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Abilities

Autocad	● ● ● ● ○
Archicad	● ● ● ○ ○
Revit	● ● ○ ○ ○
Rhinceros	● ● ● ○ ○
Twinmotion	● ● ● ● ○
Illustrator and Photoshop	● ● ● ● ○
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Languages

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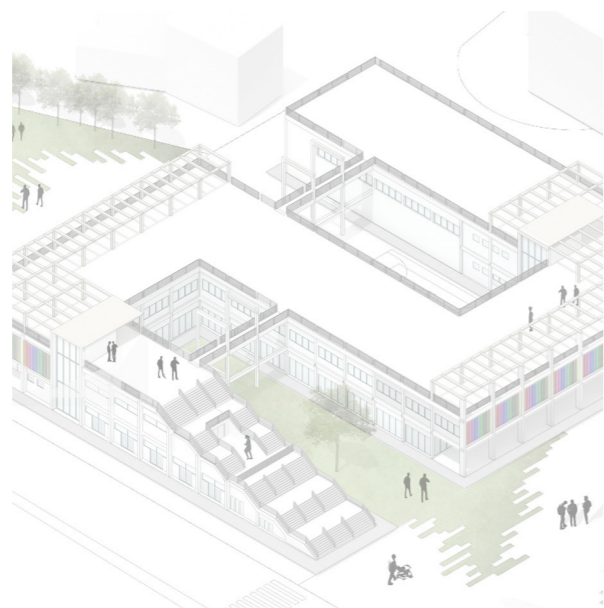
English - C1

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Spanish - A1

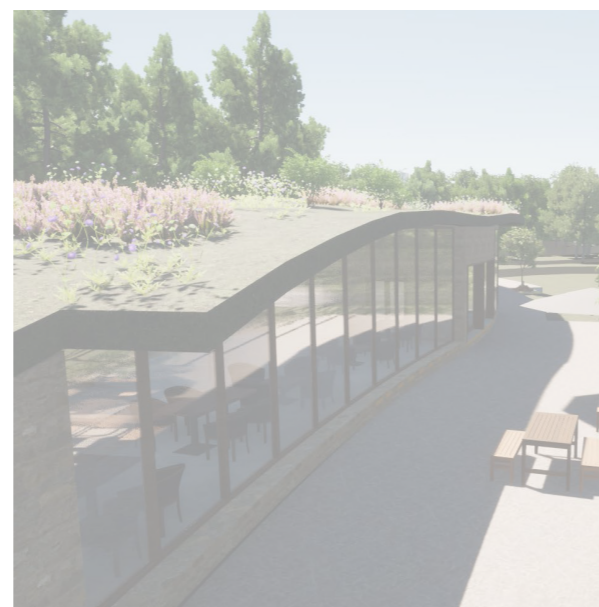
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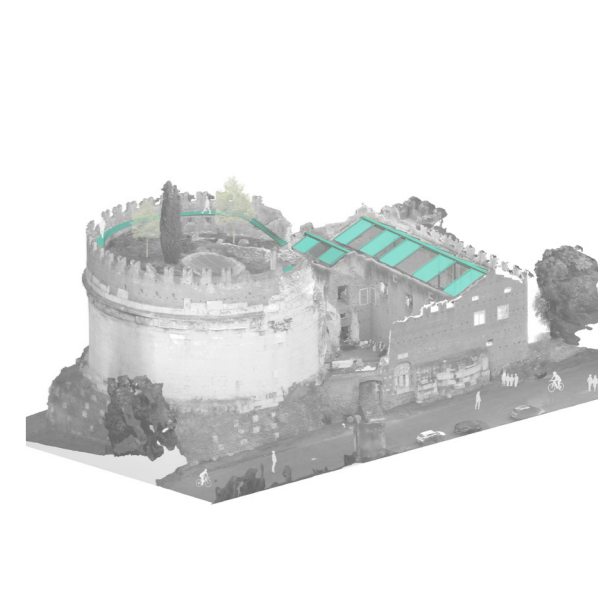
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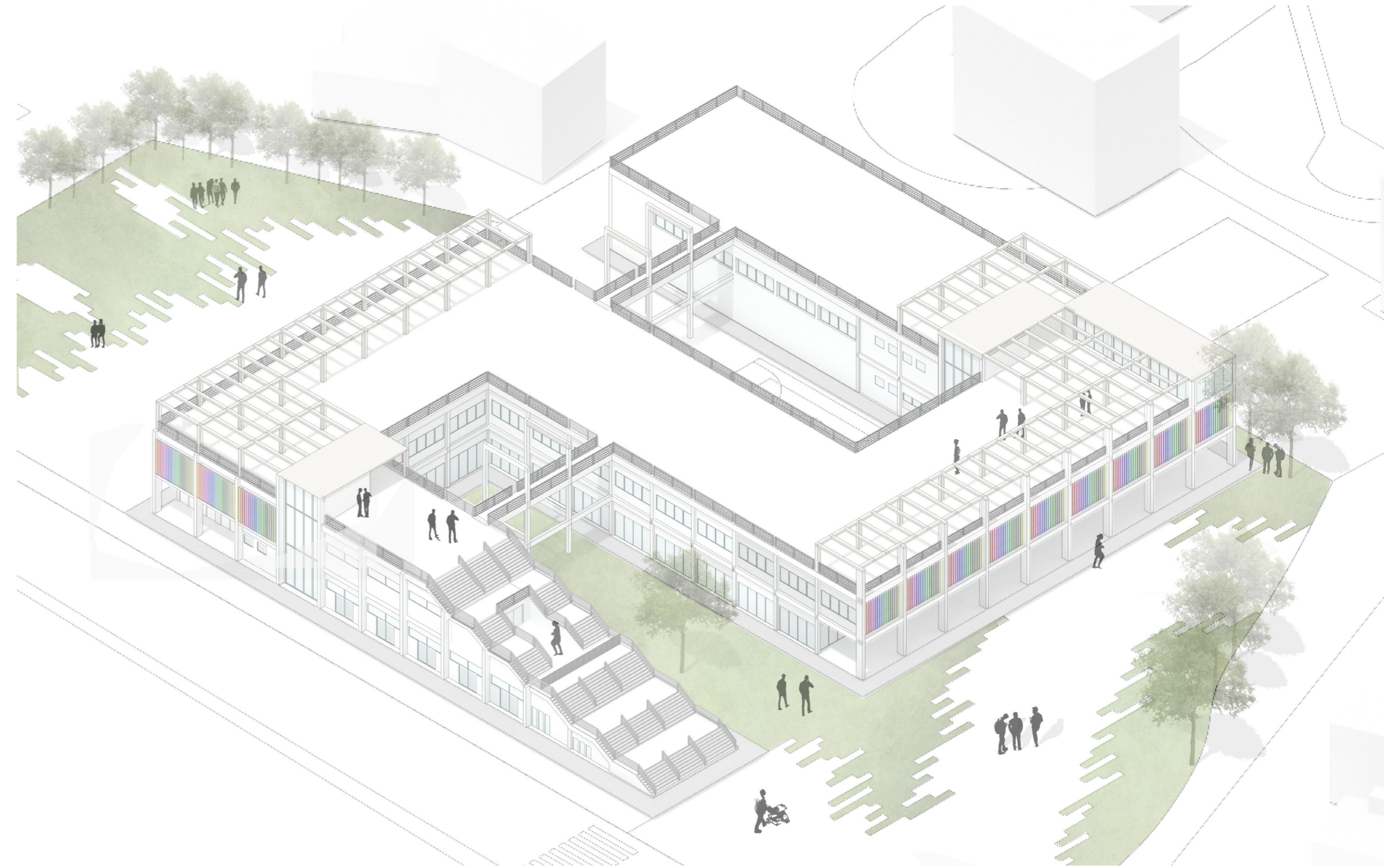
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01

