02 PORTICI ADVANCED DESIGN STUDIO

edited by/a cura di Adriana Bernieri, Francesca Coppolino

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Corso di Laurea Magistrale 5UE in Architettura
Università degli Studi di Napoli Federico II
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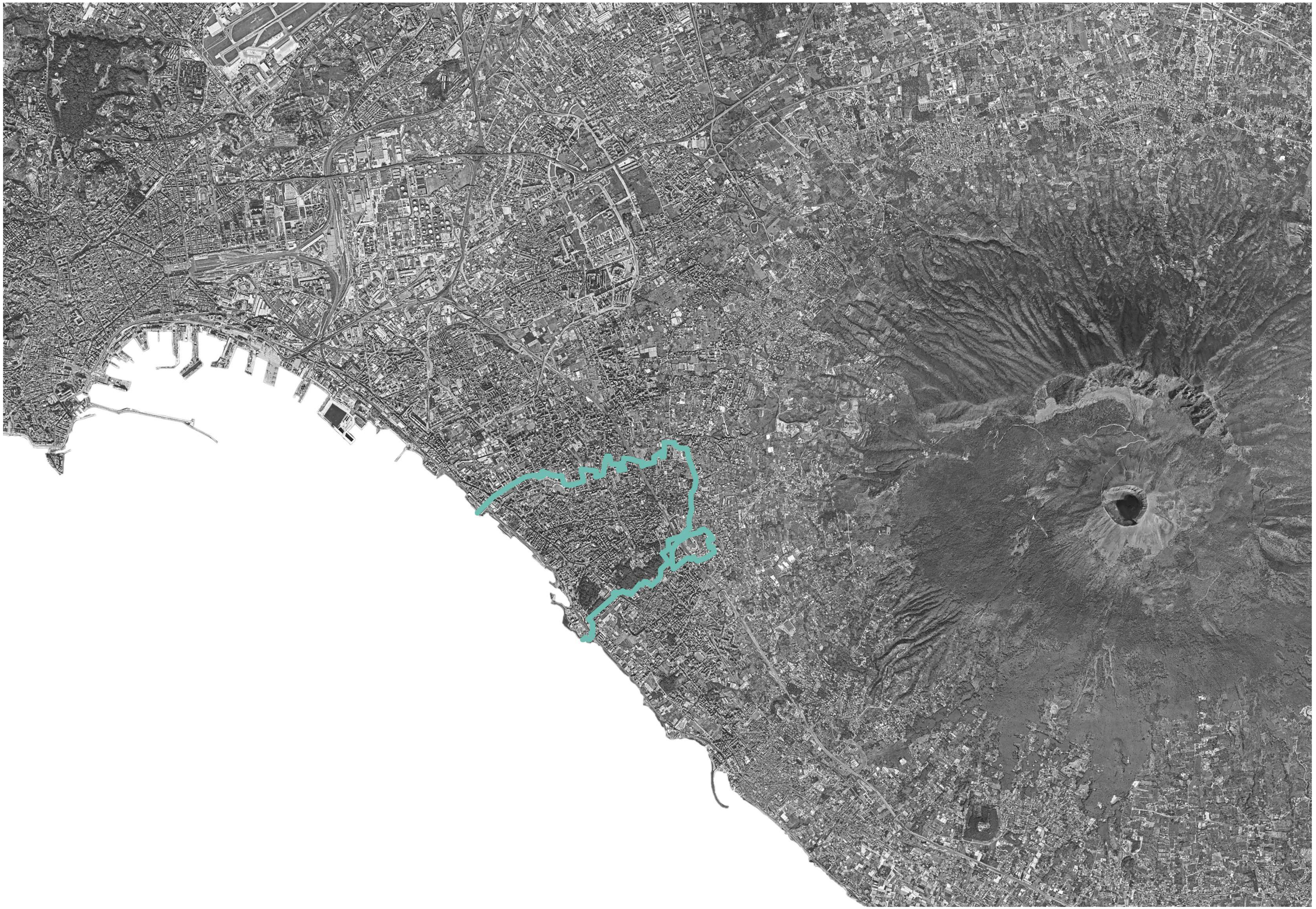
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Introduction

The design work carried out on the city of Portici represented, for the students in the last year of the Master's Program in Architecture 5UE, an important experiment, from a design and professional point of view, towards the development of an approach aimed at finding an adequate and factual response to the multiple needs posed by the reality of the context in which it operates.
The book collects the results of the work carried out during the 2019-2020 academic year, highlighting the multiplicity of aspects and design topics addressed, as well as the variety of the proposed solutions. The structure of the book reflects this experimental approach, starting with the exploration of some preliminary topics and methods, examined in the "Essays" section; continuing through the study of the "collaborative mapping" and the interaction with the environment and with the people who live in these places; finally, working on assembling and defining a "synthesis" of data and investigations through the design proposals, described in the "Projects" section.
To try to solve the existing critical issues, yet to enhance the potential and the various heritage of the city of Portici, the project proposals were built grafting into the existing, not oriented towards the definition of a closed form and a predetermined function. On the contrary, it has implied to work on the idea of an open form, which reuses and recycles what already exists, including multiple possibilities of use and continuously changing its perimeter, extending and incorporating urban pieces of different nature.
Scenarios of new possible meanings and new urban transformations are, therefore, the result of this work, made up of different levels of study and research related to the overall idea of Portici as a "City-Park".

Introduzione

Il lavoro progettuale condotto sulla città di Portici ha rappresentato, per gli studenti all'ultimo anno del corso di studi in Architettura 5UE, un esperimento di grande rilevanza, dal punto di vista progettuale e professionale, verso lo sviluppo di un approccio teso a trovare una risposta adeguata e concreta alle molteplici necessità poste dalla realtà del contesto in cui opera.
La pubblicazione raccoglie gli esiti del lavoro svolto nell'arco dell'anno accademico 2019-2020, ponendo in evidenza la molteplicità di aspetti e temi progettuali affrontati, così come la varietà delle soluzioni proposte. La struttura del libro rispecchia tale approccio sperimentale, a partire dall'esplorazione di alcuni temi e metodi preliminari, esaminati nella sezione "Saggi"; proseguendo attraverso lo studio delle "collaborative mapping" e dell'interazione con l'ambiente e con le persone che abitano questi luoghi; giungendo, infine, alla messa a sistema e ad una "sintesi" delle informazioni e delle indagini effettuate nelle proposte progettuali, descritte nella sezione "Progetti". Per provare a risolvere le criticità esistenti, ma anche per valorizzare le potenzialità e i vari patrimoni del territorio porticese, le proposte progettuali sono state costruite attraverso un meccanismo di innesto nell'esistente, non orientato alla definizione di una forma compiuta e di una funzione predeterminata, ma che, al contrario, ha consentito di lavorare su un'idea di forma aperta, che ha riutilizzato e riciclato quanto esiste, che ha incluso molteplici possibilità di uso e che ha cambiato continuamente la propria perimetrazione, estendendosi e inglobando pezzi urbani di diversa natura.
Scenari di nuovi possibili significati e nuove trasformazioni urbane sono, dunque, il risultato di questo lavoro, composto da diversi livelli di approfondimento legati all'idea complessiva di Portici come "città-parco".



ESSAYS / *SAGGI*

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In the academic year 2019-20 in the Advanced Design Studio, and in particular in the Architectural and Urban Design module, the city of Portici was chosen as an experimental territory. This experience, marked by the lockdown for Covid-19 and, consequently, carried out live in the first semester, online in the second and again live in relation to the final exams, was conceived as an opportunity to deepen the articulated mechanisms that an urban and architectural design project requires, in relation to the complexity of real situations, in a perspective of field work and multidisciplinary integration. This is in perfect continuity with what had been done in the previous year with the Advanced Design Studio on Castel Volturno (a.y. 2018-19) and with the aim of working again in this way also in next years.
Th control of the logical process of choices at different scales; the design response to particular contemporary conditions; the continuous exchange between specific design aspects and external, social, political, environmental aspects; the relationship with the place, with the various interlocutors and with the citizens; the openness to references and design experiences of an international nature, central to the current debate, constituted the conditions and tools through which the work was set up and conducted. Obviously, the integration of disciplines is the fundamental aspect that gives meaning and continuity to the entire activity of the Advanced Design Studio.
Portici is a municipality in the metropolitan city of Naples at the foot of Vesuvius, with one of the highest population densities in Italy, historically characterized by the presence of the Naples-Portici, the first Italian railway, inaugurated in 1839. Other important fragments of history can be traced in the form of villas and gardens overlooking the gulf and large monumental spaces, such as that of the Royal Palace with its park, composing a multiform progression, in an territory between Naples and the archaeological area of Herculaneum.
At the same time, the partially denied relationship between the sea and the city, to be re-established through the reconfiguration of the waterfront and the harbor area; the presence of infrastructures that define multiple barriers in the inhabited fabric; the need to insert new equipment in internal and peripheral areas; the recovery of abandoned areas and industrial complexes are some of the main issues to be addressed through the design project.
To try to solve the existing criticalities, but also to enhance the potential and the various assets of which Portici is rich, the project proposals were necessarily built through a mechanism of grafting into the existing, a mechanism not centered on the definition of a complete and closed and a predetermined function, but which, on the contrary, has allowed us to work on an idea of open form, which has recycled what exists, which has opened itself to multiple possibilities of use and which has continuously changed its perimeter, extending and incorporating urban pieces of different nature.
In this articulated general framework and starting from these assumptions, the individual students of the Design Studio have provided answers, starting from two precise orientations: the need to identify a specific problem and an urban area in which this

Nell’a.a. 2019-20 nel Laboratorio di Sintesi finale, e in particolare nel modulo di Progettazione Architettonica e Urbana, si è scelto il comune di Portici come territorio di sperimentazione. Questa esperienza, segnata dal *lockdown* per Covid-19 e, di conseguenza, svolta in presenza nel primo semestre, a distanza nel secondo e ancora dal vivo relativamente agli esami finali, è stata concepita come un’occasione per approfondire gli articolati meccanismi che un progetto urbano e architettonico richiede in relazione alla complessità delle situazioni reali, in una prospettiva di lavoro sul campo e di integrazione multidisciplinare. Ciò in perfetta continuità con quanto era stato elaborato nell’anno precedente con il Laboratorio su Castel Volturno (a.a. 2018-19) e pensando di continuare a lavorare con queste modalità anche negli anni successivi.
Il controllo del processo logico delle scelte alle diverse scale; la risposta progettuale rispetto a particolari condizioni della contemporaneità; lo scambio continuo tra aspetti progettuali specifici e aspetti esterni, sociali, politici, ambientali; la relazione con il luogo, con i diversi interlocutori e con i cittadini; l’apertura a riferimenti e a esperienze progettuali di carattere internazionale, centrali nel dibattito attuale, hanno costituito i presupposti e gli strumenti attraverso i quali è stato impostato e condotto il lavoro. Ovviamente l’integrazione delle discipline è l’aspetto fondamentale che dà senso e continuità all’intera attività del Laboratorio di Sintesi.
Portici è un comune della città metropolitana di Napoli ai piedi del Vesuvio, con una delle densità abitative più alte d’Italia, caratterizzato storicamente dalla presenza della Napoli-Portici, la prima ferrovia italiana, inaugurata nel 1839. Altri importanti frammenti di storia si rintracciano in forma di ville e giardini con vista sul golfo e grandi spazi monumentali, come quello della Reggia con il suo Parco, componendo una progressione multiforme, in un territorio disposto tra Napoli e l’area archeologica di Ercolano.
Allo stesso tempo, il rapporto in parte negato tra mare e città, da ristabilire attraverso la riconfigurazione del waterfront e dell’area del porto; la presenza delle infrastrutture che definiscono molteplici barriere nel tessuto abitato; la necessità dell’inserimento di nuove attrezzature nelle aree interne e nelle aree periferiche; il recupero di aree e di complessi industriali in abbandono, si pongono come alcune delle principali tematiche a cui far fronte attraverso il progetto.
Per provare a risolvere le criticità esistenti, ma anche per valorizzare le potenzialità e i vari patrimoni di cui Portici è ricca, le proposte progettuali sono state necessariamente costruite attraverso un meccanismo di innesto nell’esistente, un meccanismo non imperniato sulla definizione di una forma compiuta e chiusa e una funzione predeterminata, ma che, al contrario, ha consentito di lavorare su un’idea di forma aperta, che ha riciclato quanto esiste, che si è aperta a molteplici possibilità di uso e che ha cambiato continuamente la propria perimetrazione, estendendosi e inglobando pezzi urbani di diversa natura.
In questo intricato quadro generale e a partire da questi presupposti, i singoli studenti del Laboratorio hanno fornito risposte, partendo da due orientamenti precisi: la necessità di

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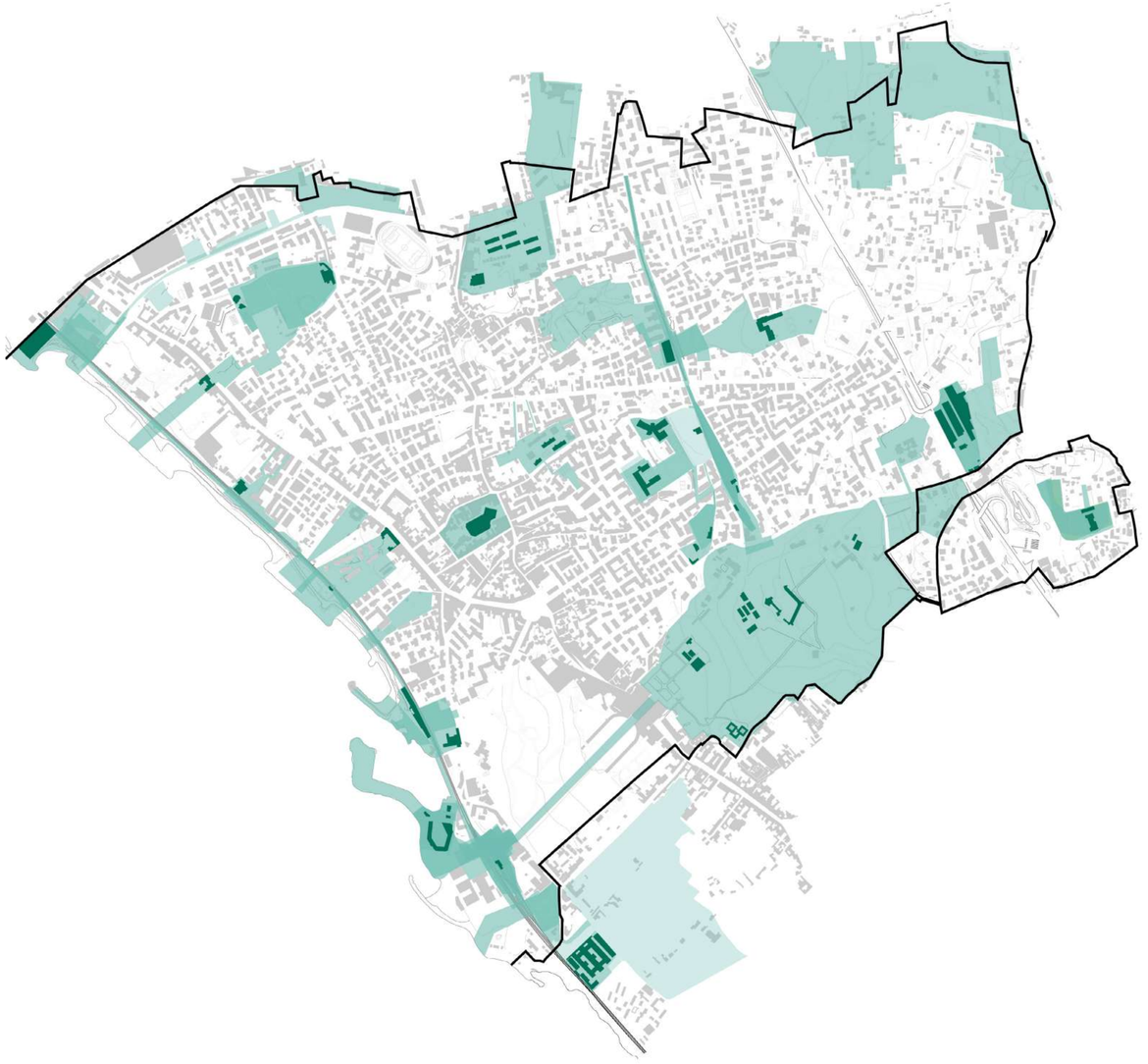
Projects for Portici City-Park. General Masterplan (2019)

Drawing by A. Bernieri, F. Coppolino

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Progetti per Portici città-parco. Masterplan generale (2019)

Disegno di A. Bernieri, F. Coppolino



problem was expressed in a more significant way and, at the at the same time, the need to address it not as an isolated problem, but in a logic of correlation with other areas and other problems.
In the reversing of the logic of progressive abandonment, infrastructural breakdowns, environmental compromises and social discomfort that characterize many pieces of Portici today, the Design Studio worked on the definition of inclusive landscapes, multiple connections, filter places and expanded accessibility. It therefore tried to define an idea of Portici "city-park", an idea not far to the reasons for the formation of this settlement located on the slopes of Vesuvius, a scenario that can be reached for a municipality with an extension of about 4 kmq that looks to the future, setting itself goals of great interest and importance. This condition is highlighted by some recent design competitions for the reconfiguration of the waterfront and by an administration interested in innovative proposals for public space for citizens.
The relationship between landscape and architecture, between health and well-being in the city, summarized in newly conceived urban spaces, were the themes explored in the Design Studio also in relation to a renewed idea of contemporary park and nature in the city, a topic addressed in terms of open spaces and urban architectures, capable of providing new qualities to the entire city of Portici, from the already positionally privileged areas to the peripheral and forgotten ones. The construction of the city-park was developed through the identification and design of new urban reference places, not resulting from specific actions, but conceived as widespread triggers of public spaces. The reactivation of abandoned spaces through the reuse and reconfiguration of abandoned urban areas and/or waste buildings to which new urban roles have been attributed; the stratification of multiple soils, as a definition of new multilevel urban environments through the relationship between the vertical dimension and horizontal dimension of the open space; the connection between heterogeneous spaces through the definition of inhabited infrastructures for the sharing of urban everyday life, are the themes through which it has been possible to develop the new urban vision for Portici "City-Park" proposed by the work carried out in the Design Studio.
These topis were explored in relation to the specific and multiple project areas identified by the students themselves, which can be grouped into some fundamental macro-themes: the Granatello area and the relationship with the sea, with the Royal Palace to the north and with the archaeological site of Herculaneum to the east; the waterfront, from Granatello to Pietrarsa, considered both from the point of view of the reconfiguration of the front from the sea and as regards the possible relationships with the internal areas, through transverse connections; the infrastructural lines (the Naples-Portici railway and the Circumvesuviana line) towards Naples which separate the areas located in the internal part of the territory, but which, on the contrary, can become innovative places for urban relations; the industrial areas to the north, such as the area of the former Kerasav and the area of the former Fagianeria,

identificare un problema specifico e un'area urbana in cui tale problema si esplicitava in maniera più significativa e, allo stesso tempo, la necessità di affrontarlo non in maniera isolata, ma in una logica di correlazione con altre aree e altri problemi.
Nel sovvertire le logiche di abbandono progressivo, di cesure infrastrutturali, di compromissioni ambientali e di disagio sociale che caratterizzano oggi molti brani di Portici, si è lavorato alla definizione di paesaggi inclusivi, connessioni multiple, luoghi filtro e accessibilità ampliate. Si è dunque provato a definire collettivamente una idea di Portici "città-parco", una idea non estranea alle ragioni della formazione di questo insediamento disposto alle falde del Vesuvio, uno scenario raggiungibile per un comune con un'estensione di circa 4 kmq che guarda al futuro, ponendosi obiettivi di grande interesse e importanza, come testimoniato da alcuni recenti concorsi di progettazione per la riconfigurazione del waterfront e da un'amministrazione interessata a proposte innovative di spazio pubblico per i cittadini.
La relazione tra paesaggio e architettura, tra salute e benessere in città, sintetizzata in spazi urbani di nuova concezione, sono stati i temi approfonditi nel Laboratorio anche in relazione ad una rinnovata idea di parco contemporaneo e di natura in città, un tema affrontato in termini di spazi aperti e architetture urbane, in grado di fornire nuove qualità all'intera città di Portici, dalle aree già posizionalmente privilegiate a quelle periferiche e dimenticate. La costruzione della città-parco è stata sviluppata attraverso l'individuazione e il progetto di nuovi luoghi urbani di riferimento, non derivanti da azioni puntuali, ma concepiti come inneschi diffusi di trame di spazi pubblici. La riattivazione di spazi in abbandono attraverso il riuso e la riconfigurazione di aree urbane dismesse e/o edifici di scarto ai quali sono stati attribuiti nuovi ruoli urbani; la stratificazione di suoli molteplici, come definizione di nuovi ambienti urbani multilivello attraverso la relazione tra dimensione verticale e dimensione orizzontale dello spazio aperto; la connessione tra spazi eterogenei attraverso la definizione di infrastrutture abitate per la condivisione della quotidianità urbana, sono i temi grazie ai quali è stato possibile elaborare la nuova visione urbana per Portici "città-parco" proposta dal lavoro svolto nel Laboratorio.
Questi temi sono stati esplorati in relazione alle specifiche e molteplici aree di progetto individuate dagli studenti stessi, raggruppabili in alcuni fondamentali macro-temi: l'area del Granatello e il rapporto con il mare, con la Reggia a nord e con il sito archeologico di Ercolano a est; il waterfront, dal Granatello alla Pietrarsa, considerato sia dal punto di vista della riconfigurazione del fronte dal mare sia per quanto riguarda le possibili relazioni con le aree interne, attraverso connessioni trasversali; le linee infrastrutturali (la ferrovia Napoli-Portici e la linea della circumvesuviana) verso Napoli che separano tra loro le aree disposte nella parte più interna del territorio, ma che, al contrario, possono divenire luoghi innovativi di relazione urbana; le aree industriali a nord, quali l'area della ex Kerasav e l'area della ex Fagianeria ripensate in relazione all'autostrada e agli spazi esterni limitrofi; il bordo occidentale a confine con San Giorgio

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The field trip in Portici and the Mid Critic (2019-2020)

Photos by A. Bernieri and Design Studio students

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Il sopralluogo a Portici e la critica intermedia (2019-2020)

Foto di A. Bernieri e degli studenti del Laboratorio







rethought in relation to the highway and the surrounding outdoor spaces; the western edge near San Giorgio a Cremano, in particular in relation to the cemetery area and the new residential areas.
At the same time, the design actions implemented by the students' projects mainly concerned the addition of new elements in relation to the existing buildings; a new accessibility system, where possible, with a view to sustainable mobility, through the inclusion of cycle paths, new pedestrian paths, new places of exchange and meeting; the integration between built spaces and open spaces in order to have a continuity between inside and outside; functional hybridization, through the definition of articulated and inclusive spaces.
In relation to these actions, specific architectural topics have been explored, specifically declined in relation to the different contexts, such as the definition of new connecting elements, like walkways, ramps, paths, underpasses, elevations up to the insertion of real connection buildings; the breaking of fences near public spaces or places of public interest, such as schools, libraries, museums, hospitals in order to insert elements aimed at redeveloping entire urban areas as a whole in architectural terms, also through the insertion of sports equipment and/or schools in close relationship with a newly conceived open space. In this process, in the two semesters of laboratory activities and given the conditions of forced isolation, the "remote" telling of the project played a particular role.
Each student had to develop a digital product of the project, shown in this volume on the following pages, in which the need to synthesize the design contents was central, as well as the need to focus on new communication mechanisms, which are not the same as in a live exhibition, but which instead focus on certain specific aspects, such as the complementarity of the different designs, in order to synthesize and choose the most significant drawings, global scalability, which implies being able to control the different scales of the project and the graphic coherence of the story, in unitary terms and of clarity and synthesis of the communication.
However, the results achieved in the Advanced Design Studio, after the lockdown period, were discussed in a conference, which was held at the Pietrarsa's Museum, an occasion in which the students were able to present their design work to the Municipality of Portici, who then organized a subsequent award ceremony for the best projects, making available some scholarships.
The outcomes of the design work described in the publication are presented as a reasoning in progress, born from the assumptions of the Advanced Design Studio and enriched through the dialogue with the administration and the intersection between the different disciplines involved, from which an approach emerges of open and flexible work which, starting from a careful and aware reading of the main elements of the city of Portici, has changed according to specific and changing needs, with the aim of identifying some possible directions for development and transformation of the territory.

a Cremano, in particolare in relazione all'area del cimitero e alle nuove aree residenziali.
Allo stesso tempo, le azioni progettuali messe in campo dai progetti degli studenti hanno principalmente riguardato l'aggiunta di nuovi elementi in relazione agli edifici preesistenti; un nuovo sistema di accessibilità, laddove possibile, in un'ottica di mobilità sostenibile, attraverso l'inserimento di piste ciclabili, nuovi percorsi pedonali, nuovi luoghi di scambio e di incontro; l'integrazione tra spazi costruiti e spazi aperti in un'ottica di continuità tra interno ed esterno; l'ibridazione funzionale, attraverso la definizione di spazi articolati e inclusivi.
In riferimento a queste azioni sono stati esplorati specifici temi di architettura, specificamente declinati in relazione ai diversi contesti, quali la definizione di nuovi elementi di connessione, come passerelle, rampe, percorsi, sottopassaggi, sopraelevazioni fino ad arrivare all'inserimento di veri e propri edifici di connessione; la rottura dei recinti nei pressi degli spazi pubblici o di luoghi a interesse pubblico, quali scuole, biblioteche, musei, ospedali al fine di innestare elementi volti a riqualificare in termini architettonici interi ambiti urbani nel loro complesso, anche attraverso l'inserimento di attrezzature sportive e/o scolastiche in stretta relazione con uno spazio aperto di nuova concezione.
In questo processo di costruzione progettuale, nei due semestri di attività laboratoriali e date le condizioni di isolamento forzato, particolare peso ha rivestito il racconto del progetto "a distanza". Ciascun studente ha dovuto elaborare un prodotto digitale del progetto, mostrato in questo volume nelle pagine a seguire, nel quale è risultata centrale la necessità di operare una sintesi dei contenuti progettuali, così come la necessità di concentrarsi su nuovi meccanismi di comunicazione, che non sono gli stessi di una mostra dal vivo, ma che invece sono incentrati su alcuni precisi aspetti, quali la complementarietà dei diversi disegni, ossia il riuscire a fare sintesi e a scegliere i disegni più significativi, l'interscalarità globale, che implica il riuscire a controllare le diverse scale del progetto e la coerenza grafica del racconto, in termini unitari e di chiarezza e di sintesi della comunicazione.
Tuttavia, i risultati conseguiti nel Laboratorio di Sintesi, successivamente al periodo di *lockdown*, sono stati discussi in una giornata di studio, che si è tenuta presso il Museo di Pietrarsa, occasione in cui gli studenti hanno potuto presentare il proprio lavoro progettuale alla Municipalità di Portici, che ha poi organizzato una premiazione successiva dei migliori progetti, mettendo a disposizione alcune borse di studio.
Gli esiti del lavoro progettuale descritti nella pubblicazione si pongono come un ragionamento in divenire, nato a partire dai presupposti del Laboratorio di Sintesi e arricchito attraverso l'interlocuzione con l'amministrazione e l'intersezione tra le diverse discipline coinvolte, da cui emerge una impostazione di lavoro aperta e flessibile che, a partire dalla lettura attenta e consapevole dei principali elementi di identificazione della città di Portici si è modificata a seconda delle specifiche e mutevoli esigenze, con l'obiettivo di individuare alcuni possibili indirizzi di sviluppo e trasformazione del territorio.

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Projects for Portici. Visuals (2020)

Drawings by Design Studio students

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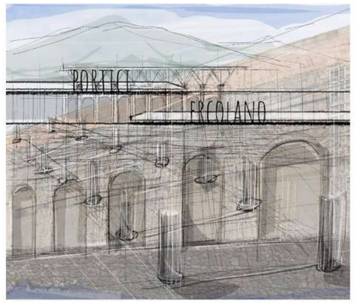
Progetti per Portici. Visioni (2020)

Disegni degli studenti del Laboratorio

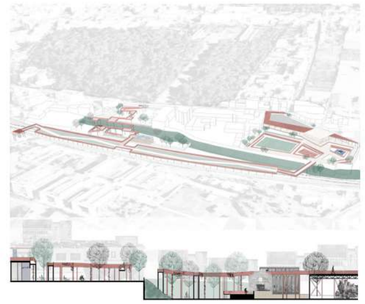


















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2. J. Panek, R. Netek, "Collaborative Mapping and Digital Participation: A Tool for Local Empowerment in Developing Countries", in *Information*, 10, 2019, p. 255.

3. A. Tietjen, "Found in translation. Working with actor-network theory" in *Design education*, Nordisk Arkitekturforskning, 1, 2018, pp. 11-34.

One of the main challenges of the Advanced Design Studio was to try to define new interpretations and action strategies for the city of Portici. This place has been object of numerous and consistent studies and insights due to the multiple historical stratifications, to the particular topography, to the relation with the coast, to the monuments of great importance, such as the Reggia of Portici and the Roman villas. It has been as well object of various design competitions aimed at enhancing and encouraging its tourist role, such as the competition focused on the redefinition of the waterfront. However, if investigated only through cartographic knowledge and documentary research, this place fails to return the richness and complexity of its extremely heterogeneous urban form, stretched between local issues and global reorganization processes. Portici is indeed one of the cities with the highest population density in Italy, where there is currently a lack of facilities, but above all, a lack of adequate public spaces, such as parks, squares and gardens.

Starting from these premises and the desire to focus attention on current issues of great importance, linked for example to the uses of spaces, social practices, atmospheric pollution, the work of the 2019-2020 Final Design Studio on the Municipality of Portici intended to experiment an approach defined as "Collaborative Mapping" from the literature. There are many examples of this, some of which are commonly used (such as Open Street Map, City Open Source, Mappi[na]), which play a strategic instrumental role in the knowledge of places and geographies. What makes these "interactive containers" of great use for the design process is above all the user-to-user nature, that is, a collaborative platform created by the user for the user.

From a methodological and didactic point of view, the approach to this type of instrumentation and process played a dual role in the period in which the studio was held. In fact, the use of digital and virtuality, combined with the need to create a shared database, have kept the laboratory aspect of work alive even in times of lockdown. Called to reorganize methods, tools and unfortunately also places, the laboratory has metaphorically become the home and the work groups the virtual rooms for interaction and exchange between students.

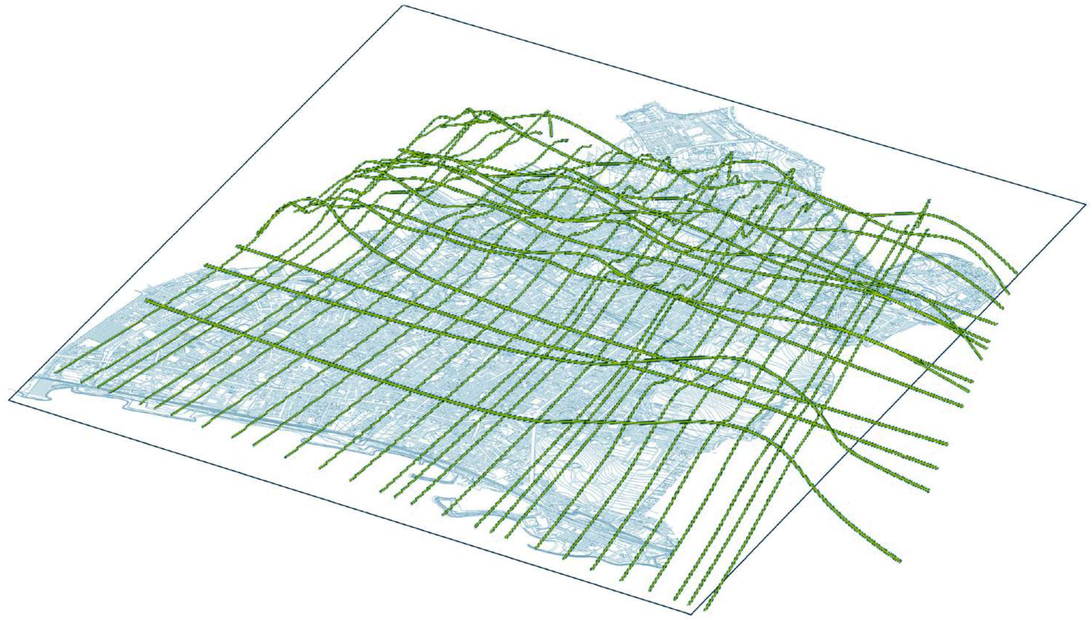
Specifically, it was a cognitive and planning process that can be divided into two major phases. The first concerned the collection of common data and knowledge in relation to different fields of detection and/or types of spaces and social practices. The themes identified in this phase concerned air (sources of atmospheric pollution, sources of noise pollution), water (permeable soils, impermeable soils, state of the sea), soil (treated areas, abandoned areas). This is because, in the context of an area as densely populated as Portici, these assessments constitute the basic common ground

Una delle principali sfide del Laboratorio di Sintesi finale è stata quella di provare a definire letture inedite e strategie di azione per un luogo – la città di Portici – oggetto di numerosi e consistenti studi e approfondimenti per via delle molteplici stratificazioni storiche che compongono questo territorio, della particolare topografia, della relazione con la costa, dei monumenti di grande importanza, come la Reggia di Portici e le ville romane; ma anche oggetto di diversi concorsi di progettazione tesi a valorizzarlo e ad incentivarne il ruolo di meta turistica a livello regionale, come ad esempio il concorso incentrato sulla ridefinizione del waterfront. Tuttavia, se indagato solo attraverso la conoscenza cartografica e le ricerche documentali, questo luogo non riesce a restituire la ricchezza e la complessità della sua forma urbana estremamente eterogenea, tesa tra questioni locali e processi di riorganizzazione globale. Portici si presenta infatti come una delle città con più alta densità abitativa d'Italia, in cui è allo stato attuale ravvisabile una mancanza di attrezzature, ma soprattutto, una mancanza di spazi pubblici adeguati, come ad esempio parchi, piazze, giardini.

A partire da tali premesse e dalla volontà di incentrare l'attenzione su problematiche attuali di grande rilevanza, legate agli usi degli spazi, alle pratiche sociali, all'inquinamento atmosferico, il lavoro del Laboratorio di Sintesi Finale 2019-2020 sul territorio del comune di Portici ha inteso sperimentare un approccio definito dalla letteratura Collaborative Mapping. Esistono molteplici esempi in tal senso, alcuni dei quali di utilizzo comune (come Open Street Map, City Open Source, Mappi[na]), che rivestono un ruolo strumentale strategico nella conoscenza di luoghi e geografie. Ciò che rende questi "contenitori interattivi" di grande utilità per il processo progettuale è soprattutto la natura user-to-user, ovvero di piattaforma collaborativa, creata dall'utente per l'utente.

Dal punto di vista metodologico e didattico, l'approccio a questo tipo di strumentazione e processualità ha giocato un duplice ruolo nel periodo in cui si è svolto il laboratorio. Infatti, l'uso del digitale e la virtualità, abbinati alla necessità di realizzazione di un database condiviso, hanno mantenuto vivo l'aspetto laboratoriale del lavoro didattico anche in tempi di lockdown. Chiamati a riorganizzare metodi, strumenti e purtroppo anche luoghi, il laboratorio è diventato metaforicamente la casa e i gruppi di lavoro le stanze virtuali di interazione e di scambio tra gli studenti.

Nello specifico si è trattato di un processo conoscitivo e progettuale suddivisibile in due grandi fasi. La prima ha riguardato la raccolta di dati e conoscenze comuni in relazione a diversi campi di rilevamento e/o tipi di spazi e pratiche sociali. I tematismi individuati in questa fase hanno riguardato aria (fonti di inquinamento atmosferico, fonti di inquinamento acustico), acqua (suoli permeabili, suoli impermeabili, stato del mare), suolo (aree curate, aree abbandonate).



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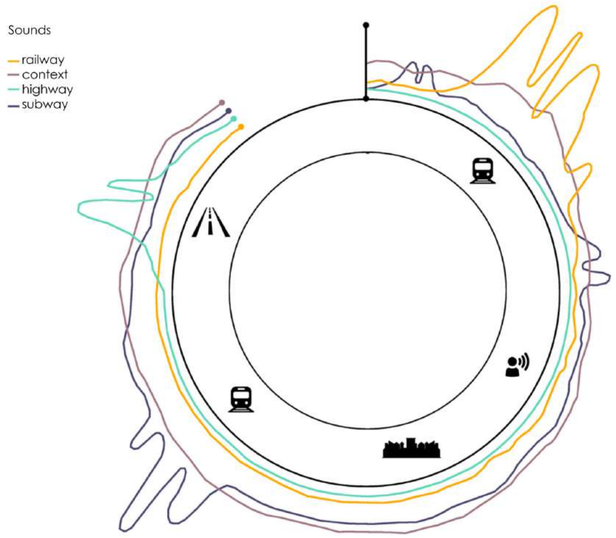
Soundscapes (2020)

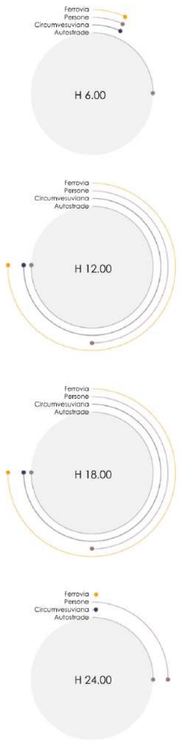
Drawings by Design Studio students

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Paesaggi del suono (2020)

Disegni degli studenti del Laboratorio





for the development of effective design proposals which are placed in the complex contemporary context of a city that far exceeds its environmental limits.

To this end, examples of objects associated with manipulation practices of natural cycles have been identified, through areal or punctual concepts, with reference to the three themes, air, water, soil, such as: atmospheric pollution from car traffic; noise pollution from air traffic; atmospheric pollution from overheating; electromagnetic pollution; the presence of permeable pavements and soils, and conversely, the consistency of impermeable surfaces; sea pollution; the degree of maintenance of soils and cultivated land and, vice versa, the level of abandonment.

The second phase then saw the development of a recognition activity of the possible project patterns. Those on which attention was focused were then identified as follows: buffer zones, socio-ecological connections, wetlands, soundscapes, from which real complex spatial mappings were created. A shared collective brainstorming, specifically aimed at the collection of "libraries of technological objects" (such as energy-friendly architectures, transformation and storage devices, materials that "cure", digital technologies), supported this operation.

Ultimately, an attempt was made to provide the city of Portici with new tools of knowledge that can guide design choices in a more conscious way, with the principal objective of educating the new generations to an idea of a design process that does not separate from the environment, but on the contrary tries to find a continuous interaction with it and a completely renewed concept of ecology intrinsic to the landscape and city project. This, in the case of Portici, represented and still represents a great challenge.

Questo perché, nell'ambito di un territorio così densamente abitato come Portici, tali valutazioni costituiscono il terreno comune di base per l'elaborazione di proposte progettuali efficaci e calate nel complesso contesto contemporaneo di una città che supera di gran lunga i suoi limiti ambientali.

Sono stati a tal fine individuati, attraverso concept areali o puntuali, esempi di oggetti associati a pratiche di manipolazione dei cicli naturali in riferimento ai tre temi, aria, acqua, suolo, come ad esempio: l'inquinamento atmosferico da traffico automobilistico; l'inquinamento acustico da traffico aereo; l'inquinamento atmosferico da surriscaldamento; l'inquinamento elettromagnetico; la presenza di pavimentazioni e suoli permeabili, e di contro, la consistenza di superfici impermeabili; l'inquinamento del mare; il grado di manutenzione di suoli e terreni coltivati e, viceversa, il livello di abbandono.

La seconda fase ha visto poi lo svolgersi di un'attività di riconoscimento dei possibili pattern di progetto. Quelli su cui è stata focalizzata l'attenzione sono stati poi così individuati: buffer zones, connessioni socio-ecologiche, zone umide, soundscapes, che hanno dato vita a delle vere e proprie mappature spaziali complesse. Un brainstorming collettivo condiviso, specificamente rivolto alla raccolta di "librerie di oggetti tecnologici" (quali architetture energy-friendly, dispositivi di trasformazione e stoccaggio, materiali che "curano", digital technologies), ha supportato tale operazione.

In definitiva, si è provato a fornire alla città di Portici nuovi strumenti di conoscenza e nuovi scenari che possano indirizzare in maniera più consapevole le scelte progettuali, con il principale obiettivo di educare le nuove generazioni ad un'idea di progetto che non si separa dall'ambiente, ma che al contrario prova a trovare con esso una continua interazione e da una concezione di ecologia completamente rinnovata e intrinseca al progetto di paesaggio e di città. Questo, nel caso di Portici, ha rappresentato e rappresenta tuttora una grande sfida.

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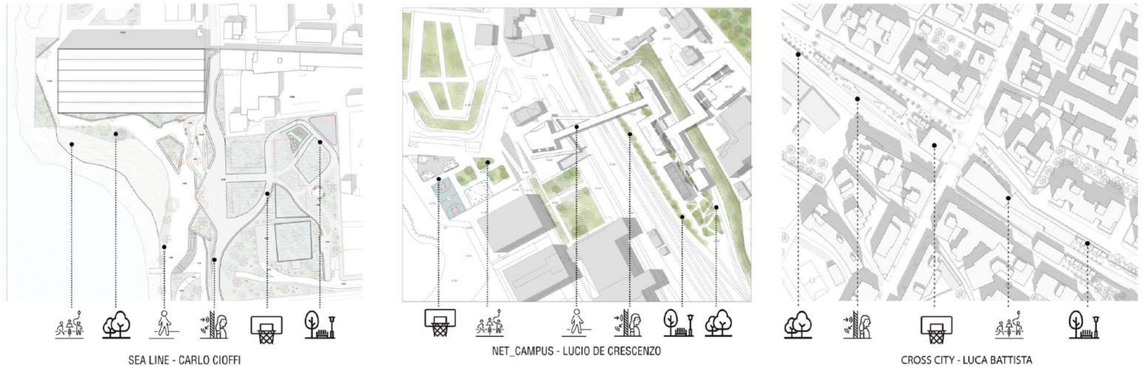
Fragmets of projects (2020)

Drawings by Design Studio students

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Frammenti di progetto (2020)

Disegni degli studenti del Laboratorio



The collaboration between the DiARC Department of Architecture of the University of Naples Federico II, with prof. Pasquale Miano as scientific responsible, and the Municipality of Portici, established in September 2019 with the intention of launching design experiments as part of the Advanced Design Studio, addressed relevant issues from an educational and research point of view in reference to the Portici area.
In this perspective, the City Administration immediately set itself the goal of rewarding the work carried out within the Design Studio, through the funding of 5 scholarships for particularly deserving proposals, able to promote interesting and concrete transformation scenarios.
The final presentation of the projects developed in the Portici "city-park" Design Studio, held in July 2020 at the National Railway Museum of Pietrarsa in Portici, was the occasion in which the DiARC students were able to show the achieved results and deliver the produced materials to the Administration.

Subsequently, in February 2021, the evaluation of the 36 projects took place, with a special commission chaired by the Head of the Technical Office Gaetano Improta with Pasquale Miano and the Mayor Vincenzo Cuomo. The evaluation criteria of the projects focused on the ability to interpret current issues at the urban scale of the Portici territory, on the adequacy of the design solution in relation to the problem posed, on the ability to connect urban parts of the territory through new architectural elements. Five projects were then selected to which scholarships were awarded and then the scrolls were distributed during the closing ceremony.

