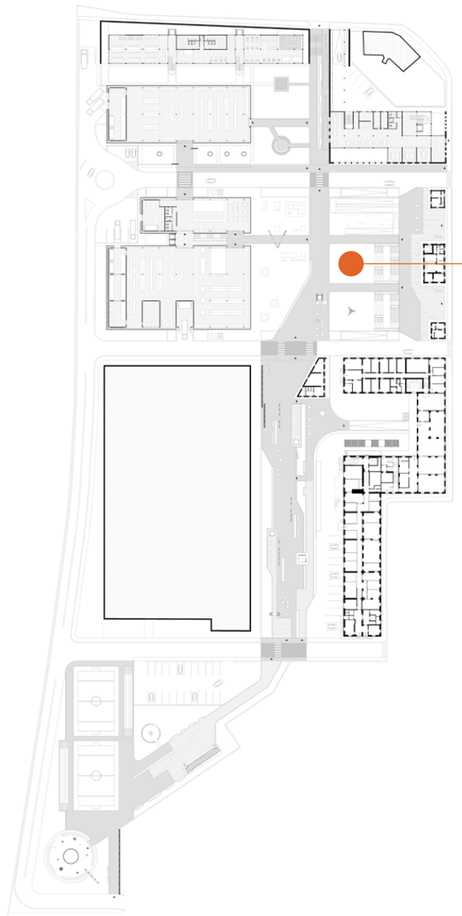
INTEGRATIVE PROMENADE - ARTIFACTS

EPICENTRO

What?
Epicentro is a circular area 5 m in diameter that rises 25 centimeters from the pavement to create a stage surface that can be used mainly for theater, dance, and short-term recital activities. Its shape, centrality, and edges allow a 360-degree perception for both the artist and the viewer during the performance. Recalling the stage scenarios of antiquity, this space is an important point within the proposal because it transgresses the dimension of the project and creates a different virtual space, configuring a theatrical atmosphere with the heritage buildings as scenographic elements.



Why?
Small-scale shows of performing arts such as theater, dance, and music, usually take place in urban spaces in an improvised manner without an area really prepared for the enjoyment of the show, for this reason, this surface is proposed within the central square where the artists can temporarily appropriate the place to carry out their presentations within the spatial configuration of this public space, which also has stands and bridges that function as seats and balconies for the public watching the performances.



How?
The platform would be made with concrete poured directly on the pavement, creating a groove on the perimeter of the shape with 20 cm depth and 20 cm height, to place a line of LED light under the edge that can be turned on during a presentation in night hours.

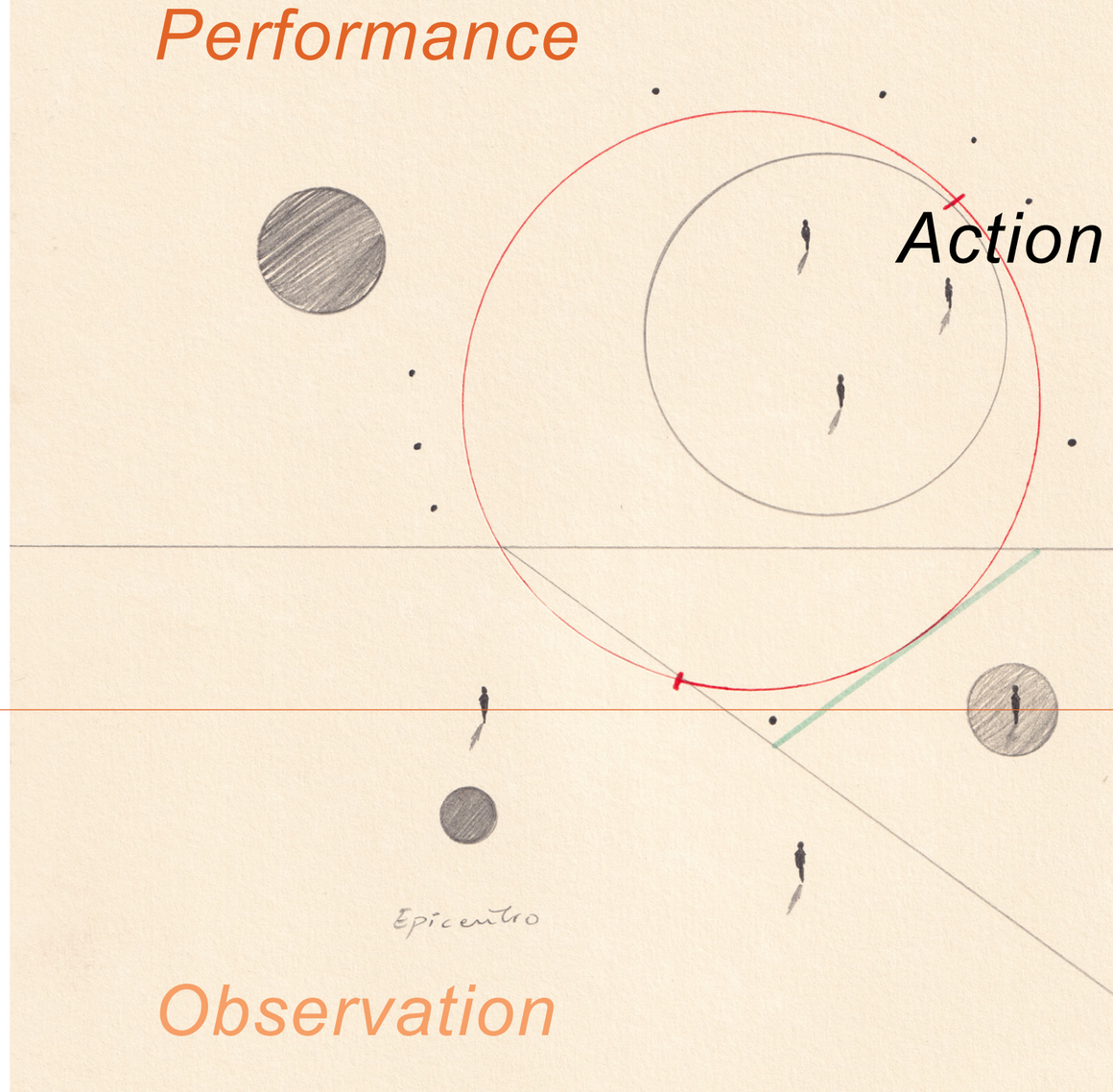
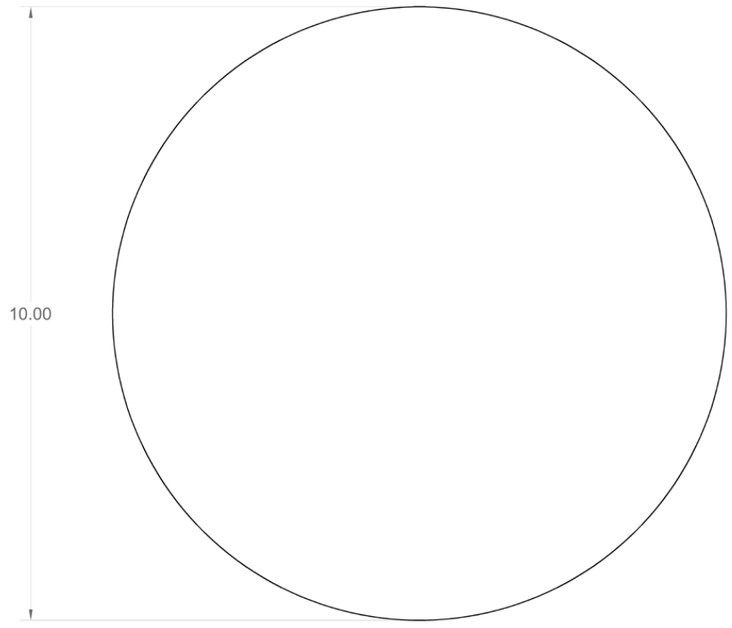
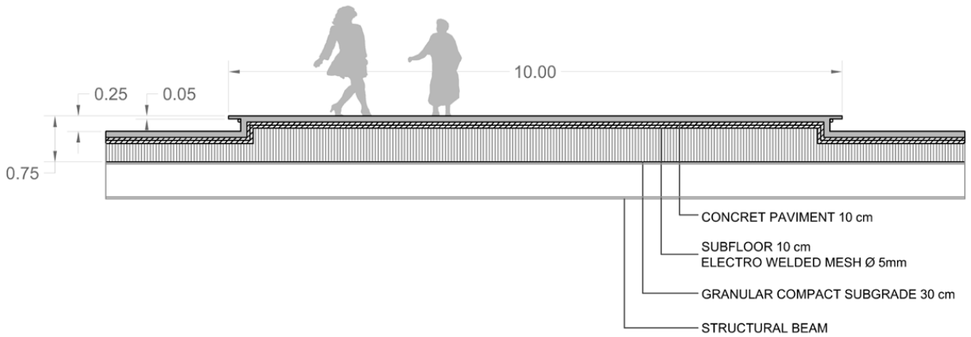