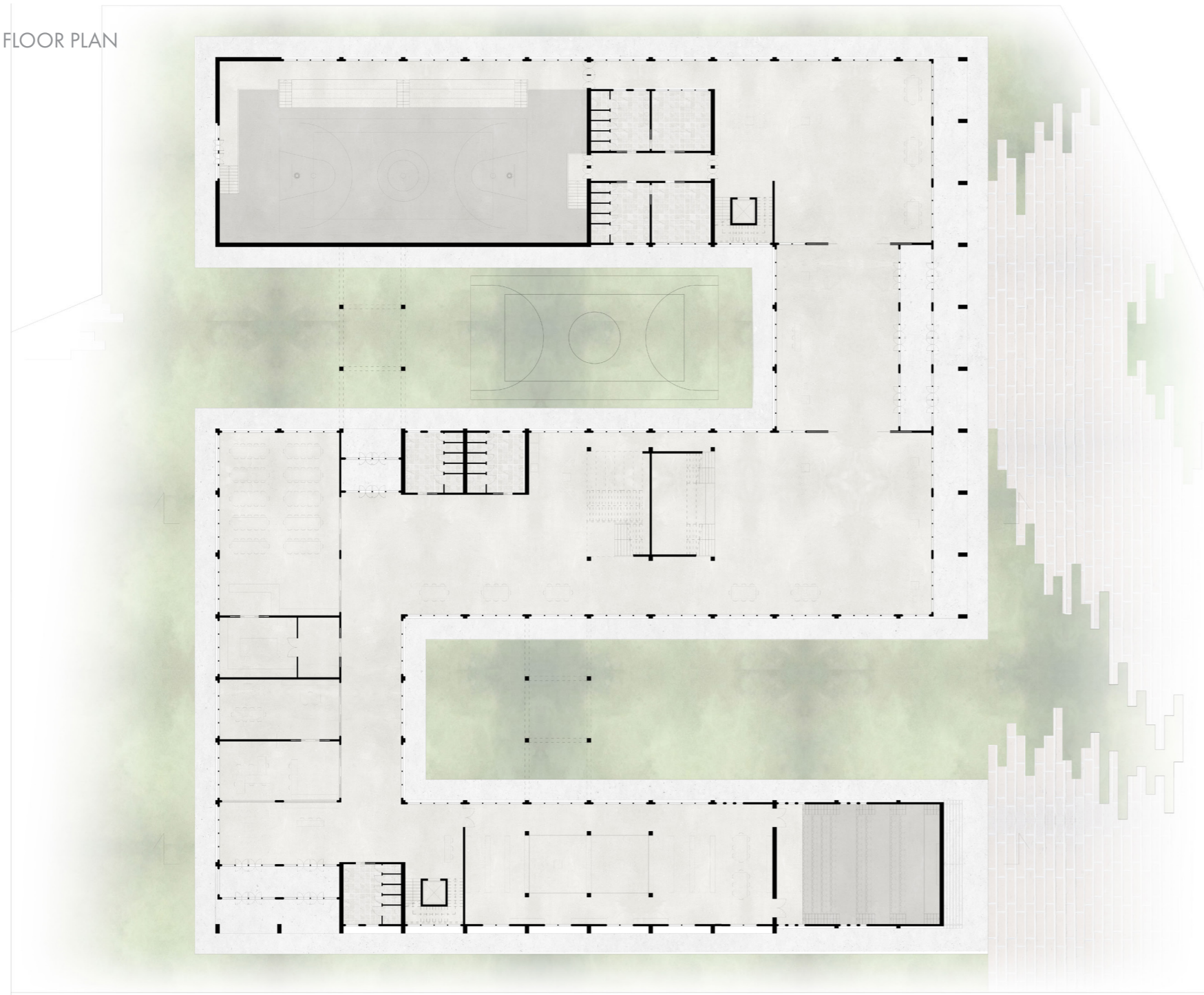
HIGH SCHOOL IN MILAN Green Harmony: a school open to the city

The project required the conception of a school-type structure to be inserted within the urban context of the Gallarate District, located in the north-western area of the metropolitan city of Milan. The district in question has a predominantly residential character, combined with a congruent offer of services such as educational institutions and the Bonola shopping center. The objective of the project activity lies in the articulation of a school structure, designed to align with the renewal program adopted by the Ministry of Education, in virtue of a modern educational offer. It involves a typological conception shaped according to the definition of fluid and interconnected spaces, ensuring a certain spatial-functional flexibility for the users, as well as providing continuous stimuli and relationships for the students, the primary users of these spaces.

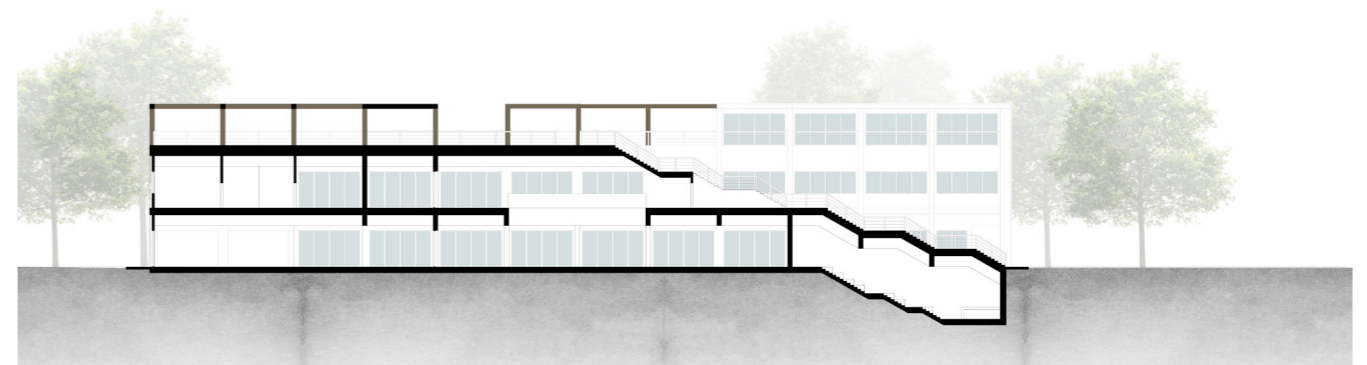
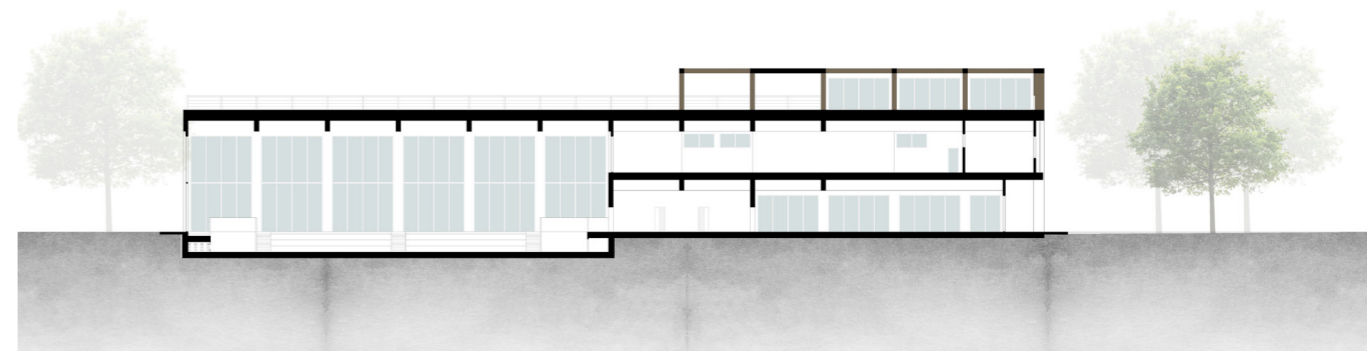
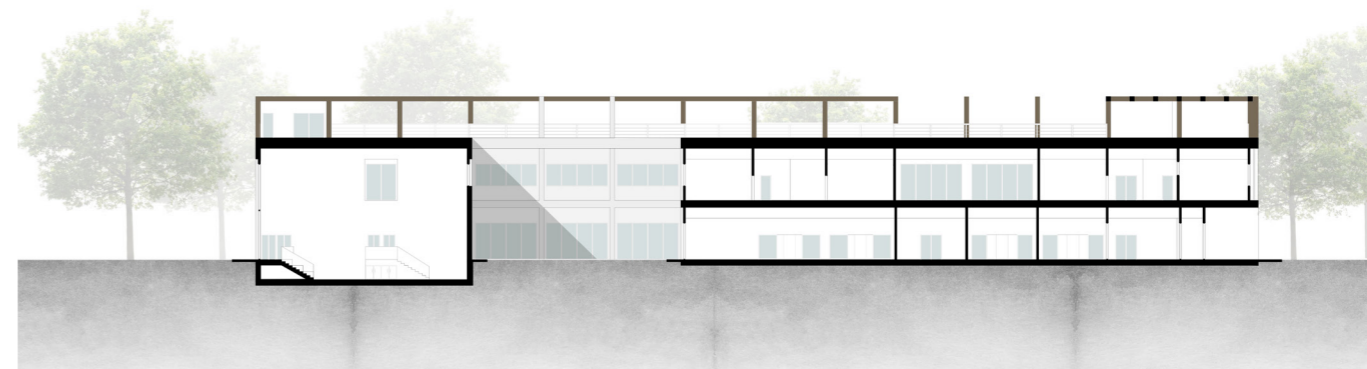
The conceived project is the result of reflection on the relationship between architecture and the surrounding greenery, as the predominant presence of public gardens in situ, as well as places of aggregation and community, becomes a reason for integration and continuity in the project. Indeed, the school is inserted within the plot without any physical boundary or delimitation, and is flanked by greenery that penetrates into the two open courtyards generated in the plan. The definition of external spatiality is dictated by the presence of strip paving, arranged in an irregular layout and oriented in such a way as to direct the public towards the main entrances of the structure, as well as towards the monumental staircase leading to the roof level. The school-type structure has an inverted S layout, consisting of two open courtyards, thus establishing a double and simultaneous relationship with both the western and eastern fronts. Additionally, the building develops over two above-ground levels and has two semi-underground spaces, namely the gymnasium and the auditorium, whose use is intended for the entire community and not exclusively for educational purposes. Regarding the organization of the internal spaces, it is possible to identify the predominant functions, such as the library, the auditorium, and the gymnasium, as well as the presence of classrooms located on the first floor of the building.