Catalyst of the design interests for the selected solutions, has been the coastal strip area, in particular the port area and the waterfront, currently subject to improvement works, proof of the increasing attention towards a part of the city with great cultural, economic and tourist potentials, which naturally led to the agreement between several important institutional organizations.

This fruitful experience opens up stimulating and unexpected perspectives of collaboration, revealing itself as a resource not only for young designers but also and above all for the Municipality of Portici, always open to new challenges.

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The Mid Critic, the presentation of the projects at National Museum of Pietrarsa and the final award ceremony (2020)

Photos by F. Coppolino and Design Studio students

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La critica intermedia, la presentazione dei progetti al Museo Nazionale della Pietrarsa e la consegna dei premi (2020)

Foto di F. Coppolino e degli studenti del Laboratorio

La collaborazione tra il Dipartimento di Archiettura DiARC dell'Università di Napoli Federico II, con responsabile scientifico il prof. Pasquale Miano, ed il Comune di Portici, instaurata nel settembre 2019 con l'intento di avviare sperimentazioni progettuali nell'ambito del Laboratorio di Sintesi finale, ha affrontato tematiche rilevanti sotto il profilo didattico e della ricerca in riferimento al territorio di Portici. A tal fine, l'Amministrazione Comunale si è posta sin da subito l'obiettivo di premiare il lavoro svolto nell'ambito del Laboratorio, attraverso il finanziamento di 5 borse di studio per i progetti che sarebbero risultati particolarmente meritevoli e che avrebbero aperto interessanti e concreti scenari di trasformazione.
La presentazione finale dei progetti elaborati nell'ambito del Laboratorio Portici "città-parco", tenutasi nel luglio 2020 presso il Museo Nazionale Ferroviario di Pietrarsa di Portici, è stata l'occasione in cui gli studenti del DiARC hanno potuto mostrare i risultati conseguiti e hanno consegnato gli elaborati prodotti all'Amministrazione.

Successivamente nel febbraio 2021 si sono svolte le operazioni di valutazione dei 36 progetti presentati, con apposita commissione presieduta dal Dirigente dell'Area Tecnica arch. Gaetano Improta e composta dal prof. Pasquale Miano e dal sottoscritto dott. Vincenzo Cuomo. I criteri di valutazione dei progetti si sono focalizzati sulla capacità di interpretare temi attuali alla scala urbana del territorio porticese, sull'adeguatezza della soluzione progettuale rispetto al problema posto, sulla capacità di connettere parti urbane del territorio attraverso nuovi elementi architettonici. Sono stati quindi selezionati cinque progetti ai quali sono state assegnate le borse di studio e successivamente sono state consegnate le pergamene durante la cerimonia conclusiva.

Catalizzatore degli interessi progettuali per le soluzioni selezionate, si è rivelato essere l'area di fascia costiera, in particolare la zona portuale ed il waterfront, oggetto attualmente di lavori di miglioramento, a riprova dell'attenzione sempre maggiore nei confronti di un'area dalle grandi potenzialità culturali, economiche, turistiche, che hanno condotto naturalmente alla concertazione di più organi istituzionali di rilievo.

Questa proficua esperienza apre a stimolanti ed inattese prospettive di collaborazione, rivelandosi una risorsa non solo per i giovani progettisti ma anche e soprattutto per il Comune di Portici, sempre aperto a nuove sfide.







FABRIZIO ASCIONE, MARGHERITA MASTELLONE

HIGH ENERGY PERFORMANCE BUILDINGS AND RENEWABLE ENERGY CONVERSION: A STEP TOWARDS ENERGY COMMUNITIES

EDIFICI AD ELEVATE PRESTAZIONI ENERGETICHE E CONVERSIONE DI ENERGIA DA FONTI RINNOVABILI: UN PASSO VERSO LE COMUNITÀ ENERGETICHE

The last twenty years have been characterized by a progressively increasing huge discussion in the matter of the necessity of higher city sustainability, in order to stop or make slower the world overheating, mandatory for allowing a suitable life for future generations and giving to the earth the possibility of restoring the natural sources. The environmental pressure involves several aspects of daily life, from the use of energy in buildings (with increasing values in Mediterranean countries, due to the global and urban overheating that is implying a great penetration of active mechanical space cooling) to the satisfaction of all needs of service and comfort that we require, from transports to industry, from agriculture to tertiary and service sectors. Obviously, energy demands imply energy degradation, and thus environmental pollution, heat emission, global and local overheating. In this regard, cities are the place with the higher concentration of heat, due to the high energy intensity, related to the concentration of energy-consuming activities, first of all, the high energy and polluting impacts of buildings.

Portici, just a few meters outside the borders of the city of Naples, is a meaningful example of the great challenge for a new way of approaching the city sustainability, fulfilling all issues whose necessity has been evidenced during the last years. This place shows many issues we have to face, starting from the necessity of approaching an urban density that, over the years, requires a decompression. Cities have to provide services and not merely houses, by creating spaces for new opportunities for open-air life. Starting from 2002 (EPBD 2002/91 / EU), European countries have started a common journey for sharing politics and objectives in a matter of building energy performance. The aim of this first Energy Performance of Building Directive (EPBD) was to orient the building activity of EU Members towards a concept of energy efficiency that allows them to obtain new important targets aimed at reducing environmental impacts of the main energy-intensive sector, and thus for containing the environmental pollution of EU countries. New and more ambitious goals were established later on by the Directive 2010/31 / EU and, in 2018, by Directive 844. Therefore, the next few years will be characterized by new laws aimed at extending high standards of energy efficiency to existing buildings and the proposition of renewable energy communities.

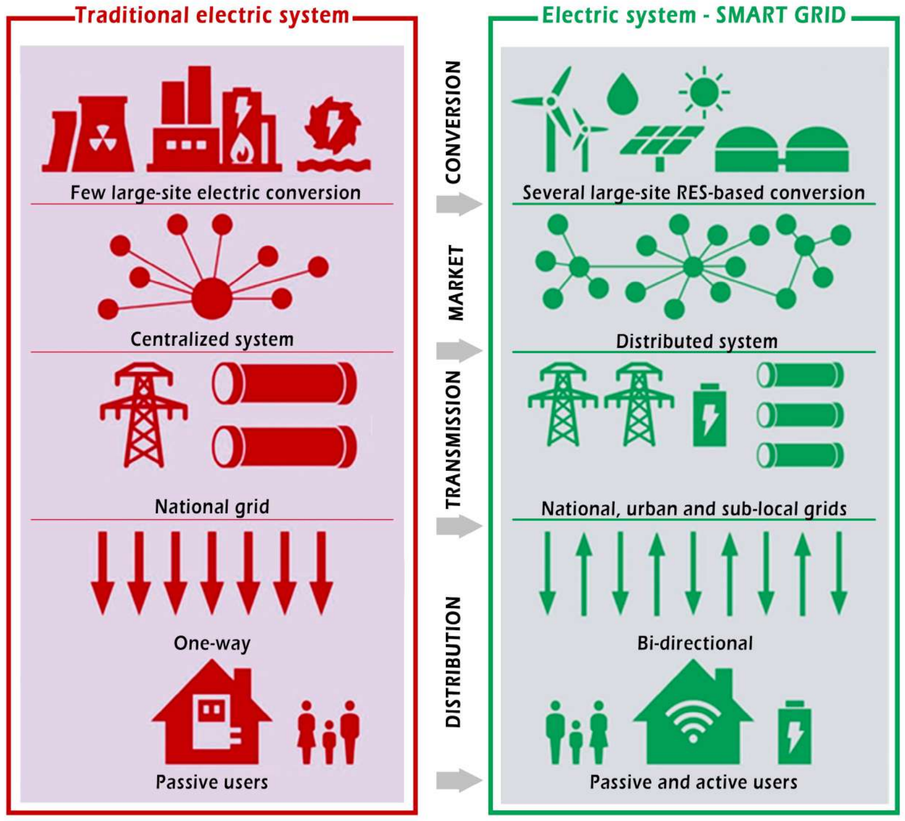
Presently, the Italian laws already require that, starting from 1 January 2021, all new buildings must comply with the nearly-zero-energy standard (nZEB), with a mandatory fulfilling of the nZEB target starting from January 2019 for all new buildings owned or occupied by public Institutions. Really, this means that, today, already we have to design edifices complying with the nearly zero-energy standard, and this implies consciousness of all issues and nodes that it requires. A net zero-energy building is an architecture connected to a territorial energy infrastructure that, in a period of one year, balances incoming and outcoming energy flows. Just a step below, a nearly zero-energy building satisfies a great part of its energy demands, at least 50%, by means

Gli ultimi venti anni sono stati caratterizzati da un'ampia discussione, in continua crescita e diffusione, circa la necessità di incrementare la sostenibilità dell'ambiente costruito, al fine di fermare, o quantomeno rallentare, il cambiamento climatico globale e locale, necessità cogente al fine di garantire un futuro di vivibilità e benessere per le generazioni che verranno, e per dare alla natura la possibilità di recuperare un ambiente che speriamo sia ancora non del tutto compromesso. La pressione ambientale coinvolge moltissimi aspetti della vita di ogni giorno, dall'uso dell'energia nell'architettura (con valori di consumo costantemente crescenti nei paesi del mediterraneo, a causa del cambiamento climatico che, sia a livello mondiale che locale, sta producendo una diffusione inarrestabile delle tecnologie per il raffrescamento e la climatizzazione degli edifici) alla necessità di soddisfacimento di tutti i bisogni e le esigenze di comfort dei vari settori, dai trasporti all'industria, dall'agricoltura al terziario ed ai servizi.

Ovviamente, il fabbisogno energetico e l'uso dell'energia implicano un suo degrado, e quindi inquinamento ambientale, emissione di calore, surriscaldamento globale e locale. A questo proposito, le città sono il luogo in cui le attività antropiche determinano la più alta densità e quindi degrado energetico, correlati alla concentrazione di attività energivore, in primis l'alto impatto energetico e inquinante degli edifici.

Portici, città subito all'esterno del territorio comunale di Napoli, è un esempio significativo della grande sfida da mettere in campo per un necessario cambio di paradigma, un nuovo modo di affrontare la sostenibilità delle città, rispondendo a tutte le questioni la cui necessità è stata evidenziata negli ultimi decenni. Questo luogo mostra molti dei problemi che un futuro di sostenibilità richiede di affrontare, a partire dalla necessità di avvicinarci a una densità urbana che impone una significativa decompressione. Le città devono fornire servizi e non solo case, devono prevedere spazi per nuove opportunità di vita, sociale, outdoor, in armonia con la salvaguardia ambientale. A partire dal 2002 (EPBD 2002/91/EU), i paesi europei hanno iniziato un percorso comune di condivisione di politiche e obiettivi in materia di efficienza e sostenibilità energetica degli edifici. L'obiettivo di questa prima Direttiva sul rendimento energetico nell'edilizia (EPBD) è stato quello di orientare l'attività dei paesi membri dell'UE verso un concetto di efficienza energetica che consenta loro di ottenere nuovi importanti obiettivi volti a ridurre l'impatto ambientale del settore maggiormente energivoro e contenere l'inquinamento. Nuovi e più ambiziosi obiettivi sono stati fissati successivamente dalla Direttiva 2010/31/UE e, nel 2018, dalla Direttiva 844. Pertanto, i prossimi anni saranno caratterizzati da nuove leggi volte ad estendere elevati standard di efficienza energetica anche all'edificato esistente e alla proposizione delle comunità energetiche rinnovabili.

Attualmente, le leggi italiane in vigore, già prevedono che, a partire dal 1° gennaio 2021, tutti i nuovi edifici debbano rispettare lo standard di edificio ad energia quasi zero (nZEB), con tale requisito già obbligatorio a partire da gennaio 2019 per tutti i nuovi edifici di proprietà o occupati da Istituzioni pubbliche. Pertanto, tale standard, rispetto agli edifici di nuova costruzione, è già in vigore, e richiede consapevolezza di tutti i nodi e temi progettuali che implica. Un edificio a energia netta zero è un'architettura collegata a un'infrastruttura energetica territoriale che, nell'arco di un anno, bilancia i flussi energetici



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From the traditional district to the smart energy community

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Dal quartiere tradizionale alla smart energy community

of the self-energy conversion from on-site renewables.
With reference to all projects developed for Portici, within the integrated course of “Architectural Design Laboratory”, in accordance to the present and future Italian regulations, the nZEB standard was the design requirement. Really, this was not enough, but only the starting constrain. Indeed, already in spring 2020, Italy had to transfer into the national legislation the prescriptions of the Directive 844/2018, in which the requirement of nearly zero-energy demand is extended to the existing building stock, both public and private edifices, within 2050. A deep renovation of the existing building stock is required, with intermediate targets for 2030 and 2040, in order to have a completely de-carbonized building stock within 2050. In addition, new prescriptions have to favor electro-mobility, both by bikes and cars, so that the new National legislation will impose an obligation to install charging points in all new and existing buildings where major renovations are planned.
Approaching the course of “Technics of Environmental Control”, in the urban context of Portici, all these issues have been addressed. We started just from prescriptions, but also from opportunities, provided by the EU Directives, in the matter of sustainability of new and regenerated urban environments. All constraints (i.e., relations with the existing buildings, the necessity of architectural quality, the respect of the historical and cultural values, in some cases) and levers (favorable Mediterranean climate of Portici, the proximity of the coast, the intensity of solar radiation, moderate winters, and warm summers) have been deeply taken into account for energy-conscious designs, aimed at allowing indoor and outdoor environmental comfort, low-energy impacts, building self-energy conversion from renewable energy sources (e.g., solar thermal systems, photovoltaics, ground source renewable energies).
Following the previous experiences, and thus the knowledge of Applied Thermodynamics and Heat transfer for buildings, this course has been characterized by a rigorous energy approach. Starting from the building envelope technologies, traditional and innovative high energy-performing opaque and transparent building components (e.g., responsive and bioclimatic technologies, double-skin facades, vented walls, green roofs) have been investigated. Then, the most suitable active energy systems, devoted to allowing the indoor environmental comfort, have been designed and analyzed with reference to thermal behavior and energy performances and, lastly, the building energy demands were partly satisfied by the on-site clean conversion from the most suitable renewable energy sources.
Surely, thanks to the integrated approach and to the support of all disciplines, all projects are characterized by a great consciousness of the importance of the building’s overall sustainability. And this is a very satisfactory result, for the architects that these students will be in a few months and for the living quality and resilience of our cities of tomorrow.

in entrata e in uscita. Un gradino più in basso, un edificio a energia quasi zero soddisfa gran parte del suo fabbisogno energetico, almeno il 50%, attraverso l’auto-conversione energetica da fonti rinnovabili in loco.
Con riferimento a tutti i progetti sviluppati per Portici nell’ambito del Laboratorio di Sintesi finale in Progettazione Architettonica, in accordo con la presente e futura normativa italiana, lo standard nZEB è stato il requisito progettuale. Invero, questo è stato soltanto un prerequisito. Già nella primavera del 2020, infatti, l’Italia ha dovuto recepire e trasferire nella legislazione nazionale le prescrizioni della Direttiva 844/2018, in cui il rispetto dello standard di edificio ad energia quasi zero è esteso al patrimonio edilizio esistente, sia pubblico che privato, entro il 2050. Occorre un profondo rinnovamento del patrimonio edilizio esistente, con obiettivi intermedi al 2030 e al 2040, per avere un patrimonio edilizio completamente de-carbonizzato entro tale data.
In aggiunta, nuove ed ulteriori prescrizioni devono favorire la mobilità elettrica, sia a due che a quattro ruote, tanto che la nuova normativa nazionale impone l’obbligo di installare punti di ricarica in tutti gli edifici, nuovi ma anche esistenti (in quest’ultimo caso, allorquando siano previsti importanti lavori di ristrutturazione).
Nell’ambito del modulo di “Tecnica del Controllo Ambientale”, nel contesto urbano di Portici, tutte queste tematiche sono state affrontate. Le prescrizioni, ma anche le opportunità, fornite dalle Direttive UE in materia di sostenibilità di ambienti urbani nuovi e rigenerati, sono state lo stimolo, l’impulso per una progettazione energetica sostenibile. Tutti i vincoli (ad esempio, i rapporti con gli edifici esistenti, la necessità di qualità dell’architettura, talora il rispetto del valore storico e culturale) e le leve (il favorevole clima mediterraneo di Portici, la vicinanza della costa, l’intensità dell’irraggiamento solare, la caratteristiche di inverni miti ed estati calde) sono stati presi in considerazione per progetti attenti al tema dell’energia e dell’ambiente, volti a consentire il comfort ambientale interno ed esterno, con impatto limitato sulle risorse energetiche, l’auto-conversione dell’energia da fonti rinnovabili e quindi installazione di impianti solari termici, fotovoltaico, energia rinnovabile geotermica. A seguito delle precedenti esperienze di studio, e quindi partendo dalle conoscenze della Fisica Tecnica Ambientale, questo corso è stato caratterizzato da un approccio energetico rigoroso. Partendo dalle tecnologie di involucro edilizio, sono stati studiati componenti edilizi opachi e trasparenti tradizionali e innovativi ad alte prestazioni energetiche, tra cui si citano, a titolo di esempio, le tecnologie responsive e bioclimatiche, le facciate a doppia pelle, le pareti ventilate, i tetti verdi. Successivamente, sono stati progettati e analizzati i sistemi energetici più idonei, dedicati a consentire il comfort ambientale interno, con riferimento al comportamento termico e alle prestazioni energetiche e, infine, i fabbisogni energetici dell’edificio sono stati in parte soddisfatti dalla conversione pulita ed in loco dalle fonti di energia rinnovabile più adatte.
Grazie all’approccio integrato e al supporto di tutte le discipline, i progetti che gli allievi hanno sviluppato, con cura e dettaglio, sono caratterizzati da una grande consapevolezza circa l’importanza della sostenibilità complessiva del sistema edilizio. Questo è un risultato molto soddisfacente, per gli architetti che questi studenti tra pochi mesi saranno, sia per la qualità della vita e la resilienza delle nostre città di domani.

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On the left, Net Zero Energy Demands

On the right, The field trip in Portici (2019)

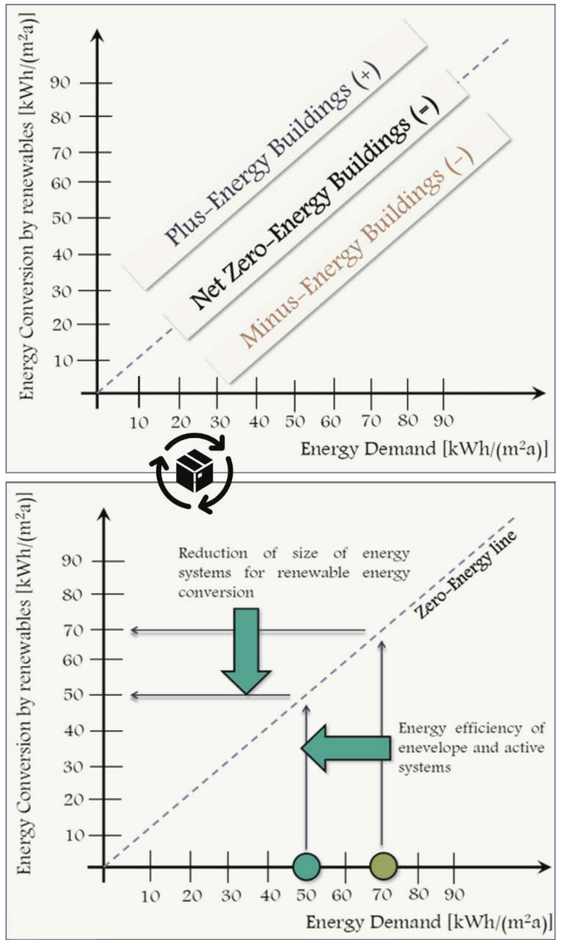
Photos by A. Bernieri

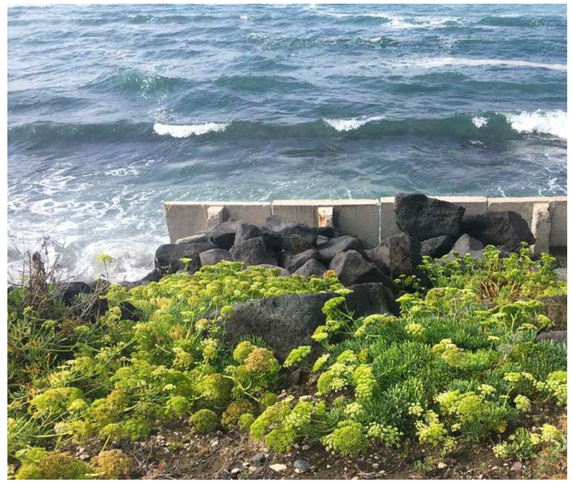
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A sinistra, Fabbisogni energetici zero

A destra, Il sopralluogo a Portici (2019)

Foto di A. Bernieri







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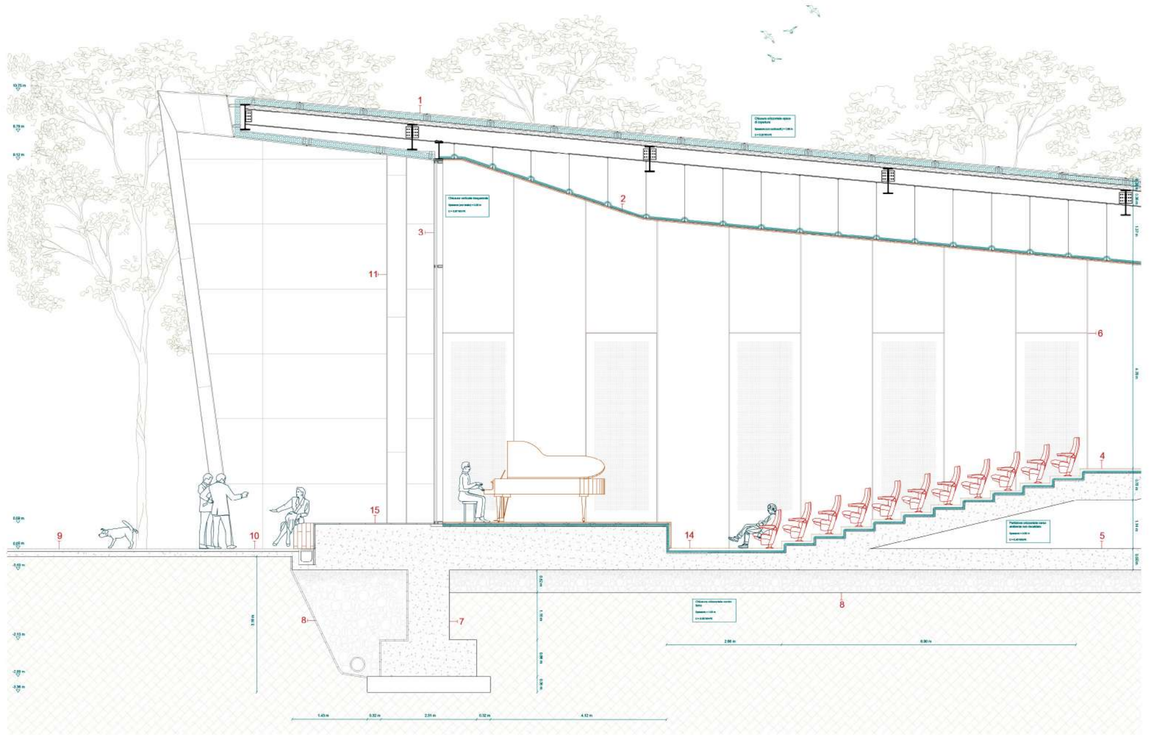
Project *Granatello Island Bridges*, by D. Galleri

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Progetto *Granatello Island Bridges*, di D. Galleri

The development of the themes and works relating to the Executive Architecture Design course within the Final Synthesis Laboratory runs, similarly to what happens in professional practice, hand in hand with the elaboration of the architectural project, intervening in fact immediately on the formal and morphological aspects of the building organism being defined. This continuous verification process takes place in the concept phase necessarily through the optimization of the volumetric forms in relation to both the functional-spatial needs and the environmental components, such as in particular the solar component and natural ventilation and their positive use inside of the new building complex.
The analysis of the morphological aspects of the context in relation to the environmental components in which the new buildings will be inserted, is therefore a fundamental step for the development of the subsequent stages of project development.
In support of this analytical-cognitive process, we have chosen to make use of the support of IT tools for environmental design capable not only of photographing the state of affairs, but at the same time being of support for decisions during the entire design phase and in particular to guide students in choosing the most suitable technical solutions both for the definition of the new building organism, and for the design of the open spaces with the dual purpose of implementing urban regeneration actions and facing the effects of climate change in the city .
The first hypotheses of volumetric concepts are compared on the basis of the analysis of the solar factor through the influence of the context of the shadows carried during the solstices and equinoxes, the analysis of the impact of the defined volumes with natural ventilation along the directions of the winds winter and summer, etc., allowing students to better understand the iteration with natural elements in order to optimize shapes and ensure better levels of internal comfort.
For the solutions of the open space, an attitude was chosen that allowed to implement regenerative climate adaptive design actions capable of contrasting the effects of clamical changes in cities, and in particular the increase in urban temperatures and at the same time capable of reducing risks deriving from the phenomenon of pluvial flooding.
To support this design process, the students conducted environmental analyzes of the open space through the use of the ENVI-met software, which allowed them to analyze the area of intervention during a particularly hot summer day, in order to bring out the criticality of the open space. The results of analyzes on air temperature, relative humidity, temperature, surface albedo and finally outdoor comfort, give a clear picture of the points where the design of the open spaces must intervene. Test phases for the insertion of the designed elements such as the new designed volumes, the permeable green areas, the trees, drainage floors and with high reflectance factors, led to the definition of the environmental strategy

Lo sviluppo dei temi e degli elaborati relativi al corso di Progettazione Esecutiva dell'Architettura all'interno del Laboratorio di Sintesi Finale corre, analogamente a quanto accade nella pratica professionale, di pari passo alla elaborazione del progetto architettonico, intervenendo di fatto fin da subito sugli aspetti formali e morfologici dell'organismo edilizio in corso di definizione. Questo processo di verifica continua avviene in fase di concept necessariamente attraverso l'ottimizzazione delle forme volumetriche in relazione sia alle necessità funzionali-spaziali, sia delle componenti ambientali, quali in particolare la componente solare e la ventilazione naturale ed al loro sfruttamento positivo all'interno del nuovo complesso edilizio.
L'analisi degli aspetti morfologici di contesto in relazione alle componenti ambientali nel quale si andranno ad inserire i nuovi edifici, risulta quindi uno step fondamentale per lo sviluppo delle successive fasi di elaborazione del progetto.
A supporto di questo processo analitico-conoscitivo, si è scelto di avvalersi del supporto di strumenti IT per la progettazione ambientale capaci non solo di fotografare lo stato di fatto, ma al tempo stesso di essere di supporto alle decisioni durante l'intera fase di progettazione ed in particolare di orientare gli allievi nella scelta delle più adatte soluzioni tecniche sia per la definizione del nuovo organismo edilizio, sia per la progettazione degli spazi aperti con il duplice scopo di attuare azioni di rigenerazione urbana e di fronteggiare gli effetti dei cambiamenti climatici in città.
Le prime ipotesi di concept volumetrici sono confrontate sulla base dell'analisi del fattore solare mediante l'influenza del contesto delle ombre portate durante i solstizi e gli equinozi, l'analisi dell'impatto dei volumi definiti con la ventilazione naturale lungo le direzioni dei venti inveraneli ed estivi, ecc., consentendo agli allievi di comprendere al meglio l'iterazione con gli elementi naturali al fine di ottimizzare le forme e garantire migliori livelli di comfort interni.
Per le soluzioni dello spazio aperto sì è scelto un atteggiamento che permettesse di attuare azioni di regenerative climate adaptive design capaci di contrastare gli effetti dei cambiamenti cliamtici nelle città, ed in particolare l'aumento delle temperature urbane e al tempo stesso capaci di ridurre i rischi derivanti dal fenomeno del pluvial flooding.
A supporto di tale processo progettuale, gli allievi hanno condotto analisi ambientali dello spazio aperto mediante l'uso del software ENVI-met, che ha permesso loro di analizzare l'area di intervento durante un giorno estivo particolarmente caldo, allo scopo di far emergere le criticità dello spazio aperto. I risultati delle analisi sulla temperatura dell'aria, dell'umidità relativa, della temperatura, dell'albedo delle superfici e infine del comfort outdoor, restituiscono un quadro chiaro dei punti nel quale il progetto degli spazi aperti deve intervenire. Fasi di test per l'inserimento degli elementi progettati quali ad es. i nuovi volumi progettati, le aree verdi permeabili,





for the regeneration of the open space, through the comparison of the conditions of comfort perceived by users within the space, defining the degree of improvement.
With a view to holistic design that takes into account the aspects related to the containment of climate-changing gas emissions and the impact that the construction of a building can have on the environment in all its phases, from construction to management, up to imagining the demolition phases, the students were guided towards the choice of construction systems and building materials that guaranteed the least environmental impact. For this purpose, with reference to the regulatory provisions of the C.A.M., Minimum Environmental Criteria, which defines the environmental requirements for the various phases of the construction process, the current regulations on the containment of primary energy and on the indications of environmental assessment systems such as for example. LEED v.4, Green Building Council Italy, Breeam, Itaca / iiSBE, Dgnb, Hqe and Casaclima, particular attention was paid to the conscious choice of technical solutions and components that guaranteed not only the achievement of minimum performance levels, but which at the time they also allowed the definition of NZEB - Nearly Zero Energy Building buildings and guaranteed a reduced environmental impact throughout the entire life cycle
The individual projects therefore had to deal with all those aspects that are related to environmental issues and the sphere of sustainability, and this occurred through the definition of an environmental strategy that summarized the behavior of the new building organisms both in relation to primary energies, the their exploitation and on-site production, both in relation to the built environment and the environmental components. Sunshine, natural ventilation, production of electricity through photovoltaic systems, recovery and reuse of rainwater inside the building and for irrigation purposes, activation of soil evapotranspiration phenomena, etc. these are just some of the strategies that students have brought into their projects.
Finally, the executive project was necessarily confronted with the technical and technological issues and that each student chose independently, comparing himself with products and technical solutions on the market, and sometimes proposing customized elements capable of adapting to his own vision of the project. The level of in-depth analysis and representation of the construction elements of the project and their assembly allowed students to develop greater awareness in defining the construction process and the succession of the construction phases, acting as a hinge with the disciplinary instances put in place at the interior of the laboratory of synthesis of the teachings of architectural design, environmental physics-technique, structural design and estimation.

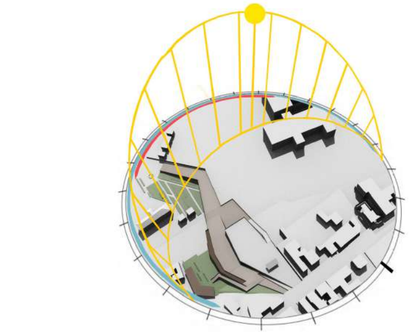
le alberature, pavimentazioni drenanti e con fattori di riflettanza elevati, hanno portato alla definizione della strategia ambientale per la rigenerazione dello spazio aperto, attraverso il confronto delle condizioni di comfort percepito degli utenti all'interno dello spazio, definendo il grado di miglioramento.
In un'ottica di una progettazione olistica che tenga conto degli aspetti legati al contenimento delle emissioni di gas climalteranti e dell'impatto che la costruzione di un edificio possa avere sull'ambiente in tutte le sue fasi, dalla costruzione alla gestione, fino ad immaginare le fasi di demolizione, gli allievi sono stati guidati verso la scelta di sistemi costruttivi e di materiali da costruzione che garantissero il minor impatto ambientale.
A tale scopo, con riferimento alla disciplina normativa dei C.A.M., Criteri Ambientali Minimi, che definisce i requisiti ambientali per le varie fasi del processo edilizio, alle normative vigenti sul contenimento dell'energia primaria e sulle indicazioni di sistemi di valutazione ambientale quali ad es. LEED v.4, Green Building Council Italia, Breeam, Itaca/iiSBE, Dgnb, Hqe e Casaclima, è stata posta particolare attenzione nella scelta consapevole di soluzioni tecniche e componenti che garantissero non solo il raggiungimento dei livelli minimi prestazionali, ma che al tempo stesso consentissero di definire edifici di tipo NZEB – Nearly Zero Energy Building e I singoli progetti hanno dovuto quindi confrontarsi con tutti quegli aspetti che sono legati alle istanze ambientali e della sfera della sostenibilità, e questo è avvenuto attraverso la definizione di una strategia ambientale che sintetizzasse i comportamenti dei nuovi organismi edilizi sia in relazione alle energie primarie, al loro sfruttamento ed alla produzione in loco, sia rispetto al contesto edificato, alle componenti ambientali. Soleggiamento, ventilazione naturale, produzione di energia elettrica attraverso impianti fotovoltaici, recupero e riutilizzo delle acque piovane all'interno dell'edificio e a scopi irrigui, attivazione di fenomeni evapotraspirativi dei terreni, ecc. sono solo alcune delle strategie che gli allievi hanno portato all'interno dei loro progetti.
Il progetto esecutivo, infine, si è confrontato necessariamente con le istanze tecniche e tecnologiche e che ogni allievo ha scelto in autonomia, confrontandosi con prodotti e soluzioni tecniche presenti sul mercato, e talvolta proponendo elementi customizzati capaci di adattarsi alla propria vision del progetto. Il livello di approfondimento e di rappresentazione degli elementi costruttivi del progetto e del loro assemblamento, ha consentito di sviluppare negli allievi una maggiore consapevolezza nella definizione del processo edilizio e della successione delle fasi costruttive, facendo da cerniera con le istanze disciplinari messe in campo all'interno del laboratiorio di sintesi degli insegnamenti della progettazione architettonica, della fisica-tecnica ambientale, della progettazione strutturale e dell'estimo.

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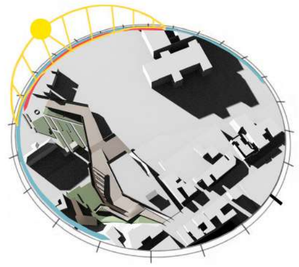
Project *Sea Through Theatre*, by A. Morelli

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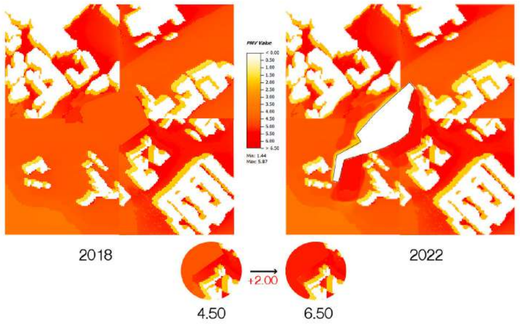
Progetto *Sea Through Theatre*, di A. Morelli



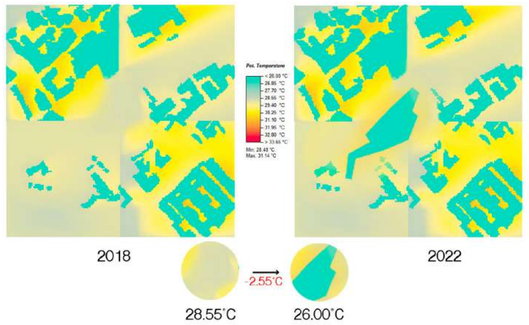
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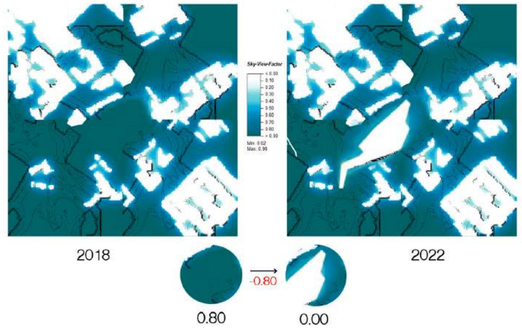
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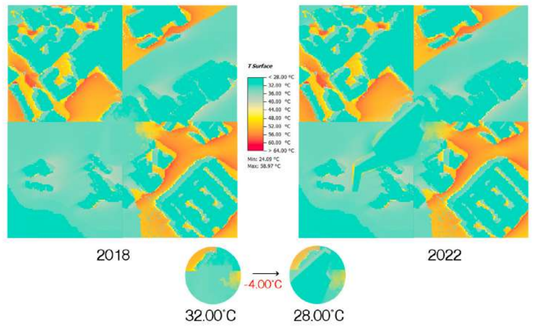
PMV | *Indice di sensazione termica*



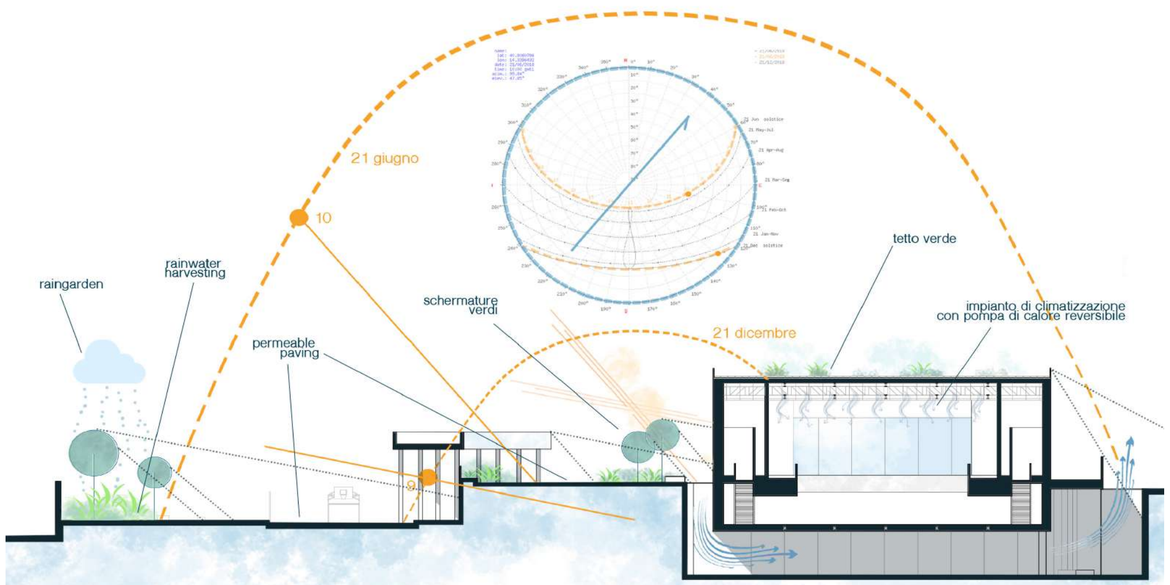
POT | *Temperatura dell'aria*



Sky View Factor - Visibilità del cielo da terra



TSURFACE - Temperatura superficiale



AN INTEGRATED DECISION SUPPORT SYSTEM TO COPE WITH UNCERTAINTY AND CONFLICTS

UN SISTEMA INTEGRATO DI SUPPORTO DECISIONALE PER AFFRONTARE INCERTEZZA E CONFLITTI

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On the left, The fringe of Post Normal Science (PNS) by Funtowicz & Ravetz (1991)

On the right, The field trip in Portici (2019)

Photo by A. Bernieri

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A sinistra, La frangia della Post Normal Science (PNS) di Funtowicz & Ravetz (1991)

A destra, Il sopralluogo a Portici (2019)

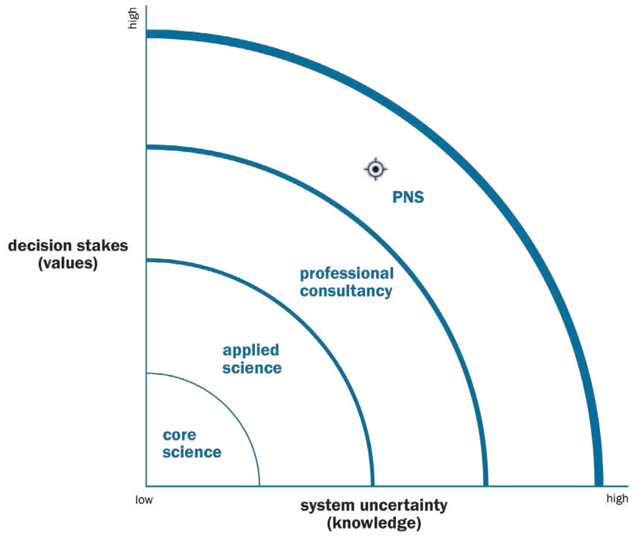
Foto di A. Bernieri

Structuring a Decision Support System (DSS) for the evaluation of strategic design alternatives in Portici (Naples, Italy) means dealing with multi-dimensional issues in social, environmental and economic terms (Simon, 1960). Furthermore, combining the methodological research about the complexity of urban systems with the integrated evaluation approach - intended as a structured and adaptive process aiding the choices of best-fit scenarios - implies affording uncertainty and value conflicts which cannot be overcome just through traditional economics tools (Cerreta et al., 2010). In the 90s, Funtowicz and Ravetz introduced the alternative paradigm of post-normal science (PNS) according to which both expert/common knowledge and formal/informal dimensions can be combined in problem-structuring and problem-solving processes. This approach, indeed, considers different values, perspectives, priorities, impacts and actions in complex contexts in which the evaluations pay particular attention to the principles of plurality and dynamic learning (Funtowicz and Ravetz, 1991). The PNS was born with the aim of promoting a typology of knowledge guided by questions which arise in environment of uncertainty, or under high political pressure, and in the presence of decision-making stakes deriving from different epistemological and ethical systems conflicting (Petersen et al., 2010).