Fig. 107.



PLAN / 1:100



SECTION / 1:100

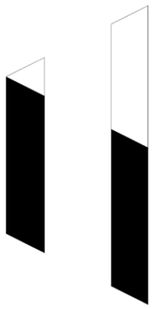
INTEGRATIVE PROMENADE - ARTIFACTS

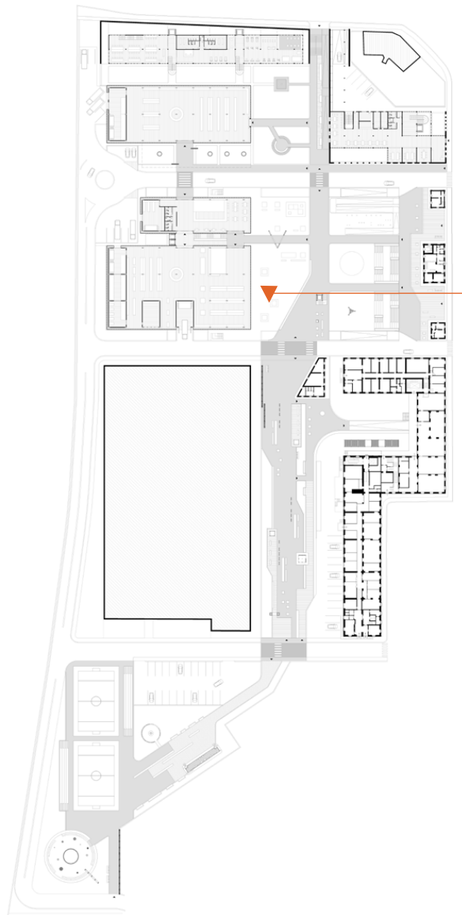
THE FOLD

What?
The Fold is a sculptural structure located in the central square that supports part of the access bridge to the commercial volume of the project, establishing itself in the new promenade as a predominant portico and a visual landmark of the proposal that fulfills a hybrid function between structure and artwork.

Why?
For some project solutions, it is possible to link criteria that allow generating two different but complementary results, as is the case of this piece. Its location, scale, and structural function reveal the possibility of generating solutions to particular situations within the project without losing the main discourse of creating a public space integrated with pieces of art. The objective of this piece is to establish itself as a dominant landmark in the new landscape that can be identifiable and memorable as part of the image of this urban regeneration project.

How?
The supporting structure would be made with tubular steel pillars with a circular section of 323x6 mm connected with metal sheet and bolts to the parking level column axis. The structural frame can be completed with transverse beams of square steel profiles with a section of 300x300x6 mm. The structural shape would be covered with a 1 - 1.5 mm thick metal sheet with a rust-effect finish.