GROUND FLOOR PLAN



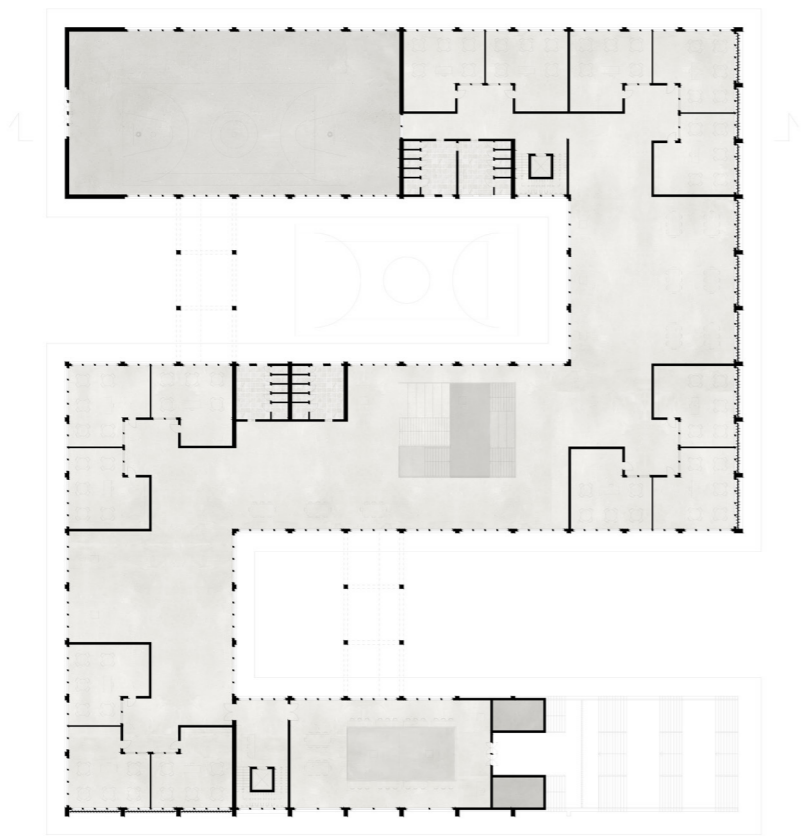
SECTIONS



01 | HIGHT SCHOOL IN MILAN

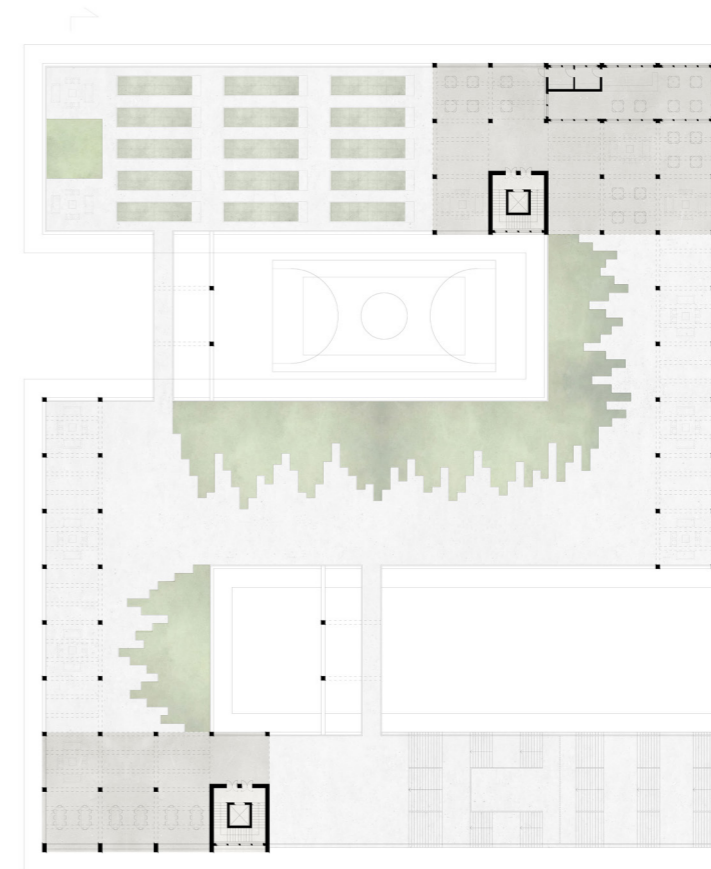
FIRST FLOOR PLAN

The organization of the spaces is closely linked to the structural component of the project; indeed, one depends on the other, and during the design phase, the project requirements led to the definition of the structural grid. It is a frame system composed of beams and reinforced concrete pillars with a span, almost constant, of 6 meters.



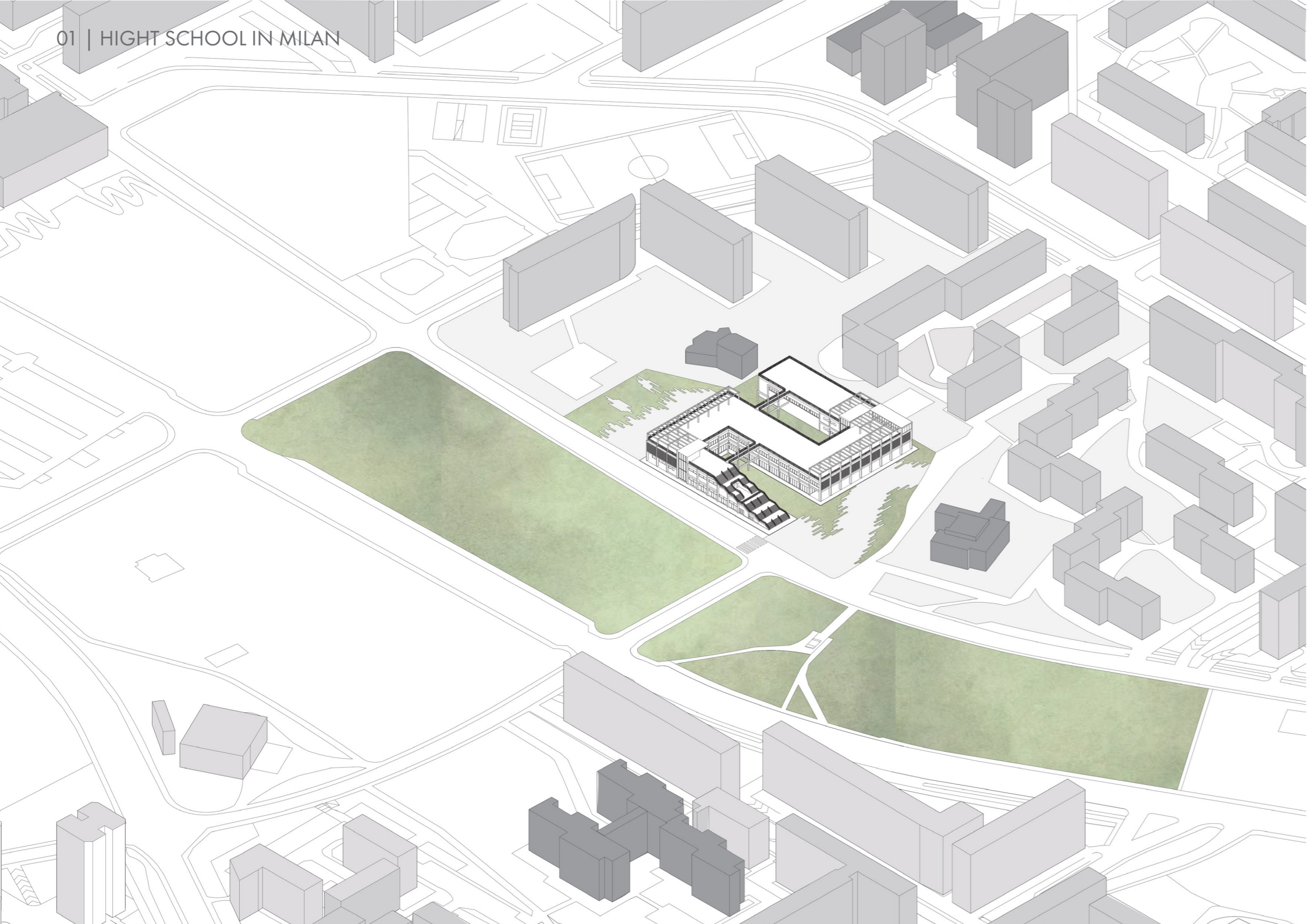
ROOF PLAN

However, due to certain design requirements, such as the need to obtain open spaces near the main entrance, the span between the pillars was increased to 12 meters, allowing for more usable spaces. This need led to the use of steel truss beams, spanning 18 meters, in the part of the building dedicated to sports activities (the gymnasium, which occupies much of the north elevation).



ELEVATIONS





The structural system of the inclined internal partitions consists of knee beams that support a staircase body held by a special Z-shaped beam, on which the cantilevered steps are mounted.

An architectural characterization and thematic continuity element is attributed to the staircase system, visible in the elevation and ensuring access to the roof level, as well as to the first floor of the building. Indeed, the roof represents a characteristic element and becomes a meeting place for the Gallarate community: this space consists of a double porticoed organism and features transversal passages, or elevated walkways, designed to facilitate overall movement and offer a different spatial perception to users. Moreover, the roof expresses the concept of a roof garden, through the inclusion of spaces hosting collective gardens and the articulation of an intermediate path, defined by an alternation with greenery, reflecting the external irregularity and configuration of the project site.

The sunshade system consists of vertical slats with a rotary mechanism, whose efficiency is aimed at regulating daylight intensity and preserving surfaces from potential overheating, as well as offering an overall aesthetic improvement to the structure.

The elaborated project thus becomes a meeting place for the entire community, guaranteeing multifunctional spaces where sociocultural and recreational activities can be practiced, in virtue of social cohesion, favored both by spatial fluidity and by the significant green presence, in continuity with the surrounding context and offering greater spatial livability.