The DSS for Portici has been derived from a scientific literature review referring to three main concepts: "Sustainable Development", "Sustainable Development Goals (SDG)" and "Indicators". The occurrences of these terms in the open access articles allow us to identify five macro-categories of research fields involving: "Sustainable Development Science" (red cluster) and "Sustainability" (orange cluster), "Urban Sustainability" (green cluster), "Vulnerability and Climate Change" (blue cluster), "Indicators-based methods" (yellow cluster), and "Governance and Policy-making" (gray cluster). All the clusters are strictly interrelated except the "Vulnerability and Climate Change" one which is linked to indicators-based methodology and, indeed, it has been generalized within the environmental issues, which have been gathered for the investigation territory. First, the identified clusters have allowed to determine the main issues at large scale, then, the main categories (themes) of relevant indicators have been processed according to site-specific knowledge.
The methodological process underling the DSS for Portici can be shown through six critical features:

• Multi-dimensionality: Including within the decision-making processes – addressed to the urban regeneration of Portici – the multi-dimensional features in environmental, economic, and socio-cultural terms. Often, these issues are not considered due to difficulties within the individuals to elicit the related values and the needs of the various stakeholders which have been

Strutturare un Sistema di Supporto alle Decisioni (DSS) per la valutazione di alternative progettuali strategiche per il comune di Portici (Napoli, Italia) ha significato affrontare questioni multidimensionali in termini sociali, ambientali, ed economici in modo integrato (Simon, 1960). Coniugare la ricerca metodologica sulla complessità dei sistemi urbani con l'approccio valutativo integrato - inteso come processo strutturato e adattivo che supporta la scelta degli scenari più idonei - implica la possibilità di includere incertezze e conflitti di valore che non possono essere affrontati solo grazie agli strumenti e metodi economici tradizionali (Cerreta et al., 2010).
A tal riguardo, negli anni '90, Funtowicz e Ravetz hanno introdotto il paradigma alternativo della scienza post-normale (PNS) secondo il quale sia le dimensioni esperte/comuni e formali/informali possono essere combinate nei processi di strutturazione e risoluzione di diverse tipologie di problemi. Questo approccio, infatti, considera valori, prospettive, priorità, impatti e azioni in contesti complessi in cui le valutazioni prestano particolare attenzione ai principi della pluralità e dell'apprendimento dinamico (Funtowicz e Ravetz, 1991). La PNS nasce con l'obiettivo di promuovere una tipologia di conoscenza guidata da questioni che sorgono in un contesto di incertezza, o sotto forte pressione politica, e in presenza di poste in gioco decisionali derivanti da sistemi epistemologici ed etici conflittuali (Petersen et al., 2010).
Il DSS per Portici parte da una revisione della letteratura scientifica in riferimento a tre concetti fondamentali: "Sviluppo sostenibile", "Obiettivi di sviluppo sostenibile (SDG)" e "Indicatori". La rilevazione della frequenza di queste parole chiave negli articoli scientifici open access ha permesso di identificare cinque macro-categorie di ambiti di ricerca che coinvolgono: "Sustainable Development Science" (cluster rosso), "Sustainability" (cluster arancione), "Urban Sustainability" (cluster verde), "Vulnerability and Climate Change" (cluster blu), "Indicators-based methods" (cluster giallo), e "Governance and Policy-making" (cluster grigio). Tutti i cluster sono strettamente correlate tra di loro ad eccezione di quello relativo a vulnerabilità e cambiamento climatico che è, invece, collegato alla metodologia basata su indicatori e, per questo motive, è stato generalizzato all'interno delle tematiche ambientali sotto forma di dati inerenti il contesto di indagine.
In prima istanza, i cluster identificati hanno permesso di determinare le principali problematiche su larga scala e, di conseguenza, le categorie più rilevanti (classi tematiche) di indicatori sono state elaborate sulla base della conoscenza specifica del sito. Il processo metodologico che ha caratterizzato il DSS per Portici può essere illustrato attraverso sei caratteristiche salienti:
• la multidimensionalità, intesa come inclusione all'interno dei processi decisionali - orientati alla rigenerazione urbana di





engaging into decision-making process;
• Synergy – Being significant for the activation of likely synergies between academicians and municipality in arising of processes of shared values elicitation and systems of common situated values;
• Place-based knowledge activation – Addressing to the identification of multiple resources featuring the different places and spaces of Portici, integrating bottom-up and top-down approaches;
• Complex Values Mapping – improving effective communication and fast understanding, as well as easy use in the context of landscape enhancement and transformation processes. In this regard, GIS tools and spatial analysis techniques have been very useful to define and represent the model outcomes;
• Temporality – taking into account the "time" variable and how it can influence the organisation and the development of decision-making processes. It means providing of gantt charts of interventions costs, revenues and times.

According to the models and the approaches which are significant at international level for the analysis and evaluation of urban resources (UN, 2019), the knowledge and evaluation phases have been, therefore, addressed to the search of hard/soft data from different sources (i.e. ISTAT, OpenStreetMap, ARPAC, EEA, BES, on-field survey, etc.) flowing into a database of multi-dimensional indicators that returns a "rich picture" of Portici. The analytic database, along with the on-field survey, have allowed to detect potentials and criticalities of the territory in order to promote: actions of mitigation, resolution of conflicts and solutions of enhancement within an overall strategic framework.

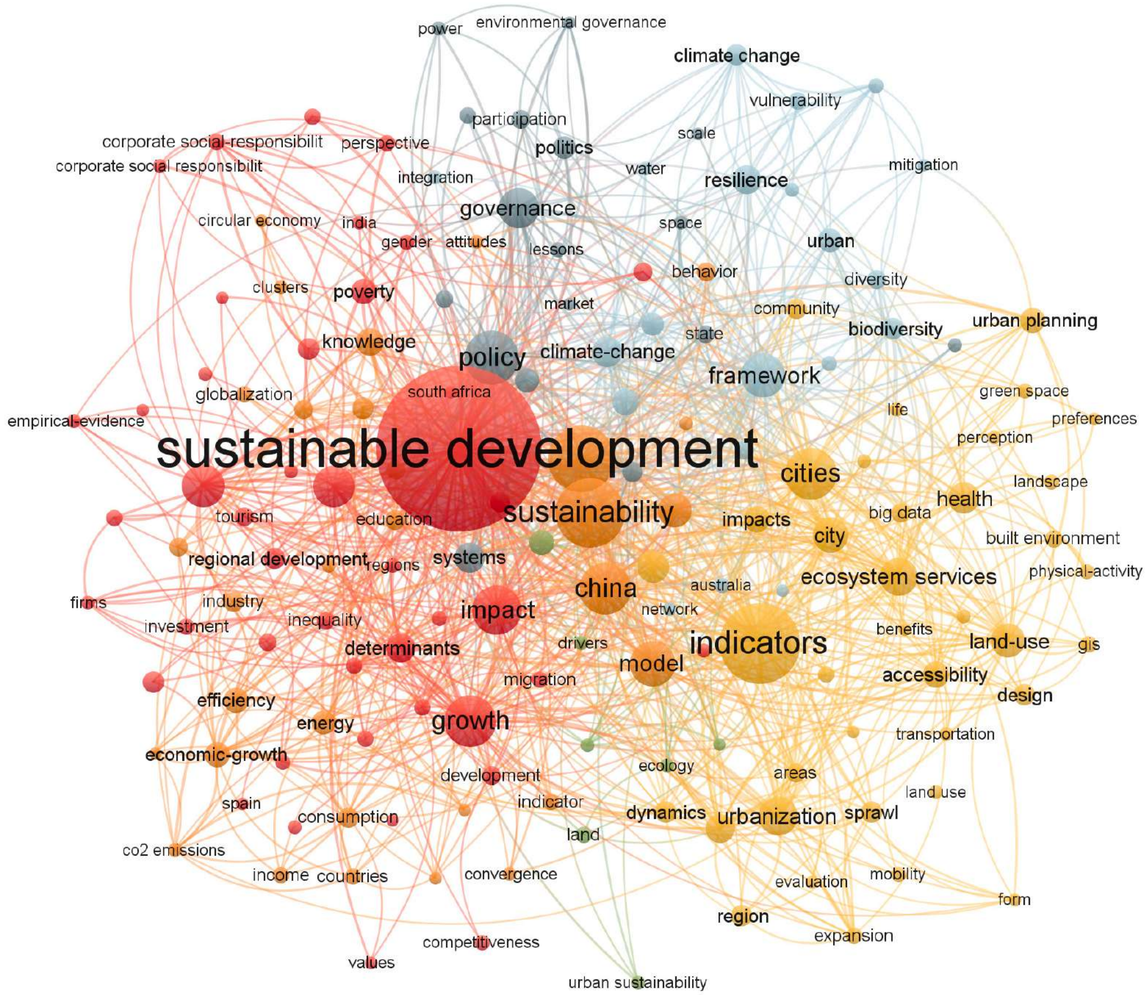
Portici - delle caratteristiche ambientali, economiche, e socio-culturali del contesto locale. Generalmente, queste dimensioni non vengono considerate a causa delle difficoltà riscontrate nell'esplicitare i sistemi di valore e le esigenze dei vari gruppi di attori che sono direttamente o indirettamente interessati al processo decisionale;
• la sinergia, che è stata decisiva per l'attivazione di possibili collaborazioni tra università e amministrazione pubblica nel processo di costruzione di sistemi di valori situati comuni;
• l'attivazione di una forma di conoscenza place-based, che è stata utile per orientarsi nell'individuazione delle molteplici risorse caratterizzanti i diversi luoghi e spazi di Portici, integrando approcci bottom-up e top-down;
• la mappatura dei valori complessi, che ha mirato a rendere efficace la comunicazione ed una rapida comprensione, nonché un facile utilizzo nel contesto, dei processi di valorizzazione e trasformazione del paesaggio. A questo proposito, gli strumenti GIS e le tecniche di analisi spaziale sono stati molto efficaci nel definire e rappresentare gli esiti del modello di analisi ideato;
• la temporalità, che ha inteso tenere conto della variabile "tempo" e di come essa influenzi l'organizzazione e lo sviluppo dei processi decisionali attraverso l'uso di diagrammi (Gantt) per i costi, i ricavi e le relative tempistiche degli interventi.
Secondo i modelli e gli approcci utilizzati, riconosciuti a livello internazionale, per l'analisi e la valutazione delle risorse urbane (UN, 2019), le fasi di conoscenza e valutazione sono state, quindi, indirizzate alla ricerca di dati hard e soft provenienti da diverse fonti (quali: censimenti ISTAT, OpenStreetMap, ARPAC, European Environmental Agency, rapporto periodico sul Benessere Equo e Sostenibile, rilievi sul campo, ecc.) confluendo in un database di indicatori multidimensionali che potesse restituire una base di conoscenza consistente della città di Portici.
Il databse analitico, insieme ai rilievi sul campo sottoforma di interviste semi-strutturate, hanno infine consentito di rilevare potenzialità e criticità del territorio con l'intento di promuovere azioni di mitigazione, risoluzione dei conflitti, e soluzioni di valorizzazione all'interno di un framework strategico complessivo.

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The most relevant issues in terms of occurrences linked to the terms: "Sustainable Development", "Sustainable Development Goals (SDG)", and "Indicators" (source: Scopus/ WOS database).

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Le tematiche più rilevanti in termini di occorrenze legate ai termini: "Sviluppo sostenibile", "Obiettivi di sviluppo sostenibile (SDG)" e "Indicatori" (fonte: database Scopus/WOS).



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The Human Dimension in Mobility (2019)

in D. Sim, *Soft City. Building Density for Everyday Life*, Island Press, Washington 2019, pp. 94-95.

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La dimensione umana della mobilità (2019)

in D. Sim, *Soft City. Building Density for Everyday Life*, Island Press, Washington 2019, pp. 94-95.

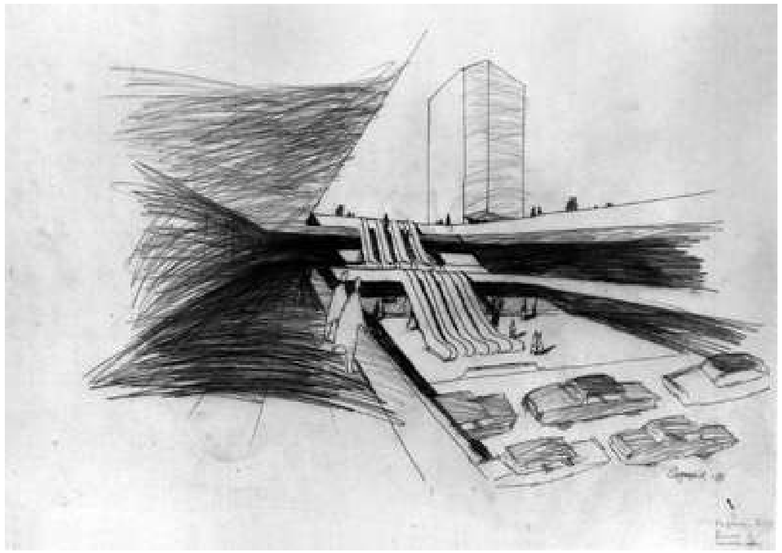
On March 26th, 2020, the article entitled *Virus. È arrivato il momento dell'audacia* is published in *La Repubblica*. Here Alessandro Baricco reflects on the very first effects generated by the Covid-19 pandemic.
By reading according to a particular interpretative angle, the writer's words present very close parallels with the design practice and with the role it assumes in a moment, in many senses, of transition, also in the field of urban transformation.
The reference to the environmental crisis and the "Anthropocene"; the praise and the exhortation to humanism understood as a "space for doing"; the reasoning that leads to the relationship between city, community, and politics: these are issues strictly linked to "making cities". And in the context of a high-level educational experiments, they are increasingly absorbed into sudden reinventions of contents, tools, and methodologies.
Audacity is undoubtedly a feeling that also affects the creative and design act. Whether we are talking about particularly complex places, such as the city of Portici and its reinterpretation in terms of a "city-park", or of completely altered design's times and processes, made unstable by the necessary and increasing physical distances of the period. Yet, if on the one hand imagining spaces for culture and free time, for "being together" and sharing, for experiencing the city, the landscape and the open space, could, in some way, play a cruel irony in Spring 2020, on the other hand, alleviates the awareness that designing "at a distance" has now actually become a rather consolidated and recognizable practice, for example, in the world of international design competitions (Chupin, Cucuzzella, Helal, 2015), from which a didactic design studio can draw inspiration and from which it can derive innovative collaboration practices.
Portici, due to its peculiar condition of a "compressed" territory, and at the same time lively, central, metropolitan, lends itself very well to an "audacious" design reasoning, between city and landscape.
In this case, "city" can be understood as the reinvigoration of the mechanisms and relationships that make a place attractive; "landscape", in absolutely contemporary terms, the projection towards dimensions of livability and unprecedented levels of life quality. Starting, in fact, from the peculiar geography and morphology of the coastal territory at the foot of Vesuvius, and from infrastructural lines that mark the territory longitudinally, criticalities and potentialities can be reinterpreted according to a new revelatory register that intertwines sustainable design solutions and innovation in terms of space and quality.
In the wake of the "Copenhagen school", the studies of Jan Gehl and the most recent reflections of David Sim (2019), in fact, the concept of "density" differs significantly from that of "crowding" (which currently accompanies Portici, so like most part of the metropolitan city of Naples) to define a scenario of renewed relationships of coexistence in urban communities. Experiments of multifunctional coexistence

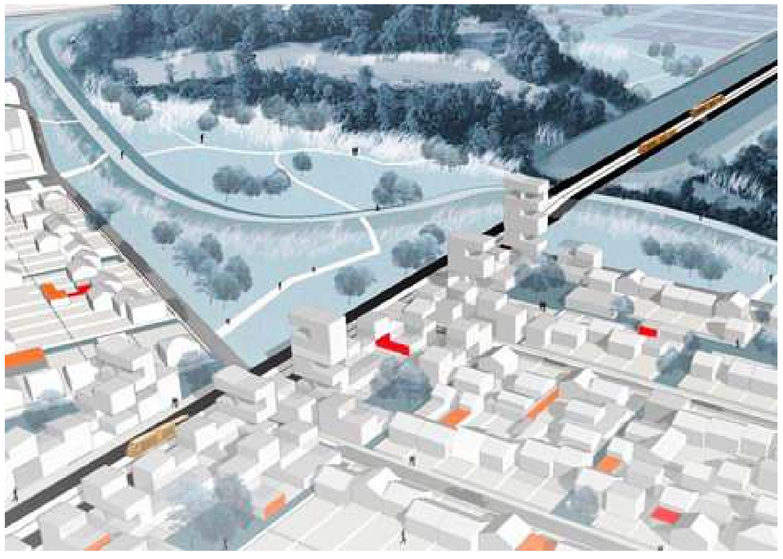
Il 26 marzo 2020 su *La Repubblica* viene pubblicato l'articolo dal titolo *Virus. È arrivato il momento dell'audacia*, in cui Alessandro Baricco riflette sui primissimi effetti generati dalla pandemia da Covid-19.
A leggerle secondo un particolare angolo interpretativo, le parole dello scrittore presentano dei parallelismi molto stretti con il progetto e con il ruolo che questo assume in un momento, in molteplici sensi, di transizione, anche in materia di trasformazione urbana. Il riferimento alla crisi ambientale e all'"Antropocene"; l'elogio e l'esortazione all'umanesimo inteso come "spazio del fare"; il ragionamento che conduce al rapporto tra città, comunità e politica: si tratta di questioni strettamente legate al "fare città" e che, anche nell'ambito di sperimentazioni didattiche di un certo livello, sono sempre più frequentemente assorbite all'interno di repentine reinvenzioni di contenuti, strumenti e metodologie.
L'audacia è indubbiamente un sentimento che investe anche l'atto ideativo e progettuale, sia che si parli di luoghi particolarmente complessi, come la città di Portici e di una sua reinterpretazione in termini di "città-parco", che di tempi e processi del progetto completamente alterati, resi instabili dalle necessarie e crescenti distanze fisiche del periodo.
Eppure, se da un lato immaginare spazi per la cultura e il tempo libero, per lo "stare insieme" e la condivisione, per il vivere la città, il paesaggio e lo spazio aperto, potesse, in qualche maniera, giocare una crudele ironia nella primavera del 2020, dall'altro lato allevia la consapevolezza che il progettare "a distanza" sia ormai diventata, in realtà, una pratica alquanto consolidata e riconoscibile, ad esempio, nel mondo dei concorsi di progettazione internazionale (Chupin, Cucuzzella, Helal, 2015), a cui un laboratorio didattico sul progetto può inspirarsi e dal quale può desumere pratiche innovative di collaborazione.
Portici, per la sua peculiare condizione di territorio "compresso", e al tempo stesso vivace, centrale, metropolitano, si presta molto bene ad un ragionamento di progetto "audace", a cavallo tra città e paesaggio, dove, in questo caso, per "città" si può intendere il rinvigorimento dei meccanismi e delle relazioni che rendono un luogo attrattivo, e per "paesaggio", in termini, assolutamente contemporanei, la proiezione verso dimensioni di vivibilità e livelli di qualità della vita inediti. A partire, infatti, da una geografia e da una morfologia caratteristiche del territorio costiero ai piedi del Vesuvio, e da linee infrastrutturali che segnano longitudinalmente il territorio, criticità e potenzialità possono essere rilette secondo un nuovo registro interpretativo che intreccia soluzioni progettuali in chiave sostenibile e innovazione in termini spaziali e qualitativi.
Sulla scia della "scuola di Copenaghen", degli studi di Jan Gehl e delle più recenti riflessioni di David Sim (2019), infatti, il concetto di "densità" si discosta significativamente da quello di "affollamento" (che attualmente accompagna Portici, così come gran



are accompanied by the opening of ground floors and the rediscovery of initially interluded urban voids and, above all, to a dimension of mobility more linked to the human sphere, starting from what Sim defines "walkable buildings" up to a system of connections which includes walking, cycling, and using public transport. «When we talk about this level of mobility, we might expect to discuss the relative benefits of different engineering and infrastructure systems, capacity, speed, and flow. However, there is another layer to mobility that is about the interface between the modes of transportation and people, and about how mobility systems, however large and complex, are integrated into the small scale of a neighborhood street» (Sim, 2019, p. 96). Inputs that may appear futuristic, in the passage from Copenhagen to the reality of study and experimentation object of this book. And audacity is back on the field: like the biggest design competitions, Berlin 1958, Grand Paris, 4C Four Corridors NYC, Scali Milano, which start from the theme of mobility to propose innovative urban regeneration scenarios that spread from infrastructures into stations, parks, facilities and public space, in the same way the Granatello area, from boundary becomes a bond (as in *Net_Campus*); the waterfront, up to Pietrarsa, acquires a new spatial and relational continuity through transversal grafts with the Golden Mile (as in *Sea Line*); the hub in via Libertà expands to the Park of the Reggia and to the open spaces of the Department of Agriculture of the Federico II University (as in *Green Connection*).
The stations already present in the area, metropolitan accessibility gates *par excellence*, thus become propulsive nodes of healthiness (Miano, 2020): new attractors which, in turn, determine a multiple derivation attractiveness. The projects operate, in fact, starting from the minute scale of the potentialities, inclinations and vocations inherent in the urban plots of the city and, to these, they cling, are grafted, are joined, without ever overpowering, trying to put into practice, the words by Marco Biraghi on the indispensable intellectual contribution of the project (Biraghi, 2019). A system made up of widespread public space and lines of "urban breath" defines for Portici, as a whole, a new landscape of mobility, of community, a "audacious" landscape because as Baricco recalls «[...] we are alive to create some ideas, build some paradise, improve our gestures, understand one more thing a day, and complete, perhaps with a certain taste, the creation. […] Our agenda should be dictated by desire, not fear. From wishes. From visions, not from nightmares» (Baricco, 2020; translated by the author).

parte della città metropolitana di Napoli) per definire uno scenario di rinnovate relazioni di convivenza nelle comunità urbane. Sperimentazioni di coesistenza multifunzionale si accompagnano ad aperture di piani terra e riscoperte di vuoti urbani inizialmente interclusi e, soprattutto, ad una dimensione di mobilità maggiormente legata alla sfera umana, a partire da quelli che Sim definisce "*walkable buildings*" fino ad un sistema di connessioni urbane che include camminare, andare in bicicletta e usare il trasporto pubblico. «Quando parliamo di questo livello di mobilità, potremmo aspettarci di discutere i vantaggi relativi a diversi sistemi ingegneristici e infrastrutturali, a capacità, velocità e flusso. Tuttavia, c'è un altro livello della mobilità che riguarda l'interfaccia tra le modalità di trasporto e le persone, e come i sistemi di mobilità, per quanto grandi e complessi, siano integrati nella piccola scala di una strada di quartiere» (Sim, 2019, p. 96; traduzione dell'autrice).
Input che possono apparire avveniristici, nel passaggio da Copenaghen alla realtà di studio e sperimentazione oggetto di questo libro. E di nuovo torna in campo l'audacia: come i più grandi concorsi di progettazione, Berlin 1958, Grand Paris, 4C Four Corridors NYC, Scali Milano, che partono dal tema della mobilità per proporre innovativi scenari urbani di rigenerazione che dalle infrastrutture dilagano in stazioni, parchi, attrezzature e spazio pubblico, allo stesso modo l'area del Granatello, da cesura diventa legante (come in *Net_Campus*); il waterfront, fino a Pietrarsa, acquista una nuova continuità spaziale e relazionale attraverso innesti trasversali con il Miglio d'oro (come in *Sea Line*); il nodo di via Libertà si amplia al Parco della Reggia di Portici e agli spazi aperti del Dipartimento di Agraria dell'Università Federico II (come in *Green Connection*). Le stazioni già presenti sul territorio, porte di accessibilità metropolitana per eccellenza, diventano, in questo modo, nodi propulsivi di salubrità (Miano, 2020): nuovi attrattori che a loro volta determinano una *attractiveness* a derivazione multipla. I progetti operano, infatti, a partire dalla scala minuta delle potenzialità, delle propensioni e delle vocazioni insite nelle trame urbane della città e, a queste, si aggrappano, si innestano, si congiungono, senza mai prevaricare, provando a mettere in pratica, le parole di Marco Biraghi sull'indispensabile contributo intellettuale del progetto (Biraghi, 2019).
Un sistema composto da spazio pubblico diffuso e linee di "respiro urbano" definisce per Portici, nell'insieme, un nuovo scenario di paesaggio di mobilità, di comunità, un paesaggio "audace" perché come Baricco ricorda «[…] siamo vivi per realizzare delle idee, costruire qualche paradiso, migliorare i nostri gesti, capire una cosa di più al giorno, e completare, con un certo gusto magari, la creazione. […] La nostra agenda dovrebbe essere dettata dalla voglia, non dalla paura. Dai desideri. Dalle visioni, non dagli incubi» (Baricco, 2020).







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A. and P. Smithson, with P. Sigmond, Berlin-Haupstadt, Design Competition (1958)

B. Secchi, P. Viganò, Le Grand Pari(s) Competition (2008)

Only If + One Architecture, 4C Four Corridors Competition (2017)

Pagina seguente

A. and P. Smithson, con P. Sigmond, Berlin-Haupstadt, concorso di progettazione (1958)

B. Secchi, P. Viganò, concorso Le Grand Pari(s) (2008)

Only If + One Architecture, concorso 4C Four Corridors (2017)

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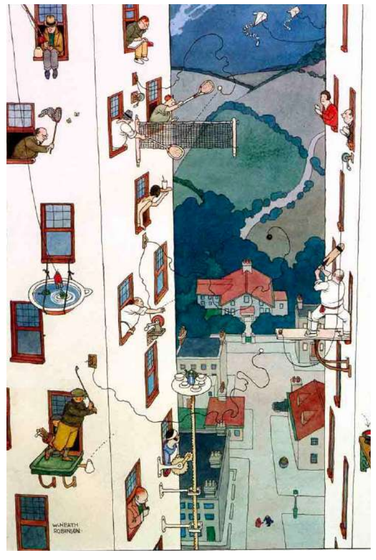
The playful and powerful illustrations of the series "Fresh air parlour" and "How to Live in a Flat" by William Heath Robinson (1936), rediscovered and circulated in the virtual world and social media during the period of the lockdown due to the pandemic Covid -19, denounced the pressing need to escape from the internal space of the house towards outdoor sharing spaces which, in the images of the British illustrator, are represented as unstable urban prostheses of the domestic space, grafted into the existing. These images focused attention on what Vittorio Gregotti called "the possible necessary", understood as a reference to concreteness and real human needs, which should constitute «the structural substance of every architectural project» (Gregotti, 2014, p. 10).

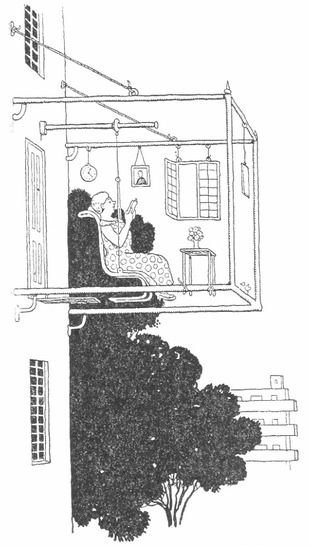
Designing in a time when, in general in today's society, the awareness of the "possible necessary" has perhaps been achieved more than ever before, constitutes an even greater challenge which if, on the one hand, has to deal with the need to provide timely and exhaustive responses in relation to what happens in the present, on the other hand, it implies a reasoning on the now consolidated topic of "building in the built" (Moneo, 2007), or rather on the topic of the architectural grafting into the existing, which Robinson's own illustrations highlight.
As Cino Zucchi recalled, a few years ago, if the functionalism of the last century sought the zero degree, contemporary thought pursues new goals and values through a continuous metamorphosis of existing structures. In reality, this appears to be the original contribution of the design culture of the last century: an "anomalous modernity", marked by the ability to innovate and, at the same time, to interpret previous states. It is not a question of «formal *a posteriori* adaptations of the new in relation to the existing, but rather of 'grafts' capable of acting with effectiveness and sensuality in stratified urban contexts» (Zucchi, 2014). Grafts that, on the one hand, answer to practical needs, on the other, are a possible way to interpret the ancient and the layers of time that have overlapped in the city.

In a dense and stratified territory such as Portici, a place with notable historical, architectural and landscape characteristics, whose evident beauty is obscured, in the common perception, by a housing reality of irrational consistency, which acts as a reverse shot to the bucolic images of nineteenth-century landscape painters, the topic of the architectural grafting, understood as an element of reinterpretation of the existing and of triggering new urban relationships in the built environment and between the built and the public space, acquires a role of great importance. In fact, it represents one of the many topics through which to address the existing problems, in an overall vision of Portici as a "City-Park", a renewed idea of a contemporary park, capable of promoting social, cultural, urban inclusion and a ecological and naturalistic revitalization, in a context rich in landscape

Le irriverenti e potenti illustrazioni delle serie "Fresh air parlour" e "How to Live in a Flat" di William Heath Robinson (1936), riproposte e circolate nel mondo virtuale e dei social media nel periodo del *lockdown* dovuto alla pandemia da Covid-19, hanno denunciato la pressante esigenza di evasione dallo spazio interno della casa verso spazi di condivisione all'aperto che, nelle immagini dell'illustratore britannico, sono rappresentati come instabili protesi urbane dello spazio domestico, innestate nell'esistente. Tali immagini hanno focalizzato l'attenzione su quello che Vittorio Gregotti chiamava "il possibile necessario", inteso come richiamo alla concretezza e alle reali necessità umane, che dovrebbero costituire «la sostanza strutturale di ogni progetto di architettura» (Gregotti, 2014, p. 10).
Progettare nel tempo in cui, in generale nella società odierna, la consapevolezza del "possibile necessario" è stata forse quanto mai prima raggiunta, costituisce una sfida ancora più grande che, se da un lato, deve confrontarsi con l'esigenza di fornire risposte tempestive ed esaustive in relazione a ciò che accade nel presente, dall'altro implica un ragionamento sull'ormai consolidato tema del "costruire nel costruito" (Moneo, 2007), o meglio sul tema dell'innesto architettonico nell'esistente, che le stesse illustrazioni di Robinson pongono in evidenza.
Come ricordava Cino Zucchi, già alcuni anni fa, se il funzionalismo del secolo scorso cercava il grado zero, il pensiero contemporaneo persegue nuovi fini e valori attraverso una continua metamorfosi delle strutture esistenti. In realtà, proprio questo appare essere il contributo originale della cultura progettuale dell'ultimo secolo: una "modernità anomala", marcata dalla capacità di innovare e al contempo di interpretare gli stati precedenti. Non si tratta di «adattamenti formali a posteriori del nuovo rispetto all'esistente, ma piuttosto di 'innesti' capaci di agire con efficacia e sensualità in contesti urbani stratificati» (Zucchi, 2014). Innesti che se da un lato rispondono ad esigenze pratiche, dall'altro si pongono come possibile modalità per interpretare l'antico e gli strati di tempo che si sono sovrapposti nella città.
In un territorio denso e stratificato come Portici, luogo dai notevoli caratteri storici, architettonici e paesaggistici, la cui evidente bellezza risulta oscurata, nella percezione comune, da una realtà abitativa di irrazionale consistenza, che fa da controcampo alle bucoliche immagini dei pittori paesaggisti ottocenteschi, il tema dell'innesto architettonico, inteso come elemento di reinterpretazione dell'esistente e di innesco di nuove relazioni urbane nel costruito e tra il costruito e lo spazio pubblico, assume un ruolo di grande rilevanza. Esso infatti si configura come uno dei molteplici temi attraverso cui affrontare le problematiche esistenti, in una visione complessiva di Portici come "città-parco", una rinnovata idea di parco contemporaneo, in grado di favorire l'inclusione sociale, culturale, urbana e un rilancio ecologico e naturalistico, in un contesto ricco di







Next page

W. H. Robinson, Drawings from the series: "Fresh air parlour" and "How to Live in a Flat", (1936)

Pagina seguente

W. H. Robinson, Disegni dalle serie: "Fresh air parlour" e "How to Live in a Flat", (1936)

potentials and spaces to be redeveloped for the community.
With the grafting into the existing it is, in fact, possible to give life to a new and unexpected system of relationships between the existing parts, to what Jacques Derrida defined as «a new living organism [...] a hybrid, or something whose shape cannot be forecasted» (Derrida, 2008, p. 109), which arises from the juxtaposition of the old and the new, starting from a process of invention and imagination that makes the results of this operation unpredictable, but rich in meaning (Petrucci and Romagni, 2018).
On the process of invention in relation to the transformation of the existing, Juhani Pallasmaa, starting from Gaston Bachelard's distinction between "formal imagination" and "material imagination", argues that «the images that arise from existing matter show deeper experiences, memories and emotions of those evoked by the form», for which he speaks of fragment, collage and discontinuity in the architectural imaginary, underlining the need for an "«open, unfinished reality» that evokes associations of ideas, memories, temporalities (Pallasmaa, 2012, pp . 50-51). In this regard, Pallasmaa mentions how some new architectures that work with the existing, with what remains, constitute extraordinary examples of architectural collages, which make possible an archaeological density of the imaginary and a non-linear narrativity, through the juxtaposition of fragmented images, deriving from not reconcilable origins.
According to this vision, the grafting into the existing becomes an "architectural collage" that works with time, imagination and memory, giving rise to new urban overwritings aimed at redefining the system of relations between the built environment and with the urban public space (Gaiani, 2017).

Starting from these considerations, in the case of Portici, in particular, three declinations of the topic of architectural grafting arises for the definition of possible design scenarios: grafting between buildings; grafting between soil and underground; grafting for the definition of the path.
The first declination concerns the topic of the grafting between buildings, which implies the insertion of new architectural elements with the aim of connecting existing buildings together, giving life to new articulated urban configurations. An example, in this sense, is constituted by the building built by Aires Mateus for the seat of the Faculty of Architecture (Tourani, Belgium, 2017) which acts, in the historical block in which it is inserted, as a real connection between pre-existing structures, from different eras and with multiple identities, within which public functions are inserted, establishing a new type of interaction in motion. In the compact historical fabric of Portici, it is necessary to work on the insertion of new small grafts that allow the reuse of existing buildings, often abandoned, and to connect them

potenzialità paesaggistiche e di spazi da riqualificare per la collettività.
Con l'innesto nell'esistente è, infatti, possibile dar vita ad un nuovo e inaspettato sistema di relazioni tra le parti esistenti, a quello che Jacques Derrida definiva «un nuovo organismo vivente […] un ibrido, o qualcosa la cui forma non si può predire» (Derrida, 2008, p. 109), che nasce dall'accostamento dell'antico e del nuovo, a partire da un processo di invenzione e immaginazione che rende gli esiti di questa operazione non-programmabili, ma ricchi di senso (Petrucci e Romagni, 2018).
Sul processo di invenzione in relazione alla trasformazione dell'esistente, Juhani Pallasmaa, partendo dalla distinzione di Gaston Bachelard tra "immaginazione formale" e "immaginazione materiale", sostiene che «le immagini che nascono dalla materia esistente proiettano esperienze, ricordi ed emozioni più profonde di quelle evocate dalla forma», per cui parla di frammento, collage e discontinuità nell'immaginario architettonico, sottolineando la necessità di una «realtà aperta, non finita» che evochi associazioni di idee, memorie, temporalità (Pallasmaa, 2012, pp. 50-51). A tal proposito, Pallasmaa cita come alcune nuove architetture che lavorano con l'esistente, con ciò che resta, costituiscano straordinari esempi di collage architettonici, che rendono possibile una densità archeologica dell'immaginario e una narratività non lineare, attraverso la contrapposizione di immagini frammentate, derivanti da origini non conciliabili.
L'innesto nell'esistente diviene, secondo questa visione, un "collage architettonico" che lavora con il tempo, l'immaginario e la memoria, dando luogo a nuove sovrascritture urbane volte a ridefinire il sistema delle relazioni esistenti tra il costruito e con lo spazio pubblico urbano (Gaiani, 2017).
A partire da queste considerazioni, nel caso di Portici, in particolare, tre declinazioni del tema dell'innesto architettonico emergono per la definizione di possibili scenari di progetto: innesto tra gli edifici; innesto tra suolo e sottosuolo; innesto per la definizione del percorso.
La prima declinazione riguarda il tema dell'innesto tra gli edifici, che implica l'inserimento di nuovi elementi architettonici con l'obiettivo di connettere tra loro edifici esistenti, dando vita a nuove articolate configurazioni urbane. Un esempio, in tal senso, è costituito dall'edificio realizzato da Aires Mateus per la sede della Facoltà di Architettura (Tourani, Belgio, 2017) che si pone, nell'isolato storico in cui si inserisce, come un vero e proprio dispositivo di connessione tra le strutture preesistenti, di diverse epoche e dalle identità molteplici, all'interno del quale sono inserite le funzioni pubbliche, stabilendo un nuovo tipo di interazione in movimento. Nel compatto tessuto storico di Portici, risulta necessario lavorare sull'inserimento di nuovi piccoli innesti che consentano il riutilizzo di edifici esistenti, spesso abbandonati, e di connetterli tra loro in modo da definire nuove centralità urbane

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A. Mateus, Architecture Faculty Loci, photo of the project, Tournai, Belgio (2017)

BIG Architects, Danish National Maritime Museum, photo of the project, Helsingor, Danimarca (2016)

RCR Arquitectes, La Lira Theater, photo of the project, Ripoll, Spagna (2012)

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A. Mateus, Facoltà di Architettura Loci, foto del progetto, Tournai, Belgio (2017)

BIG Architects, Museo marittimo, foto del progetto, Helsingor, Danimarca (2016)

RCR Arquitectes, Teatro La Lira, foto del progetto, Ripoll, Spagna (2012)







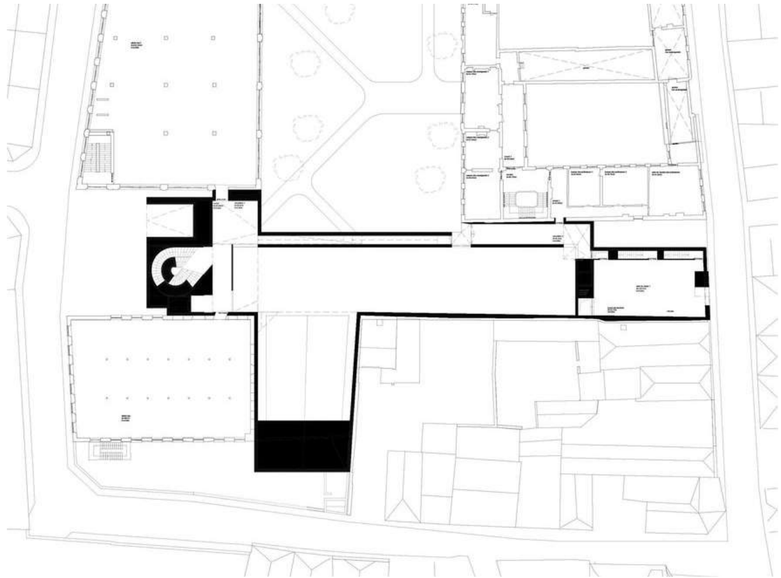
together in order to define new urban centralities (see, for example, the projects *The park gate* and *Reiventing suburbs*).

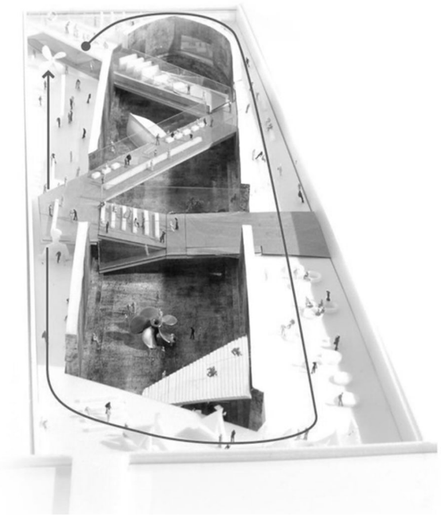
The second declination, on the other hand, concerns the topic of the grafting between soil and underground and, therefore, between high and low, which implies a careful work between the different heights and the different existing layers, but also the use of the cover as urban soil, as a public space, below which new functions can be inserted. The project of the Danish National Maritime Museum (Helsingor, Denmark, 2016) by BIG Architects constitutes an interesting reference, on this topic, as it works through the definition of a connection mechanism between the above and below of the new underground museum, which is part of the interior of a former dry dock and the roof of which is reused as a new large open space. The relationship between soil and underground also implies the redefinition of the relationship between artifice and nature, an aspect that in Portici is of fundamental importance (see, for example, the projects *From past to present* and *Sea line*).

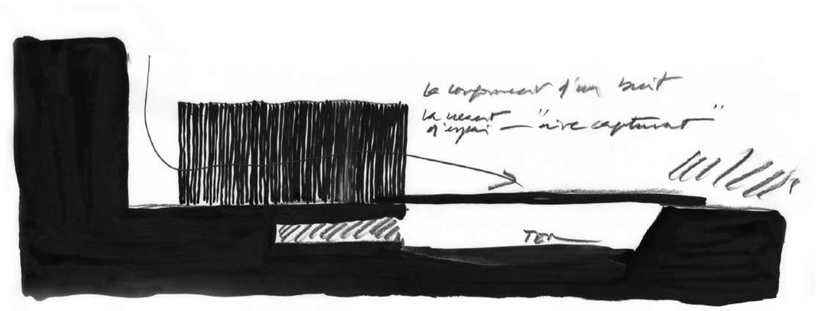
Finally, the third declination concerns the theme of grafting for the definition of the path as a space of connection between two or more parts of the city. In this regard, an interesting example is the RCR Arquitectes project for La Lira Theater (Ripoll, Spain, 2012), which converts an abandoned land in the historic center of the town, formerly occupied by an ancient theater, which was later demolished, into a new public space. This urban void is totally rethought by Catalan architects as a covered square overlooking the river, which is connected to the square in front of it by a pedestrian bridge and which becomes the new entrance to the historic center. In Portici, the need to overcome some infrastructural barriers, such as the railway, the circumvesuviana and some road axes, imposes the need to work on connecting routes at different heights (see, for example, the projects T*he door of the sea* and *Urban jungle*).

These declinations show how the topic of the architectural grafting can contribute to triggering new and multiple urban overwriting in the city of Portici, which try to reinterpret the existing and reuse it in the contemporary city, through strategies that work on an open and continuously evolving form, opening up to various possibilities of use, continually changing it edges and incorporating urban pieces of different nature, liable to transformation, since as Michel Foucault prophetically affirmed it is necessary «to prefer what is positive and multiple, difference to uniform, flow to unity […] Believing that what is productive is not sedentary but nomadic»(Foucault, 1977).

(si veda, ad esempio, i progetti *The park gate* e *Reiventing suburbs*).
La seconda declinazione riguarda invece il tema dell'innesto tra suolo e sottosuolo e, quindi, tra alto e basso, che implica un attento lavoro tra le diverse quote e i diversi strati esistenti, ma anche l'utilizzo della copertura come suolo urbano, come spazio pubblico, al di sotto della quale, possono essere inserite nuove funzioni.
Il progetto del Danish National Maritime Museum (Helsingor, Danimarca, 2016) dei BIG Architects costituisce un interessante riferimento al riguardo, in quanto lavora attraverso la definizione di un meccanismo di connessione tra il sopra e il sotto del nuovo museo ipogeo, che si inserisce all'interno di un ex bacino di carenaggio e la cui copertura è riutilizzata come nuovo grande spazio aperto. Il rapporto tra suolo e sottosuolo implica anche la ridefinizione del rapporto tra artificio e natura, un aspetto che a Portici si rivela di fondamentale importanza (si veda, ad esempio, i progetti *From past to present* e *Sea line*).
La terza declinazione riguarda, infine, il tema dell'innesto per la definizione del percorso come spazio di connessione tra due o più parti di città. A tal proposito, un interessante esempio è costituito dal progetto degli RCR Arquitectes per La Lira Theater (Ripoll, Spagna, 2012), che converte un terreno abbandonato nel centro storico della cittadina, occupato in passato da un antico teatro, poi demolito, in un nuovo spazio pubblico. Questo vuoto urbano è totalmente ripensato dagli architetti catalani come piazza coperta che si affaccia sul fiume, che viene collegata alla piazza antistante da un ponte pedonale e che diviene la nuova soglia di ingresso al centro storico. A Portici, la necessità di superare alcune barriere infrastrutturali, come la ferrovia, la circumvesuviana e alcuni assi viari, impone la necessità di lavorare su percorsi di collegamento a diverse quote (si veda, ad esempio, i progetti T*he door of the sea* e *Urban jungle*).
Tali declinazioni mostrano come il tema dell'innesto architettonico possa contribuire ad innescare nella città di Portici nuove e molteplici sovrascritture urbane, che provano a reinterpretare l'esistente e a riutilizzarlo nella città contemporanea, attraverso strategie che lavorano su una forma aperta e in continuo divenire, aprendosi a svariate possibilità di uso, cambiando continuamente i propri bordi e inglobando pezzi urbani di diversa natura, suscettibili alla trasformazione, in quanto come affermò profeticamente Michel Foucault occorre «preferire ciò che è positivo e multiplo, la differenza all'uniforme, il flusso alle unità […] Credere che ciò che è produttivo non è sedentario ma nomade» (Foucault, 1977).