Observation

Landmark

Utility

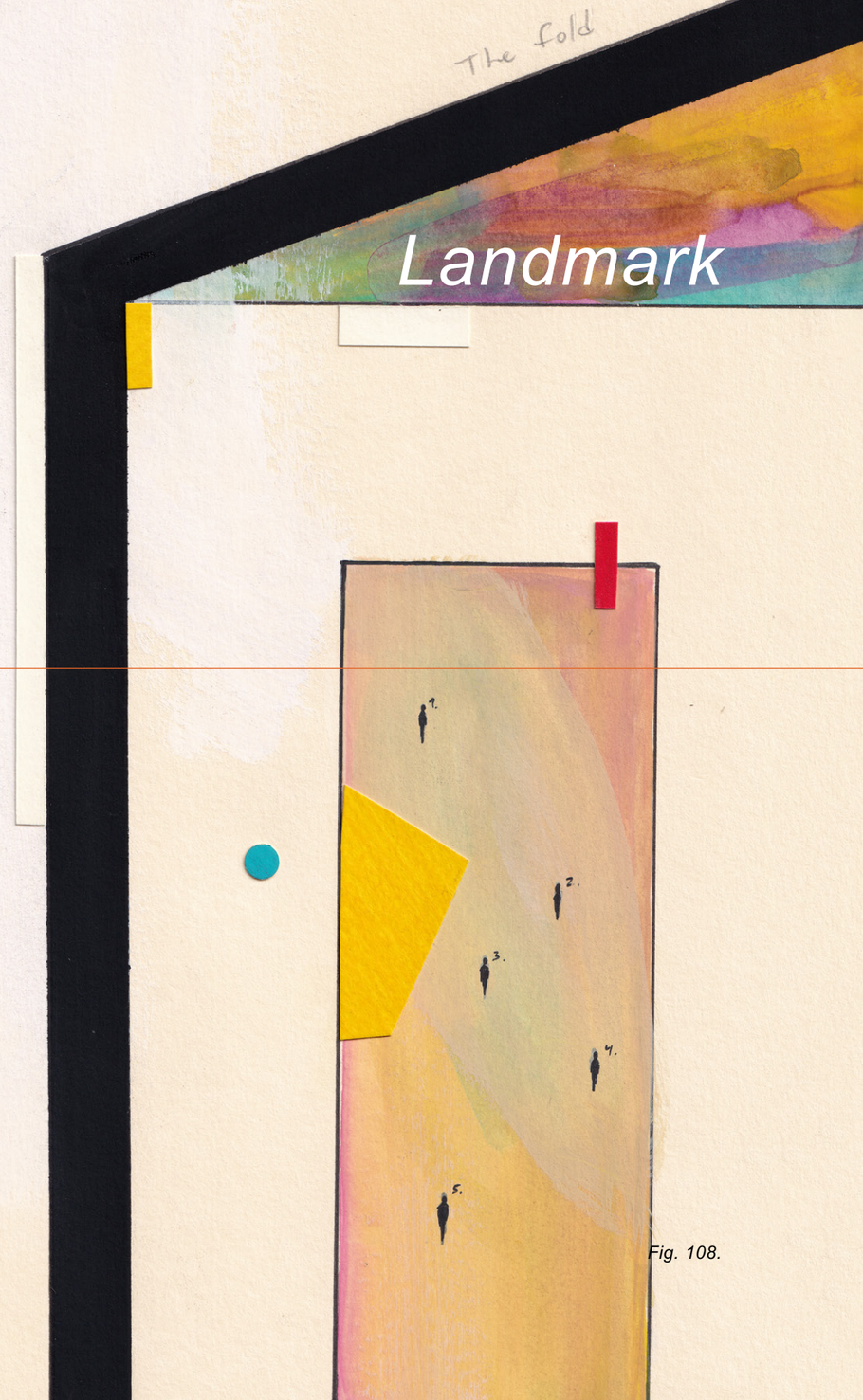
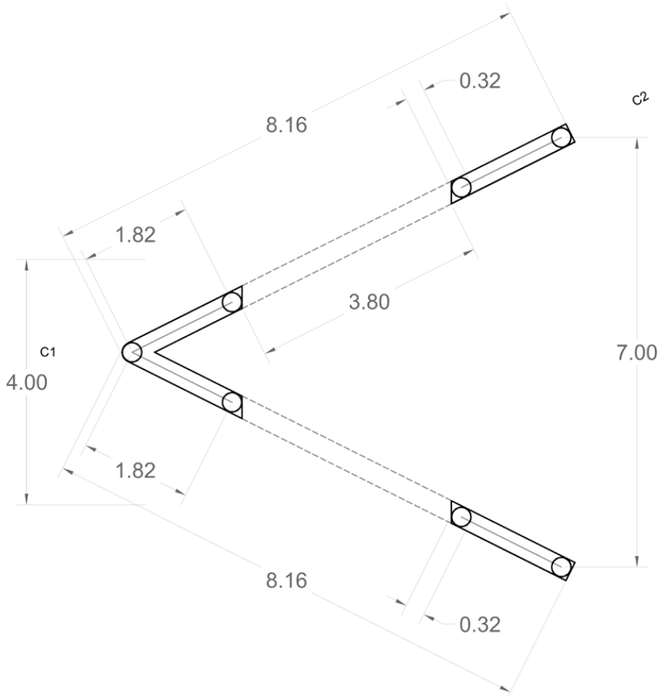
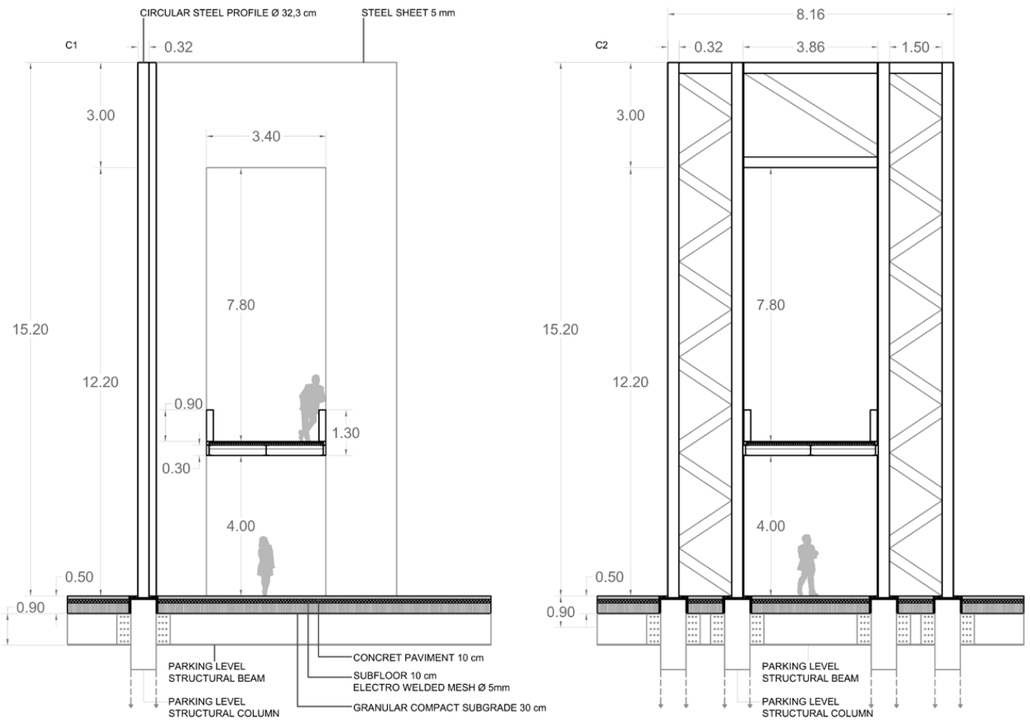


Fig. 108.



PLAN / 1:100



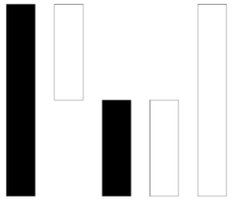
SECTION / 1:175



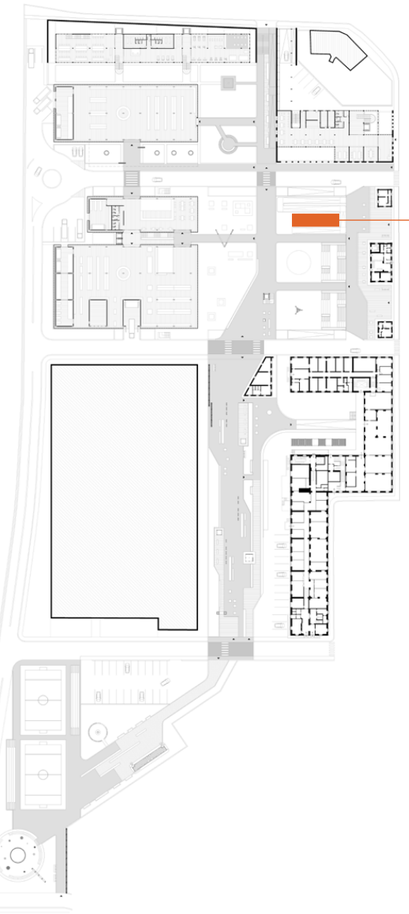
INTEGRATIVE PROMENADE - ARTIFACTS

FRAGMENTS

What?
Fragments is a series of pedestals with square and cylindrical sections made of heavy material that is located within a space delimited by the main ramp of the central square of the project, generating an area for exhibition and observation of sculptural works by other artists, being at the same time the series of pedestals a three-dimensional composition on the surface of the square.



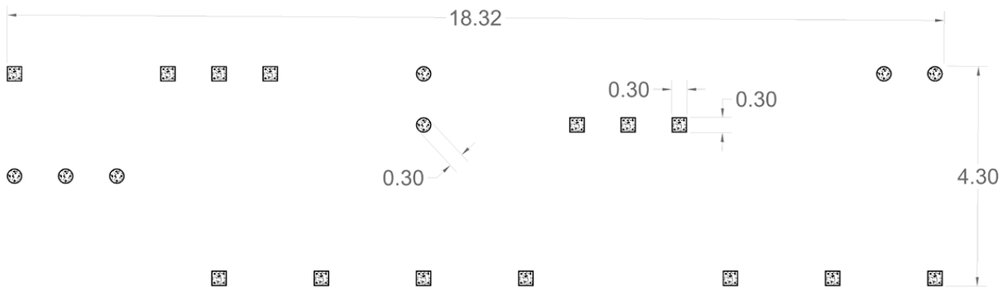
Why?
The possibilities for exhibiting sculptures in the public space of a city are limited, especially due to the material resources that need to be available for the placement of the works. This three-dimensional composition of pedestals offers the necessary basis for a sculptural art exhibition without the need to add additional elements, making it easier for artists to stage a temporary exhibition in an area that benefits from being surrounded by a ramp that connects with main access to some parts of the project. This link between an art exhibition and a ramp route is very common in some museums around the world (Guggenheim Museum, New York; MACBA, Buenos Aires; new ramp of Vatican Museums, Rome; Tamayo Museum, Mexico City), and in this proposal is exemplified what the result of doing it in an open public space would be.