02

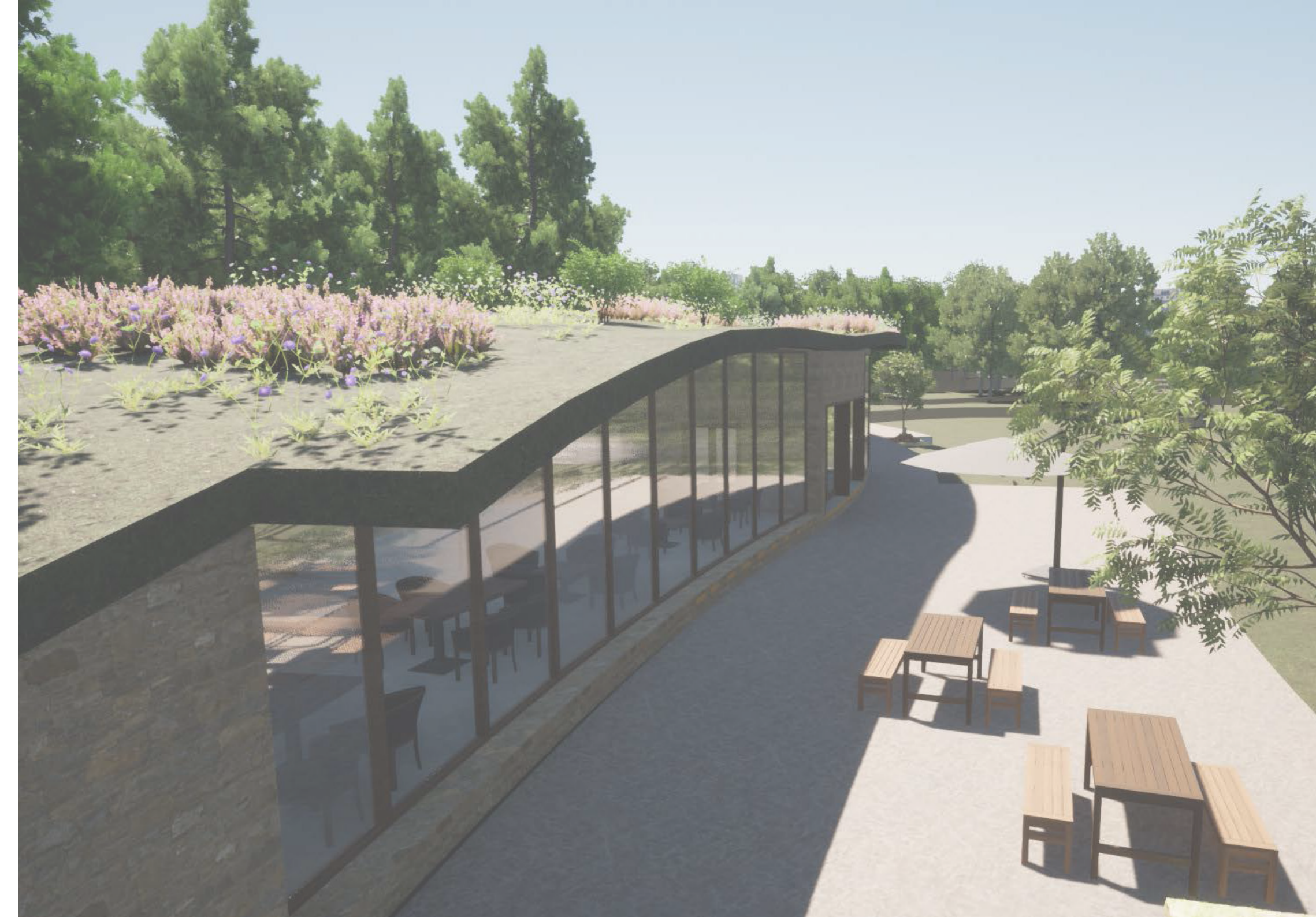
TOURIST ACCOMODATION

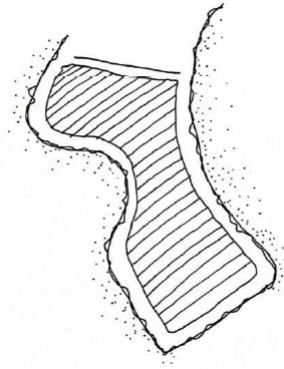
Mimesis: Tourist stay in Spain

The request was to create a small hotel in the “Viñas Viejas” area, near the locality of Los Pedrones, a Spanish municipality located in the autonomous community of Castile-La Mancha. The area is located southwest of the town and has significant irregularity along its north-south axis, which is modulated with successive irregular terraces that allow for agricultural use through vineyards and olive groves. Pine forest areas are found on the eastern and western slopes of the entire plot, protecting the different cultivated terraces.

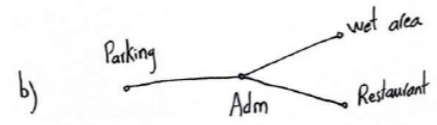
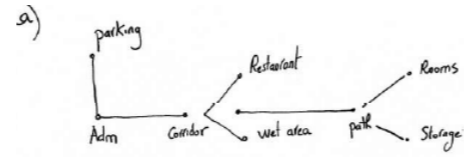
Mimesis, from the Greek means imitation and is a word that has been widely used in philosophy and literature to denote, especially, elevated imitation. For this, it is necessary to understand the reality that one is inspired by.

From this conceptual root, the foundational idea of the project blooms, stemming from the desire to scrutinize the morphology of a territory untouched by human intervention, with the fervent intent to preserve its original purity. This objective materialized through inspiration drawn from the sinuous curves of the natural landscape; following their contours, the building nestled into the hillside, blending with it in a visual embrace that blurs the lines between the man-made and the environment, creating a harmonious symphony.

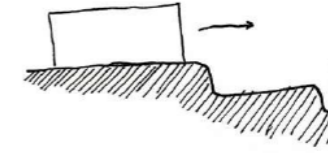




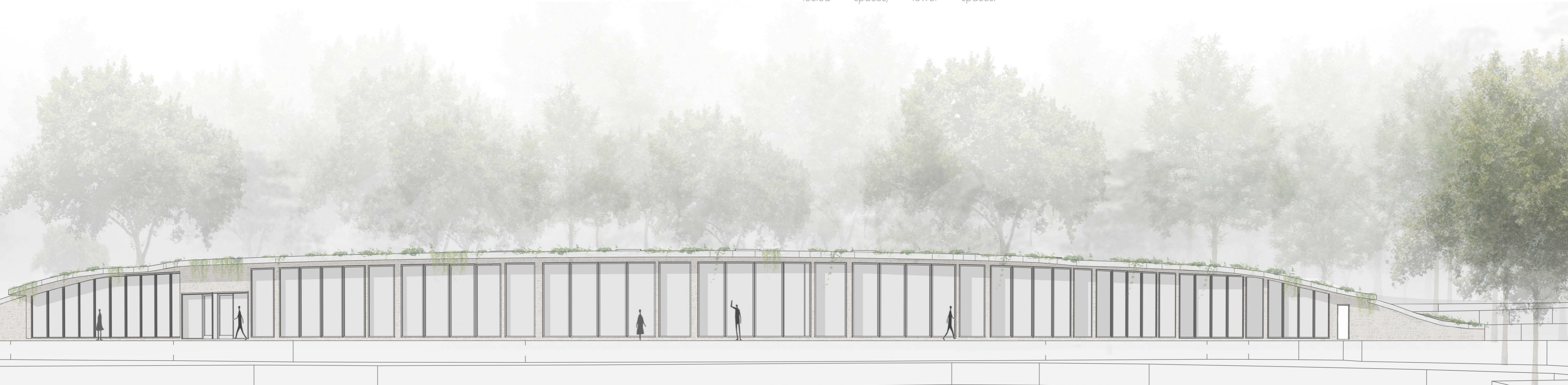
The project takes the existing traces of the ground as a base for the intervention. The composition is shaped by adequately occupying the space.

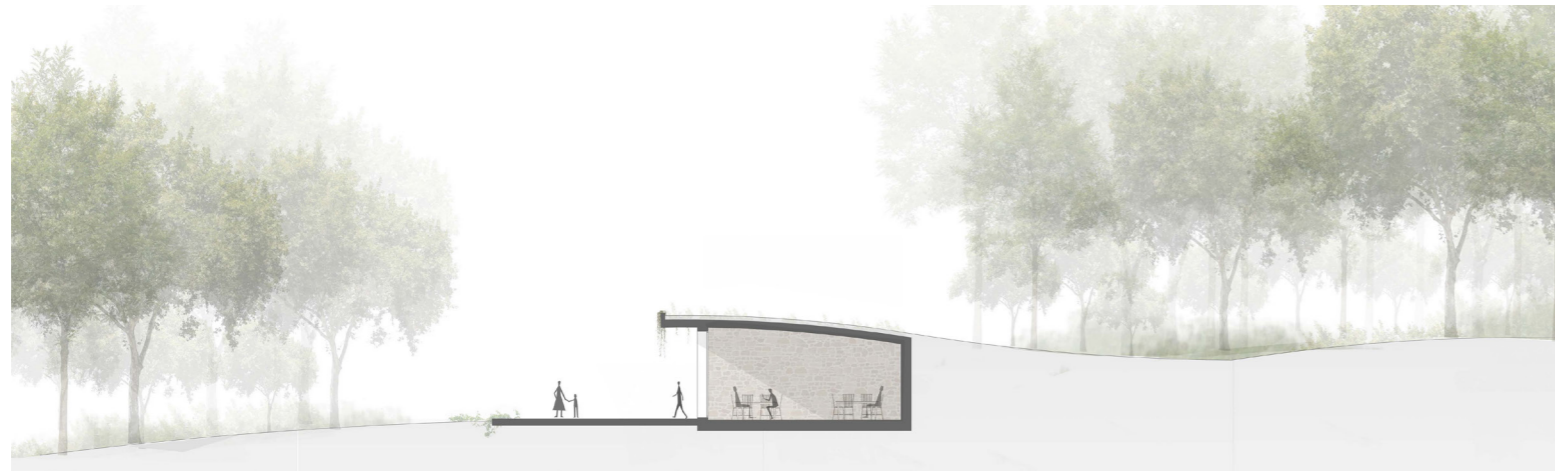


The sequence of the activities takes into consideration two main factors: 1) Public > Private; distinguishing the different movement made by those who would sleep in the hotel from those who will sit to enjoy the other services. 2) Privacy-Height relation; placement of private areas in more protected spaces, lower spaces.



Having the main potential view on the North, the volumes are distant between them in a way to secure continuity in panorama.