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A. Mateus, Architecture Faculty Loci, plan of the project, Tournai, Belgio (2017)

BIG Architects, Danish National Maritime Museum, 3d drawing of the project, Helsingor, Danimarca (2016)

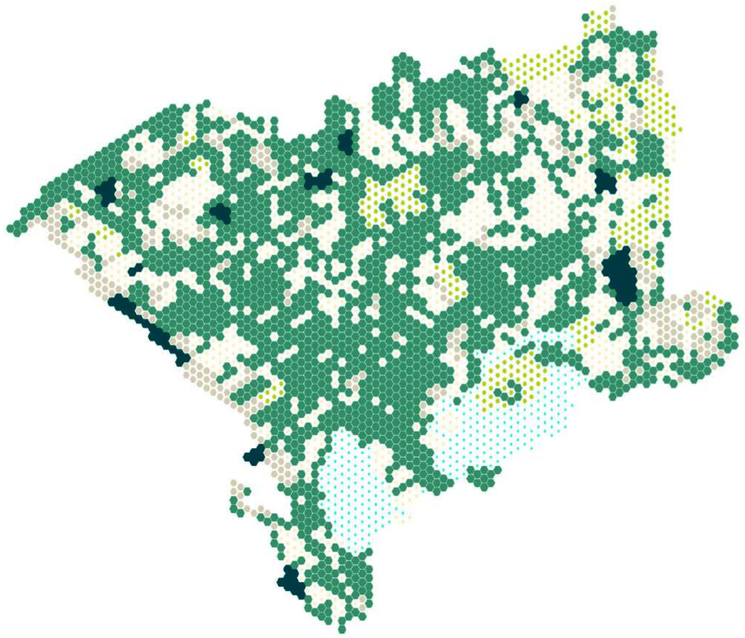
RCR Arquitectes, La Lira Theater, section sketch of the project, Ripoll, Spagna (2012)

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A. Mateus, Facoltà di Architettura Loci, pianta di progetto, Tournai, Belgio (2017)

BIG Architects, Museo marittimo, disegno tridimensionale, Helsingor, Danimarca (2016)

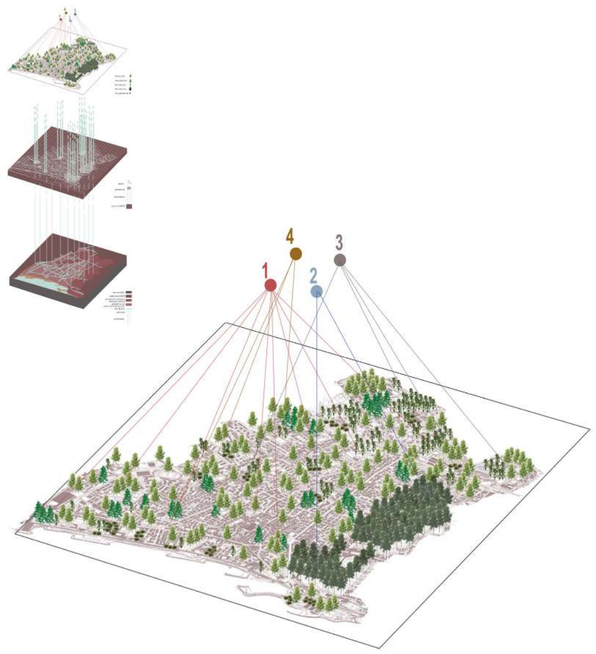
RCR Arquitectes, Teatro La Lira, schizzo della sezione di progetto, Ripoll, Spagna (2012)



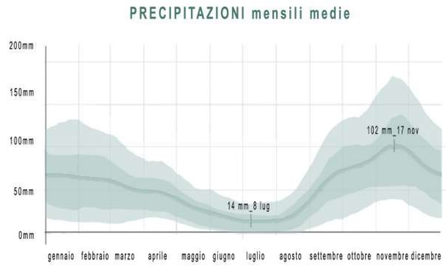
COLLABORATIVE MAPPING / *MAPPE CONDIVISE*

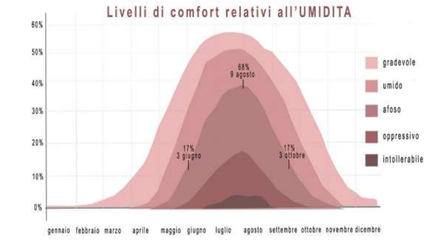
D. Galleri, A. Giordano, A. Morelli, S. Pasquariello, V. Pignata, A. Rocca, M. Sarracco, V. Sasso, A. Scarcella, A. Sodano, Z. Zanniello

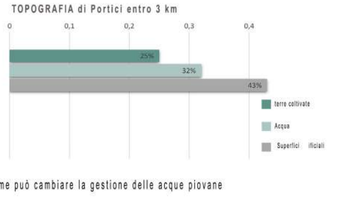
VEGETATION/WATER



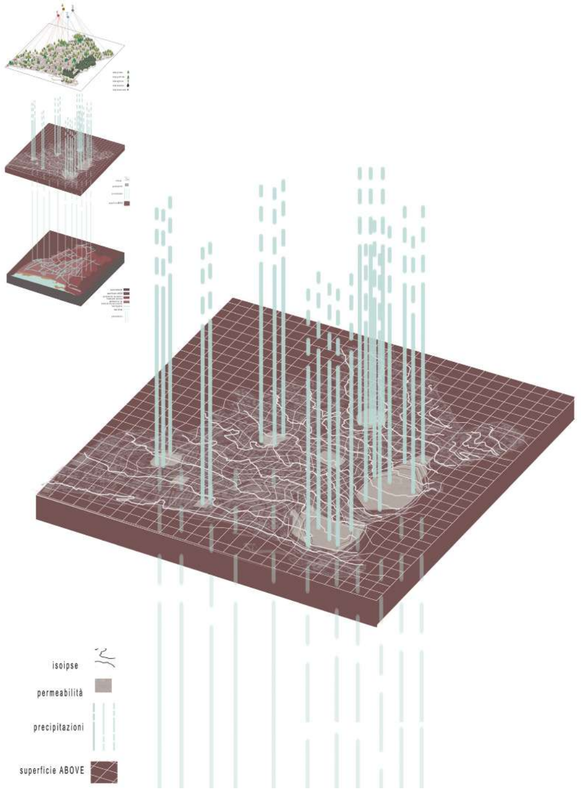
1. RAIN GARDEN
2. WET POND
3. VEGETATED DETENTION BASIN
4. PERMEABLE PAVING



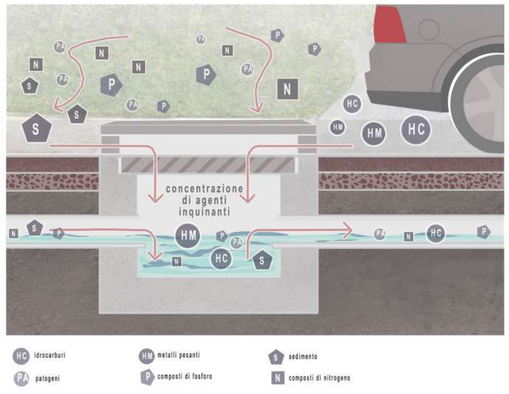


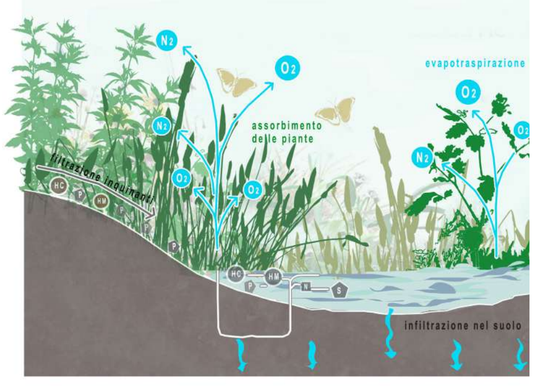


SOIL/WATER

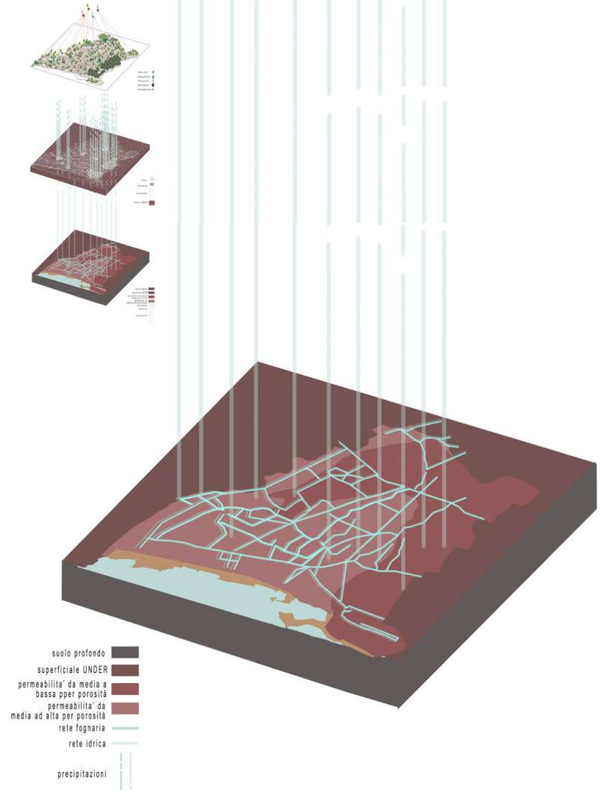


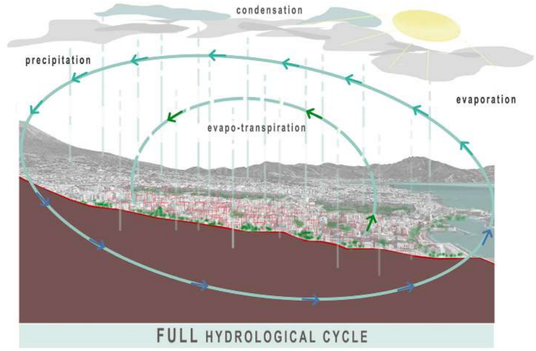
qualità dell'acqua: come può cambiare la gestione delle acque piovane

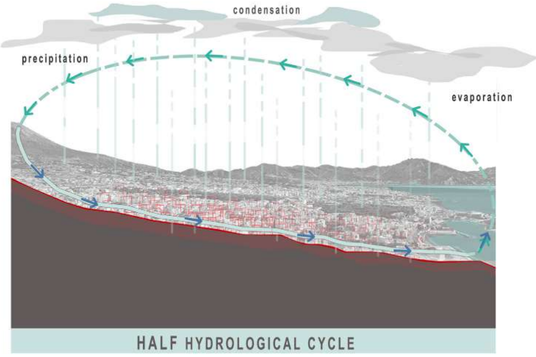




UNDERGROUNG/WATER









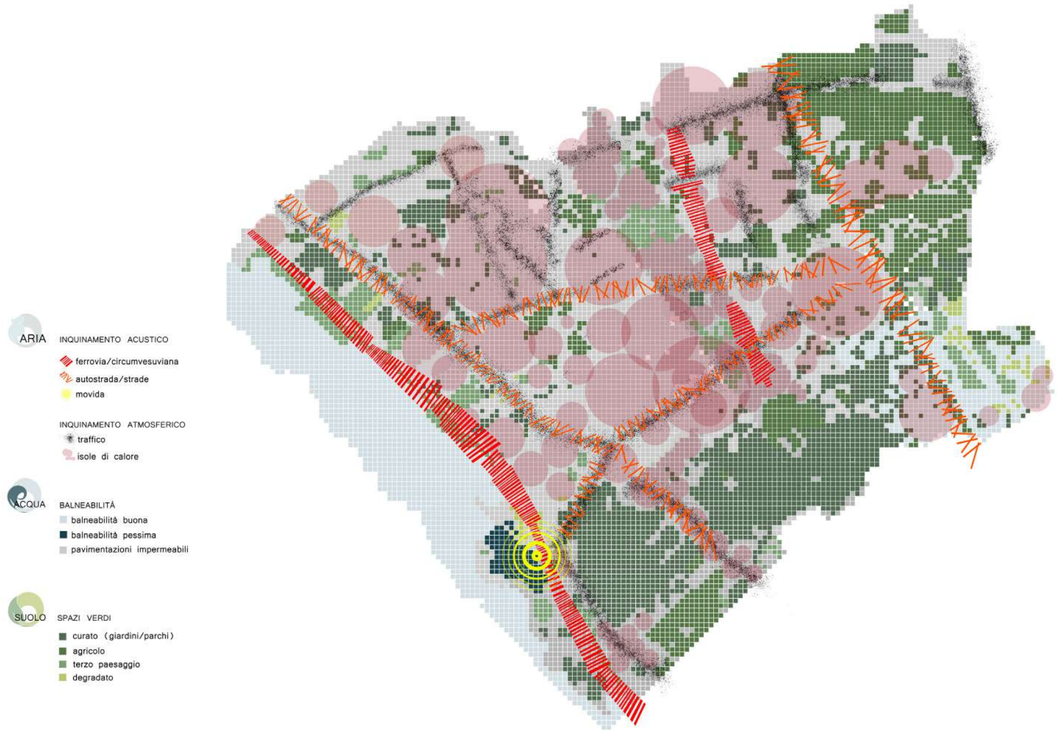
WATER STRATEGIES

- Dry Pond
  stagno secco
- Wet Pond
  stagno umido
- Permeable paving
  pavimentazione permeabile
- Rain garden
  gardini della pioggia
- Green rooftop
  tetto giardino
- Green infrastructures
  infrastruttura verde
- Raiwater harvesting
  Raccolta acque meteoriche

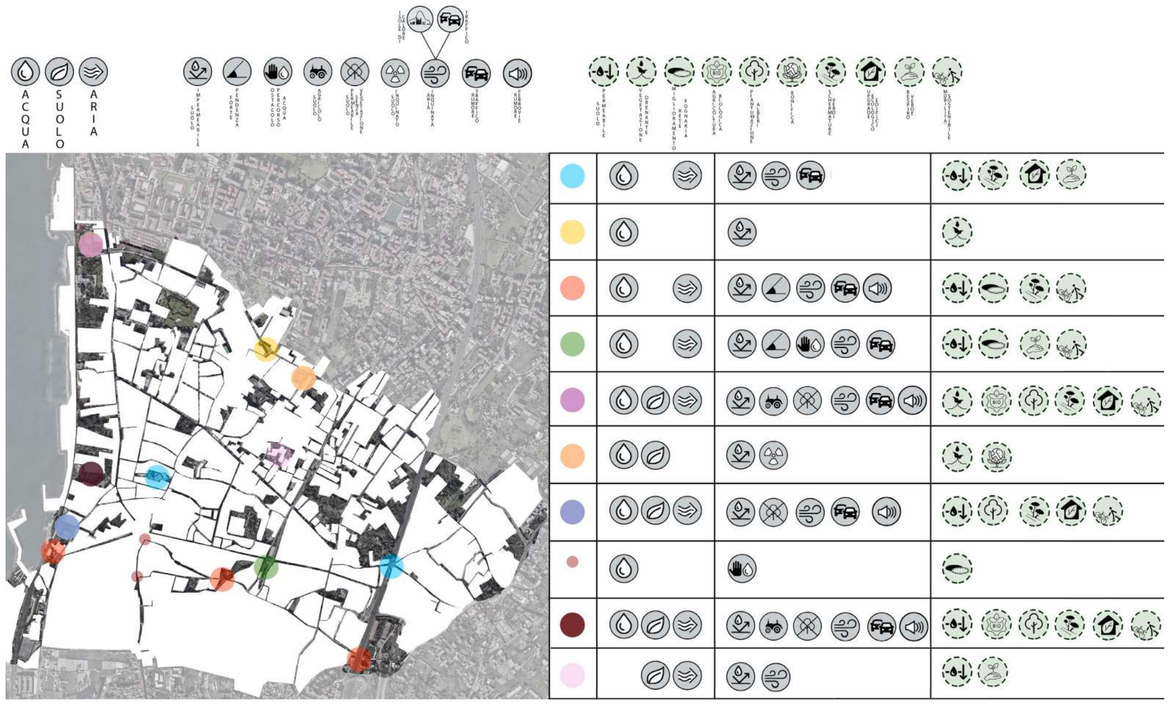
Progetti individuali	Abaco degli interventi
Davide Galleri - See the city from the sea	
Alessia Giordano - New touristic port	
Alessandra Morelli - Seathrough theatre	
Sara Pasquariello - Green Mind School	
Valentina Pignata - Hidden identities	
Alessia Rocca - CrossOver	
Mariarosa Sarracco - Wellness Road	
Vincenzo Sasso - Health City Restore	
Alessia Scarcella - Through the denCity	
Antonia Sodano - A new time: park's contiuum	
Federica Zanniello - Reconnection	

C. Acquaviva, A. Ametrano, D. Bianco, V. Bonanno, C. Cappiello, B. Ciullo, A. Leone, G. Montefoschi, M. Pastore, M. Scotto Rosato, G. Talamo

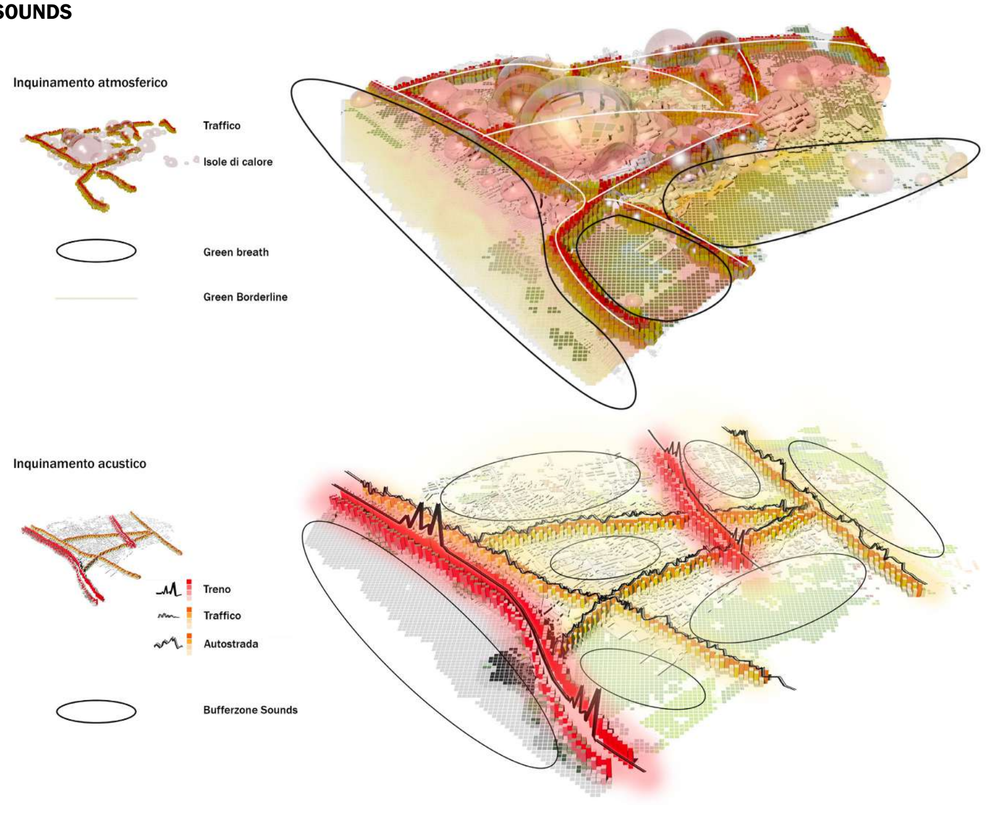
BUFFER ZONES ABSTRACTION



BUFFERZON MAPPING



AIR AND SOUNDS



VISIONS

Buffer Zone 1 - Estensione spazi scolastici

_azioni

1_marciapiedi : **Pavimentazione in pietra con fughe inerbite**
per favorire il drenaggio delle acque

2_vegetazione lungo i marciapiedi : **Acero Riccio**
favorisce l'abbattimento delle isole di calore negli ambienti urbani, mitiga l'inquinamento e assorbe fino a 1800 Kg di CO2

3_strada secondaria : **Asfalto drenante**
tipo Biostrasse - massetto stradale caratterizzato da micro bolle d'aria che oltre a rendere la pavimentazione permeabile , garantisce una sensibile riduzione del rumore da rotolamento dei pneumatici

4_pista ciclabile : **Pavimentazione drenante**
tipo Biostrasse

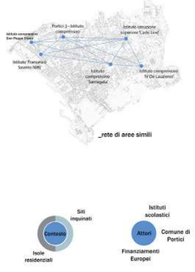
5_barriera verde : **Siepe di Rosa di macchia**
specie arborea adatta alla formazione di siepi impermeabili e per il recupero ambientale. Resiste ai sali e alle sostanze inquinanti

6_barriera verde : **Tiglio nostrano**
assorbe fino a 2800 kg di CO2 ed è una barriera contro gas, polveri e afa

7_barriera verde : **Lentisco**
specie migliorativice del terreno con elevate proprietà pedogenetiche. Per questo la specie è importante dal punto di vista ecologico, per il recupero e l'evoluzione di aree degradate

8_arbusti : **Biancospino**
impiegato negli interventi di recupero ambientale e per ricostruire boschi seminaturali

9_edifici pubblici : **Tetto verde**
permette di reginmentare il flusso dell'acqua piovana, purifica l'aria, riduce la temperatura esterna e regola la temperatura interna



Buffer Zone 2 - Vivere gli spazi interstiziali

_azioni

1_ barriera verde: **Tiglio nostrano**
assorbe fino a 2800 Kg di CO2 ed è una barriera contro gas, polveri ed afa

2_ barriera verde: **Ginkgo biloba**
assorbe fino a 2800Kg di CO2 , favorisce l'evapotraspirazione e inoltre migliora la qualità dei terreni erosi

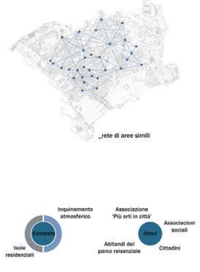
3_ percorso pedonale: **Pavimentazione drenante**
tipo Biostrasse

4_zona umida: **Specchio d'acqua**
migliora il microclima e riduce l'effetto isola di calore. Inoltre, l'unione tra l'acqua e le piante acquatiche come la "vegetazione laminare" crea un ecosistema

5_ barriera verde: **Rain garden**
conserva (per un tempo non superiore alle 12-24 ore così da prevenire il ristagno delle acque e la proliferazione degli insetti) e filtra l'acqua piovana consegnandola alla rete fognaria in maniera meno inquinata, meno veloce e con un flusso costante

6_ edifici privati: **Recupero acque piovane**
permette di risparmiare circa il 30% di acqua potabile, inoltre in caso di precipitazioni molto intense riduce il sovraccarico della rete fognaria

7_ spazi pubblici: **Recupero acque piovane**
raccoglie l'acqua piovana che,drenata dalla pavimentazione permeabile, dal rain garden e dalle aree verdi,viene immessa nello specchio d'acqua



Buffer Zone 3 - Rpensare le grandi infrastrutture

_azioni

1_percorsi : **Pavimentazione drenante DRENATECH**
per favorire il drenaggio delle acque

2_percorsi alternativi : **Pavimentazioni in calcestruzzo drenante LIDRO DRAIN**
(nuova tecnologia Italcementi) favorisce l'abbattimento delle isole di calore negli ambienti urbani, mitiga l'inquinamento

3_barriera acustica : **Barriera vegetale fonoassorbente**
on struttura in acciaio e plexiglass con applicazione di arbusti ri a foglia larga che abbatte in maniera significativa il rumore

4_barriera verde : **Tiglio nostrano**
assorbe fino a 2800 kg di CO2 ed è una barriera contro gas, polveri e afa

5_barriera verde : **Lentisco**
specie migliorativice del terreno con elevate proprietà pedogenetiche. Per questo la specie è importante dal punto di vista ecologico, per il recupero e l'evoluzione di aree degradate

6_arbusti : **Biancospino**
impiegato negli interventi di recupero ambientale e per ricostruire boschi seminaturali

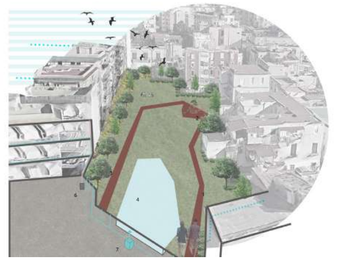
7_arbusti : **Festuca**
Si tratta di un'erba resistente al calpestio, che cresce e si propaga facilmente ma non ha bisogno di tagli frequenti



Via Martiri di Via Fani_Istituto comprensivo 'Don Peppe Diana'



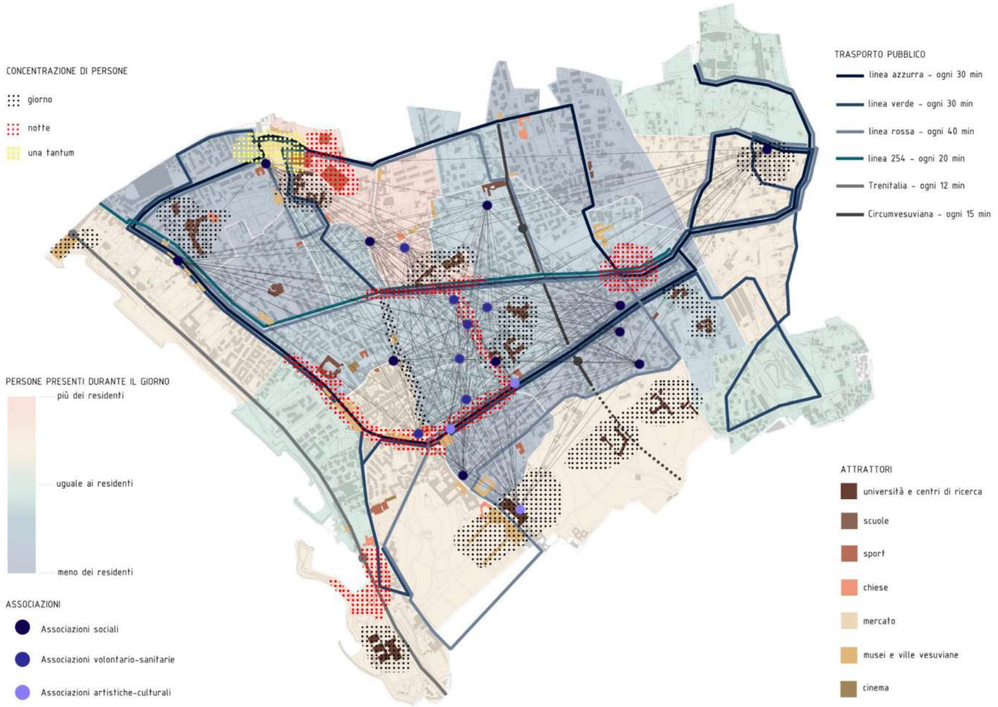
Via Carlo e Luigi Giordano



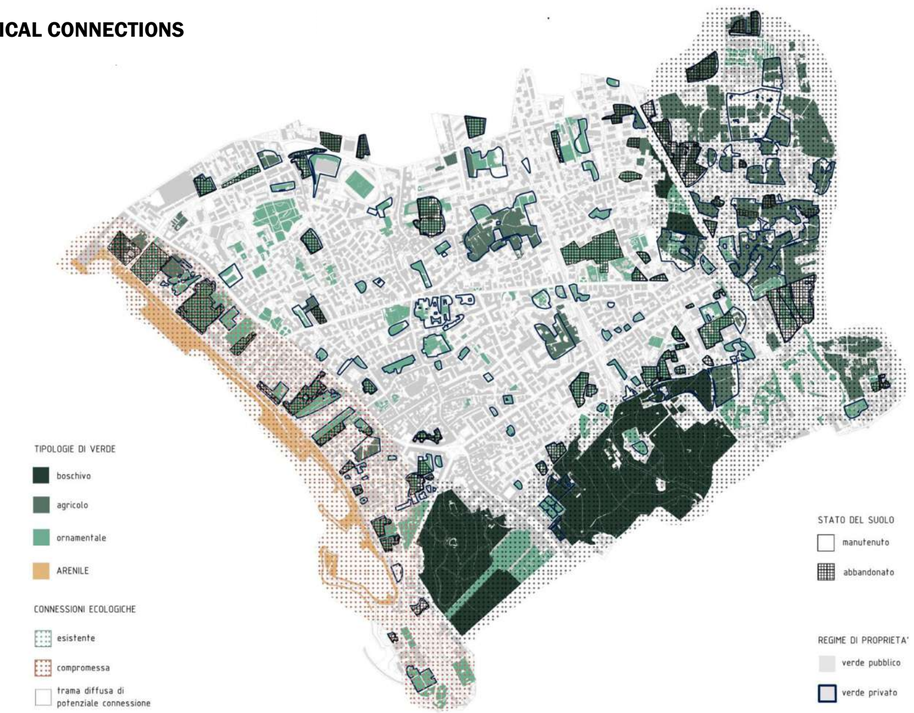
Waterfront - Viale Camaggio



SOCIAL CONNECTIONS



ECOLOGICAL CONNECTIONS



STRATEGIES

Area nord confine con San Giorgio

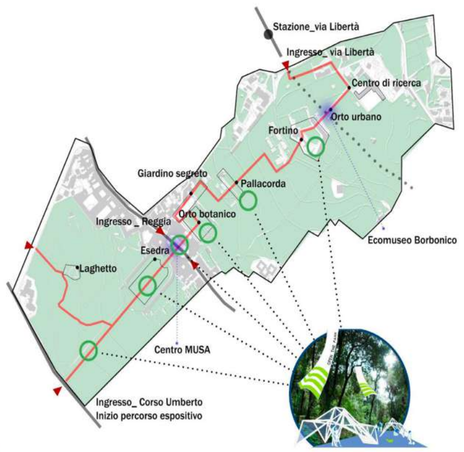


INTERVENTO PRINCIPALE:

Pensiline verdi e mobilità sostenibile affinchè i cittadini siano incentivati a curare le strade e migliorare la percezione e la vivibilità della zona

TIPOLOGIA DI INTERVENTO	DESCRIZIONE	CHI	COME
Fitodepurazione	La fitodepurazione è un sistema di depurazione naturale delle acque reflue, che riproduce il principio di autodepurazione tipico degli ambienti acquatici e delle zone umide.	Università di Agraria Privati	Bonus verde Incentivi per le università
Tetti verdi **Tetti bianchi**	Realizzazione di tetti bianchi con un materiale riflettente o con un vinile bianco per ridurre l'assorbimento di calore e ridurre l'utilizzo di condizionatori, risparmiando energia. Realizzazione di tetti verdi per ridurre gli sbalzi termici; consente di trattenere fino al 70% delle acqua piovane e riduce le acque di suolo.	Privati (singoli condomini) Enti pubblici: Università = Collaborazione tra il dipartimento di Agraria e Architettura	Ecobonus Fondi comunali
Verde diffuso	Progetto della sezione stradale con realizzazione di percorsi pedonali e ciclabili e inserimento di verde diffuso, per mitigare l'inquinamento, fornire zone d'ombra e migliorare l'aspetto delle strade urbane.	Comune di Portici attraverso il Piano del Verde Privati per il suolo di pertinenza delle unità immobiliari	Incentivi statali e regionali per i comuni (Strategia nazionale del verde urbano) Bonus verde per i privati
Orti urbani	Inserimento di orti urbani negli spazi verdi abbandonati. Riqualificazione delle aree periferiche.	Spazi verdi di proprietà comunale affidati in gestione ad associazioni	Iniziale intervento pubblico e cura affidata ai cittadini
Ricarica ad energia elettrica e solare	Installazione di colonnine elettriche per la ricarica dele auto e sostituzione dell'illuminazione stradale con lampioni a ricarica solare	Comune di Portici Parcheggi privati	Convenzione con parcheggi privati e aziende produttrici Sponsorizzazioni locali
Pensiline verdi e mobilità sostenibile	Nuove pensiline ecosostenibili in sostituzione alle esistenti ed introduzione di un sistema di mobilità sostenibile con ecobus	Comune di Portici ANM	Incentivi statali Incentivi comune di Portici
Partecipazione cittadina	Organizzazione di incontri partecipati con i cittadini di Portici per scelte condive per la crescita della città	Comune di Portici Associazioni	Questionari Dibattiti Incontri Campagne di sensibilizzazione
Installazioni temporanee	Allestimenti temporanei per rendere attrattivi luoghi dimenticati della città.	Il Comune offre il suolo pubblico ad artisti emergenti per l'installazione delle proprie opere.	Organizzazione di eventi per sponsorizzare le installazioni.

Parco della reggia



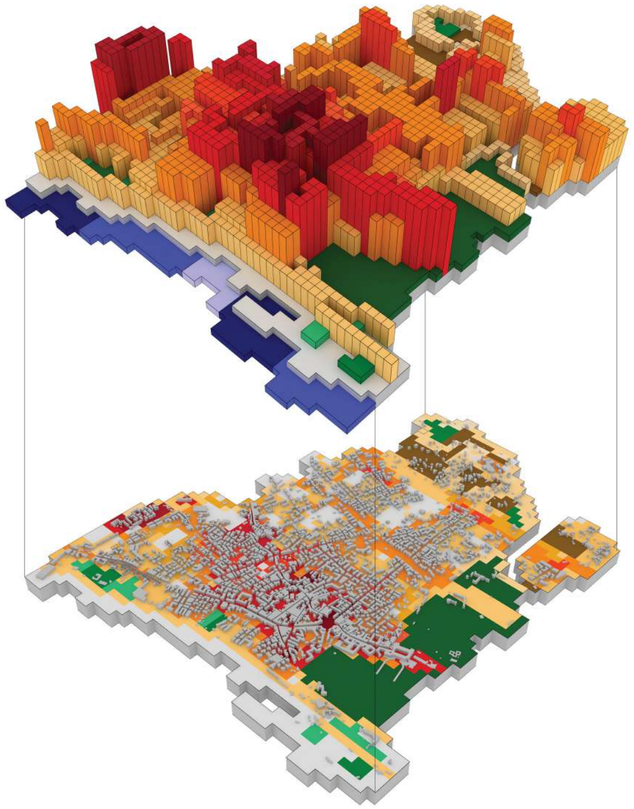
INTERVENTO PRINCIPALE:

Installazioni temporanee per rendere attrattivi luoghi poco noti del parco.

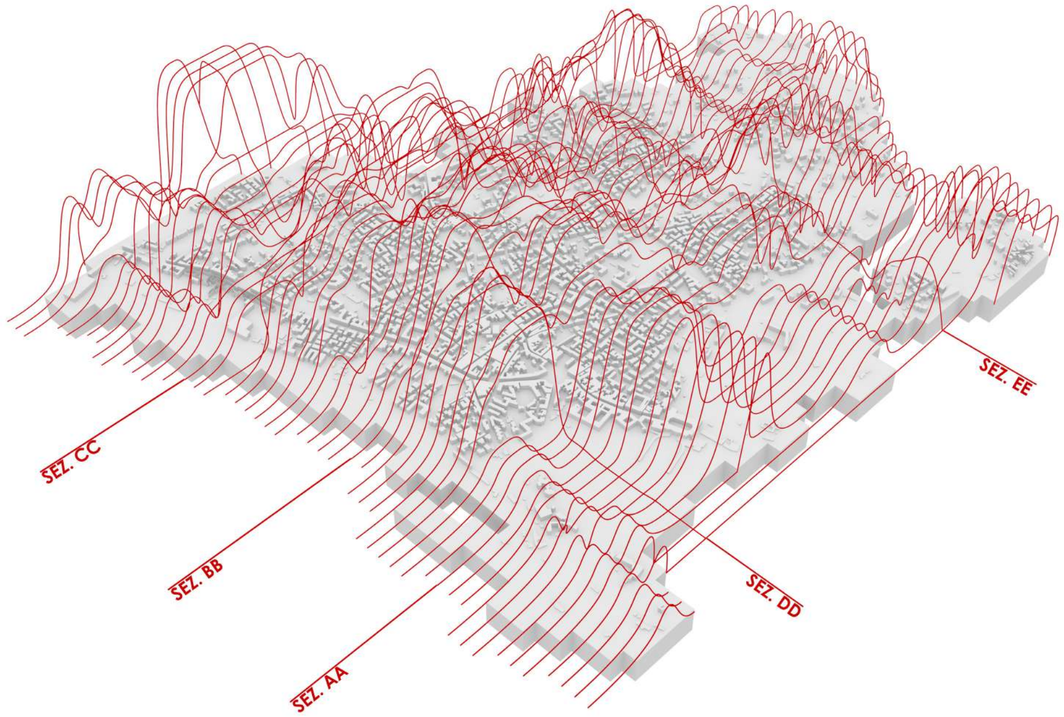
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L. Battista, P. Biancardi, M. Buonaiuto, C. Cioffi, A. Corcione, D. A. Cutolo, L. de Crescenzo, S. Della Corte, L. P. Marseglia, A. Passaro, S. Tedesco

ARCHITECTURE OF POLLUTION



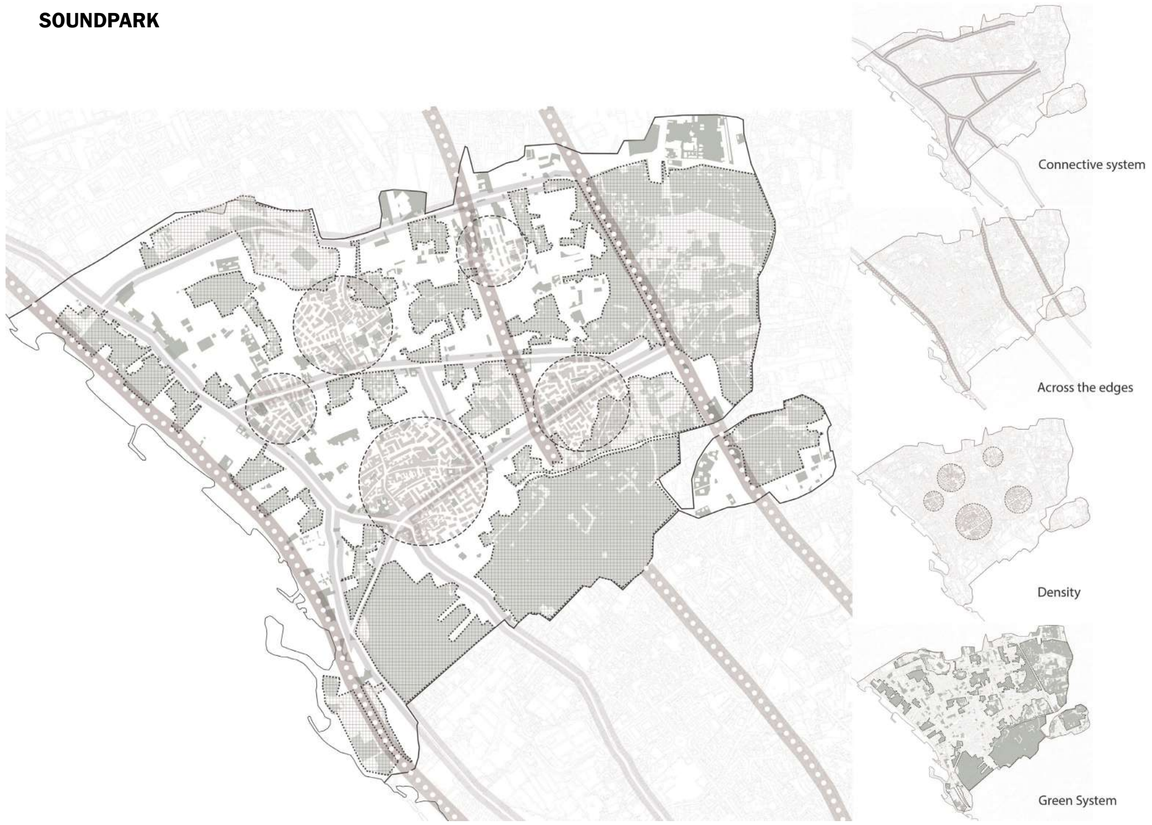
SOUNDS MAPPING

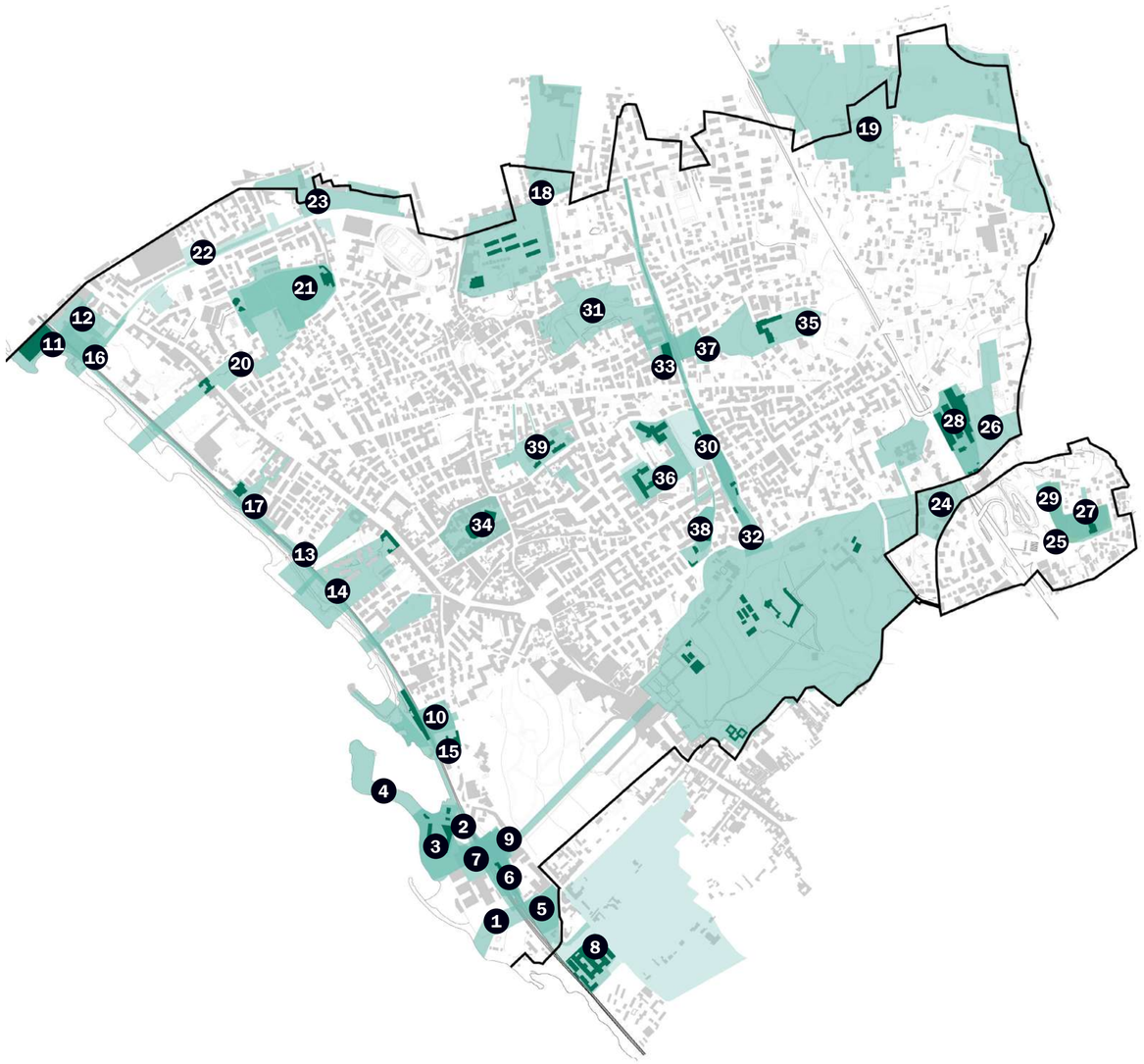


SOUNDSCAPES



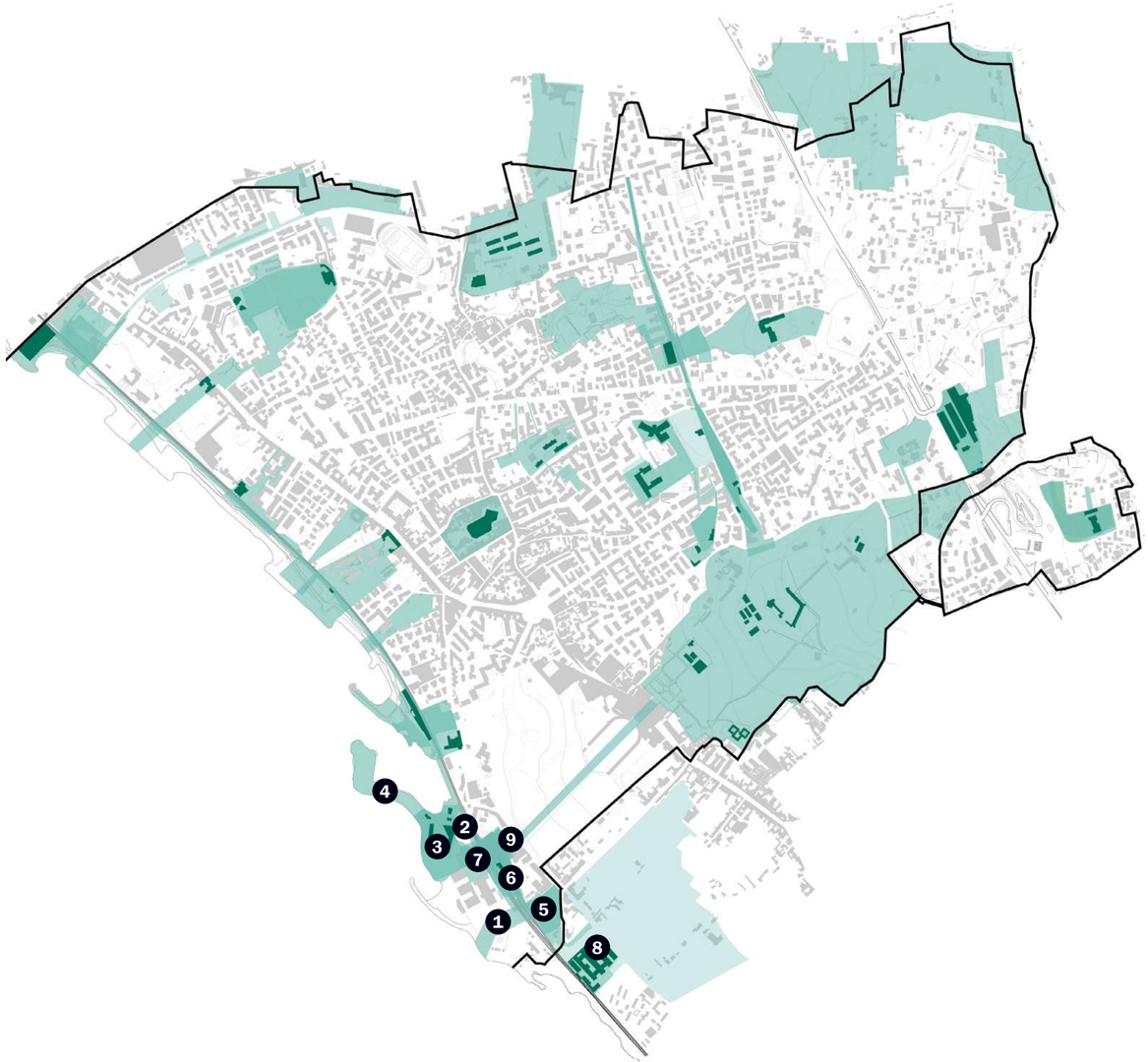
SOUNDPARK





PROJECTS / *PROGETTI*

1. Net_campus Lucio de Crescenzo
2. Harbor Hub Salvatore Della Corte
3. Granatello Island Bridges Davide Galleri
4. "Take me to Portici" Alessia Giordano
5. Constant motion Luca Pasquale Marseglia
6. Sea Through Theatre Alessandra Morelli
7. Urban jungle Mafalda Pastore
8. Park's continuum Antonia Sodano
9. Across the fringe Sara Tedesco
10. Park[ing] Portici Claudio Cappiello
11. Sea line Carlo Cioffi
12. CrossXRail Antonio Leone
13. The door of the sea Giulio Montefoschi
14. Hidden Identies Valentina Pignata
15. Crossover Alessia Rocca
16. Wellness road Mariarosa Sarracco
17. Retro(water)front Marialisa Scotto Rosato
18. Reiventing suburbs Cristina Acquaviva
19. Cross Urban Park Antonietta Ametrano
20. The park gate Davide Andrea Cutolo
21. SCC - Sport Community Connection Alessio Pazzanese
22. Reconnection Federica Zanniello
23. Border Line Center Clara Vitiello
24. Green line urban park Pasquale Biancardi
25. Portici birdport Davide Bianco
26. Kerasav reconnection Benzo Ciullo
27. The green bridge Paola Ferraioli
28. Planning a new growth Luca Ruocchio
29. Social regeneration farm Angela Tufano
30. Cross city Luca Battista
31. Bellavista contemporary park Massimiliano Buonaiuto
32. Green Connection Dario Colella
33. Relinked city Liliana Coppola
34. Constant motion Antonio Corcione
35. From past to present Maria Parente
36. Green mind school Sara Pasquariello
37. Urban reappropriation Alessia Francesca Picarelli
38. Into the dencity Alessia Scarcella
39. In the middle Giulia Talamo