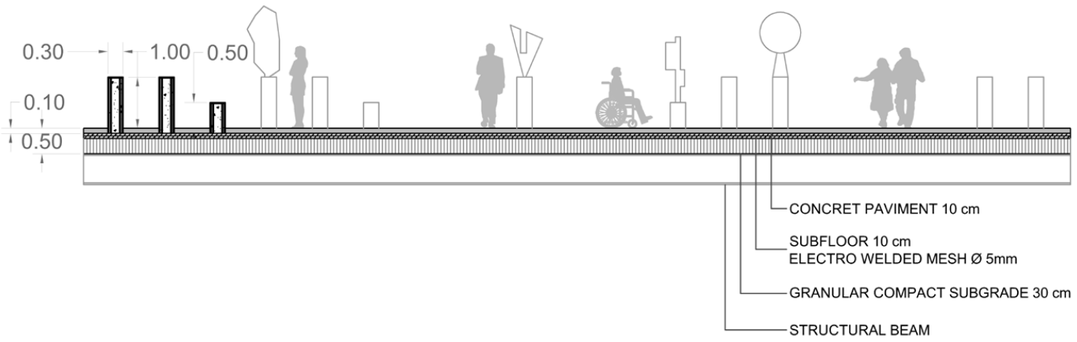
How?
The pedestals are made of reinforced concrete, prefabricated in square and cylindrical section moulds, then embedded in the flooring in a 10cm deep groove using metal anchor bolts and a cast layer of concrete to secure them.



Fig. 109.



PLAN / 1:120



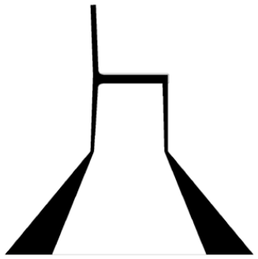
SECTION / 1:120

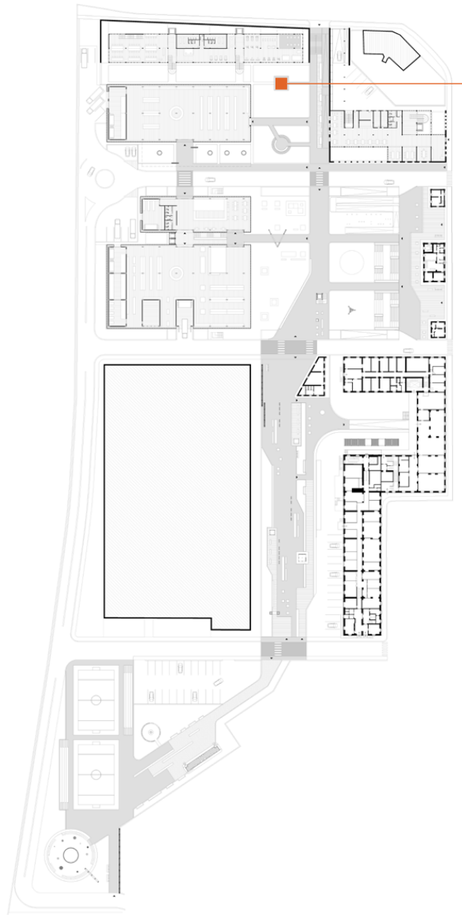
INTEGRATIVE PROMENADE - ARTIFACTS

ABSENCE

What?

Absence is a minimalist sculpture that recreates the loneliness of the migrant and the emptiness that remains in a chair, when someone leaves their place of origin. The empty chair represents absence, the place without an occupant, the constant memory that pulsates in everyday objects that act as memory activators. Water is an element of change, of movement but also a representation of the geography that is crossed to reach another place. The location in the project: the non-place, the unwanted occupation, the alienated individual who makes any place his home, whose presence is sometimes arbitrary or out of logic for the local inhabitants, can be the reason for an intense battle between occupying a position or go unnoticed.





Why?

This piece is linked to the discourse of migration and integration that is part of the social aspect of the San Salvario neighborhood, whose population is made up of different shades of ethnic diversity. With this sculptural proposal, materiality is given to a topic that is usually seen from a statistical point of view, leaving aside other factors related to empathy, solidarity, and understanding of the reality of the migrant. This piece attempts to arouse interest, doubts, and concerns around the topic of migration and integration, capturing the visitor's attention due to the arbitrary location within the project and the poetics of its simplicity.

How?

The sculpture is composed of two elements: the water pond, made with a basin concrete poured in place and prepared to hold the water with a layer of waterproofing plaster; the chair, made of wood and protected with a transparent waterproof sheath covering and waterproofing varnish to prolong its durability in water.

The water basin will have a useful slope (1%) to avoid water stagnation, and a hydraulic system to: ensure water exchange; avoid overfilling in case of rain.