The primary objective was to shape an organic architecture, capable of blending with the context without imposing itself forcefully, thus avoiding an intrusive visual impact and establishing an intrinsic connection with the surrounding nature. This fusion was made possible not only through the form of the building itself but also thanks to the careful selection of materials used: a green roof, which extends from the ground to envelop the entire structure, combined with other elements like rustic stones for the walls, echoing the style of the traditional residences in the nearby village of Los Pedrones.

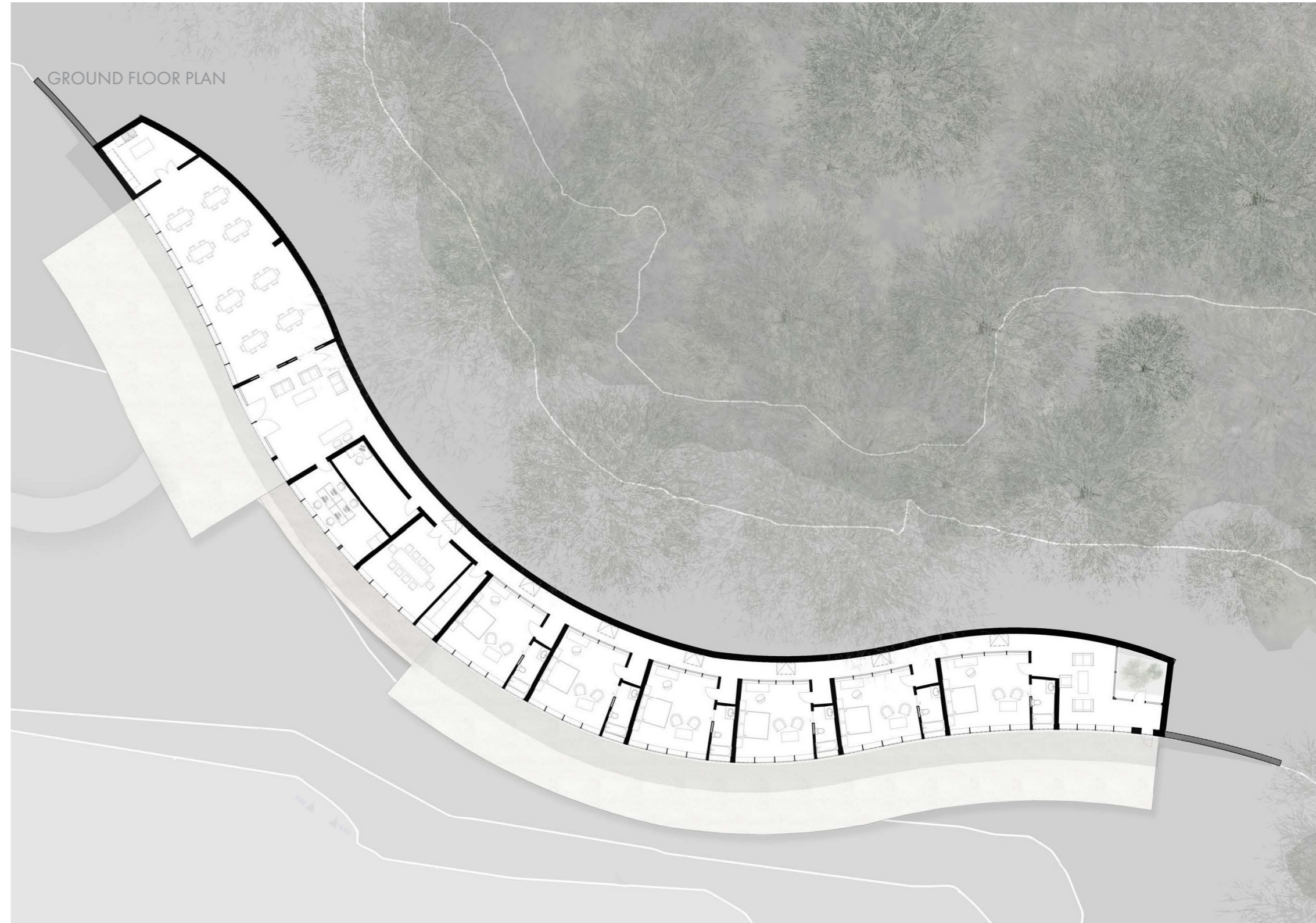
The outlined goals embrace raising visitors' awareness of the importance of respecting the environment, protecting the landscape, and preserving the intrinsic values of the area. However, although the location of the building on the site was not optimal in every aspect, as the desire to blend it with the terrain clashed with the idea of opening up the panoramic view, this led to orienting the rooms and common areas towards the north.

To mitigate this challenge, skylights were introduced to illuminate the previously dark access corridor, and the introduction of glass walls, easily concealable with curtains, allows light to flow more evenly and naturally inside the building.





GROUND FLOOR PLAN



03

MIDDLE SCHOOL

Lower secondary school in Parma, Italy

The project for the new lower secondary school in Fornovo di Taro is the result of an in-depth study of the surrounding landscape, which has allowed it to be strategically positioned in the context in order to maximize its integration. The architectural volume fits into the pre-existing environment, connecting the different pathways at various heights without the need to create new roads. This choice is guided by the awareness that, in the landscape context, infrastructural elements can have a significant impact, often more so than the buildings themselves.

The aim is to create a school where students can experience a sense of participation, community, and inner development, promoted by a more spontaneous use of spaces through their permeability and visual transparency. Hence, our decision to attribute great importance to connections, both vertical and horizontal, from the very beginning, in order to generate an optimal flow within the building. For this reason, the parallelepiped shape is carved out at the corner corresponding to the entrance; this choice indeed allows, once the threshold is crossed, to immediately find oneself facing both the staircase and the patio, entering the heart of the building's flows.

The spatial organization of this architectural project evolves synergistically through the use of the classroom module, which repeats consistently along the corridors. These corridors, besides functioning as simple transit paths, assume a dual essential role as recreational spaces, creating a dynamic interconnection between the various areas of the school building. Their strategic arrangement contributes to forming a fluid sequence of environments, promoting a sense of connection and community. Natural light, coming from outside through the patio, not only improves the building's energy efficiency but also helps promote a healthier and more stimulating learning environment for students.