GRANATELLO'S AREA
L'AREA DEL GRANATELLO

1. Net_campus Lucio de Crescenzo
2. Harbor Hub Salvatore Della Corte
3. Granatello Island Bridges Davide Galleri
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PORTICI ADVANCED DESIGN STUDIO

LUCIO DE CRESCENZO - NET_CAMPUS

DESIGN OF A SOCIAL AND CULTURAL NETWORK CONNESSIONE TRA L'UNIVERSITÀ ED IL CNR

This project fits perfectly into the double meaning of the expression "urban project", that is, a development strategy or positioning of the city as a whole and concrete intervention on delimited urban parts.
It aims to rediscover and emphasize the Vesuvio-Sea reconnection and to enhance the series of functional poles present and added on the transverse that connects the gardens of the Portici Palace to the harbour of Granatello and the Mortelle beach.
The project, which is not by chance entitled NET_CAMPUS, starts from the idea of transversal reconnection developed by Gasparrini within the PUC of Portici and develops a reunion that is not only physical to overcome the currently existing barriers, but also metaphorical and functional through the dislocation of reconnected functions, starting with that of the university center of the Faculty of Agriculture with the ENEA center.
The priority attributed to the objective of implementing the great connections between the sea and the Vesuvius National Park was declined through the recomposition of the original continuity of the lower park of the Reggia with the port of Granatello, interrupted by the residual treatment of the altitude jump in correspondence of the abandoned railway yard.
At the same time, it was decided to enhance the buildings and sites with high symbolic, historical, environmental and landscape value by recovering disused or underused and abandoned areas and supporting redevelopment interventions capable of redesigning and enhancing public spaces.

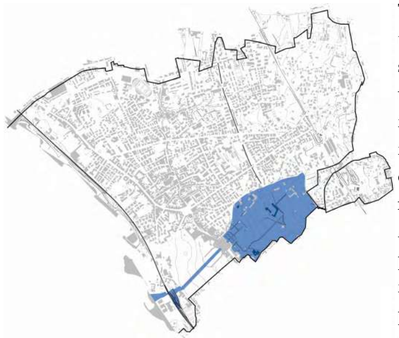
Program

cultural and social center, public facilities, services, urban park

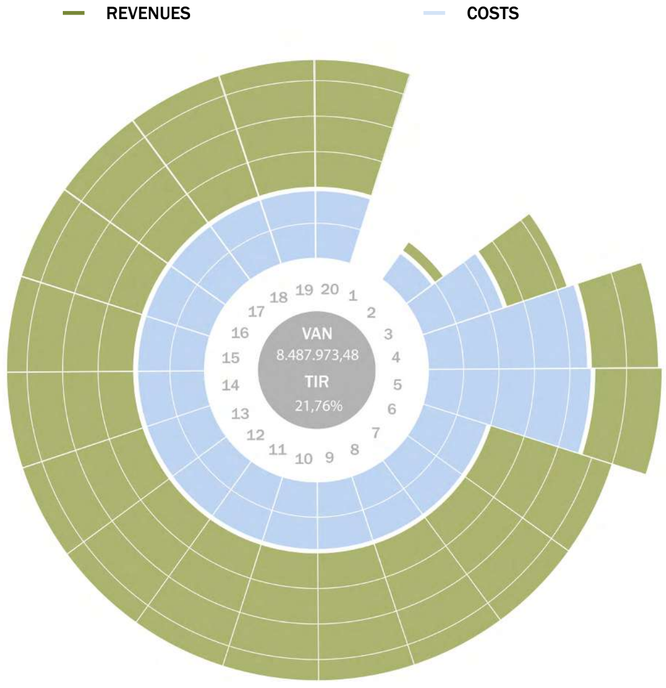
Covered area	6495,476 m²
Uncovered area	6910,54 m²
Floors above ground	3
Built volume	39121,8866 m³
Estimated cost	12.260.105,03 €

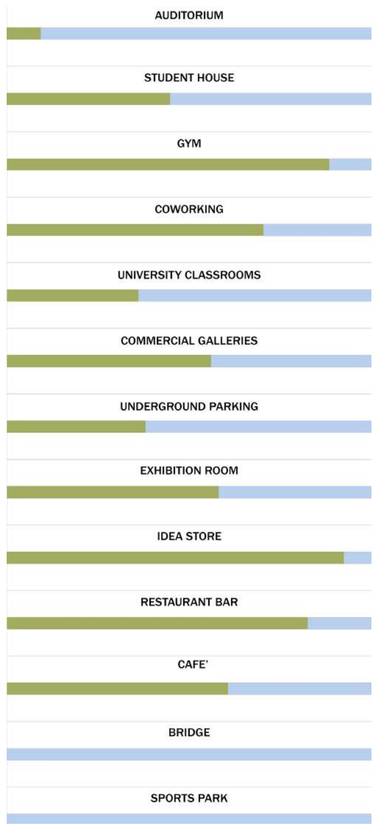


The red thread to connect and harmonize the various interventions was defined starting from the meeting of the natural beauties of the Park with the exhibition venues, the training centers, the recreational spaces created thanks to the recovery and modernization of the buildings already present in the area, as well as the addition of new structures for of public interest.



The project aimed at strengthening the territorial ecological networks and safeguarding the system of urban and peri-urban green spaces in order to reconnect the fragmented open areas, such as those of the former Royal Fagianeria, and one of the main open spaces between the Palace park and the natural areas of the Vesuvius National Park. Among the buildings recovered in the upper park of the Royal Palace are: the “fort” - the fulcrum building, at the entrance to the park - re-functionalized to attract citizens, tourists and students; the former Giuseppe Medici student residence whose structure is restored with the introduction of laboratory support activities in the university field and the redeveloped greenhouses and/or used as rest areas (for students or citizens) or workshops for students of the agricultural faculty. Finally, the original continuity of the lower park of the Reggia with the port of Granatello is recomposed, interrupted by the residual treatment of the height difference in correspondence with the railway park, so as to effectively reconnect the Reggia with the Mortelle beach, the port and villa D’Elboeuf.





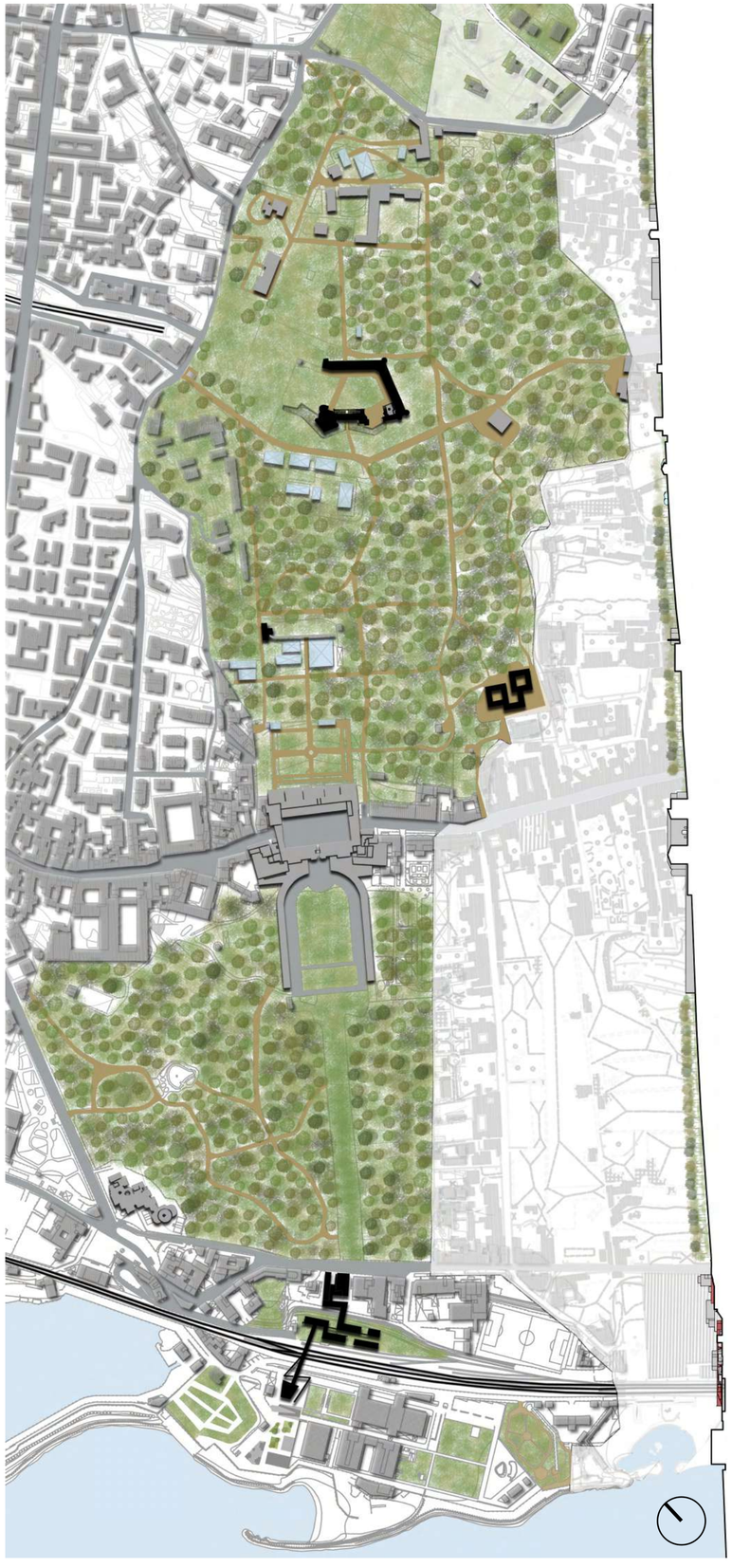
CASH FLOW

On the left, a representative graph of the cash flow of the entire project over twenty years. On the right, however, the ratio of costs and revenues of the individual functions envisaged, again over a period of twenty years. Below, the vision of three restructuring and re-functionalization projects within the upper park of the Palace.

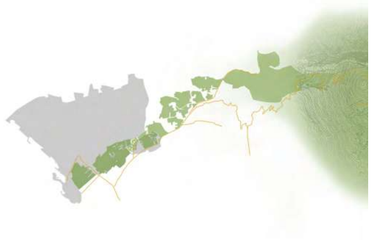




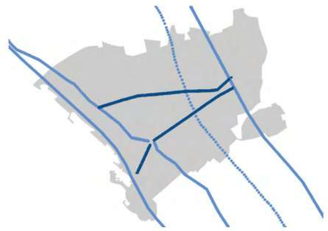




MASTERPLAN 0 100 250 500m



GREEN NETWORK



PRE-EXISTING CONNECTIONS



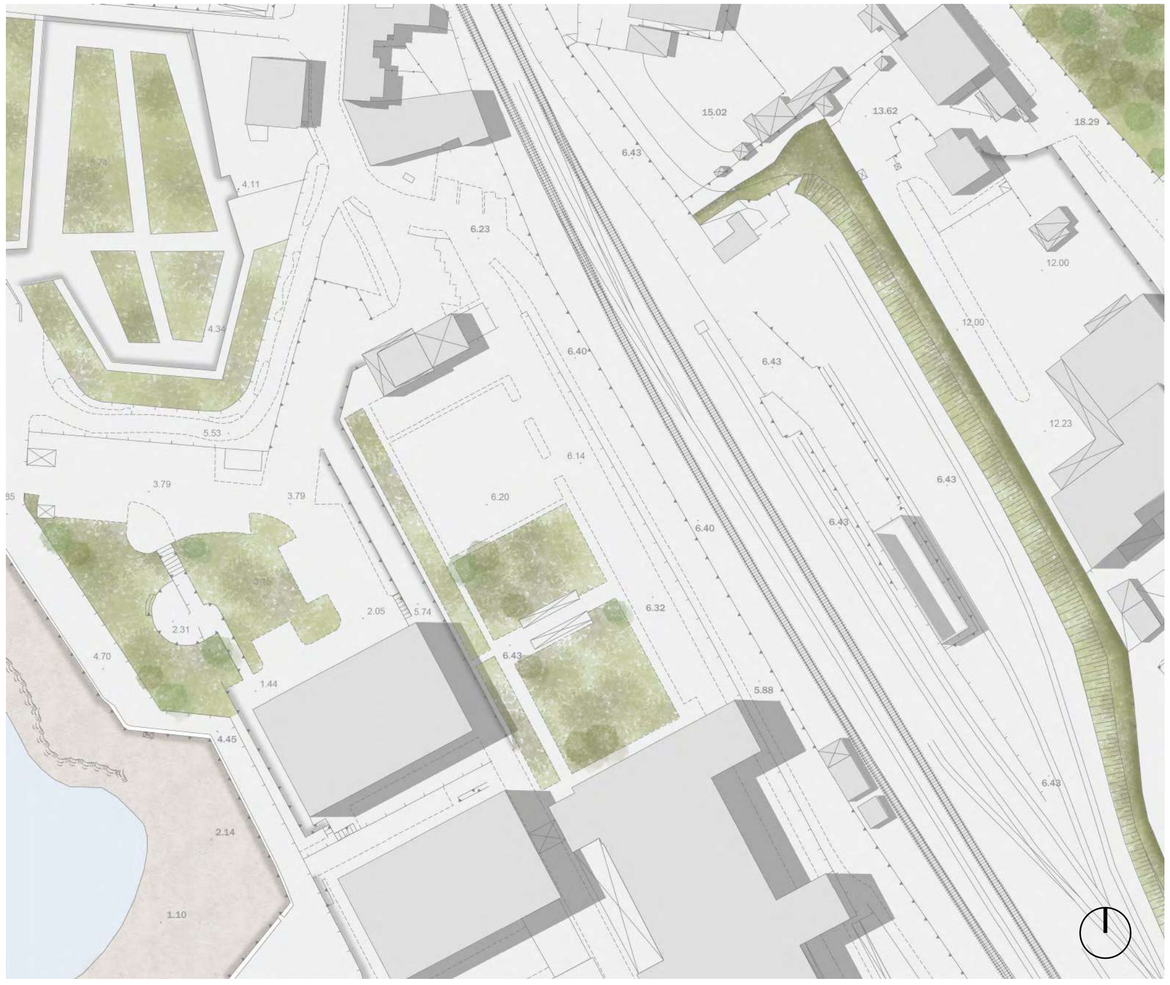
URBAN POLES RECONNECTION



REDEVELOPMENT AREAS

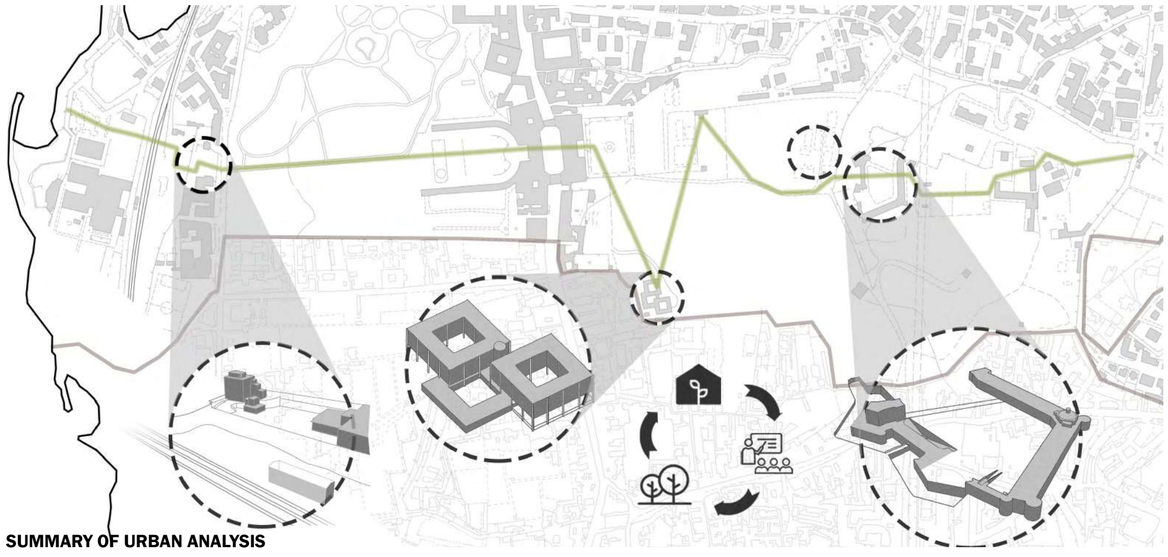


IDENTIFICATION OF ATTRACTIVE POLES

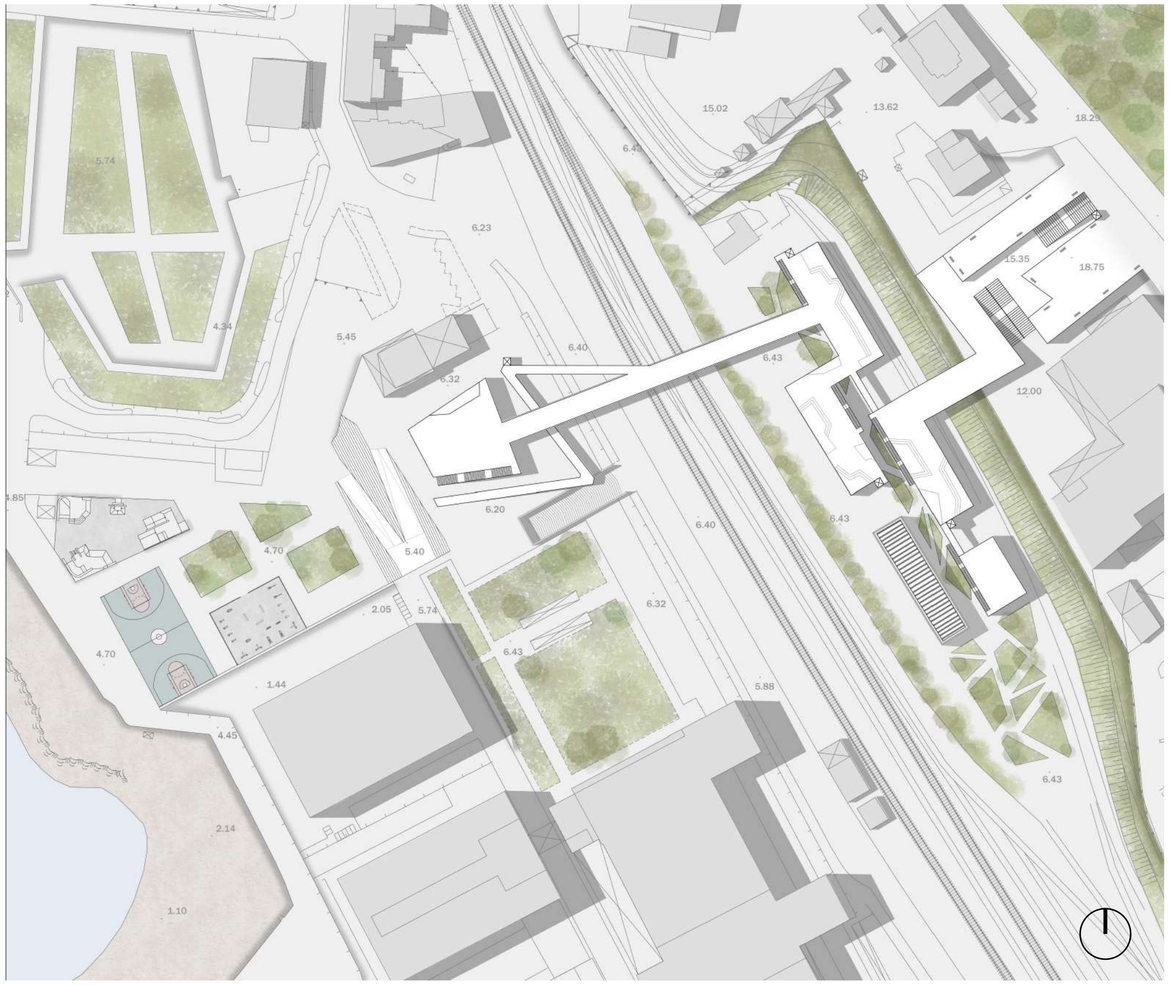


CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 | 20 | 50 | 100m

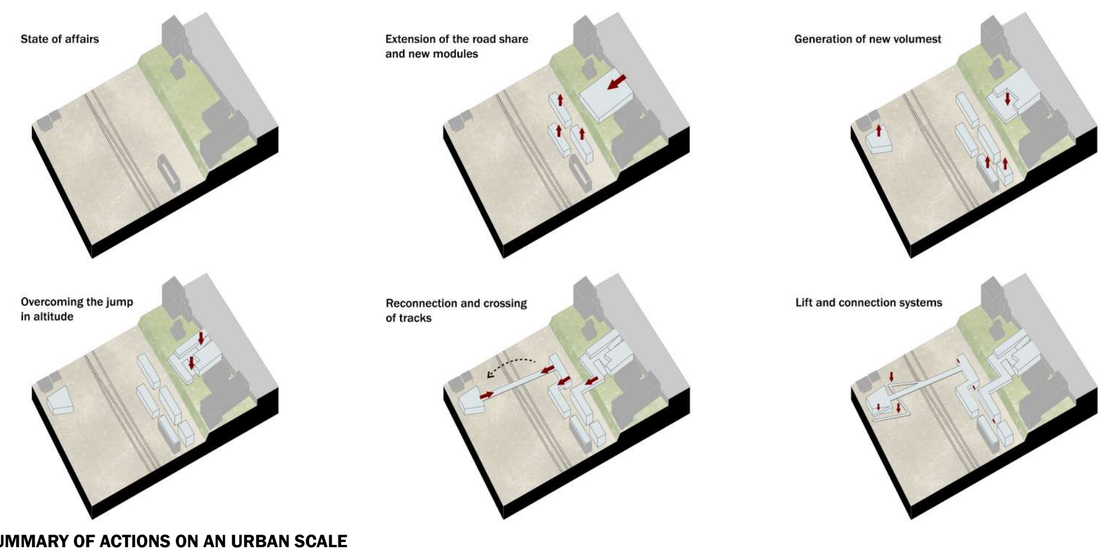


SUMMARY OF URBAN ANALYSIS



DESIGN PROPOSAL

0 | 20 | 50 | 100m



SUMMARY OF ACTIONS ON AN URBAN SCALE

The overcoming of the jump in altitude is achieved thanks to the introduction of buildings and public services arranged in terraces that are linked to volumes obtained from the reiteration of the module of the former freight yard present, all used for social and public functions.

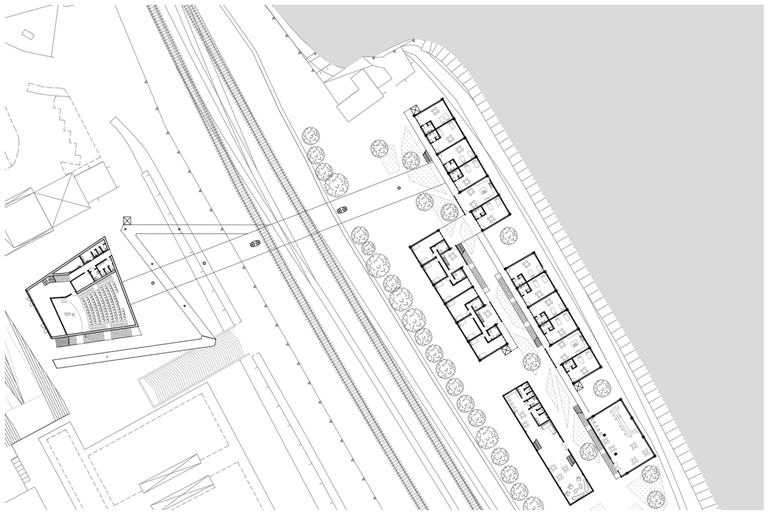
Specifically, the terraced buildings, which are developed on 2 levels, accommodate commercial functions such as shops and cafes and are connected to the slat buildings used instead for more social functions such as cohousing and / or student housing. The introduction of this function stems from the request of many citizens of Portici in search of apartments at not too high prices, as well as university students who are currently forced to commute from neighboring municipalities.
The buildings have external balconies that, in addition to reconnecting them as in a single housing block, allow you to reach additional services such as: cafe, gym, laundry. common kitchens and relax areas. You can also reach the roof terraces, all made practicable and equipped with seating and greenery in order to make them additional meeting spaces for both “residents” and anyone wishing to use them. The abandoned building of the former freight yard, on the other hand, has been left unaltered by planning to build a steel structure inside that is detached from the original one and which plans to accommodate the function of coworking areas, with a principle of communion and aggregation as for the other buildings.
Given the function that characterizes the buildings, steps were taken to intervene with scattered green elements and trees, especially near the tracks in order to act as an ornament and an acoustic barrier.
From the aforementioned public terraces, which are also all reconnected to each other, you can reach the bridge that crosses the railway tracks to reconnect with a final element used as an auditorium.
The latter, almost surrounded by a ramp that reconnects to the bridge, stands on the current outdoor parking of the Enea center which is expected to be buried.
Going further, past the large staircase with attached ramps, you arrive at a small sports park planned all at a single altitude and in direct continuity with the waterfront.



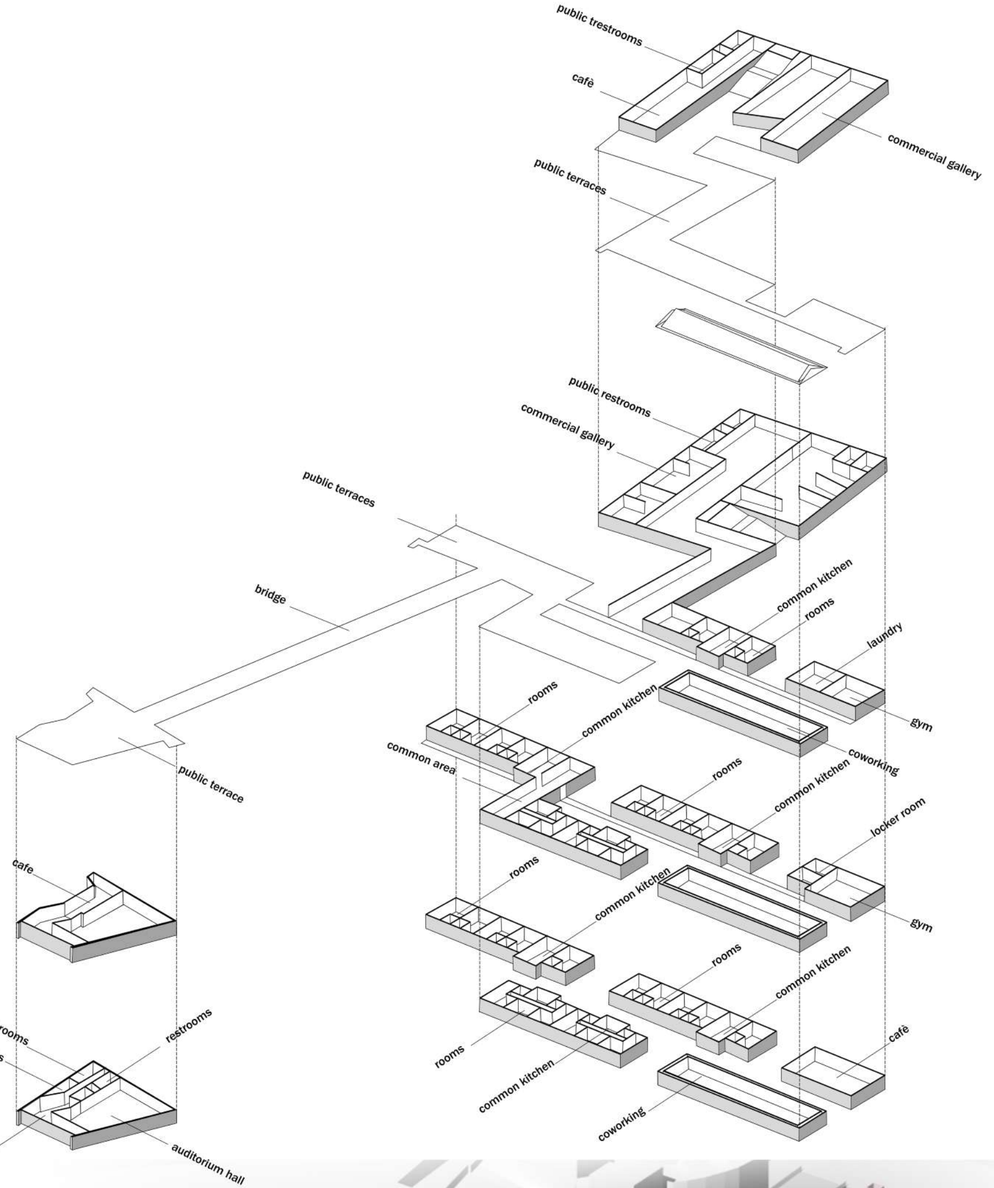
Second floor plan

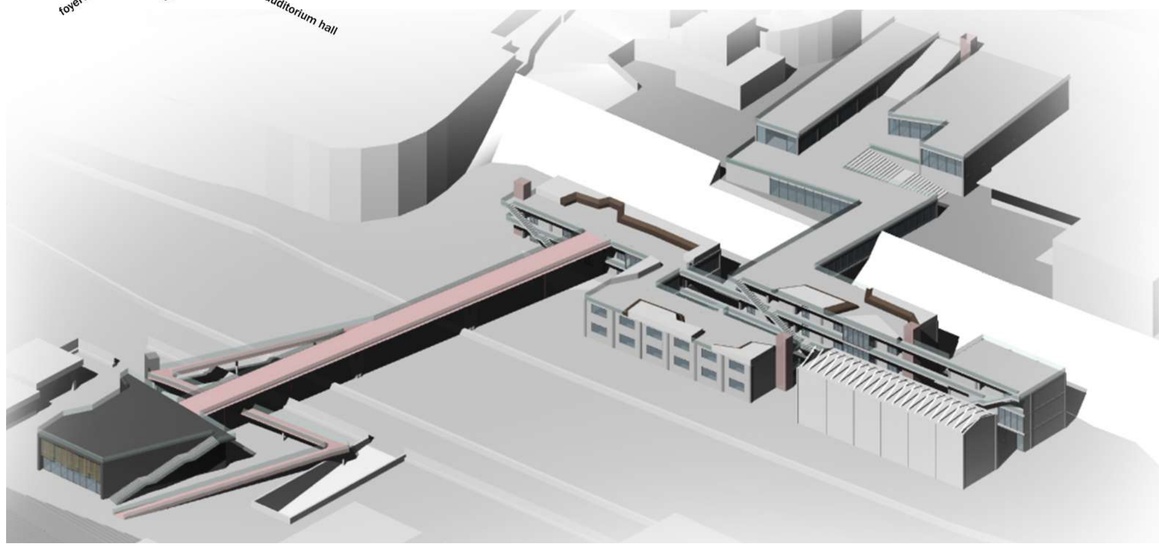


First floor plan



Ground floor plan

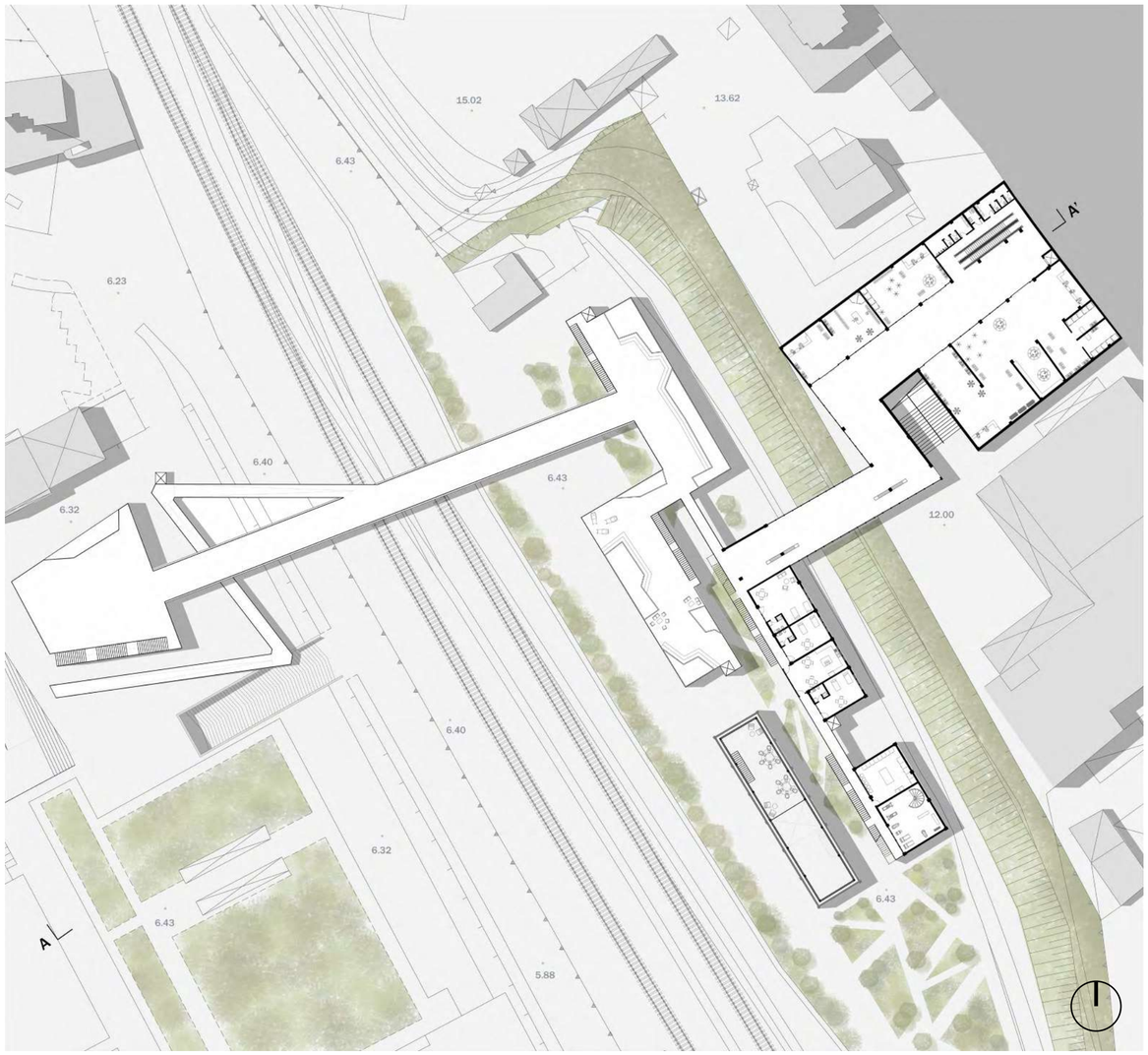






SECTION AA'

0 15 30 60m



SECOND FLOOR + 12,11m

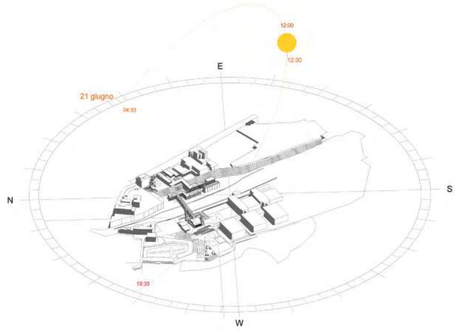
0 10m 30m 60m



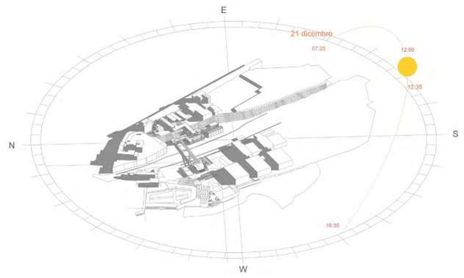
VIEW FROM THE TERRACES OF THE SHOPPING GALLERY



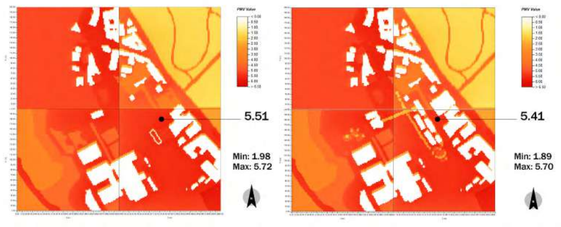
VIEW OF THE BRIDGE CROSSING THE TRACKS



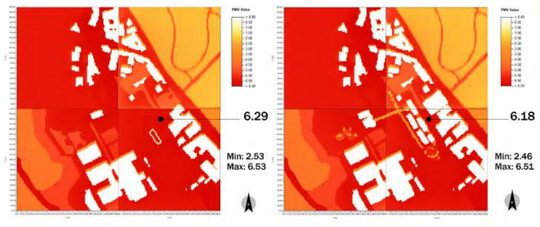
summer solstice | *21 giugno*



winter solstice | *21 dicembre*

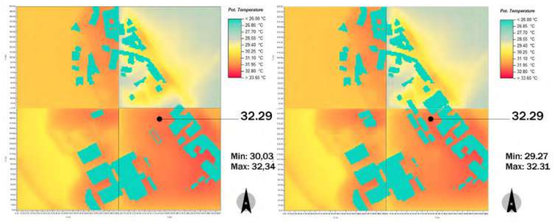


Analysis of the actual state and project related to the year 2020, 12.00

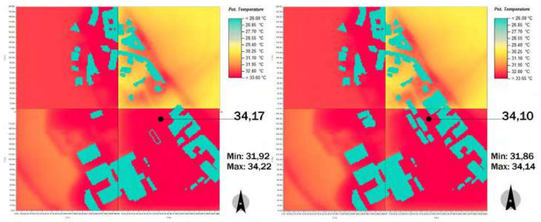


Analysis of the actual state and project related to year 2050, 12.00

PMV | Thermal sensation index

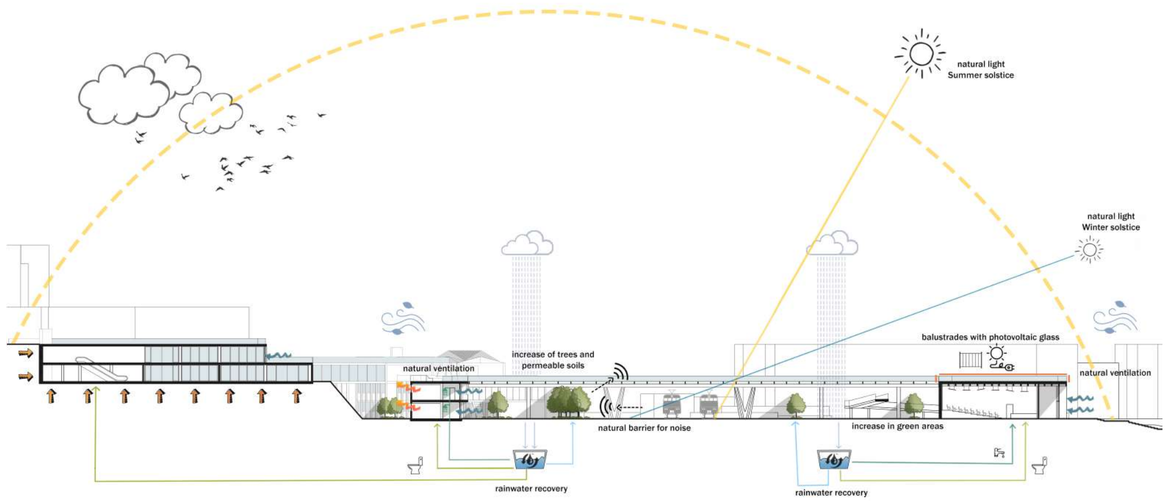


Analysis of the actual state and project related to the year 2020, 12.00



Analysis of the actual state and project related to the year 2050, 12.00

POT| Air temperature



ENVIRONMENTAL SECTION

A. Layer of Misapor concrete cast on site, Insulating panel in EPS, Layer of Miasapor concrete cast on site, Air gap, Metallic uprights for false wall, Sound-absorbing acoustic wood cladding