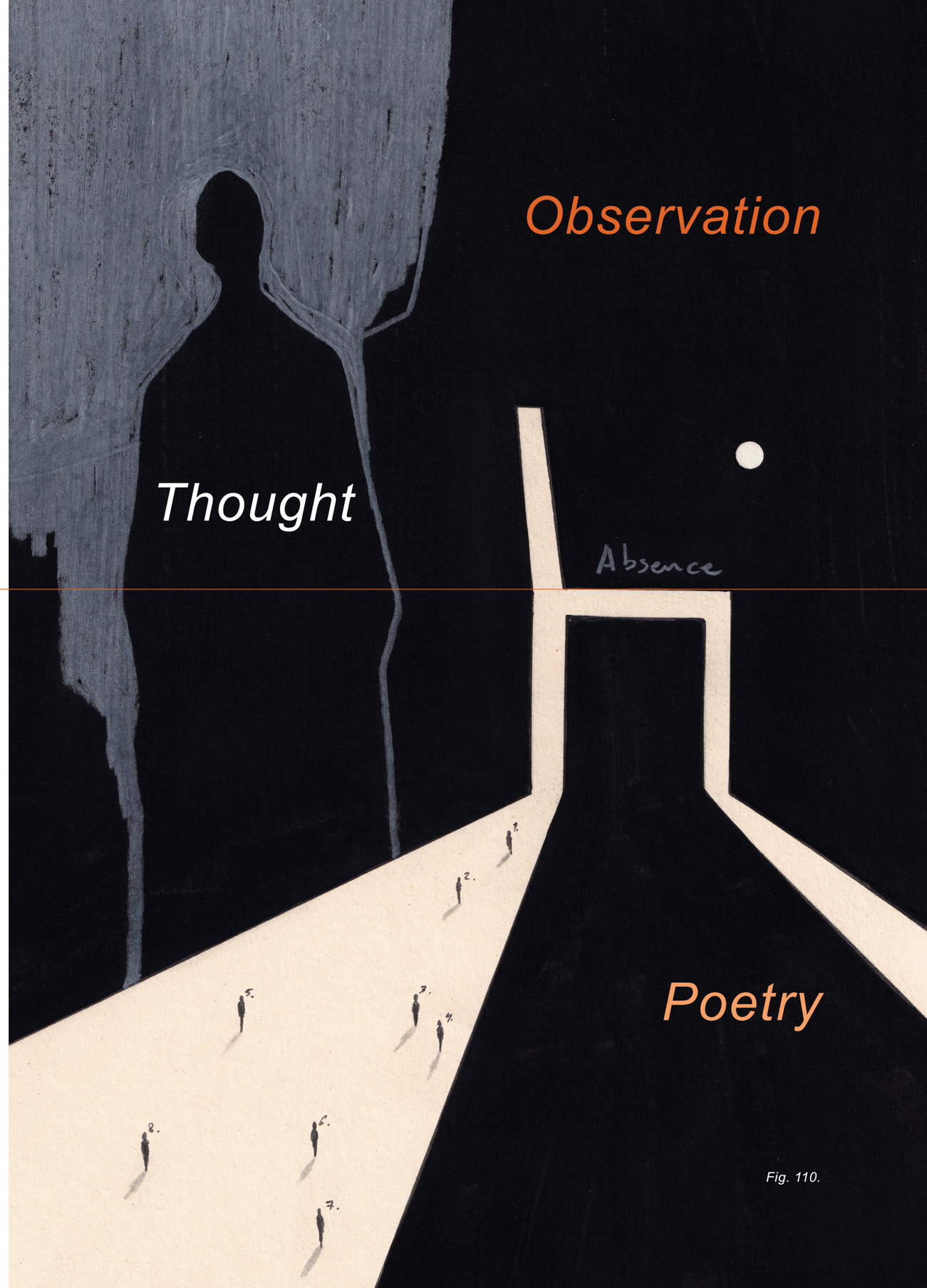
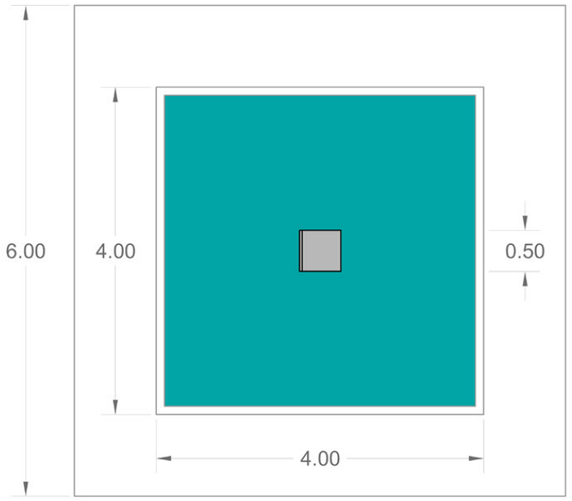
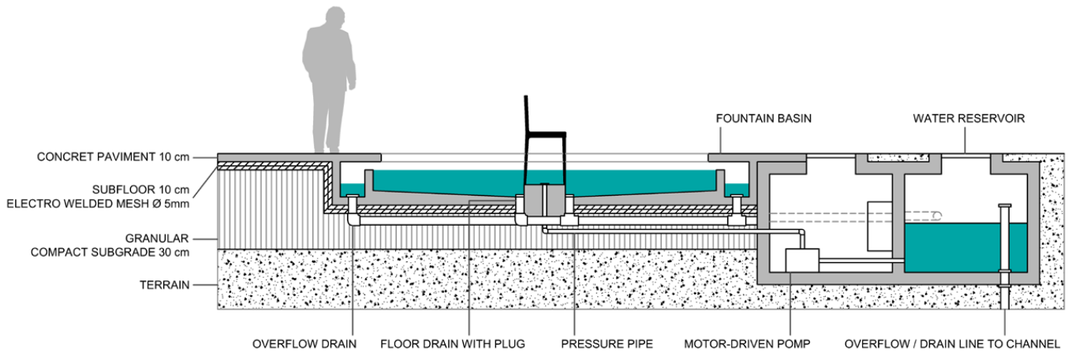


Fig. 110.



PLAN / 1:75



SECTION / 1:75

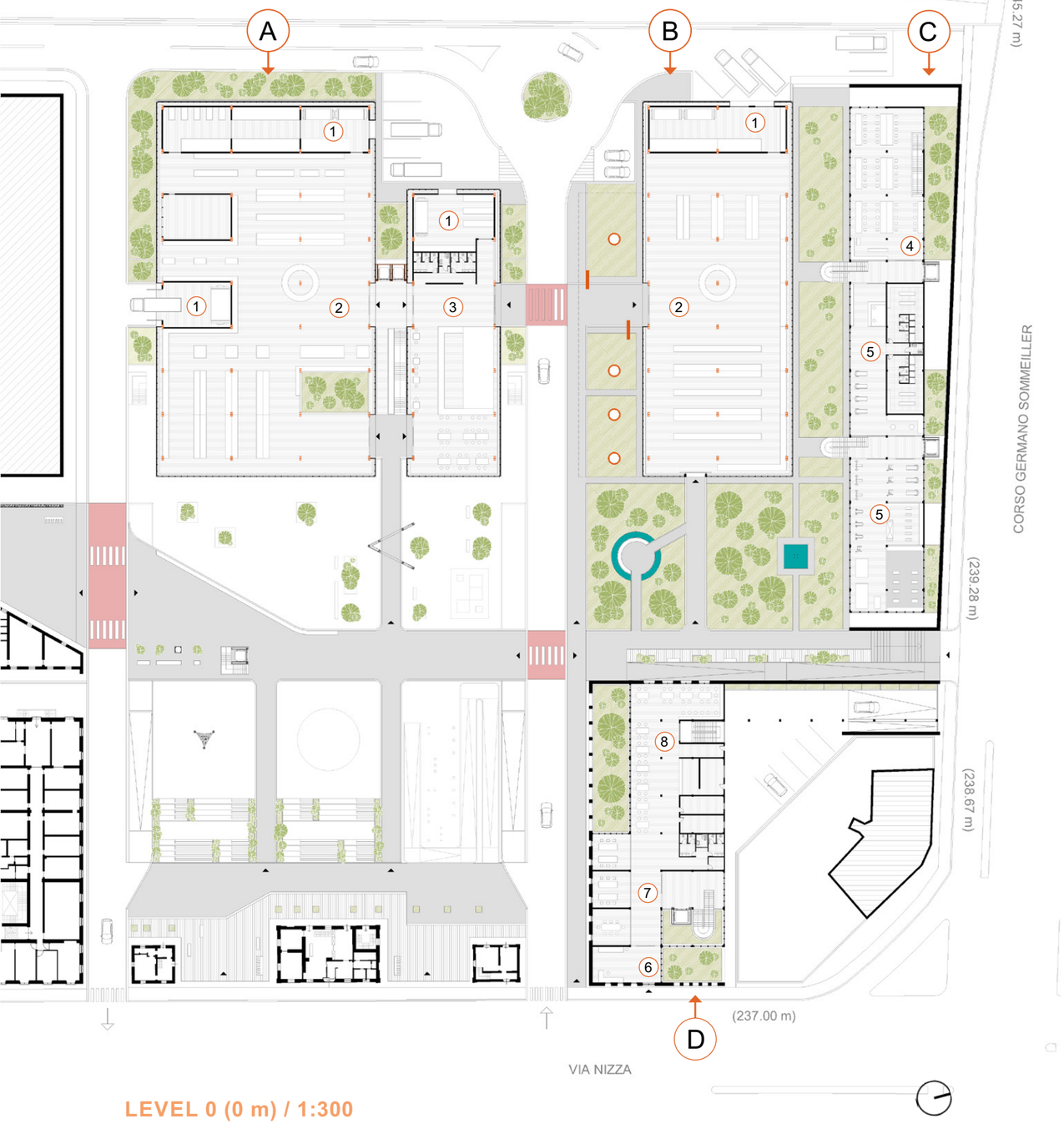


COMMERCE + RESIDENCES BUILDINGS



COMMERCE + RESIDENCES BUILDINGS

PLANS



LEVEL 0 (0 m) / 1:300



COMMERCE

For commercial use are proposed 2 volumes that can house from large stores such as supermarkets to retail stores as boutiques. Volumes A and B are connected by a transition volume that protrudes from volume A, intended to be a place for food fair in the middle of the commercial route. On Level 1, the connection between volumes A and B happens through an outdoor terrace walkway with available seating. All commercial areas have loading docks. Volumes A and B have interior gardens and are surrounded by green areas. Vertical circulation occurs with stairs and elevators and it is possible to access directly from the parking level.