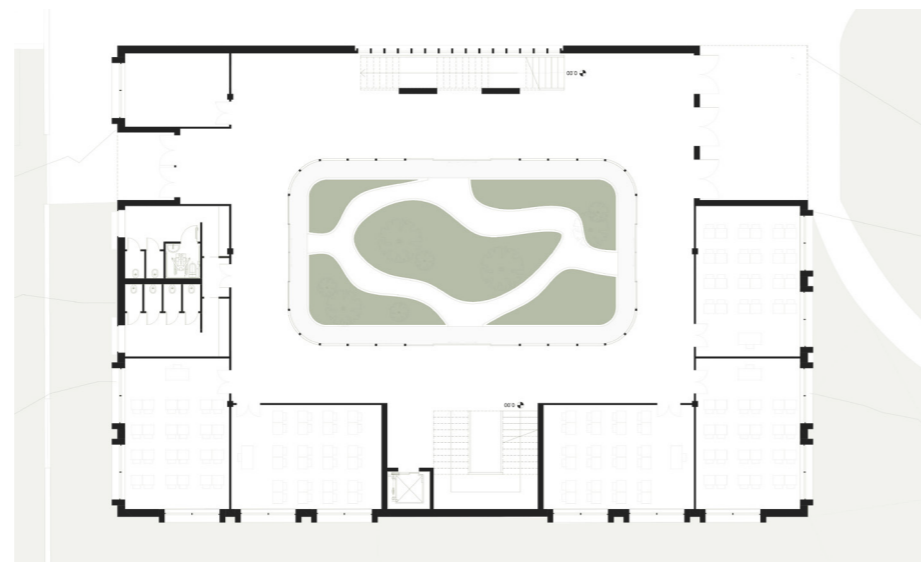


03 | MIDDLE SCHOOL IN PARMA

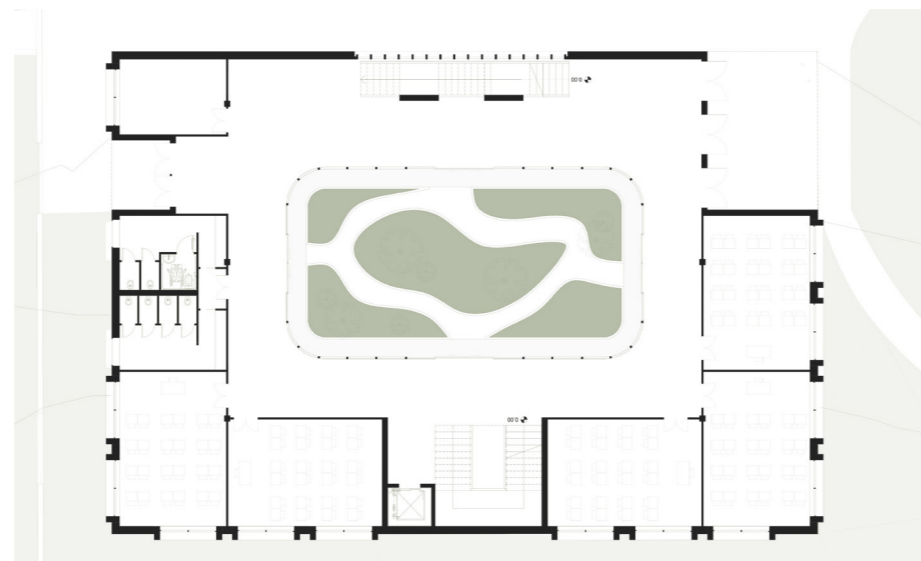
SITE PLAN



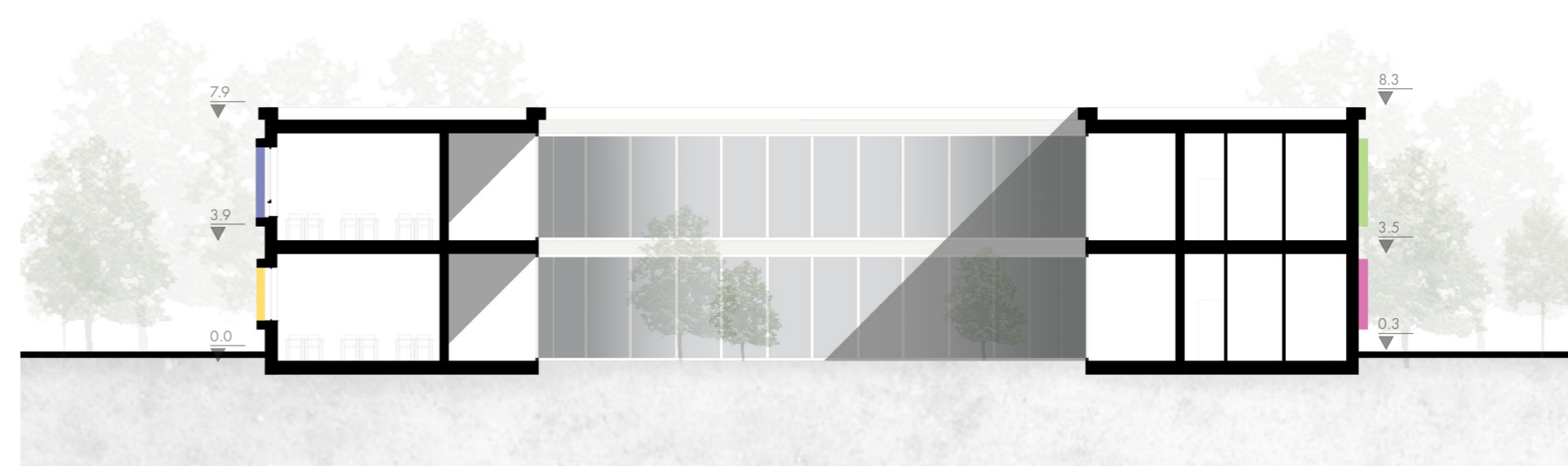
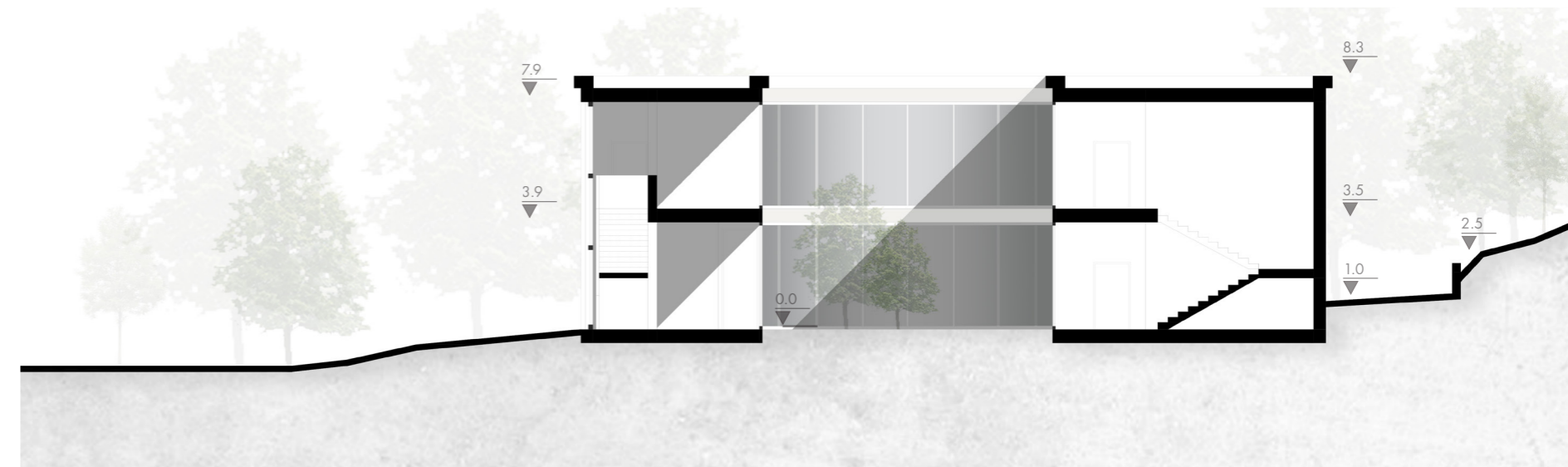
GROUND FLOOR PLAN



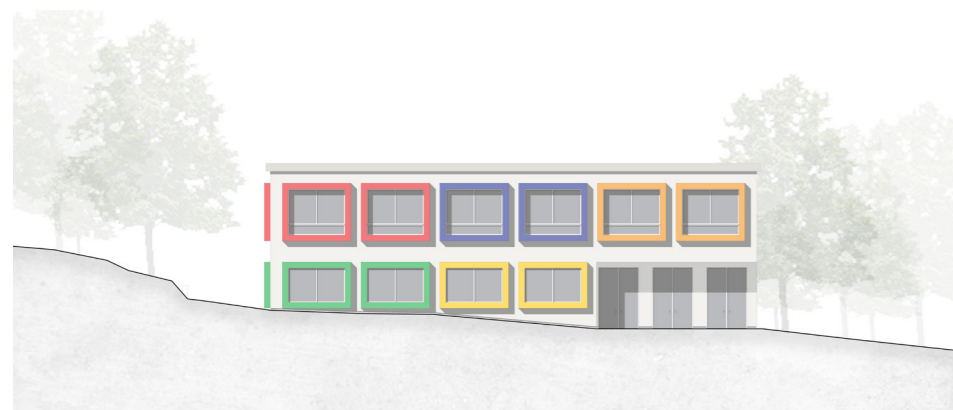
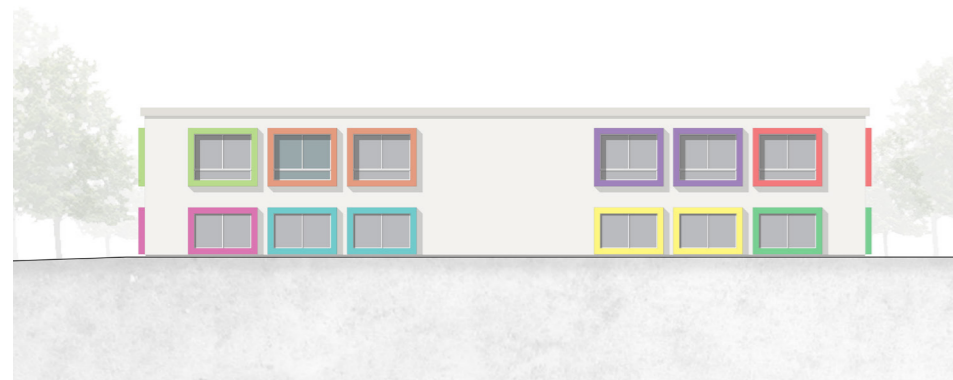
FIRST FLOOR PLAN



SECTIONS



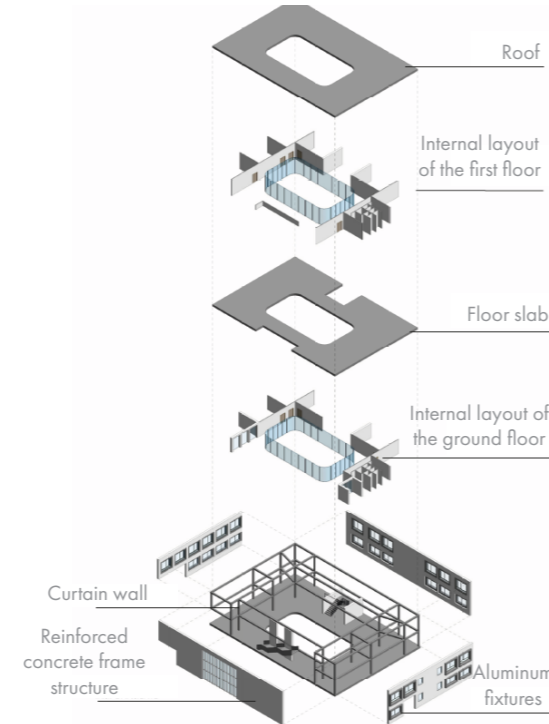
ELEVATIONS



In this context, the architectural design not only aims to meet the functional needs of the educational institution but also strives to create an inspiring and inclusive educational environment through the pursuit of a harmonious balance between form and function.

The building is characterized by an inherently more introverted nature in its orientation towards the southwest, where it faces the road, the parking lot, and several surrounding private residences, allowing it to maintain a more secluded and reserved atmosphere. Conversely, its strategic openness is manifested in the northeast direction, where it expands to create a shared space with the other buildings of the school complex. The choice to open the building in this direction is intended to promote a sense of community within the school context, facilitating communication and collaboration among the users of the spaces.

EXPLODED VIEW





04

URBAN PROJECT IN VALENCIA

The Green Key: Revitalizing a railway area

The project takes place in the city of Valencia following the important decision by the state to bury the train tracks in the area surrounding the central station. This decision radically changes the urban environment, creating opportunities for an urban renewal project.