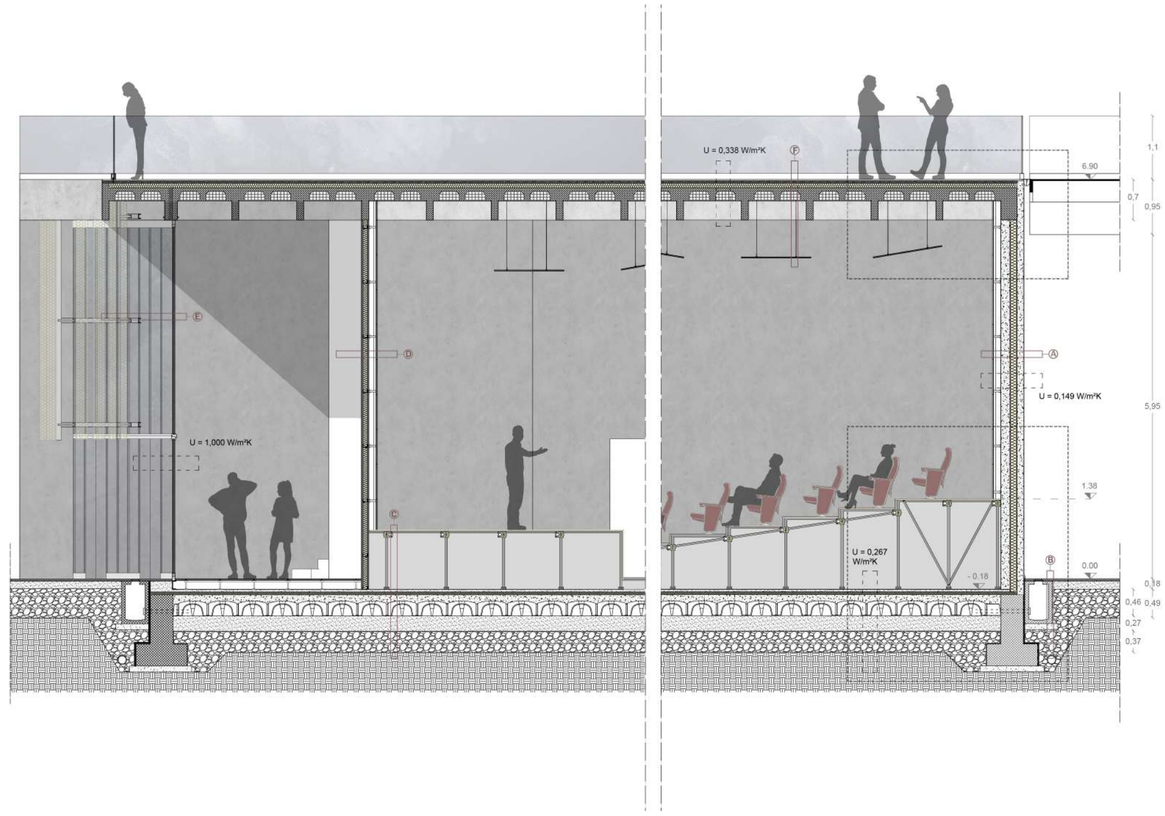
B. Self-locking drainage concrete flooring, Mortar layer, Lightened drainage screed, Linear slot channel, Prefabricated concrete pit, Lean, Drainage pipe, Compacted soil

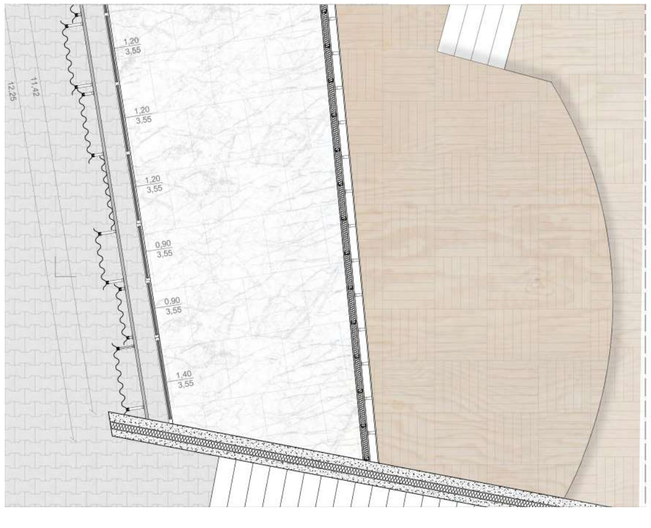
C. Flooring in sound-absorbing wooden panels, Metal substructure for flooring, Lightweight concrete screed, Vapor barrier, Insulating expanded polyethylene panel, Cast concrete with electro-welded mesh, Igloo type Plasticform, Cast concrete, Crushed stone, Ground

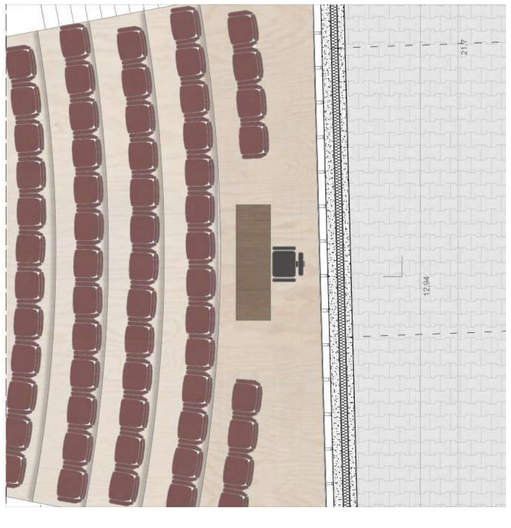
D. Coated gypsum board, Fiber-coated gypsum board, Metal structure: U-shaped horizontal guides and C-shaped vertical uprights, Layer of glass wool insulating material, Fiber-coated gypsum board, Coated gypsum board, Air gap, Uprights metallic for counter-wall, Sound-absorbing acoustic wood cladding

E. Aluminum frame with thermal break, Double low-emission glass - Pilkington Suncool Optilam, Profile 80, Metal guides 40 mm, Perforated corrugated metal mesh

F. External flooring in porcelain stoneware, Screed, Waterproofing covering, Vapor barrier, Insulation, Vapor barrier, Latero-cement floor, Internal plaster, Steel tie-rods, Sound-absorbing acoustic wood panel







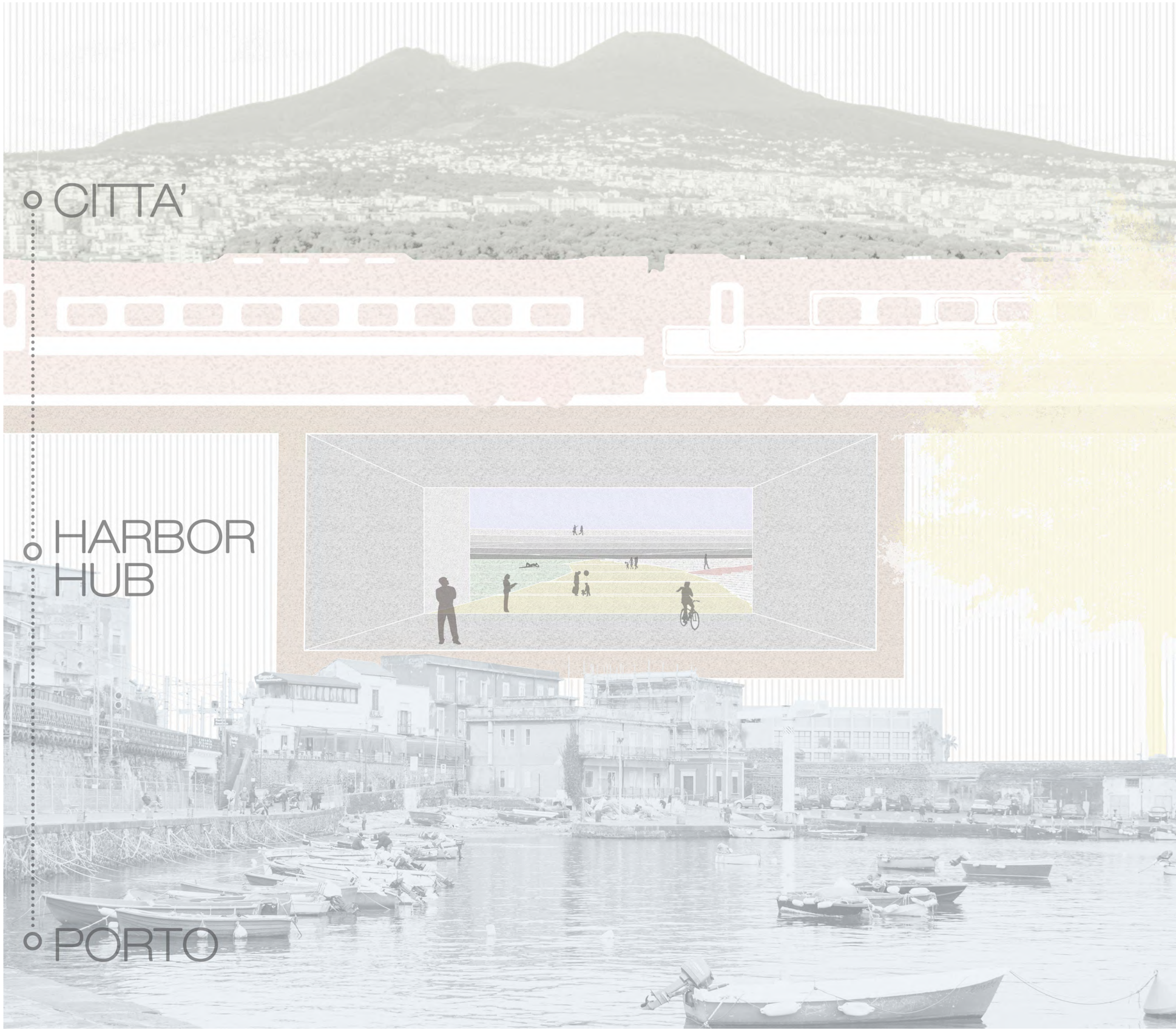
BUILDING AND PUBLIC SPACE PLAN AND SECTION SCALE 1:75

PORTICI ADVANCED DESIGN STUDIO

SALVATORE DELLA CORTE - HARBOR HUB

A RECONNECTION STRATEGY THE PORT AND THE CITY

On the trace of the first railway line built in the peninsula, the Naples-Portici, commissioned by Ferdinand II, and inaugurated on October 3, 1839, the national railway network, continuing towards Salerno, cuts and isolates the city of Portici. The conformation of this infrastructure has strongly influenced the development of the city towards the hinterland and at the same time prevented the development of social, tourist and economic dynamics along the coastal strip, making an entire portion of the territory as forgotten and abandoned.
With the latest calls for tenders, attempts are being made to re-evaluate the conformation of this space so that it can return to being lived and become part of the fabric of the city.
The project announcement, however, does not consider the other problems that develop along the railway network, it does not consider the potential of the other spaces adjacent to it and how much these can be neuralgic from an urban and social point of view. While the Pietrarsa Museum brings to life the beginning of this coastal strip, the end, the Porto del Granatello, lives in a condition of subtle balance. The latter suffers the greatest problems arising from the proximity to the railway, so much so that it can be considered, the port and the entire area, as an island, a lot, isolated from the city, to which it is possible access only through a subway. The project considers this area and tries to generate new urban conditions.



Program

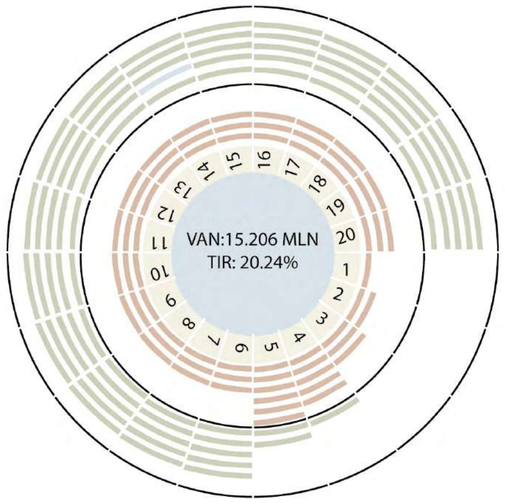
park, new underpass, university, student residence, library, restaurant, bar, gym, study room.

Covered area	12.008,7m²
Uncovered area	13.12305,m²
Levels above ground	9
Built volume	122.879,79 m³
Estimated cost	21.226.219,85€

The Granatello area is strongly subject to the presence of the railway. The objective of the project is to identify new ways to connect this area and the city, with the identification of a public park, a passage under the railway, and the design of architectures that resolve the difference in height.



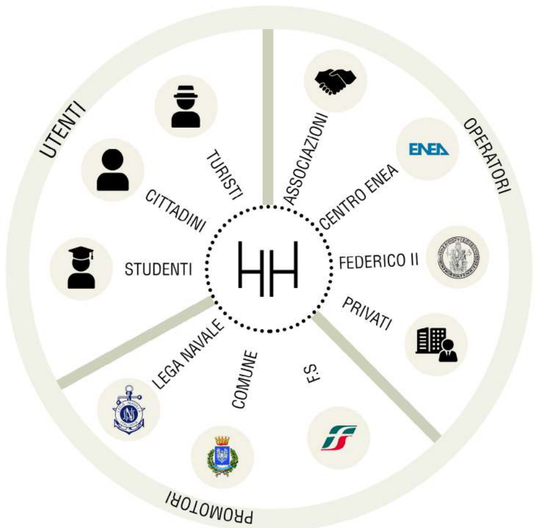
The setting of the project idea is expressed through the transformation of an existing commercial gallery, which identifying itself as a closed subset placed within a larger autonomous system, the port area, becomes the object of intervention through the demolition of a part of it and the juxtaposition of other welcoming volumes for public functions, a library, a bar, and a restaurant.
The desire to overcome the barrier constituted by the railway is expressed through the design of an excavation whose depth was determined by the need to overcome the obstacle and at the same time allow a good quality of the space.
The divine excavation in this way the center of the project, its definition through the edges has allowed the identification of those architectural devices useful for overcoming the difference in height and the positioning of the architectures themselves. Along the edge, there are various functions, a student residence, a gymnasium, and a study room, but the one that most manages to perform the function of binder between the city and the port is the university.



GENERAL CASHFLOW IN 20 YEARS REVENUES COSTS



CASHFLOW BY FUNCTION OVER 20 YEARS



STAKEHOLDERS



PORT OF GRANATELLO

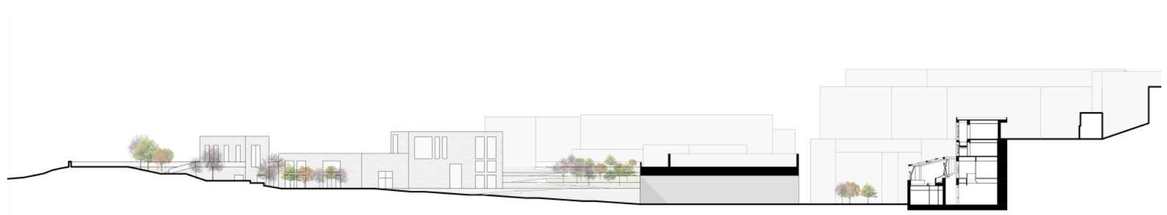


COMMERCIAL GALLERY

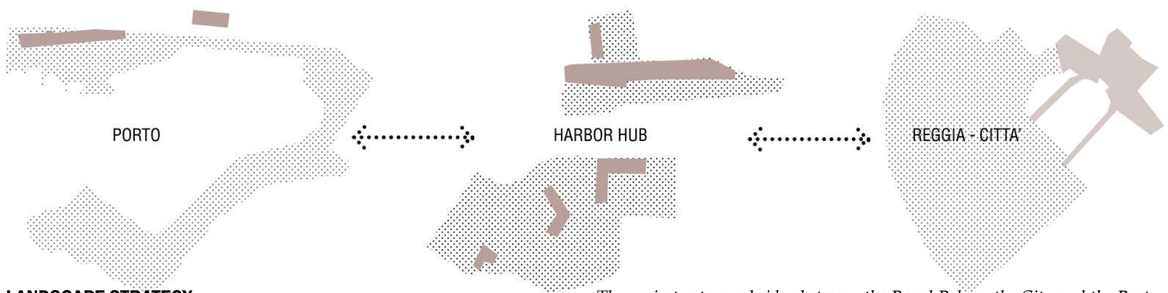


HARBOR HUB THE PROJECT IN THE CONTEXT

0 25m 100 200m



TERRITORIAL SECTION



LANDSCAPE STRATEGY

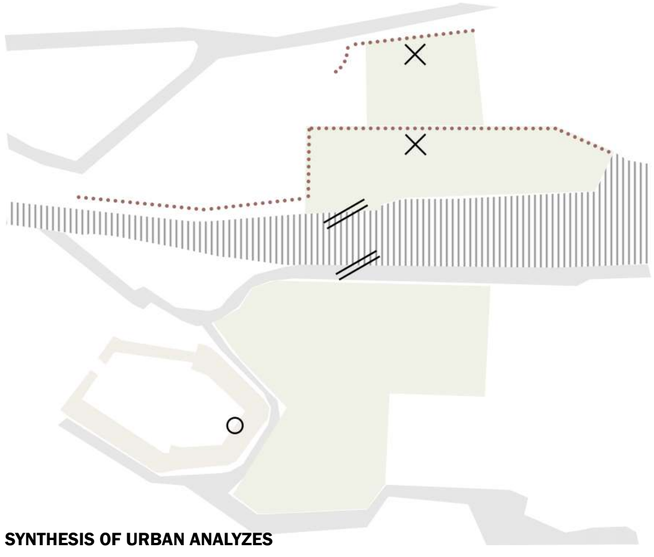
The project acts as a bridge between the Royal Palace, the City and the Port

Entrance to the square
Barriers
Underpass
Differences in height
Lower Park Entrance



CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 30m 60m 125m



SYNTHESIS OF URBAN ANALYZES

- ABANDONED AND UNUSED AREAS
- ISOLATED ELEMENT
- RAILROAD
- STREET
- BARRIERS
- DIFFERENCE IN HEIGHT
- LIMIT

FRAGMENTED SPACE

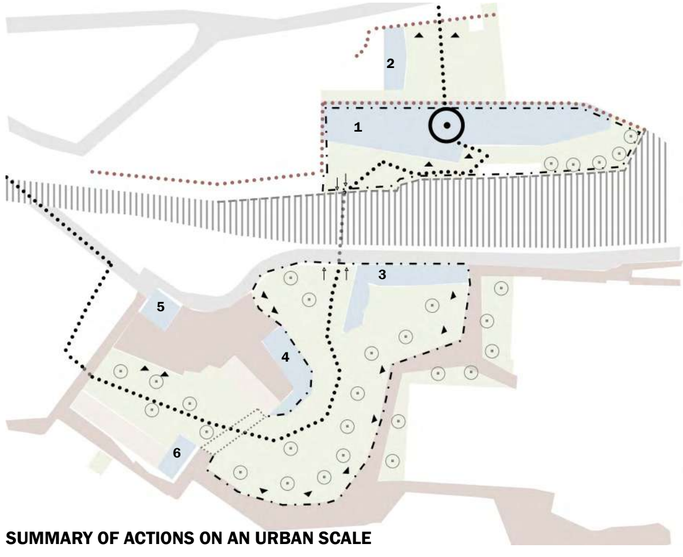
The presence of the railway and the conformation of the Gallery generate a highly fragmented space

Public access
Public access
Crossing
Overcoming of differences in height
New ENEA Center entrance



DESIGN PROPOSAL

0 30m 60m 125m



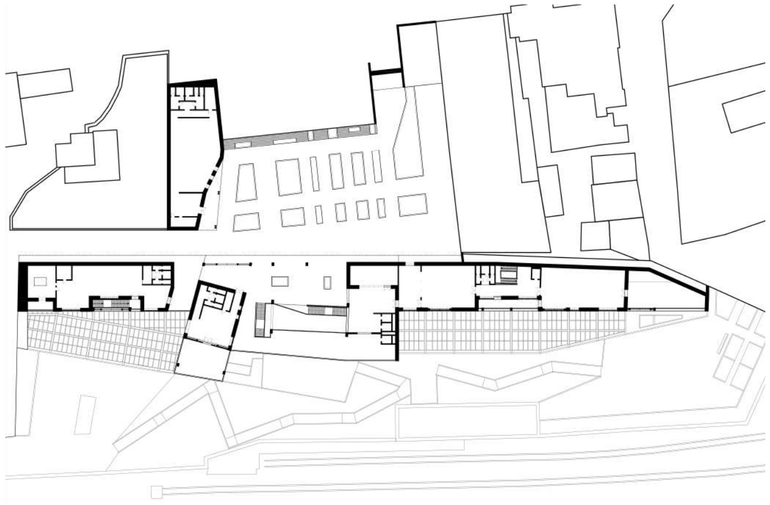
SUMMARY OF ACTIONS ON AN URBAN SCALE

- OVERCOMING DIFFERENCE
- URBAN PARK
- COMMERCIAL GALLERY OPENING
- RAILROAD
- DIVERSION OF THE VIARIOUS FLOW FROM THE COAST
- DIFFERENCES IN HEIGHT
- NEW FUNCTIONS
- WALKING BY THE SEAFRONT
- RAMPS AND STAIRS FOR OVERCOMING DIFFERENCE
- PLANTING
- RAILWAY UNDERPASS
- PARTIAL DEMOLITION OF THE SHOPPING TUNNEL
- NEW PEDESTRIAN ROUTES
- NOISE BARRIERS
- EXCAVATION

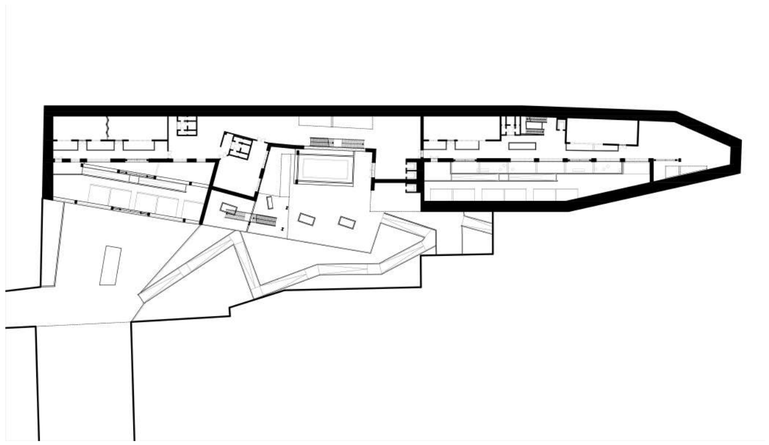
1 UNIVERSITY-BAR-CANTEEN
2 CONFERENCE ROOM
3 STUDENT-GYM-STUDIO CLASSROOM
4 LIBRARY
5 ASSOCIATION OFFICE
5 RESTAURANT-BAR

The university, the key object of the project, arises from the resolution of two problems: the first consequence of the choices for the resolution of urban issues, the excavation and the park; the second of the morphology of the place. The excavation and the height difference, combined with a desire to preserve the public vision, have directed the design towards an architectural configuration that takes into account the idea of an inhabited wall.

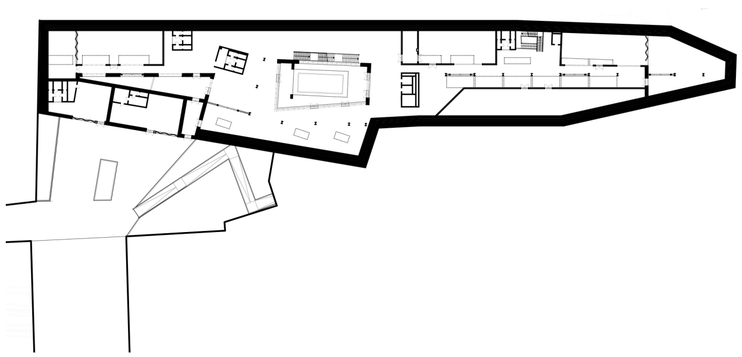
The inhabited wall is the key idea of the project. The configuration of the spaces, starting from the ground floor, is strongly identified with this vision. In this case, the need to fill the excavation carried out to overcome the railway makes it necessary to have a completely underground component of the project so that the overcoming of the existing cliff can also be fully resolved. This is the reason why the first public entrance is not at the level of the underpass but located 6m higher. This dimension is also the result of the need to solve the problem of the contribution of light to this space, inside which the laboratory rooms and cultivation rooms are arranged in the dark. The nerve center of the project is the central atrium. In the basement it is identified in a distributive space in the center of which there is a patio whose function is to order and allow correct lighting of the space. The conformation of the atrium changes passing to the plan of the upper floor where it is identified as a space for being placed outside the first entrance. From this point on, this pivotal space also fulfills a public function, given that some stairs and elevators allow you to overcome the existing strong difference in height. The plant in which the entrance to the park is located has greenhouses attached to the classrooms. The point where the relationship with the city is best identified, and therefore the problem of reconnection between it and the port is solved, is the plan of the upper entrance. The university atrium is lost in a public space as it is contingent on a square.



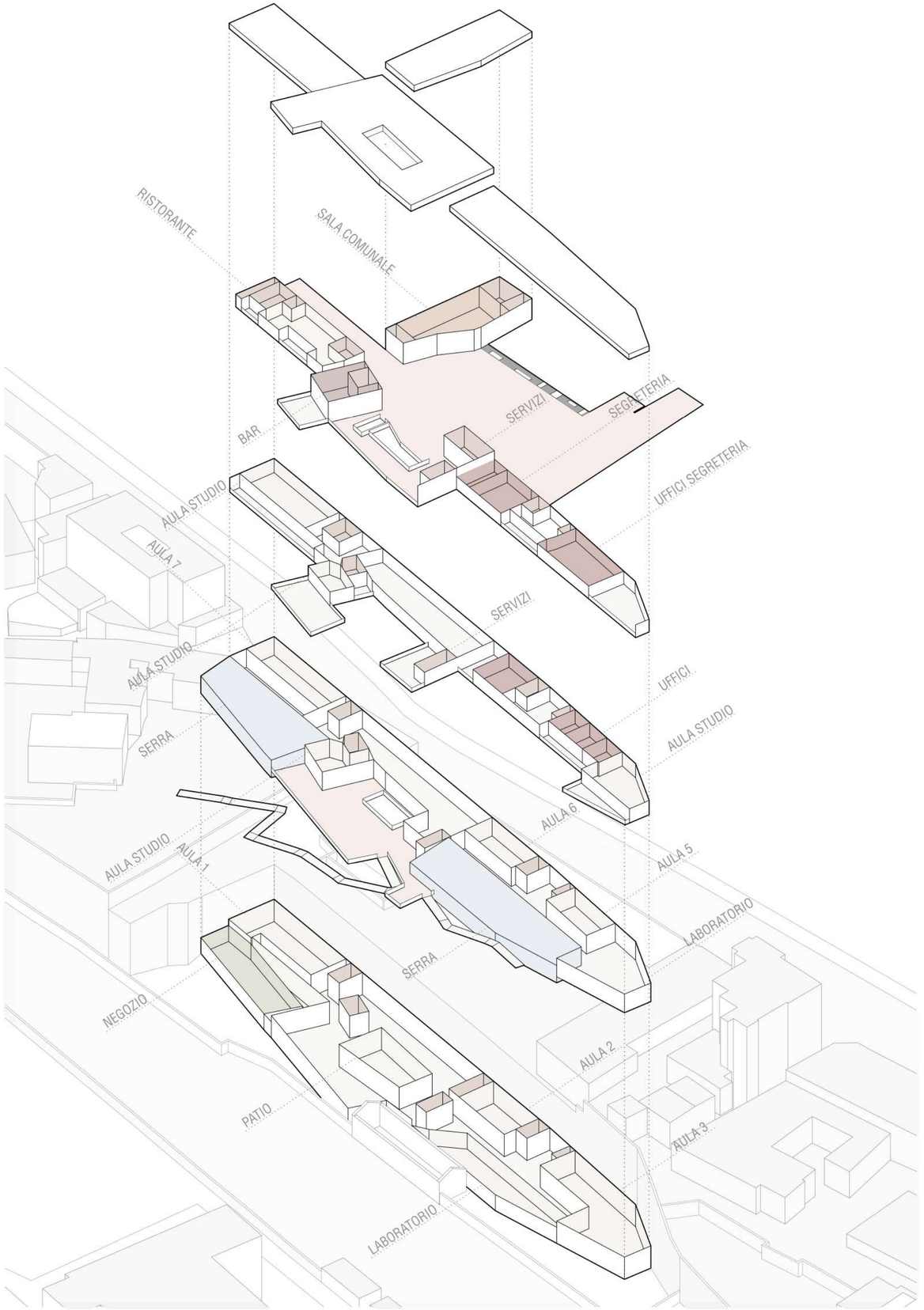
The outdoor space at the university entrance is a public square

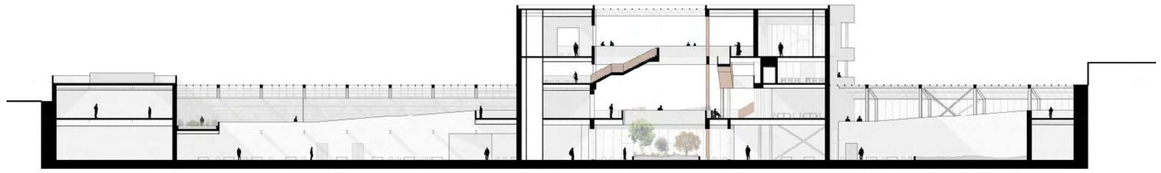


The public space also recurs in the open atrium in front of the entrance to the park floor



The basement strongly expresses the idea of an inhabited wall





SECTION A-A'

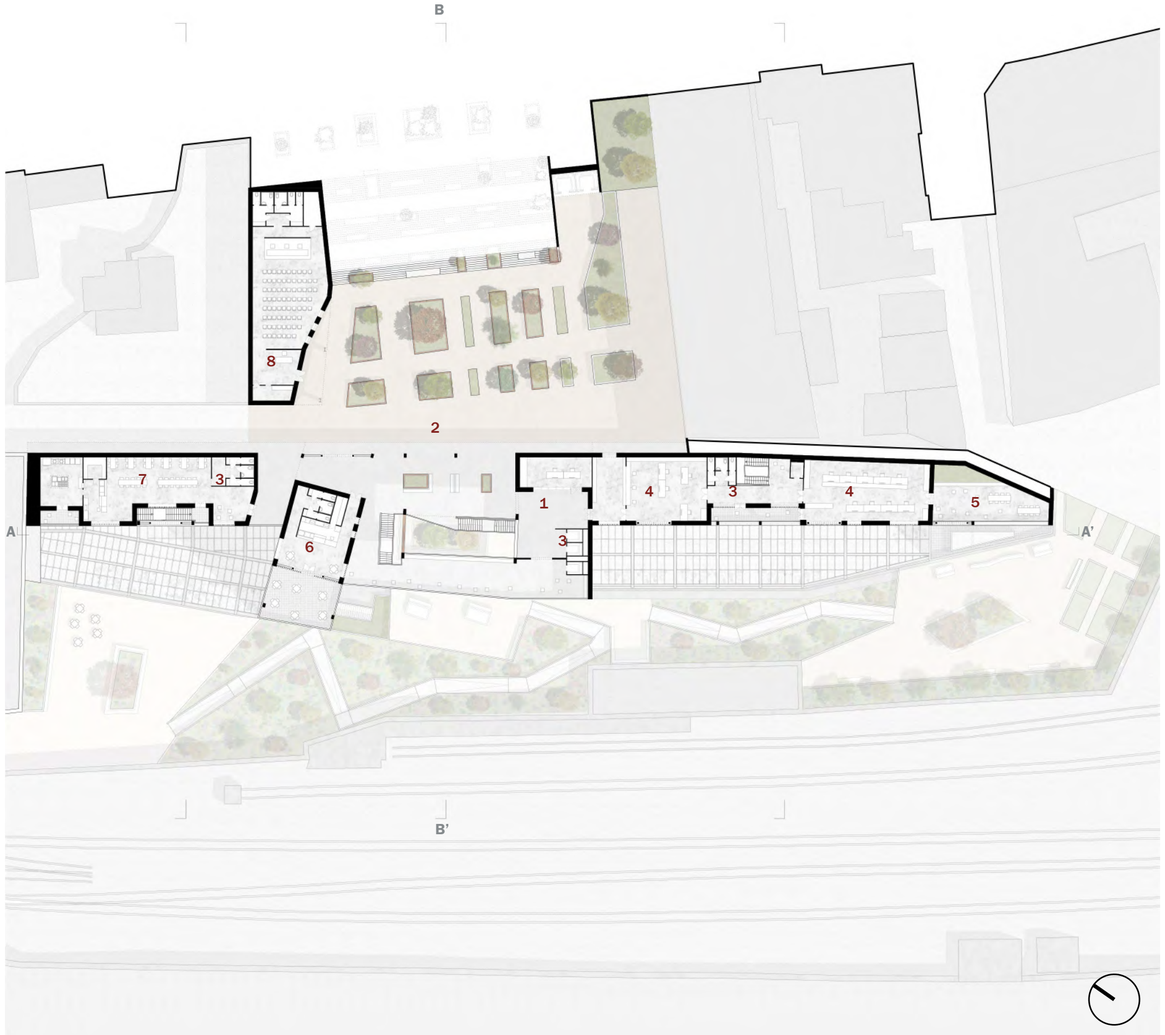
0 10m 30m 60m

1. Entrance
2. Lobby
3. Services
4. Offices
5. Study room
6. Bar
7. Restaurant-Canteen
8. Multifunctional Hall



SECTION B-B'

0 5m 20m 30m

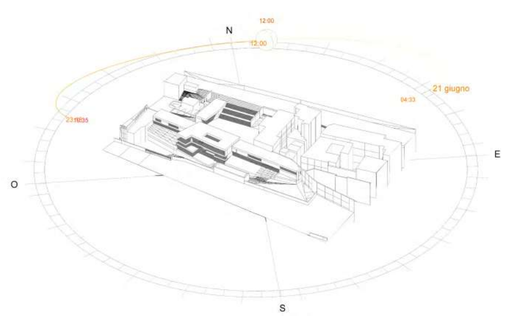


ENTRANCE PLAN +1.50

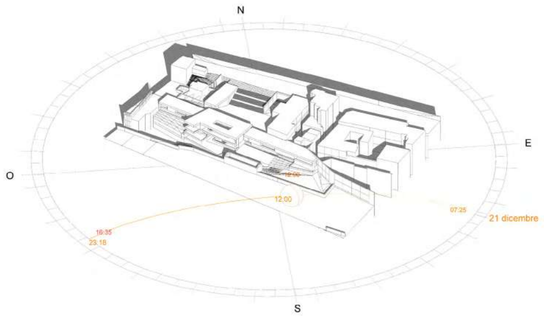
0 10m 30m 60m



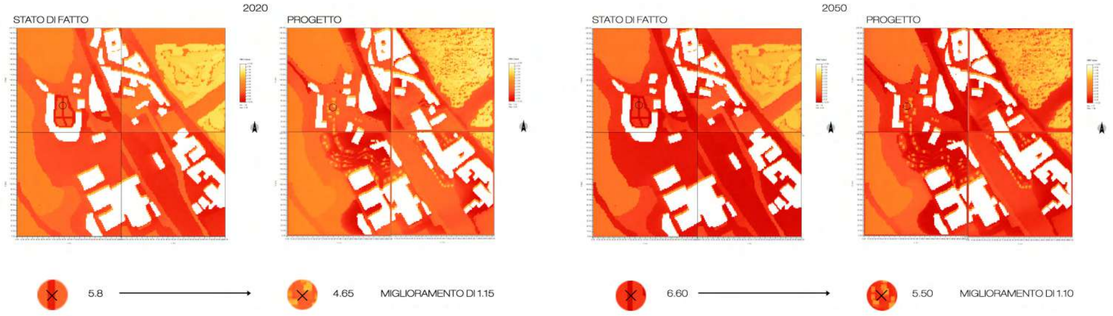
VIEW OF THE ENTRANCE FROM THE STAIRS



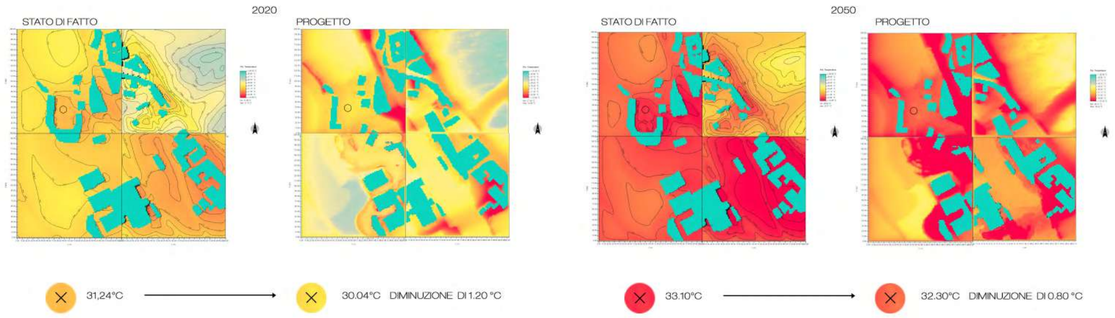
summer solstice | *21 giugno*



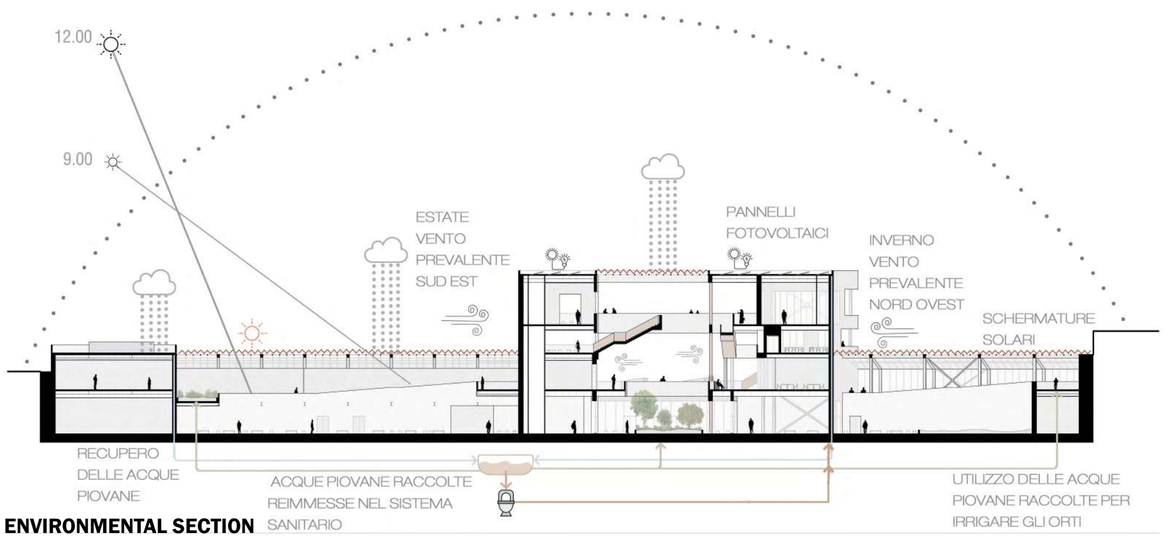
winter solstice | *21 dicembre*



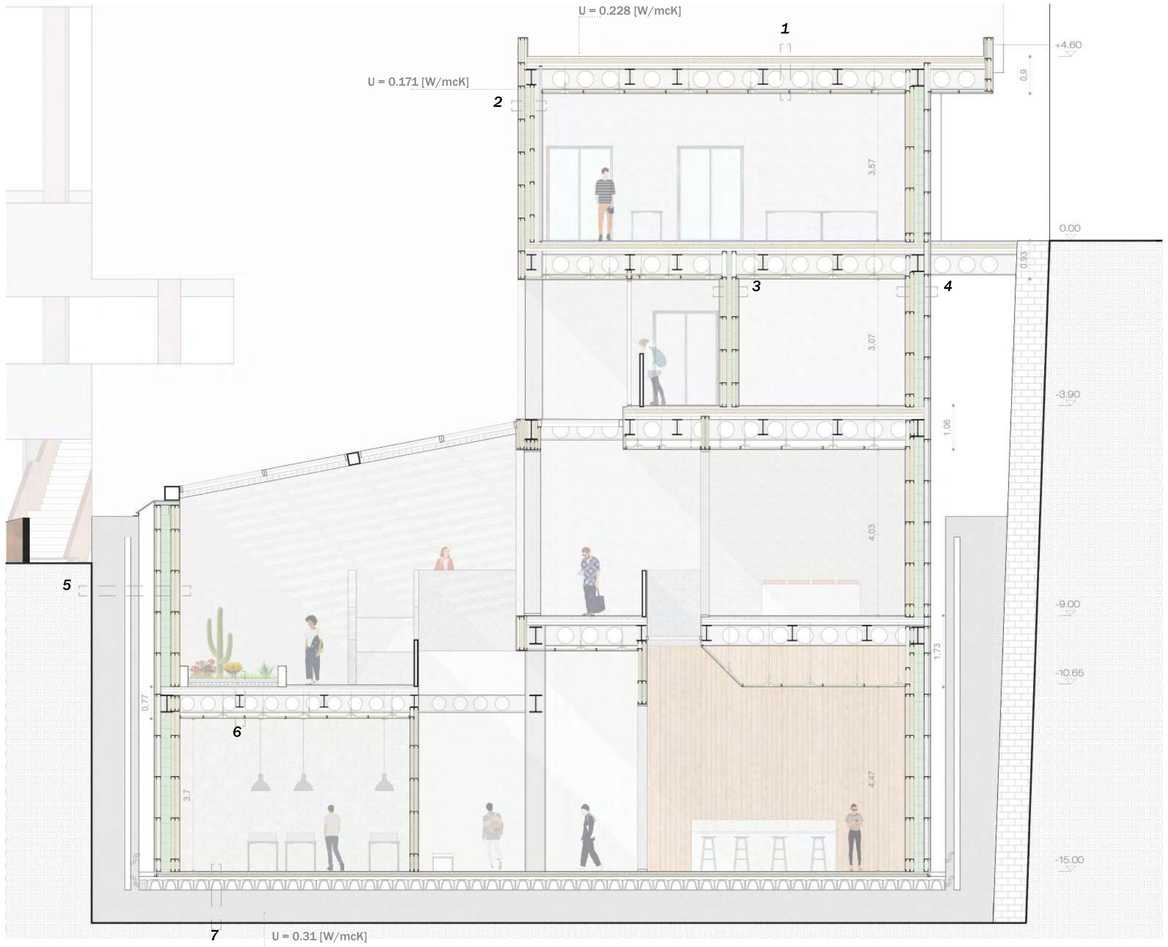
PMV | *Predicted mean vote*

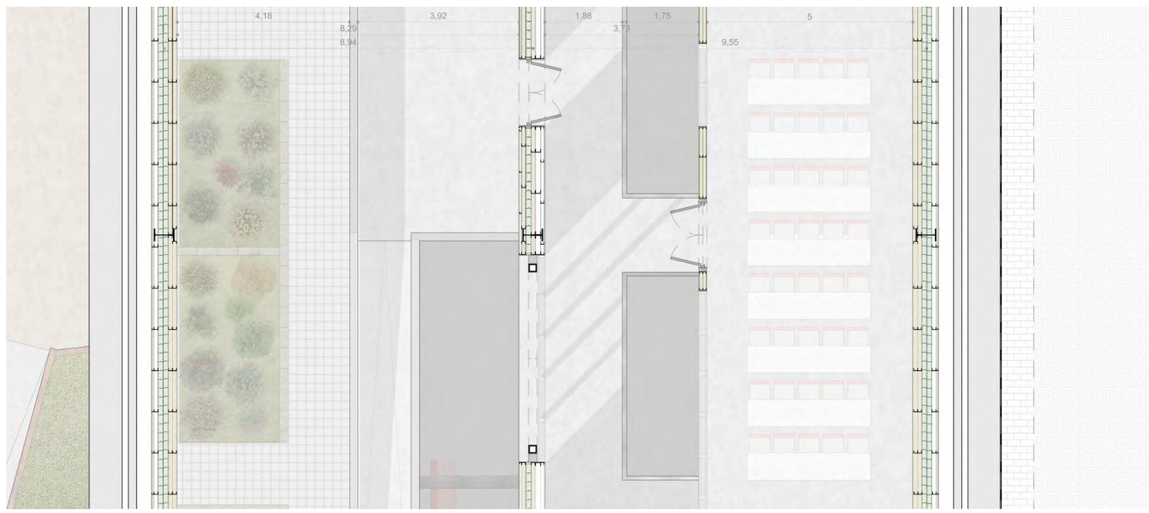


POT | | *Air temperature*



ENVIRONMENTAL SECTION





1 concrete finish, waterproofing membrane, expanded polystyrene, reinforced concrete, corrugated sheet, he500 beam, cavity, lake reed insulation, plasterboard.
2 plaster, plasterboard, cavity, lake reed insulation, osb panel, perforated clay block, HE600 steel pillar, glass wool insulation, cavity, plasterboard, plaster
3 plaster, plasterboard, cavity, lake reed insulation, perforated clay block, glass wool insulation, cavity, plasterboard, plaster
4 plaster, cannalacustre insulation, glass wool insulation, double stiffened clay block, cavity, lake reed insulation, plasterboard, plaster
5 bulkhead in reinforced concrete, cavity, counter-wall in copper-plated concrete, plasterboard, insulation in lake reed, double layer of perforated clay block, insulation in lake reed, insulation in glass wool, plasterboard, plaster.
6 extensive cultivation package, bituminous insulating membrane, reinforced concrete, corrugated sheet metal, HE500 beam, cavity, lake reed insulation, plasterboard, plaster
7 concrete, screed, polystyrene insulation, cast in reinforced concrete, cavity with igloo, foundation in reinforced concrete

PLAN AND SECTION OF THE BUILDING SCALA 1:100

PORTICI ADVANCED DESIGN STUDIO

DAVIDE GALLERI - GRANATELLO ISLAND BRIDGES

A NEW VIEWPOINT FROM WATER

THE CITY OF PORTICI REDISCOVERS THE CITY

The city of Portici lives the peculiar condition of being the site of such architectural and landscape beauties, however overshadowed by an urban reality perceived as distopian, hyperdense, which is the nowadays reverse shot of the bucolic images of landscape painters of 18th century.