VOLUME A

1. Loading Docks
2. Large Store
3. Food Fair

VOLUME B

1. Loading Docks
2. Large Store

VOLUME A - AREAS

Terrace A
2.910 m²
Terrace A-B
162 m²
Floor 1 Commerce
2.910 m²
Floor 0 Commerce
2.910 m²
Floor -1 Commerce
1.910 m²
Total
10.801 m²
Only for Commerce
7.730 m²

VOLUME B - AREAS

Terrace
1.440 m²
Floor 1 Commerce
1.440 m²
Floor 0 Commerce
1.440 m²

Total
4.320 m²
Only for Commerce
2.880 m²

RESIDENCE

The residential areas have been projected in volumes C and D to complete the urban edge of the intervention area and generate the facades towards Corso Sommeiller and Via Nizza, establishing a dialogue with the context through materiality. The proposed buildings have varied services that complement the room floors. The planned services include study rooms, coworking spaces, a gym, a university dining room, and meeting rooms. The room proposal is varied, intended for students (Volume C) and also temporary workers (Volume D).

VOLUME C

4. Study Room
5. Gym

VOLUME D

6. Hall
7. Coworking Area
8. Lunch Area

VOLUME C - AREAS

Floor 4 Residence
675.60 m²
Floor 3 Residence
970 m²
Floors -1, 0, 1, 2 for Services
1.415 m² every floor

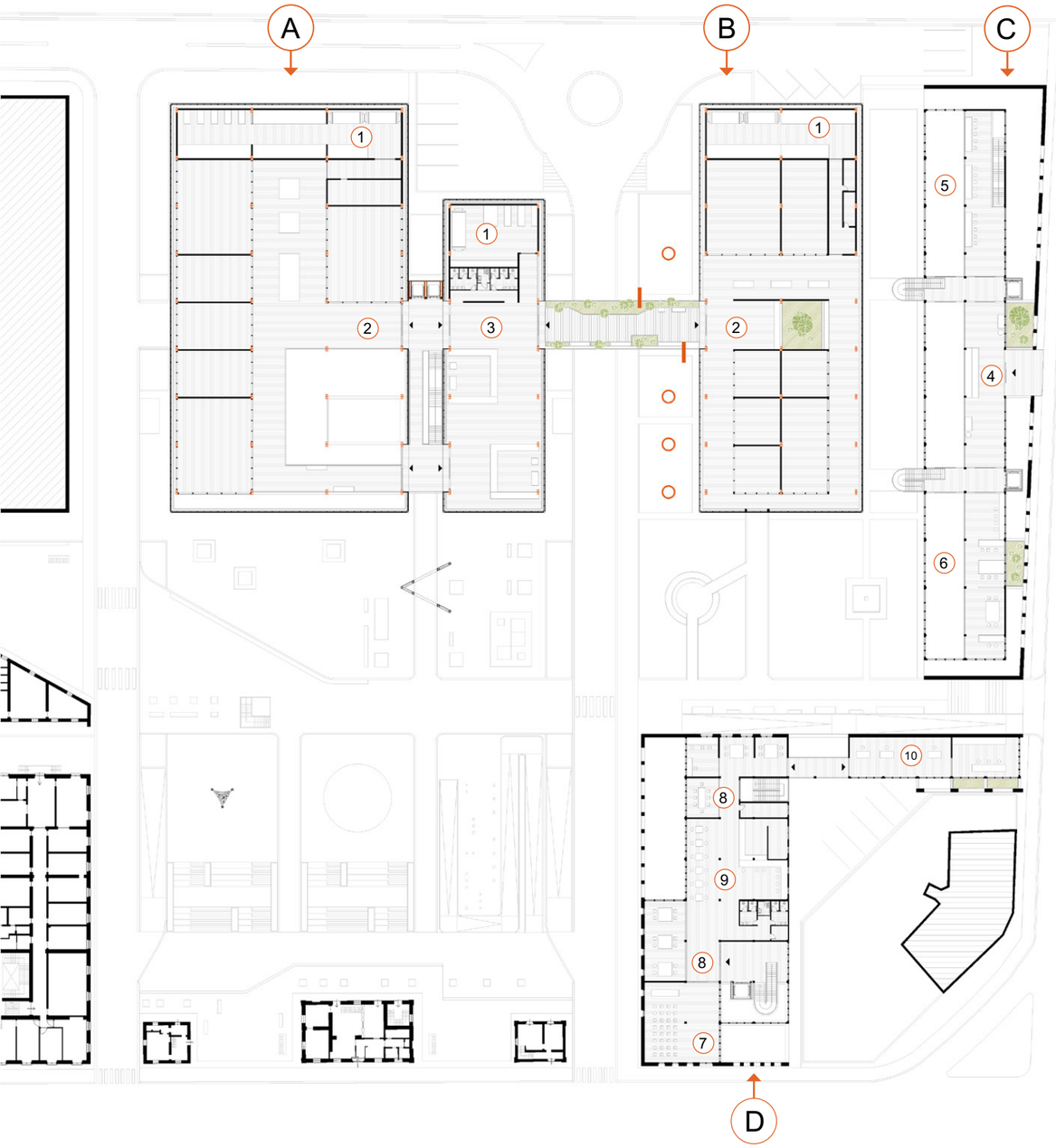
Total
7.305 m²
Only for Residence
3.060 m²
Only for Services
4.245 m²

VOLUME D - AREAS

Terraces
85.76 m²
Floors 3, 4, 5 for Residence
724.70 m² every floor
Floor 2 Residence
1.309 m²
Floor 1 Services
1.309 m²
Floor 0 Services
1.054 m²
Total
5.932 m²
Only for Residence
3.483 m²
Only for Services
2.363 m²

COMMERCE + RESIDENCES BUILDINGS

PLANS



LEVEL 1 (+5 m) / 1:300

FACADES

VOLUMES A + B

The facades are designed with a standard curtain wall layer but with the possibility of generating a variant in the closed internal spaces to obtain a double facade, this would allow better performance in terms of thermal and acoustic insulation. By not generating a double façade throughout the total volume, savings can be made in materials in those areas where the empty volume is greater than the volume of the double façade, thus specifying the areas where a particular adaptation of the cladding interacts with the internal spaces.

The selection of this facade typology is in harmony with the structural system that has been selected for this project, connecting with specific anchors in the larger structure to support the self-supporting structure of the curtain wall, creating a separation between the external skin and the paved slabs allowing air circulation throughout the total volume. Another reason for choosing this type of facade is the aesthetic result achieved. Considering the past of the intervention site as a goods warehouse and logistics area, the new translucent volumes draw large containers/warehouses in the landscape, revealing volumes/boxes inside in an intentional narrative that recreates the place's old uses.

COMMERCE (A)

1. Loading Docks
2. Retail Store
3. Food Fair

COMMERCE (B)

1. Loading Docks
2. Retail Store

RESIDENCE (C)

4. Hall
5. Study Room
6. Coworking Area

RESIDENCE (D)

7. Conference Room
8. Coworking Area
9. Cafeteria
10. Offices

COMMERCE + RESIDENCES BUILDINGS
PLANS



LEVEL 2 (+10 m) / 1:300

COMMERCE (A)

1. Terrace
2. Bar/Cafeteria

COMMERCE (B)

3. Terrace for student housing

RESIDENCE (C)

4. Kitchen
5. Dining Room

RESIDENCE (D)

6. Bedooms Area
7. Coworking Offices

TERRACES
VOLUMES A + B

The commercial volumes have outdoor terraces protected by multifunctional covers (with solar panels, rainwater collection, and pergolas). These terraces also have green areas of medium and low substrate that serve to improve the quality of the space and as a green ornament. The Volume A terraces are designed to be accessible to commercial area visitors, who can access them directly with stairs or elevators.
In this terraces portion, there is a bar/ cafe with views to the railway tracks. The Volume B terrace is not accessible from the commercial areas because it is only linked to the university dining room of the student residence, thus providing an extra recreational space to the proposed residential unit. Both terrace areas have furniture such as benches and could be used for events.