The urban redevelopment project is developed through a series of targeted and integrated interventions aimed at radically transforming the urban environment of Valencia, offering new opportunities for living, working, and leisure for its inhabitants. Preserving the historical memory of the site, represented by the old railway tracks, is a fundamental element of the project. The introduction of a tram line along the north-south axis not only serves to efficiently connect different parts of the city but also to keep the industrial and railway history of the area alive, making it accessible and usable for present and future generations.



BUILDINGS



TRANSPORTATION



GREENERY



DUE TO THE VASTNESS OF THE SITE AND THE PRESERVATION OF THE MEMORY OF THE SITE (FORMER RAILWAY TRACKS), IT IS PLANNED TO INTRODUCE A TRAMWAY LINE ON A NORTH-SOUTH AXIS

IT IS IMPORTANT TO MAINTAIN THE CONTINUITY OF THE GREEN AREA AND CONNECT IT TO THE EXISTING CENTRAL PARK

INTRODUCTION OF THE PROJECT'S MAIN AVENUE, AROUND WHICH THERE ARE GREEN AREAS, ACCESSIBLE DIRECTLY FROM THE RESIDENTIAL BLOCKS

WIDENING OF THE EXISTING ROAD

INTRODUCTION OF LONGITUDINAL BLOCKS WHERE SMALL BUT UNDEVELOPED SPACES REMAIN

MAINTENANCE OF THE HISTORIC SQUARE WITH PROTECTED BUILDINGS

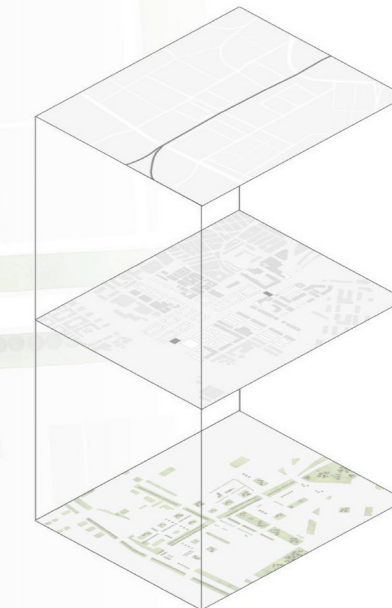
THE MAIN SHAPE OF THE RESIDENTIAL BUILDINGS IS L SHAPED BLOCKS. INTRODUCTION OF A STEPPED BLOCK TO PROVIDE GREEN TERRACES

ADDITIONS TO EXISTING BUILDINGS IN ORDER TO PRESERVE THE UNIFORM AND ERGONOMIC SHAPE OF THE URBAN GRID

THE MAIN ELEMENT OF THE PROJECT-THE INTERSECTION OF TWO GREEN WEDGES. THE HORIZONTAL GREEN AVENUE IS MULTIFUNCTIONAL AND IS INTENDED TO PROVIDE AN ACTIVITY FOR PEOPLE OF ALL AGES. SPORTS CENTRES, WATER RETENTION RESERVOIRS THAT ALSO LOWER THE TEMPERATURE ON HOT DAYS, WALKING AVENUES HAVE BEEN DESIGNED IN THE AREA.

INTRODUCTION OF LONGITUDINAL BLOCKS ALONG A HORIZONTAL GREEN ALLEY

VI. SCHEME OF PROJECT LAYERS



TRANSPORTATION

IN ORDER TO SOLVE THE TRAFFIC SITUATION IN THE PROJECT AND ENSURE THAT THE TWO NEIGHBOURHOODS ARE WELL CONNECTED, A HORIZONTAL MAIN ROAD AND LOOPS HAVE BEEN INTRODUCED TO PROVIDE CONVENIENT TRAFFIC FLOW AROUND THE RESIDENTIAL BLOCKS.

BLOCKS OF FLATS

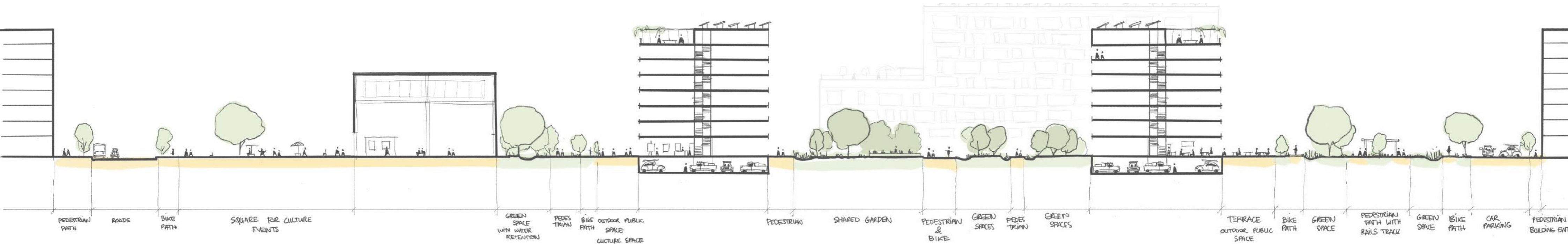
DUE TO THE LARGE VARIETY OF BUILDINGS, SQUARE-SHAPED BLOCKS WERE DESIGNED AND GREENERY WAS INTRODUCED IN THE COURTYARDS AND COMFORTABLE PASSAGES BETWEEN THE BUILDINGS.

GREENERY

THE AREAS AROUND THE TRACKS WERE CHARACTERISED BY HIGH DISORDERED GREENERY AND VACANT LAND THAT WAS NOT USED BY RESIDENTS. OUR PROJECT PROVIDES FRIENDLY GREEN AREAS WITH A HIGH DIVERSITY.

The main avenue of the project, surrounded by green areas and directly accessible from the surrounding residential blocks, becomes the vibrant heart of the new neighborhood. Here, residents can stroll, jog, engage in outdoor activities, or simply enjoy the beauty of the urban landscape. Existing streets have been widened to improve traffic circulation and ensure greater safety for pedestrians and cyclists.









The continuous green area connecting the existing parks represents a unique opportunity to create a green lung in the heart of the city, promoting biodiversity, mitigating the heat island effect, and offering an oasis of tranquility and relaxation for residents. This green space becomes the center of community life, with recreational areas, bike paths, picnic zones, and public gardens that invite people to meet, socialize, and enjoy nature.





The introduction of longitudinal blocks, with their characteristic stepped “L” shape for green terraces, adds a touch of modernity and sustainability to the urban fabric. These buildings not only offer high-quality living spaces but also opportunities for urban farming, rainwater harvesting, and reduced energy consumption.

Legend:

-  Paved road
-  Sidewalk
-  Building
-  Water
-  Green space
-  Entrances
-  Basketball court
-  Sports Flooring





The historic and protected buildings have been preserved and restored, thus helping to maintain the historical identity of the neighborhood. The intersection of two green axes represents the focal point of the project, offering a range of services and activities for all ages. From sports centers to children's playgrounds, pedestrian paths to outdoor dining areas, this multifunctional space becomes the ideal place to spend leisure time and enjoy outdoor life.