From site of delight villas and of the Borbon Royal Palace, Portici is today famous for less fancy population conditions which guarantees to the city a record position in the European field. As an actual disvalue, this character must be proposed as a potential improvement condition and as a primary local character: the urban density as a source of revenues for social and cultural exchange, economic vitality and e ecological relaunch in a context, which in spite of appearing conditions, is full of spaces to be riqualified for the kinship.

Between them a central role is given to the Granatello, peninsula on the coast, one time privileged. The nature of this space, after the installation of the railroad, has undergone a progressive urban change within the last two centuries. The Granatello, cut off the rest of the city became a secondary place, a waste landscape, forgotten by people behind a barrier perceived as unpassable. The Granatello, metaphorically, became an unaccesible urban island. Relinking the Granatello to the city and relaunching its unexpressed potentialities represents the key for the redevelopment of the entire city.

Program

university campus, auditorium, sea station, railway bridges, commercial spaces, restaurants, parkings, public green space

Covered area	**6.742 m²**
Uncovered area	**31.223 m²**
Levels above ground	**3**
Built volume	**42.670m³**
Estimated cost	**€ 37.932.960,00**

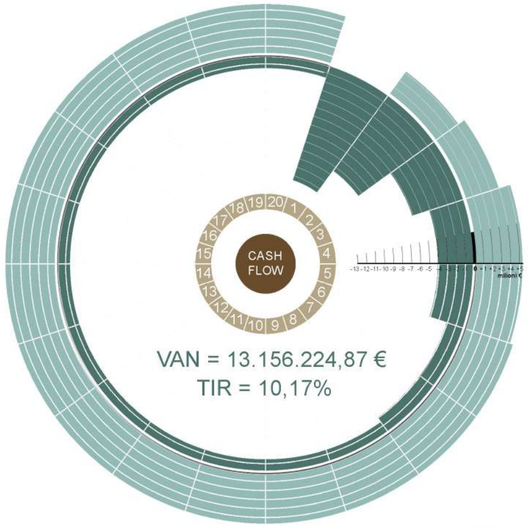


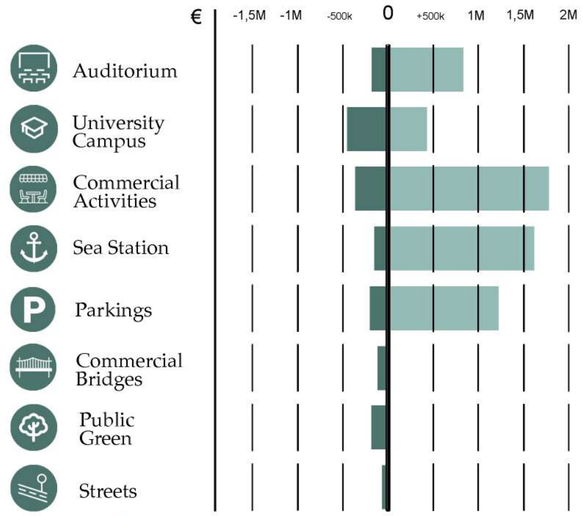
«Like a piece of architecture, the city is a construction in space, but one of vast scale, a thing perceived only in the course of long spans of time. City design is therefore a temporal art, but it can rarely use the controlled and limited sequences of other temporal arts like music. On different occasions and for different people, the sequences are reversed, interrupted, abandoned, cut across. It is seen in all lights and all weathers». Kevin Lynch, *The image of the city*, Massachussets University Press, Cambridge, 1960

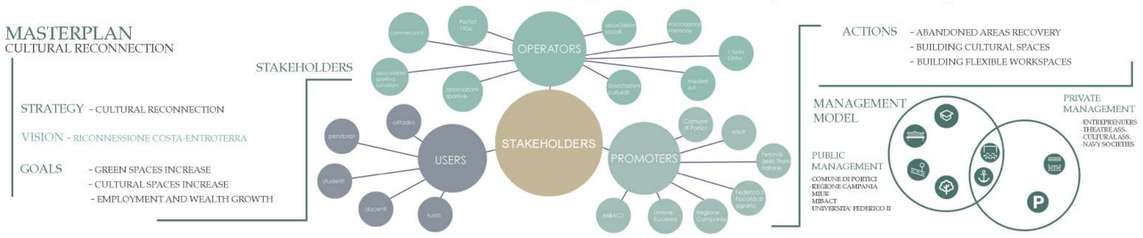


As every complex and layered urban reality, Portici shows itself full of oxymoronic and ambivalent elements changed in the use during the centuries. The Granatello, first commercial port, then place of a partial redevelopment which turned its functional nature into a site of technological research, still stays a highly unexpressed potentiality. The shear zone of the railway, never really overcome, is the most impoverishing element of the entire zone.
Once crossed this obstacle, the Granatello becomes the main access from the sea to the city, to the Royal Palace, and also to the archeological site of Ercolano.
Beyond a touristic vision, the attractiveness of the area is also linked to the cultural potentiality of the Deparment of Agricultural of University Federico II of Naples, that today needs new innovative spaces for study and research. In a combination of complex functions, the valorization of the Granatello requires a urban strategy that focuses on the landscape value and on the pre-existing architectural heritage, generating, on these tracks and constraints, a new connection to the remaining city over the invalicable railways.

MASTERPLAN, CASH FLOW AND OPERATING COSTS THE PROJECT IN THE ECONOMIC CONTEXT







PROJECT ELEMENTS AT THE URBAN SCALE

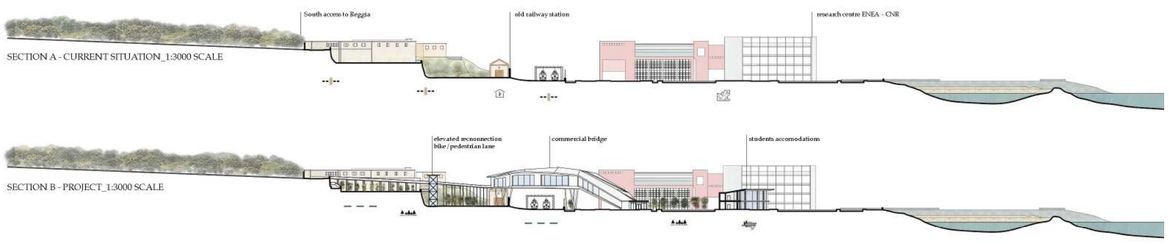
CURRENT SITUATION		PROJECT SITUATION	
Abandoned buildings		Redeveloped buildings	
Abandoned Areas		New park and green areas	
Urban barriers		New urban connections	

The project is linked to a more general program of intervention at the urban scale related to the redevelopment of the project "Portici Parco" with green infrastractures, a track for bicycle mobility, technological tools for rain water recovery, green rooftop and permeable paving systems.



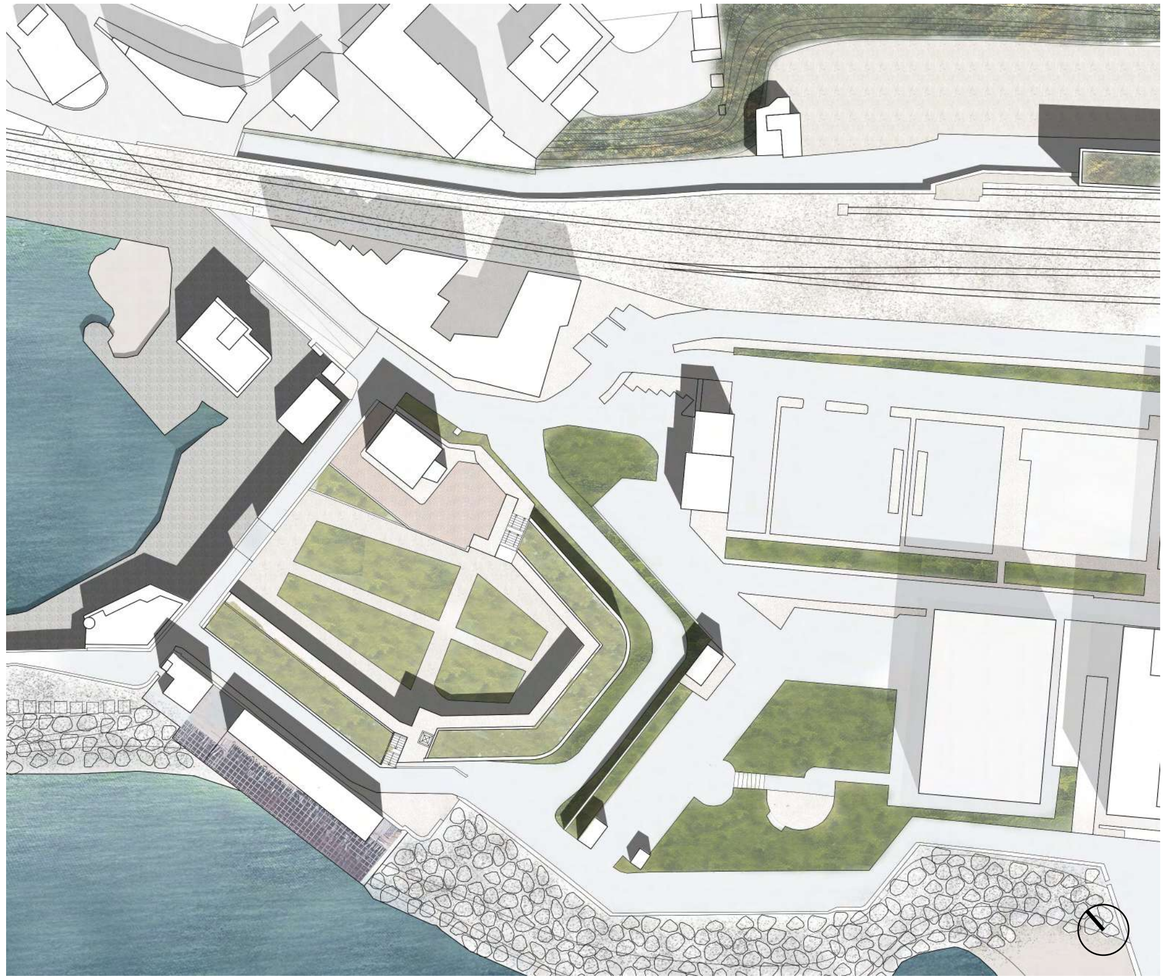
PORTICI PARK THE PROJECT IN THE URBAN CONTEXT

0 50 100 200m



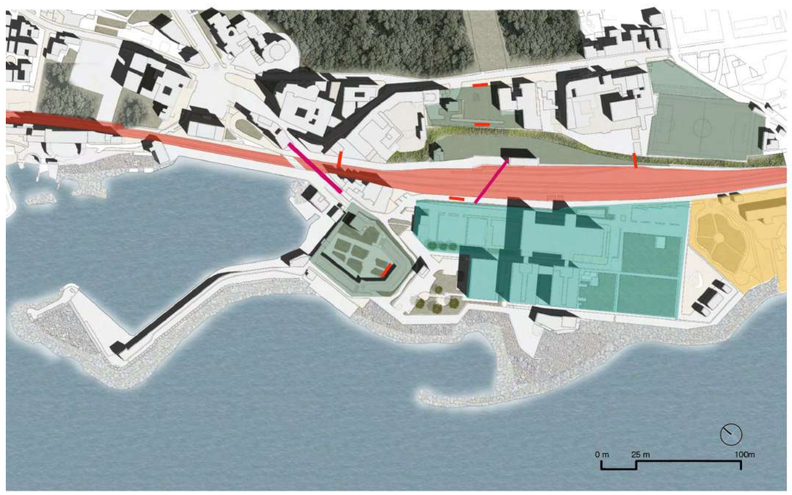


Abandoned/degraded areas
Research Area (Enea/Imast/Cnr)
Anton Dohrn Area
Railway Barrier
Urban Barriers
Denied Axilities

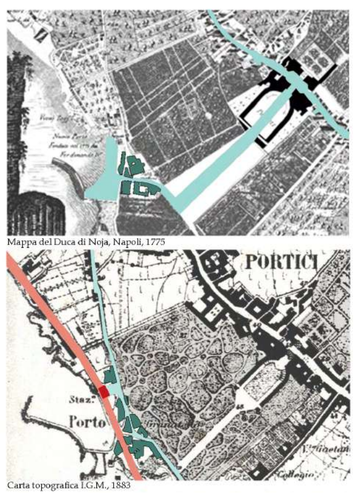


CURRENT STATE MORPHOLOGICAL AND URBAN ANALYSIS

0 25 50 100m



SYNTHESIS OF URBAN ANALYSIS



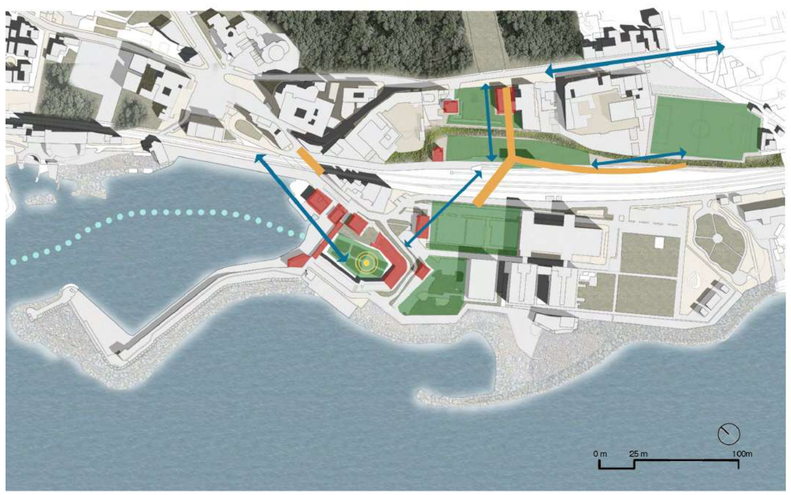
HISTORICAL AXIALITIES ANALYSIS

Demolished Buildings
Park Areas
Architectural Buildings
New Axialities
Sea Access
New Centralities



DESIGN PROPOSAL

0 25 50 100m



SYNTHESIS OF DESIGN ACTIONS AT URBAN SCALE

THE DIAGONAL FOR URBAN RECONNECTION

After the construction of the Royal Palace (1738) and of the Port (1773), it developed a sailor village beside the diagonal track. This continuity and opennes towards the sea broke up after the 1839 after the inauguration of the railway Napoli-Portici. From that moment on, the history of the Granatello is separeted from the rest of the city and it follows a progressive degrade of the area. The project purpose is to redevelope the denied diagonal axiality, through architectural links serving as elevated bridges. The Granatello is ennobled once again through new cultural functions (University, Auditorium) and it returns to be the privileged access to the city from the sea, with a urban development, which rearranges the previous mixed functions, and the urban tracks free from a organic unity.

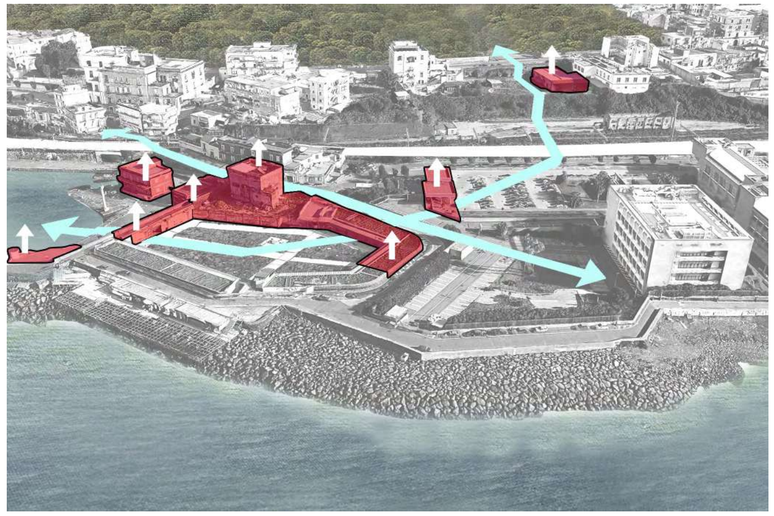
The theme of the great urban attractor is linked to the never overcome condition of isolation of the Granatello from the rest of the city. The new architectural projects are flanked by urban connection crossing the railway, integral components of the new design of the area.

Due to the presence of the Department of Agriculture and the necessity to bring back a unity between the Port and the Royal Palace, the cultural theme plays a central role in the design of the area. The demolition of old and unworthy buildings is flanked by the definition of new axialities reconnection the Port to the railway on one side, and on the other to the Royal Palace.

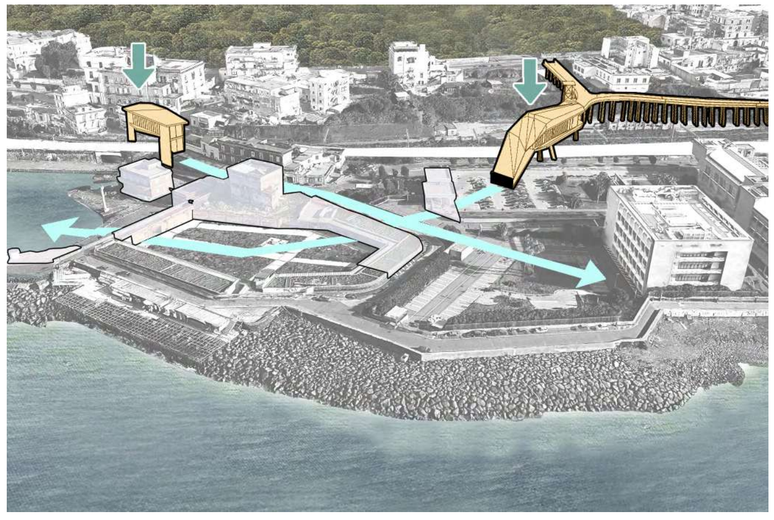
The connection is given by architectural bridges crossing the railways which are central elements of the project, with functions that increase the profitability of the intera plan, as commercial activities and restaurants, placed into the elevated galleries.

The new axialities are axalted by buildings that define an organic urban image, with most of the functions with a cultural characterization, open to many aims thanks to flexible spaces.

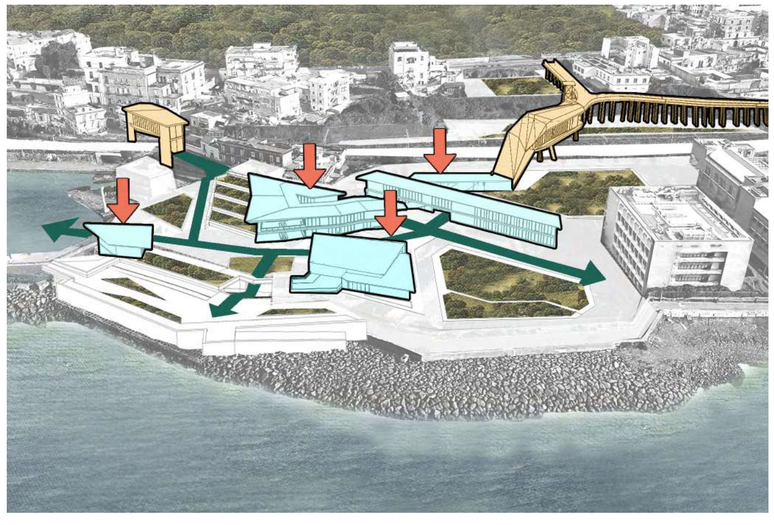
The new University Campus, the open triangle building, is the nerve centre of the plan, the core in which lectures are held and free spaces for study are set. The linear building is a research centre between university and contiguous exsisting research centre, with laboratories and flexible classrooms and accomodations for students. To these spaces will be added the auditorium, another central core of the project, which framing Villa d'Elboeuf as an evocative proscenium, broadens the use of the building to different possibilities and event of every kind. The sea-station is the new waterfront from the sea, accepting commuters for more rapid movements without road transport, and also tourists, providing them with a dirct path to the Royal Palace and to the Archeological Site of Ercolano. Leftovers spaces will be filled with green spaces, trees and permeable paving, in order to put the spotlight to the environmental protection.



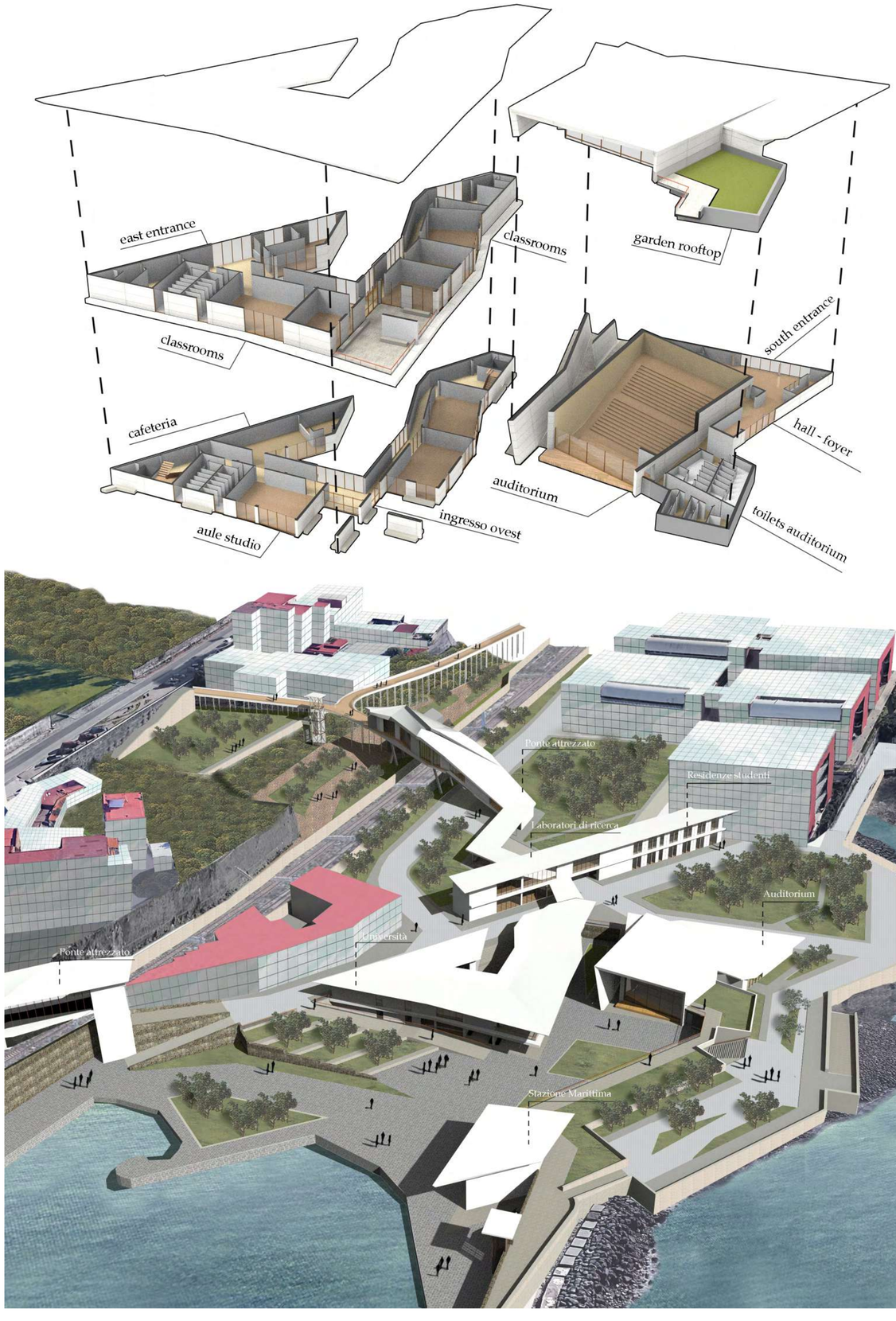
Demolition of degraded buildings and defined design axialities



Addition of architectural links to increase the accessibility of the area



Insertion of architectural volumes to redefine the image of the Granatello

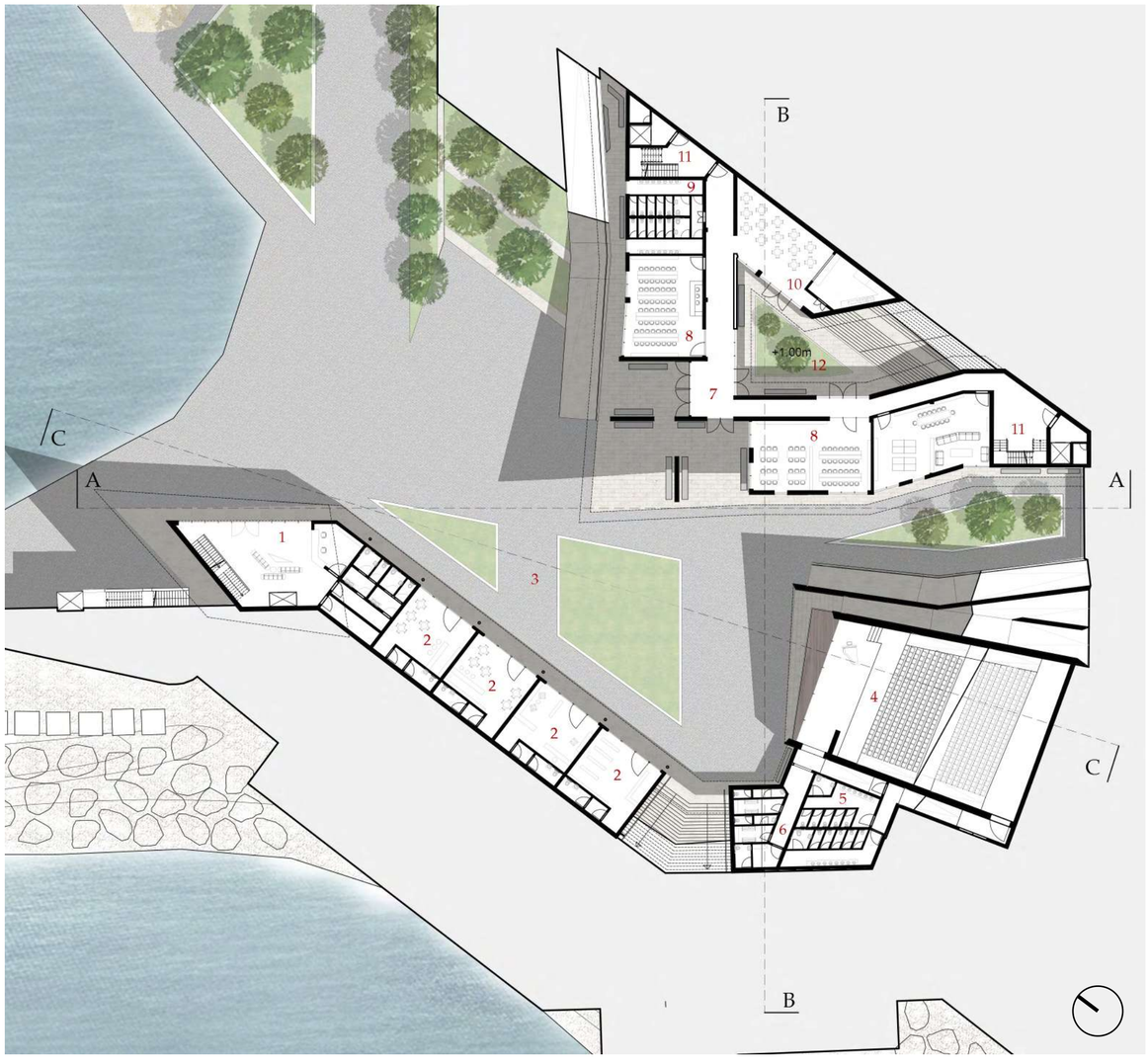




SECTION A

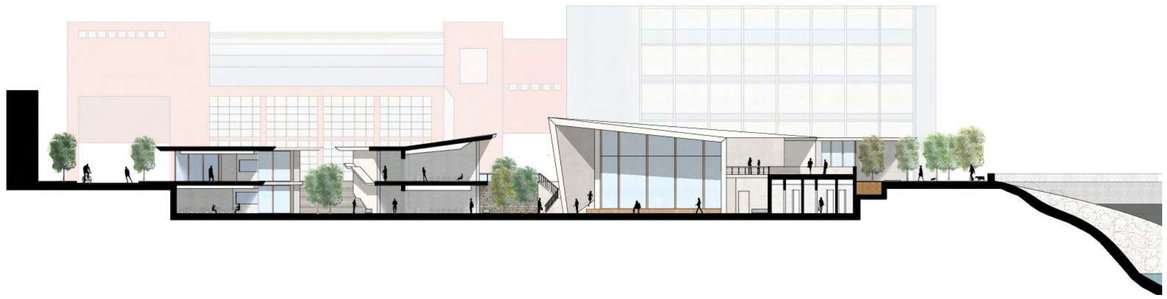
0 10 25 50m

1. Sea Station
2. Cammercial spaces
3. Sea Square
4. Auditorium
5. Toilets for Auditorium
6. Dressing rooms
7. Univerity Hall
8. Study rooms
9. Toilets for University
10. University Cafeteria
11. Stairs
12. Oen Courtyard



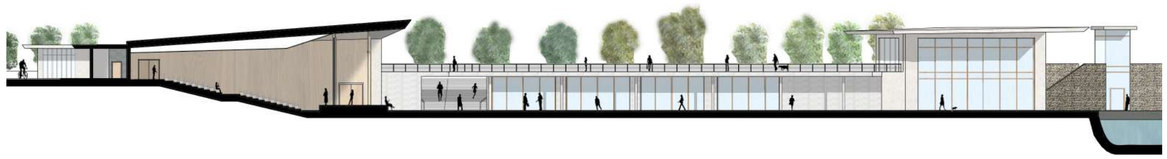
SEA SQUARE - GROUND FLOOR + 2,5 m

0 10 25 50m



SECTION B

0 10 25 50m

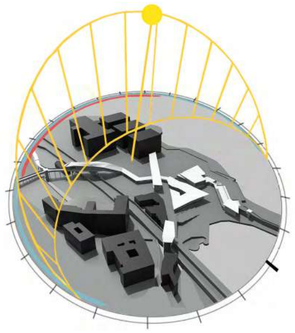


SECTION C

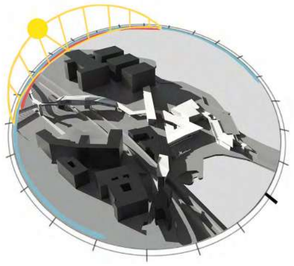
0 4 10 20m



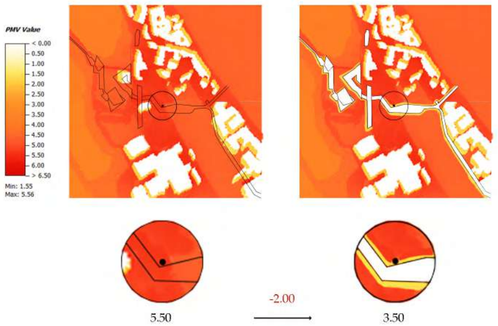
THE UNIVERSITY AND THE AUDITORIUM SETTING THE SPACE FOR SEA SQUARE

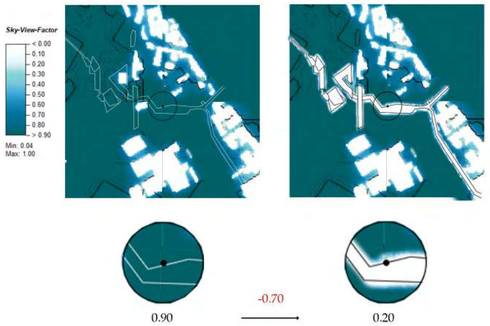


Summer Solstice | *June 21st*



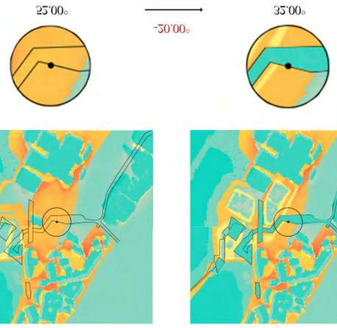
Winter Solstice | *December 21st*



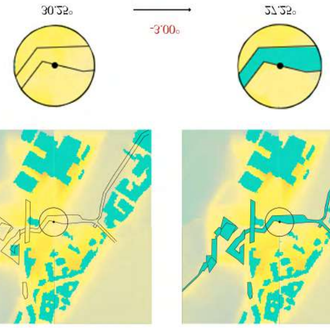


PMV | *Thermal sensation index*

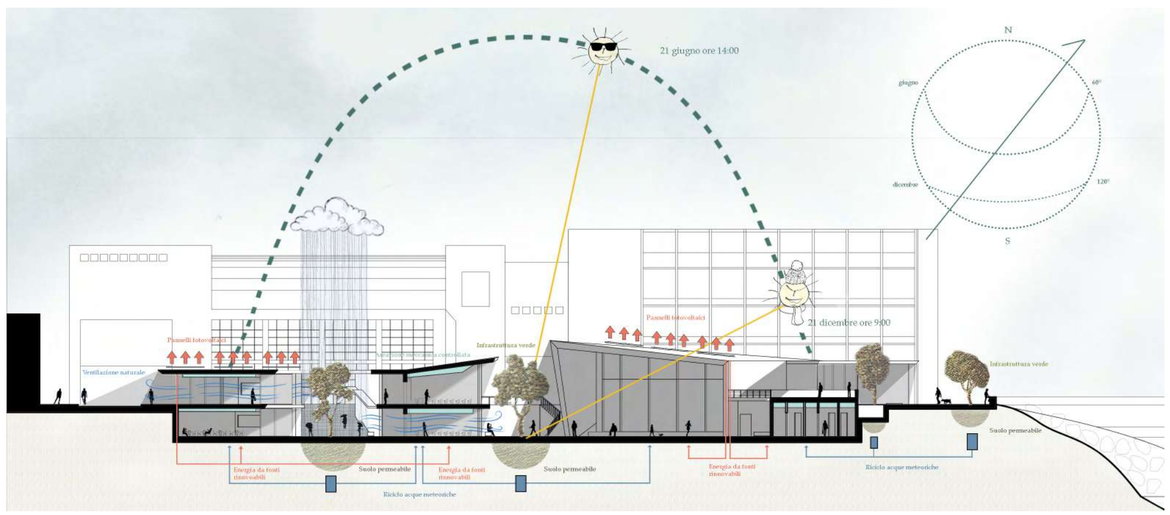
Sky View Factor



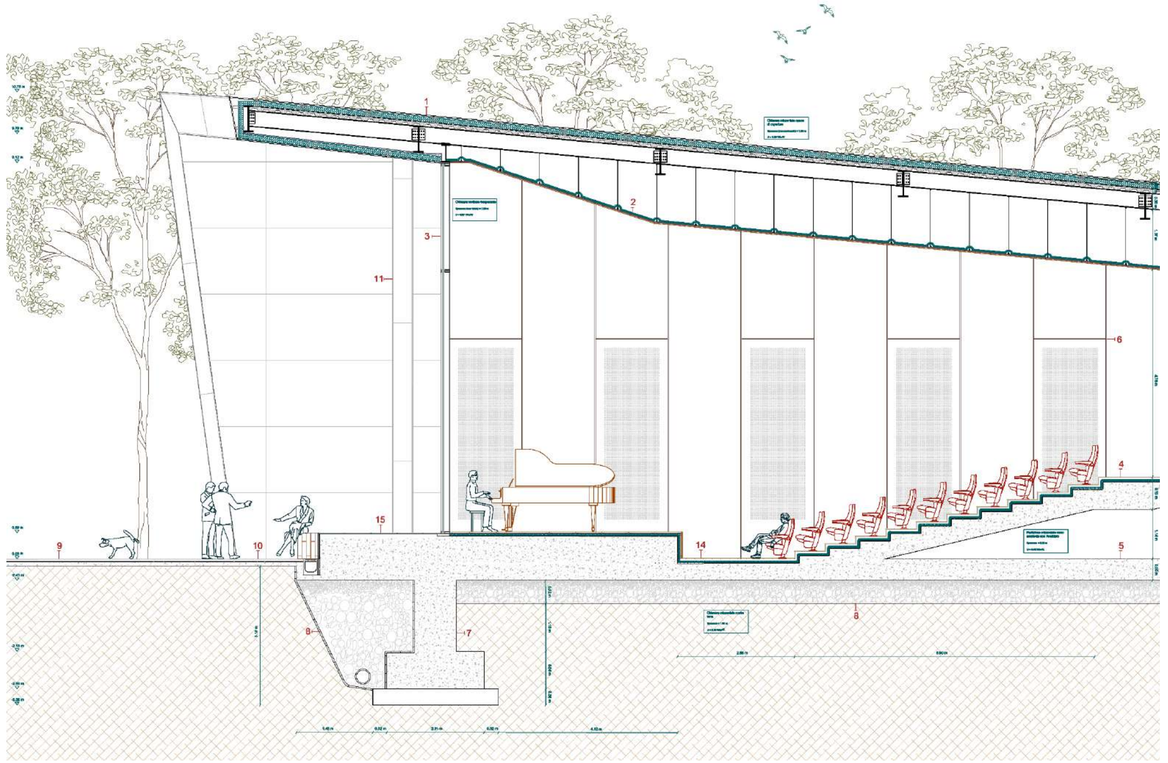
T SURFACE | *Surface temperature*



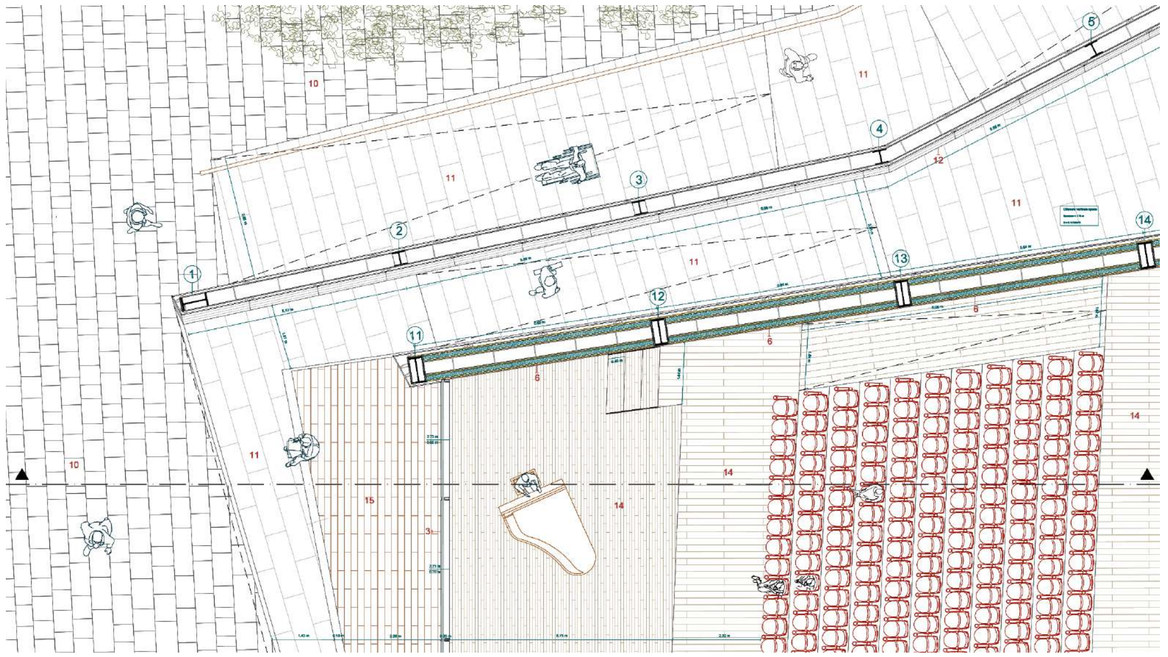
POT | *Air temperature*



ENVIRONMENTAL SECTION



1. Matte horizontal closure
2. Ceiling for thermal systems
3. External Curtain wall windowed
4. Reinforced inclined slabs - Audience
5. Ground horizontal closure
6. Sound-absorbing wood cover
7. Reverse Beam for foundations
8. Rubble crawl space for groundfloor
9. External paving in Vesuvian stone
10. External paving in grey travertine
11. Matte vertical closure
12. Partition wall external/external
13. Disable ramps
14. Internal parquet - teak wood
15. Linden wood external covers



TOP VIEW AND SECTION 1:100 SCALE

PORTICI ADVANCED DESIGN STUDIO

ALESSIA GIORDANO - “TAKE ME TO PORTICI”

A STRATEGY OF URBAN ATTRACTION
CITY - SEA CONNECTION

Portici is a city that extraordinarily beautiful due to its location near the sea, which allows you to enjoy the marvels of the Gulf of Naples, which can be admired from many angles.The waterfront is a strong point of attraction for the area which, together with the presence of many green area, makes this area an almost naturalistic place.