FACADES
VOLUMES C + D

The facades of the buildings intended for residences are designed taking as reference the presence of brick walls in part of the area's current perimeter. The wall that is currently located on the edge of Corso Sommeiller is conceptually extended vertically and becomes the new project façade. The new brick wall is a perforated surface with a regular rhythm that completes the street urban edge, while the openings in the wall reveal from Corso Sommeiller the second skin of the internal façade that covers the residential volume designed in metal and glass. The internal separation of the two façade skins generates a condition of a *"protective shell"* with a vertical void, which is used for gardens, both on the ground and in trays that rise in height to relate every level of the building with natural elements.

Towards the interior of the site, the residences are integrated into the materiality of the rest of the project with the application of a unique facade in glass and metal. The layers of the external façade establish a dialogue between the tectonic –glass and metal– and the stereotomic –brick–, highlighting the idea of combining the presence of new technologies with the place's historical memory through materiality. Between the two material layers, natural elements complement the functionality of these decisions: protecting the residential volumes from heat and external noise coming from the busy streets around the area.

The brick wall is also applied in the residential volume in front of Via Nizza, and in this case, the dialogue with the immediate context is evident, especially by the perforations pattern similar to the facades openings of Ex Scalo Vallino's historic buildings. This volume also expresses several layers of materials on the façade, but with a little more distance, also integrating ground and vertical gardens on every level. While the wall façade on Corso Sommeiller creates the new urban edge of the street, on Via Nizza the construction of the new walls harmonizes the site's front facade in dialogue with the pre-existing place's aesthetic.

COMMERCE + RESIDENCES BUILDINGS

PLANS



LEVEL 3 (+13.5 m) / 1:300



HOUSING SOLUTIONS



TYPE 1 / 13.60 m²

IDEAL FOR **1** STUDENT



TYPE 2 / 28.30 m²

IDEAL FOR **1** WORKER



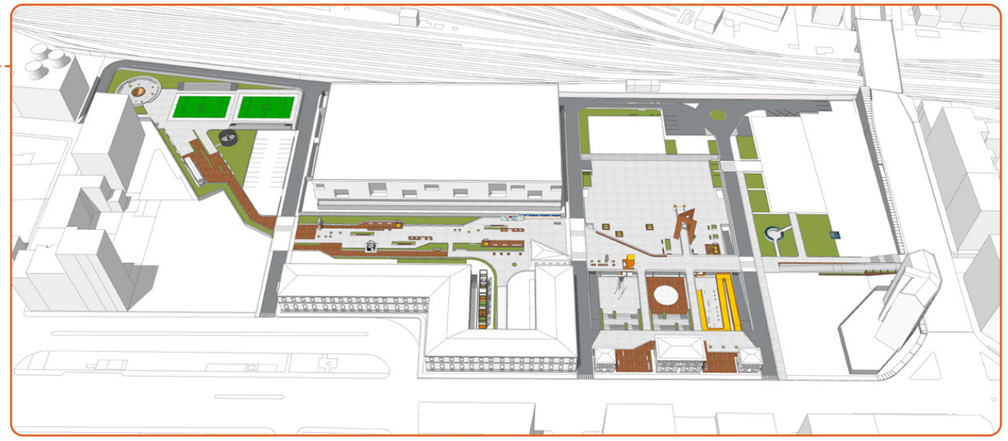
TYPE 2 / 39 m²

IDEAL FOR **2** STUDENTS

PROJECT STAGES

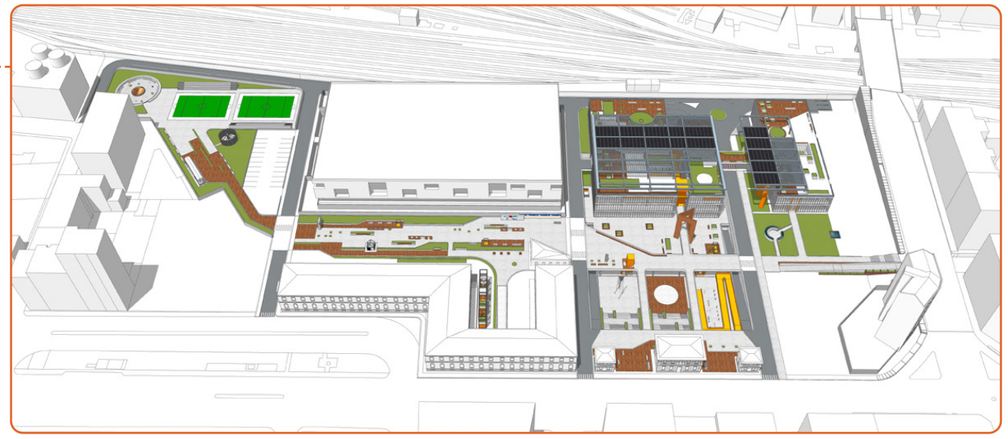
INITIAL TERM

The project's first stage would be focused on the underground parking lots construction, the public space with green areas, and the limits for the construction of the other proposal volumes. At this stage, the Edificio Storico 8's underground floor recovery can also begin for its later use as a community art gallery and also the restoration and use of the triangular-shaped building that would function as a bar/cafe to serve the promenade public space.



MID TERM

The project's second stage execution would have as main objective the commercial volumes completion to begin the place's economic activation. At this stage all the artifacts should also be located in the public space.



LONG TERM

The project's last stage would be completed with the residential units construction. By this stage the project would have a finalized image and should be fully functioning. The public space should already have local promotion and the total impact of the project could be evaluated.



CONCLUSIONS

Urban regeneration processes can **recover empty areas** within the fabric of cities, turning them into spaces for the development of new activities and uses. Some of these transformation processes are carried out with the premise of generating a notable economic gain in the smallest possible area, and this variable usually displaces other **aspects that concern the city**, for example, open, inclusive, and stimulating public spaces.

The city is a configuration of built matter and human interactions, where people can carry out their daily activities, access services, and personal development. Within these dynamics, **recreation** and **social contact** activities play a determining role in the construction of **a more connected society,** and the consolidation of a **recognizable local identity.** These considerations guided much of the completion of this thesis, and proposal design for Ex Scalo Vallino's recovery.

Ex Scalo Vallino is an **urban void** with an important location within **San Salvario's urban fabric.** It is a large urban area, and it has a history and **memory** of **abandonment** that has lasted many decades. For this reason, any project that can be carried out within this area should consider the site's memory, its environment, its impact within the residential zone, and above all, the possibility of generating an **open urban space** of great importance for the **community**. It would function as a catalyst and articulator, between what exists, what is new, and the future.

In the architectural proposal, some hypotheses were outlined for the design of new **commercial** and **residential** units, the use of technologies to comply with **environmental sustainability** guidelines, and the hisorical building restoration and reuse. However, in conclusion, the Ex Scalo Vallino area's recovery could achieve its true **activation as an urban center** with the proposal of a surface destined for **public space** with diverse functions, either as the hypothesis of **creative activities** presented in this thesis, or any other use that would promotes citizen participation in **place-making actions.**

For the Ex Scalo Vallino's recovery, it is important to consider the **historical heritage buildings**, and the role of the area's **inhabitants** and **visitors**. As it is a renovation project, the site's image will change, and this requires a phase of **recognition** by the population that frequents the area. The architectural proposal alone will not generate a total integration with the **pre-existing** and the city. People will play a determining role in the **transition phase** from **non-place to place.**

Today, Ex Scalo Vallino is a non-place. A void with a **historical memory** but without a real **identity.** A new project on this site requires a **stimulating proposal** to spark interest, and especially, so that people can activate the site as a place. The **new place's identity** will be defined by the people, by the community, who must to **appropriate** the new public space to configure the new place.