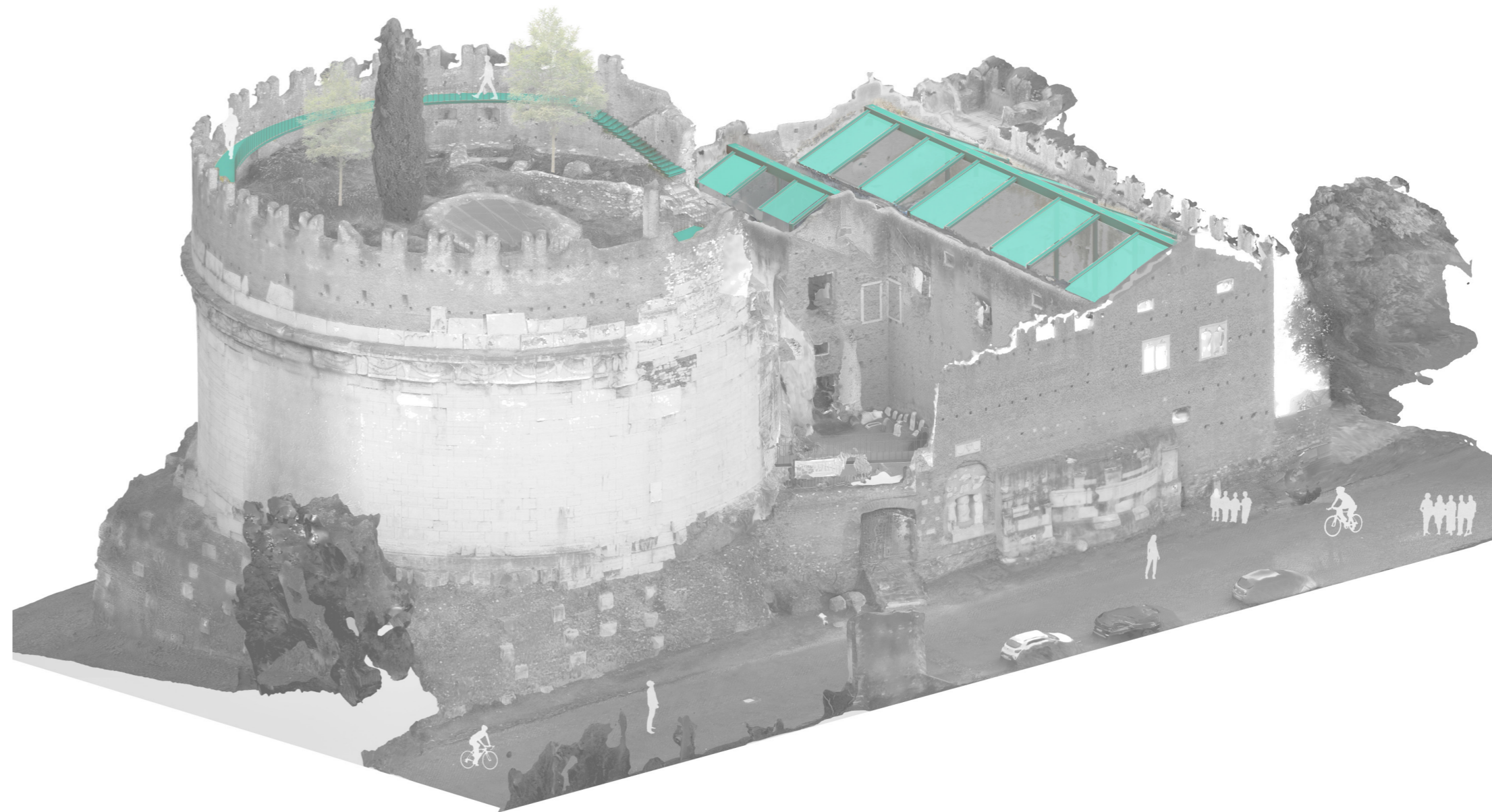


05

RESTORATION OF A MAUSOLEUM

Conservating the Mausoleum of Cecilia Metella

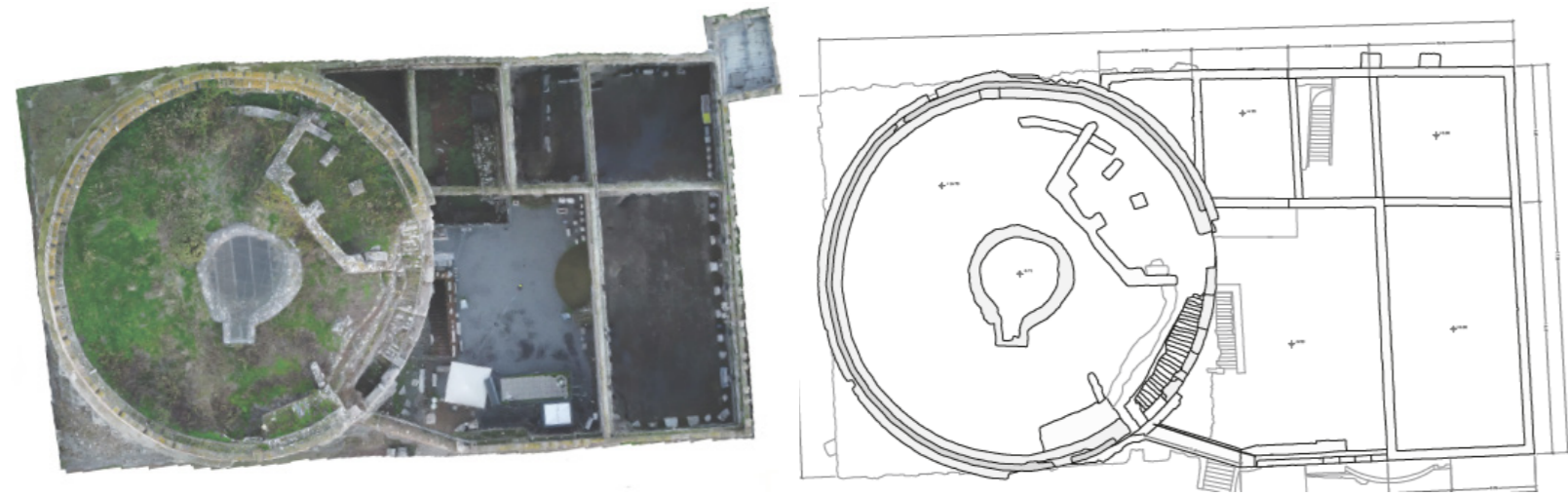
This project was developed for the Laboratory of Historic Building Conservation. This laboratory is dedicated to the meticulous study and preservation of buildings that hold historical and cultural significance. It aims to analyze the structural and aesthetic aspects of these edifices, document their current conditions, and propose comprehensive restoration interventions. By combining traditional methods with cutting-edge technology, the laboratory strives to ensure that these historical structures are preserved for future generations. In this particular case, the project centers on the conservation and enhancement of the Mausoleum of Cecilia Metella, a historical icon situated along the Via Appia Antica in Rome. The Mausoleum is not only an important archaeological site but also a testament to the rich history and cultural heritage of Rome. The project aims to combine advanced survey technologies, such as 3D laser scanning and photogrammetry, with targeted restoration interventions. These technologies allow for precise documentation of the structure's current condition and facilitate the development of detailed restoration plans. The ultimate goal is to preserve the Mausoleum in a way that enriches the visitor experience, providing educational and interpretive opportunities that highlight the monument's historical significance. By doing so, the project ensures that the Mausoleum of Cecilia Metella remains a vital part of Rome's cultural landscape, accessible and informative for both current and future generations.



Historical context:

The Mausoleum of Cecilia Metella, built between 30 and 10 BC, has been renowned since the Renaissance for its historical and architectural significance. Originally erected to house the remains of Cecilia Metella, daughter of Quintus Caecilius Metellus, consul in 69 BC, and wife of Marcus Licinius Crassus, the mausoleum is situated at a significant point on the Via Appia Antica. The structure, consisting of a tall cylinder clad in travertine on a square base, includes a conical funerary chamber with an oculus at the top.

In the Middle Ages, the mausoleum was transformed by the Caetani family into a castle, incorporating the tomb as the main tower. This medieval transformation adds further historical value to the site, which today houses a collection of statues, sarcophagi, inscriptions, and reliefs from the Via Appia.



Project Methodology:

Preliminary Analysis with Point Cloud

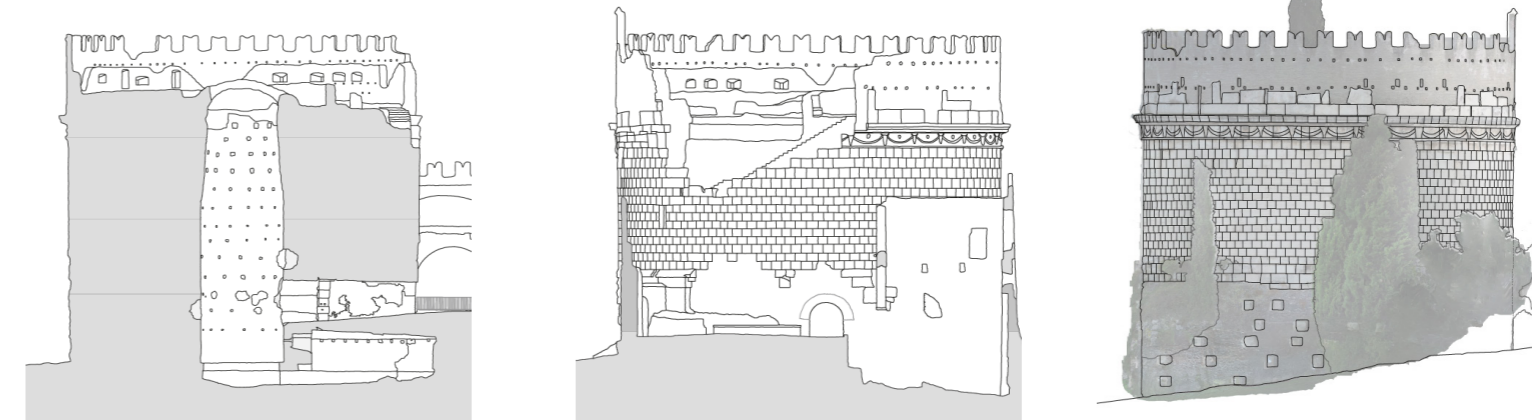
The initial phase of the project involved a detailed analysis using a 3D laser scanner. This tool allowed the creation of a point cloud, a precise digital representation of the entire mausoleum, which facilitated the identification of degraded areas and the planning of necessary restoration interventions.

Creation of the 3D Model

The point cloud was processed to generate a 3D model of the mausoleum. This model provided an accurate basis for documentation, monitoring, and the design of restoration interventions, allowing for the visualization of structural and decorative details with great precision.

Assessment and Planning of Interventions

From the analysis of the collected data, several areas of degradation were identified and classified according to their nature and severity. The leucite lava area, for example, required special attention to stabilize vulnerable parts and prevent further damage.



Existing space allocation:

Legend:

- 1 Mausoleum entrance
- 2 Ticket office
- 3 Mausoleum video projection
- 4 Exhibition hall
- 5 Room for augmented reality viewers
- 6 Archaeological excavations
- 7 Lava room
- 8 Restrooms
- 9 Church of San Nicola

Identified issues:

- Specific focus on a single sector
- Limited dimensions
- Lack of adequate areas for certain functions
- Insufficiently equipped spaces

Project space allocation:

Legend:

- Mausoleum entrance
- Lava Room
- Mausoleum video projection
- Medieval walkway
- Exhibition hall
- Room for augmented reality viewers
- Conference and projection room
- Ticket office
- Restrooms
- Archaeological laboratories area

Tourist Enhancement and Accessibility

Research on tourism has highlighted that, although the Mausoleum of Cecilia Metella attracts a significant number of visitors along the Via Appia, its potential is not fully exploited. Many passersby do not feel incentivized to enter and visit the mausoleum. The project aims to reverse this trend by making the site more accessible and engaging through various strategies like informative panels that illustrate the history and importance of the mausoleum, an exhibition route that follow the ancient historical paths, offering new perspectives and enriching the visitor experience, and the use of augmented reality and video mapping to create interactive and immersive experiences within the museum.

Conservation and innovation:

To ensure better conservation, the project includes the addition of modern coverings that recall the original ones, maintaining a balance between respect for tradition and innovation. Additionally, interactive archaeological and restoration workshops will allow visitors to directly experience conservation work, increasing their engagement and understanding of the historical heritage.