The new place **integration** with the **city** will be a process of **physical connectivity** of the built spaces, and the establishment of new **social dynamics.** The construction of the city's image, and consequently, the new place's image, is an urban, economic, political, social, and cultural process.

Considering the situation of Ex Scalo Vallino's as an **urban void,** and the process it must go through to achieve its **transformation,** it does not differ much from a **social integration process.** Ex Scalo Vallino *-the void, the individual, the person-,* separated from the city *-the alienation, the exclusion, the non-binding-.* For its **development** it must adapt and be adapted by the **environment,** to consolidate the essential dynamics for its **new identity** and **functioning.**

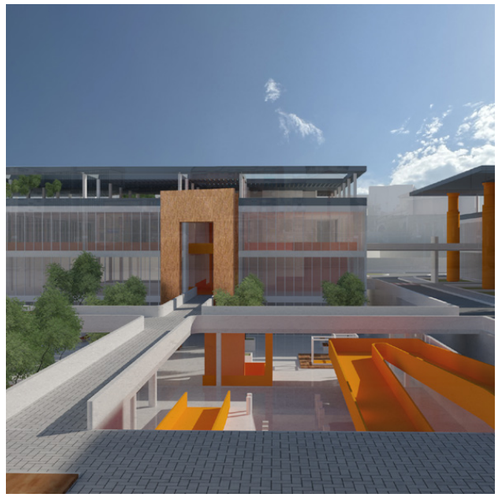
Contemporary cities need **public spaces** that respond to the **needs** of this generation and time. Public spaces that encourage **human contact** in a society that increasingly reduces **social interaction** to a like, a comment, a digital action. **Public art** can be an **activator** for new **social** and cultural **experiences** –as has been proposed in this thesis–, and would also helps to reduce the social exclusion gap on many levels.





Art has always been a tool for **human beings'** mental, social, economic, political, and cultural development. For this reason, the **integrative promenade** proposed in this thesis for the Ex Scalo Vallino's public space, has as its main function to carry out **creative activities.** In this sense, it can be mentioned that one of the **activation strategies** for the new urban space on this site could be consolidated through the implementation of **public art.**

Public art can help recover urban areas because it **generates** meeting points, **changes** the perception of urban dimensions, and **expands** the possibilities for social inclusion, through the exchange of ideas, experiences, and talents.



ART AWAKENS CREATIVE AND CRITICAL THINKING

ART GENERATES DEBATES AND MEETING POINTS

ART MANIFESTS THE DIVERSITY OF HUMAN BEINGS

With the **integration** of **public art** in the **urban proposal** to **regenerate** this void of Turin's city, a **laboratory** of constant **creative urban actions** would be established.

PUBLIC ART would help to define positive changes in the local identity, generating physical and social landmarks within the urban fabric.

EMERGING ARTISTS would be motivated to share their talent with the community.

PEOPLE would help to shape and activate the new public space dimension.

CITY would have a public space for a new generation, who will be able to connect with their environment because they will find a new inspiring urban surface around.











APPENDICES

IMAGES / PHOTOGRAPHS / MAPS

Fig. 1. Ex Scalo Vallino Area. Own ellaboration, 2023.

Fig. 2. Ex Scalo Vallino Area. Own ellaboration, 2023.

Fig. 3. Ex Scalo Vallino Area. Own ellaboration, 2023.

Fig. 4. Railway lines, Torino-Genova Route. Own ellaboration, 2023.

Fig. 5. Current state of Ex Scalo Vallino historical buildings. Own ellaboration, 2023.

Fig. 6. Lingotto railway station among non-urbanized areas, 1956 (Stazione ferroviaria Lingotto tra terreni vuoti, 1956). © Archivio Storico della Città di Torino. Retrieved August 8, 2023, from https://www.museotorino.it/view/s/b30570d972e740e585493c3665884d1a

Fig. 7. Porta Nuova station, view of the metal covering on the rail side (Stazione di Porta Nuova, veduta della copertura metallica lato rotaie). © Archivio Storico della Città di Torino. Retrieved August 7, 2023, from https://www.museotorino.it/view/s/9d35107137e24b878382ac486844ae6d

Fig. 8. Ex Scalo Vallino building offices in the entrance.Own ellaboration, 2023.

Fig. 9. Ex Scalo Lambrate, Milan. Imagery ©2023 Google, Imagery ©2023 CNES / Airbus, Maxar Technologies, Terra Bella, Map data ©2023. Retrieved from Google Earth.

Fig. 10. Ex Scalo San Paolo, Turin. Imagery ©2023 Google, Imagery ©2023 CNES / Airbus, Landsat / Copernicus, Maxar Technologies, Map data ©2023. Retrieved from Google Earth.

Fig. 11. Collage on page 33 with newspaper pages screenshots. Own ellaboration, 2023.

Fig. 12. Area Osi-Ghia, Corso Dante. Own ellaboration, 2023

Fig. 13. Edificio Storico 8, Ex Scalo Vallino, view from Via Nizza. Own ellaboration, 2023.

Fig. 14. Ex Scalo Lingotto, Palazzo della Regione Piemonte, and railway lines. Own ellaboration, 2023.

Fig. 15. A view looking north along the High Line from around 19th St. Photo by unknown photographer. Retrieved August 8, 2023, from https://www.thehighline.org/photos/historical/high-line-in-use-as-a-railway/

Fig. 16. San Salvario. Google Maps. Map data ©2023. Retrieved from Google Maps.

Fig. 17. Parco del Valentino. © Archivio Storico della Città di Torino. Retrieved August 4, 2023, from https://www.museotorino.it/view/s/9d35107137e24b878382ac486844ae6d

Fig. 18. Church and convent of San Salvario (Chiesa e convento di San Salvario). © Fondazione Torino Musei - Archivio fotografico. Retrieved August 4, 2023, from https://www.museotorino.it/view/s/afa9d039492b4ff8b4aa566dc1b9b148#

Fig. 19. Porta Nuova station. Photograph by Mario Gabinio, 1931 (Stazione di Porta Nuova. Fotografia di Mario Gabinio, 1931). © Fondazione Torino Musei - Archivio fotografico. Retrieved August 4, 2023, from https://www.museotorino.it/view/s/9d35107137e24b878382ac486844ae6d

Fig. 20. Fiat factory in Corso Dante (Stabilimento Fiat di Corso Dante). © Fondazione Torino Musei - Archivio fotografico. Retrieved August 6, 2023, from https://www.museotorino.it/view/s/d1f382eadfcb4ed2875165474526b47a

Fig. 21. The Corso Sommellier flyover as it was in 1906. It was demolished and rebuilt and widened in 1940. On the right: the Ferrato wood factory, demolished in the 1920s. On the left: the Vallino railway yard (Il cavalcavia di corso Sommellier com'era nel 1906. Venne abbattuto e ricostruito allargato nel 1940. A destra: la fabbrica di legnami Ferrato, demolita negli anni 20. A sinistra: lo scalo ferroviario Vallino). Unkown Author. Retrieved August 4, 2023, from http://www.atlanteditorino.it/zone/sansalvatore.html#Cavalcavia

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