It is precisely in this area that my project is located, particulary at the Granatello port, which in the past housed boats, thus creating a link with the islands and Naples. Today, unfortunately, this is no longer the case, and the people who live there feel the lack of it.

It is with this in mind that my project is taking shape in a new port that is not only touristy, but also looks towards what can be real attractions.

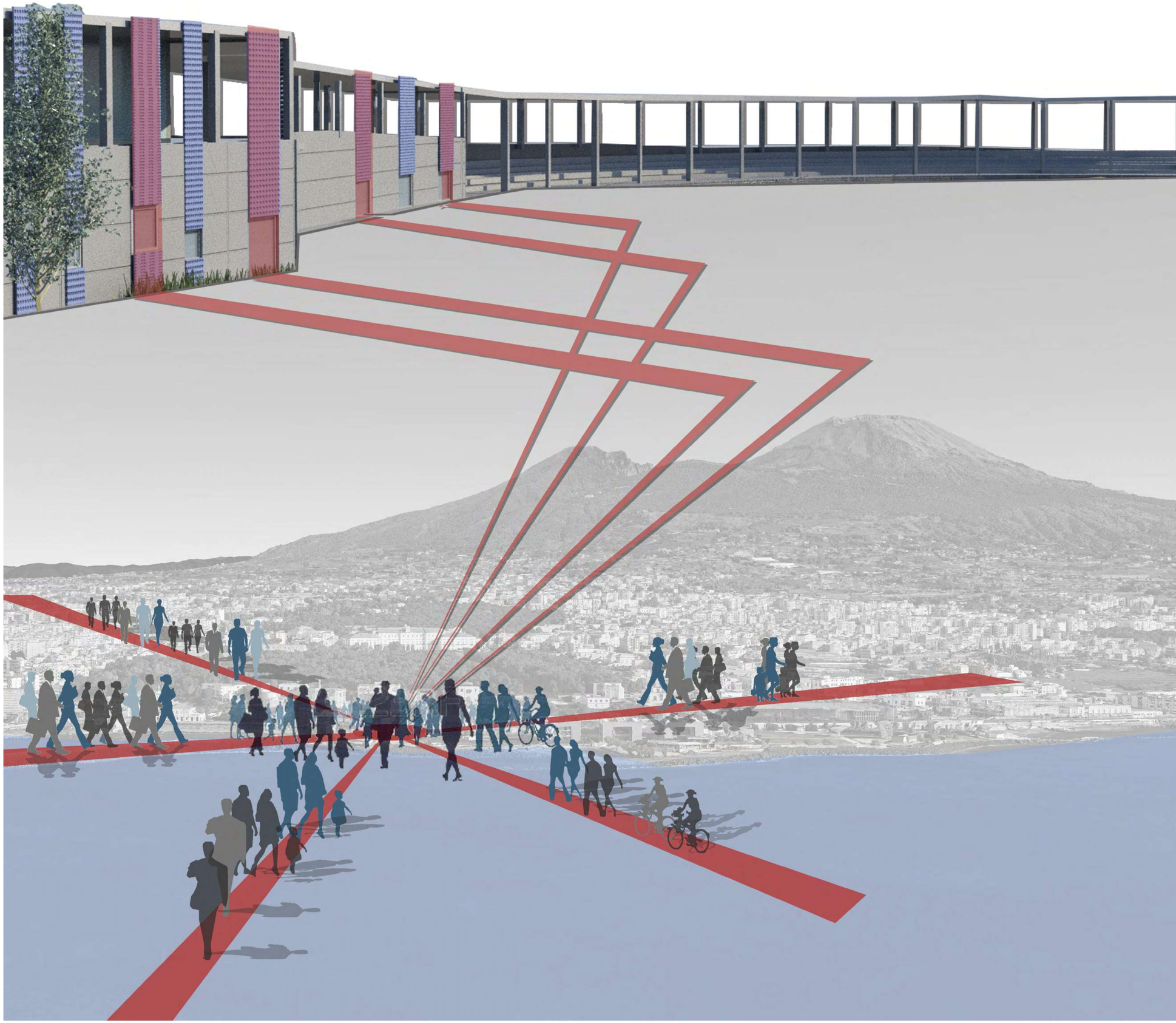
The objective is to create an open space, an urban square, in which to carry out sporting activities of all kinds, to organise events, competitions and spaces in which to spend leisure time.

This defines a new connection with a horizon that not all territories can enjoy: the sea.

Program

new touristic port, urban square, leisure time and sport

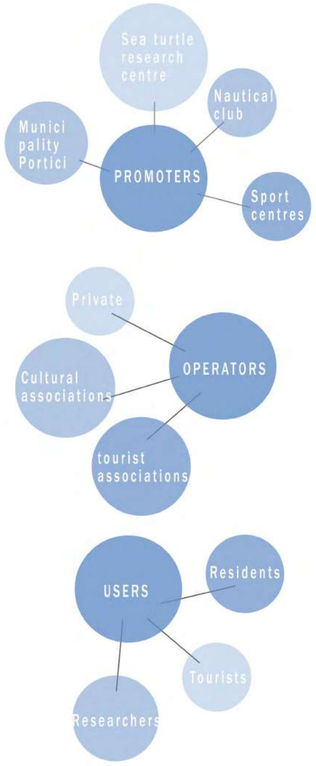
Covered area	**4118m²**
Uncovered area	**3474m²**
Levels above ground	**2**
Built volume	**92.668m³**
Estimated cost	**€ 9.910.037**



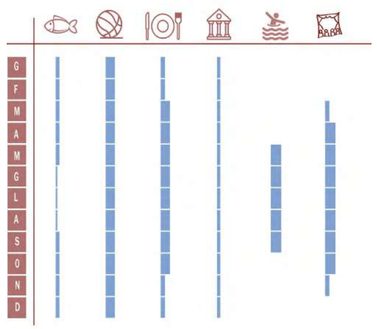
Within the municipality of Portici, the waterfront was chosen as the macro study area because it has great potential given its position as a buffer between the sea and the context. With respect to the municipal urban plan in which work is already underway to redevelop the entire area, there is no connection to what we can define as the two poles of the city: Pietrarsa and Granatello. It is precisely the latter that is the chosen area of intervention with the construction of a new tourist port.

The project is located near the "Ex Montedison" area, where there is currently a square abandoned to its own devices. The new pier, which opens up next to the existing one to host various types of sporting activities, is part of the "Portici città parco" strategy through a series of interconnected interventions on four fundamental themes: water, soil, sound and social connections. The inclusion of this new space seeks to contribute to this strategy through elements that can improve the quality of the environment as well as people's lives. The diagrams beside show the estimated project values, the possible stakeholders and a symbol-scheme of a chronoprogramme of the events that can take place through the project functions.

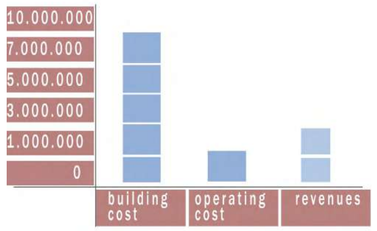




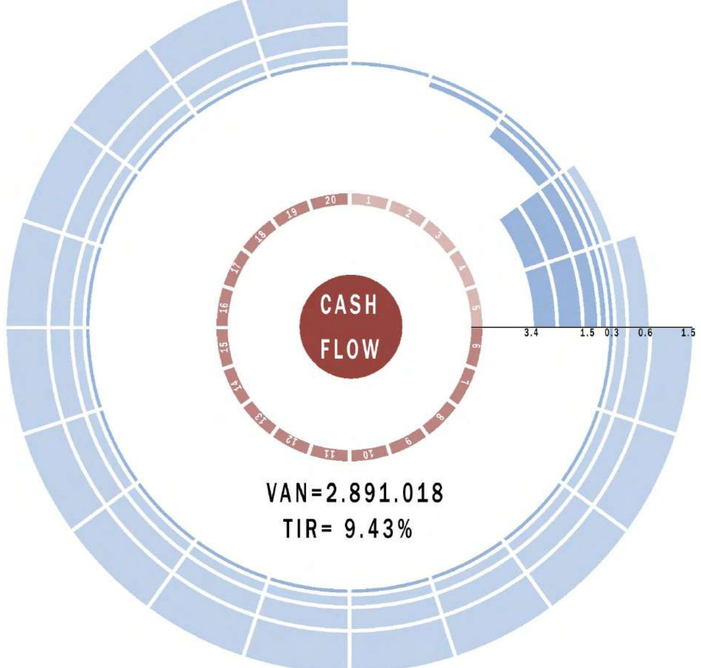
STAKEHOLDERS' MAP



TIMETABLE OF EVENTS



FINANCIAL ANALYSIS: COSTS AND REVENUES

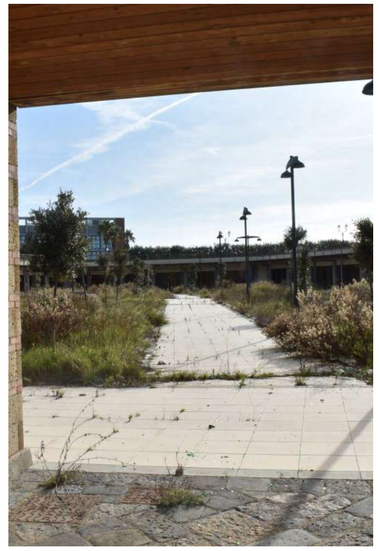


FINANCIAL ANALYSIS : CASH FLOW

Summary graph of the financial analysis. The construction costs, operating costs and revenues of the project analysed over a period of twenty years are shown. It can be seen that the construction costs are recovered from the annual revenues from the sixth year onwards.



AREA OF STUDY: WATERFRONT 0 20 50 100m





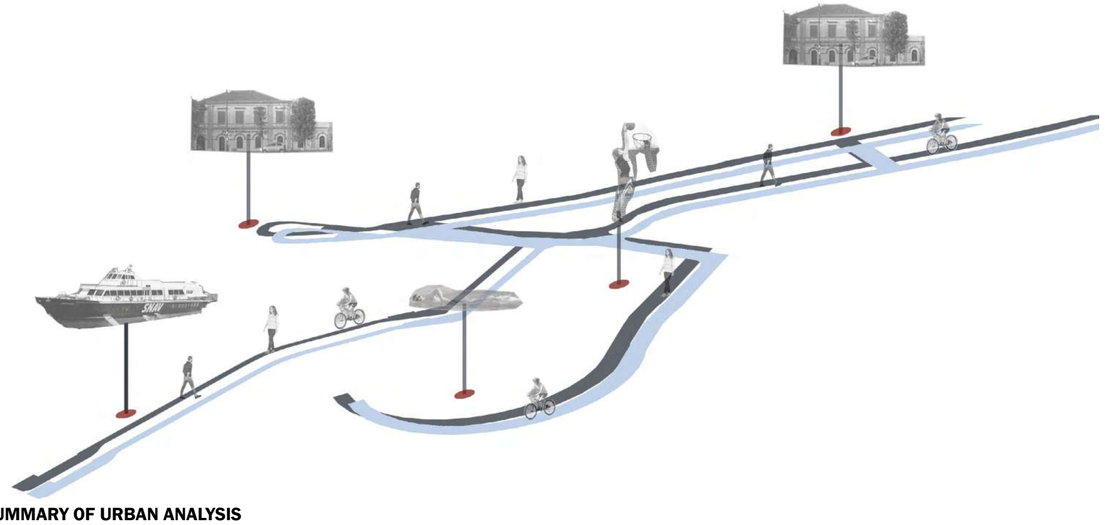




CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 20 50 100m

ACCESSIBILITY **CONNECTION** **ATTRACTION**



SUMMARY OF URBAN ANALYSIS



DESIGN PROPOSAL

0 20 50 100m





TERRITORIAL SECTIONS

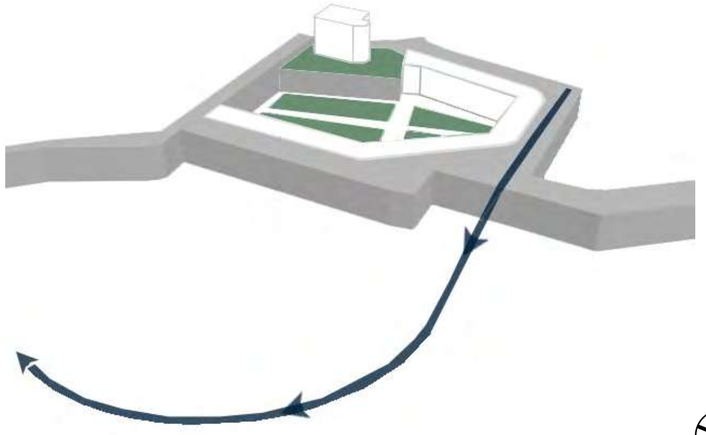
Here is a summary of the design actions that led to the final shape of the project and an axonometric exploded view where the functions within it can be identified.

The first scheme “opening of a new pier” summarises the action of inserting a new pier in the “Ex Montedison” area next to the existing pier. The action was to extend the road to the south of the existing square which, crossing the borderline between the land and the cliff, continues in the form of a ramp from +5.00 to +1.00 above sea level.

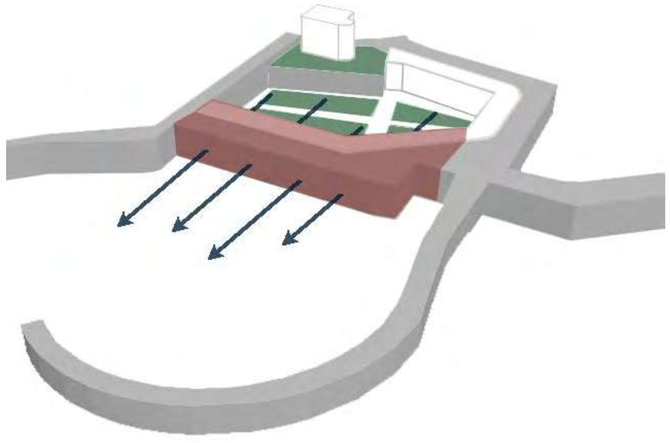
The second scheme “connection from the internal square towards the sea” marks the next design step, namely to eliminate the existing volume of the square facing the sea to make room for a completely open courtyard.

The third diagram “access to the square from the three fronts” marks the final step in relation to what can be the accesses for the new square compared to the current ones (there is a gap cut in the elevation of the path that separates the existing pier and the inner courtyard of the square). It was considered appropriate to place three accesses in correspondence on the North, East and South sides so that accessibility is guaranteed on all fronts.

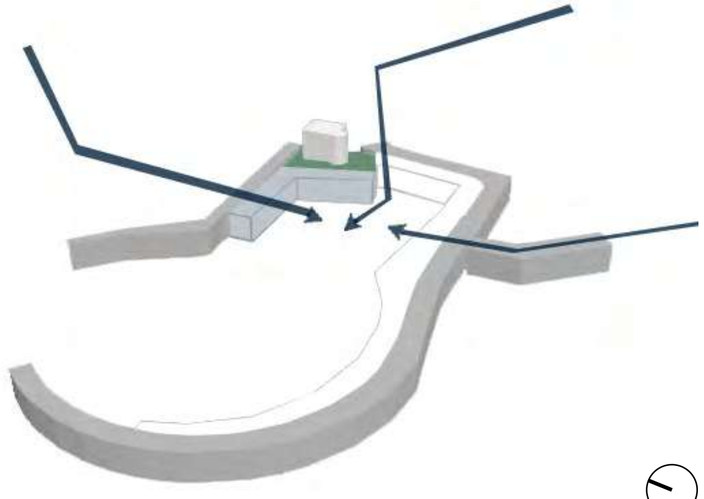
In the axonometric exploded view we can read the architectural composition, which is articulated through an enveloping volume that extends along the edge. It consists of two levels: a first level at street level (+5.00) and a second filter level marking the transition from the surrounding area to the internal square. Finally, the chosen functions are highlighted: an aquarium, a gymnasium with annexed services, a restaurant, boat storage and changing rooms and finally exhibition spaces.



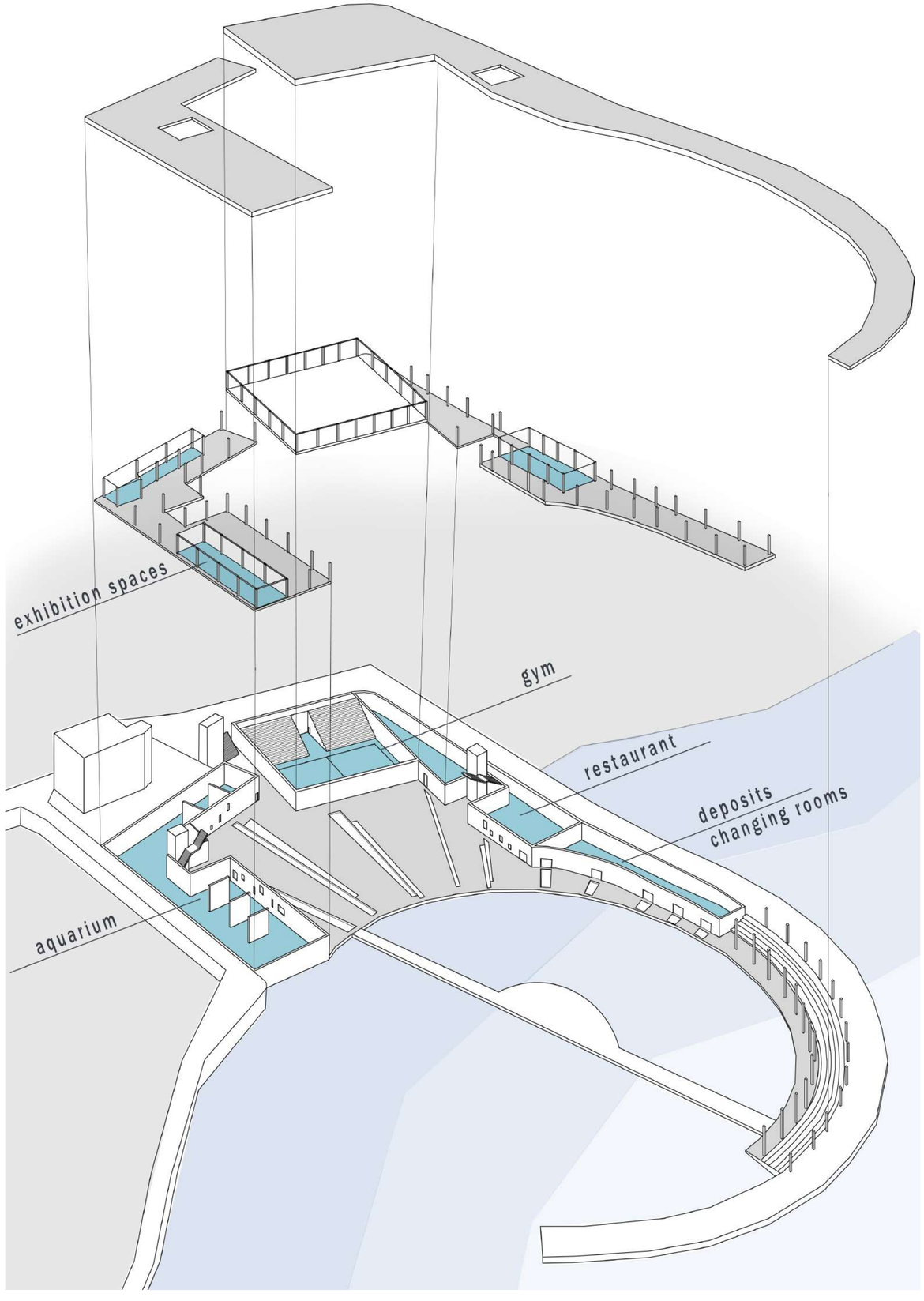
OPENING OF A NEW PIER

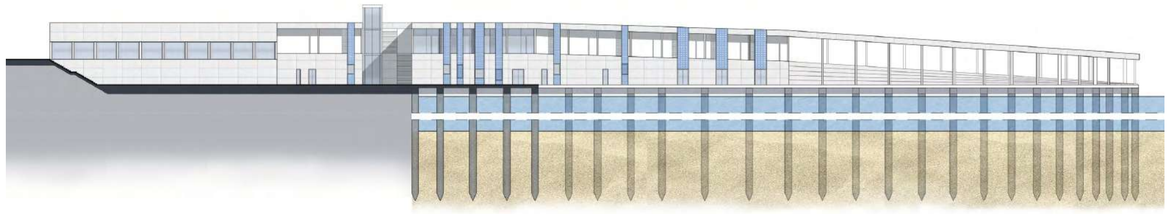


CONNECTION FROM THE INNER SQUARE TOWARDS THE SEA



ACCESS TO THE SQUARE FROM THE THREE FRONTS

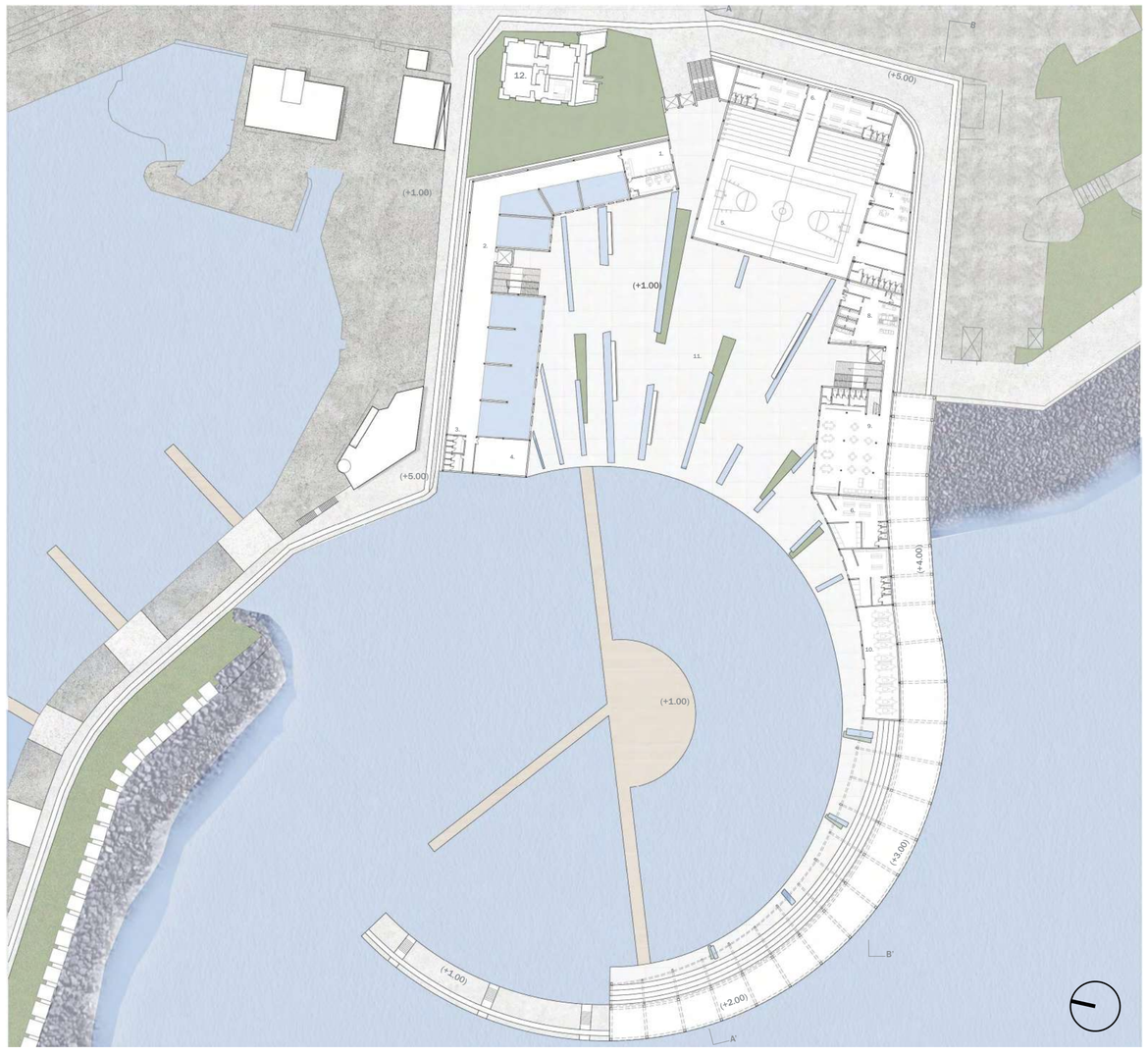




0 10 25 50m

SECTION A

1. Entrance ticket office
2. Aquarium path
3. Services
4. Storage
5. Gym
6. Changing rooms
7. Infirmary
8. Kitchen
9. Dining room
10. Canoe storage
11. Urban square
12. Nautical Club



LEVEL 1 QUOTA + 1,0m

0 10 25 50m

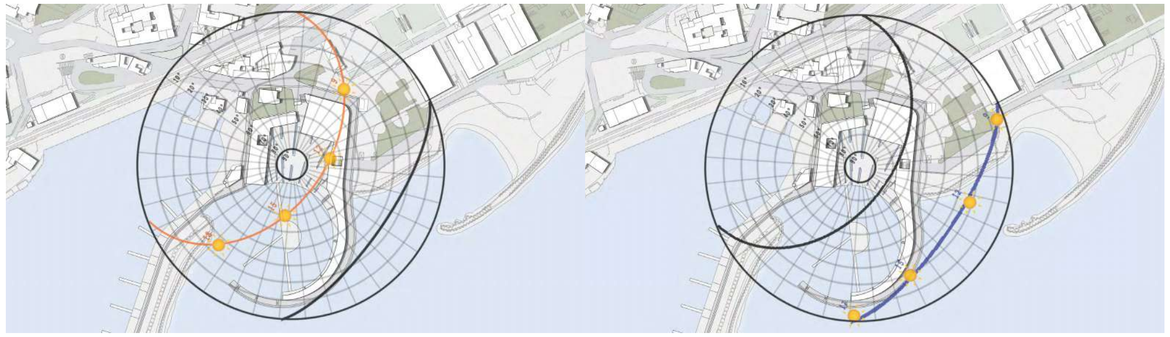


0 10 25 50m

SECTION B

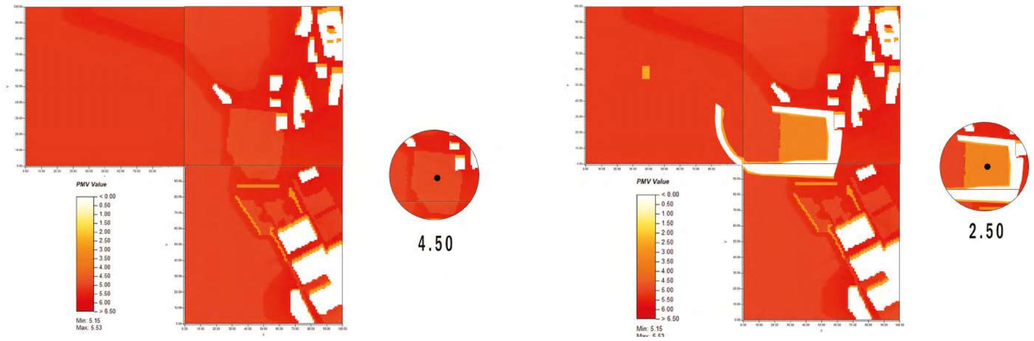






summer solstice | *21 June*

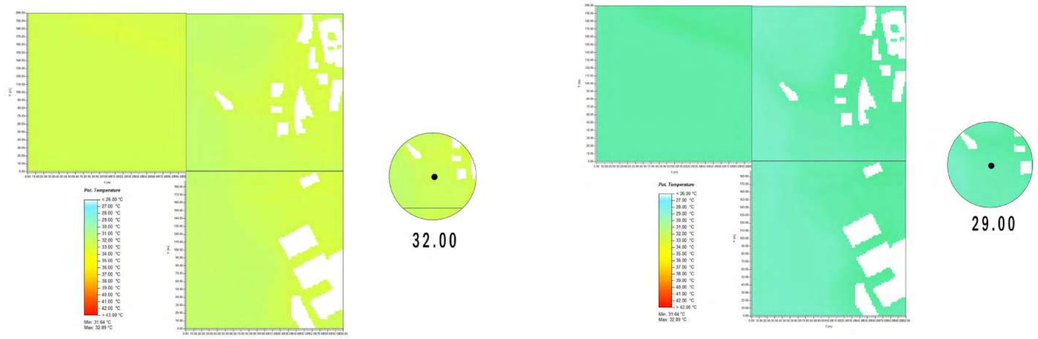
winter solstice | *21 december*



State of the site

Thermal sensation index

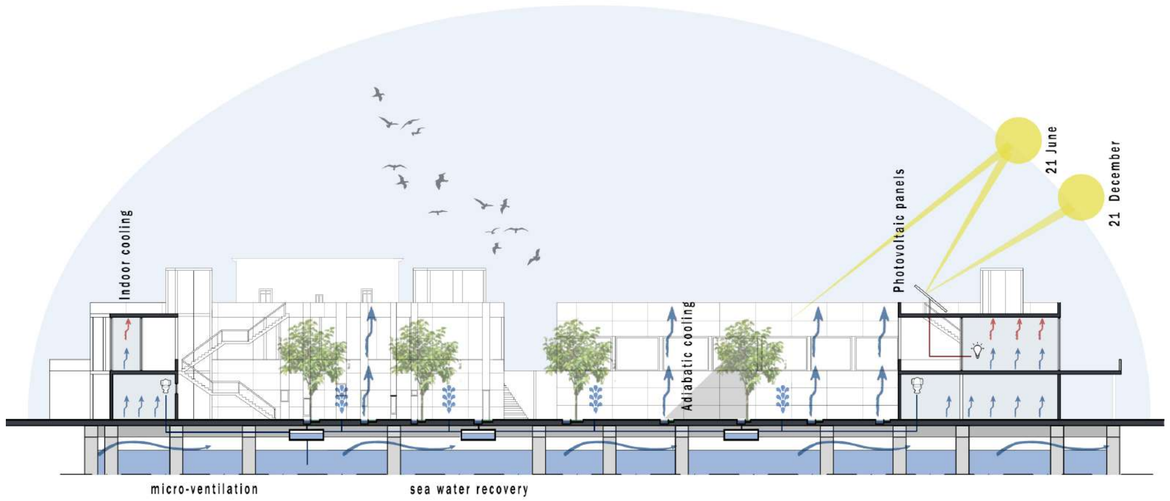
Project: reduction of 50%



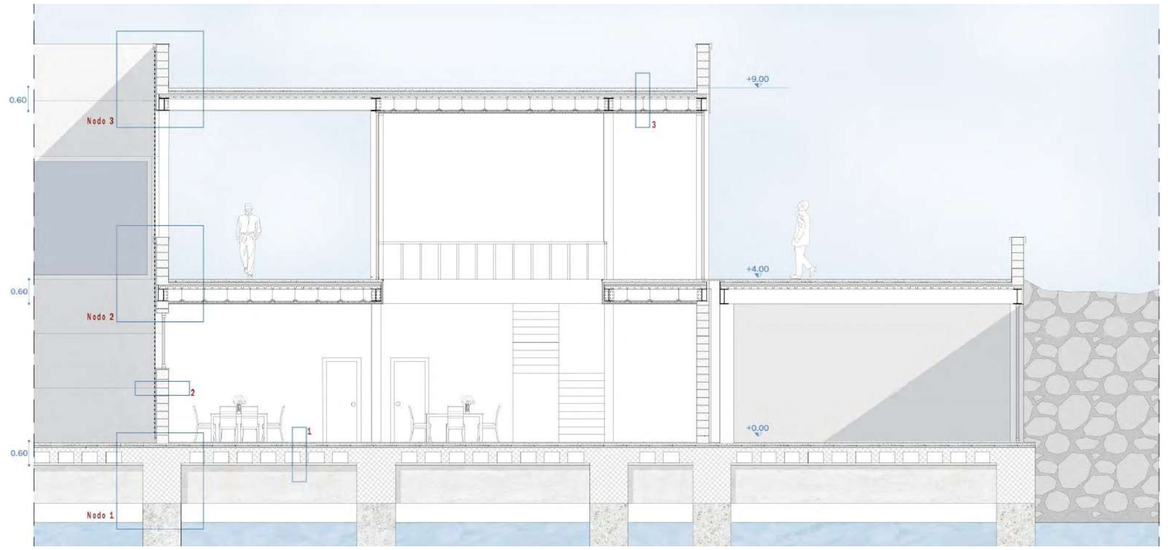
State of the site

POT air temperature

Project: reduction of 9%



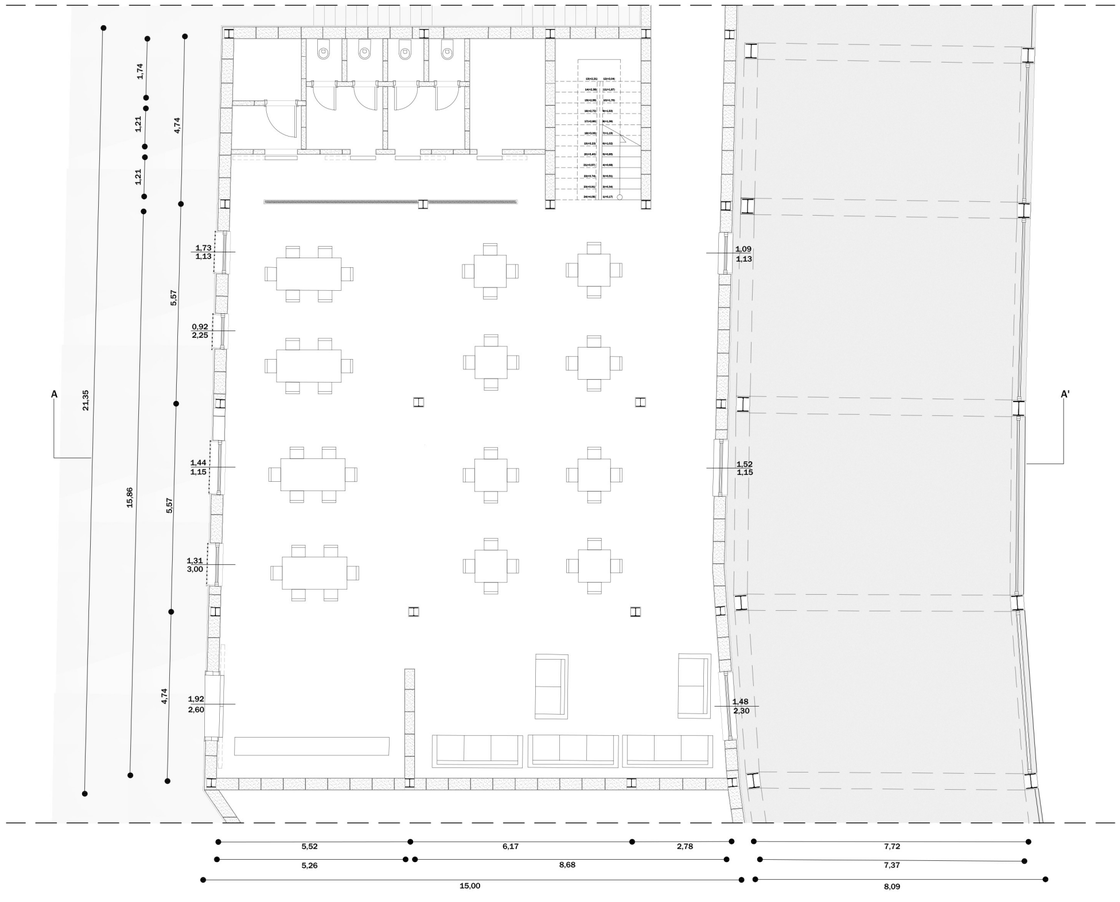
ENVIRONMENTAL SECTION



1. Ground floor
Predalles-type floor
BIOCANAPLUS type insulation panel
Bituminous waterproof membrane
Lightweight concrete screed
Cement mortar substrate
Porcelain stoneware paving

2. Curtain wall
Interior plaster
YTONG cellular concrete thermoblock
Adhesive mortar
LAPITEC stone cladding panels
KME type perforated plate

3. Roofing floor
Plaster
KNAUF type glass wool insulation panel
Suspended ceiling
Trapezoidal sheet metal floor
KNAUF type glass wool insulation panel
Bituminous waterproof membrane
Cement mortar substrate
KME stone paving



PLAN AND SECTION OF THE RESTAURANT SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

LUCA PASQUALE MARSEGLIA - CONSTANT MOTION

A STRATEGY AGAINST URBAN SPRAWL

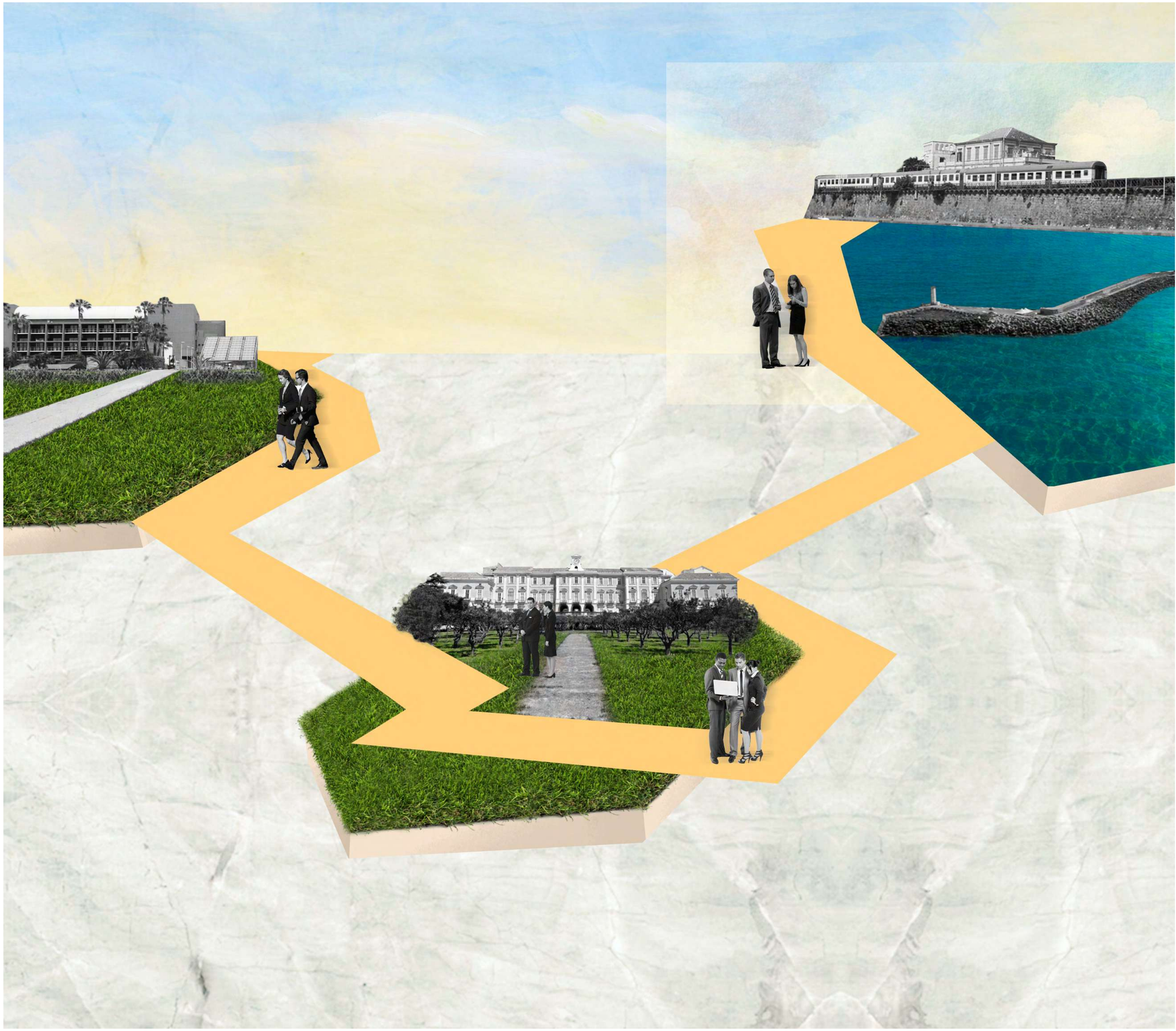
CONNESSIONE TRA IL GRANATELLO ED IL CNR

The project Constant Motion is focused on the redevelopment of the area of the previous freight yard located between the Portici's Reggia lower park and the Enea Research Center. The main purpose of the project is the connection of these two areas of the city of Portici, both cultural sites: in one is located the Reggia hosting the agriculture department of the University, while in the other are located the Research Center and the port of Granatello, identifying in these realities, to be improved and promoted, a great resource for the city. In order to reach this goal a study of the city has been carried out, in particular a study of the planning area, that is the previous freight yard, highlighting also the critical aspects: issues in going across the city; lack of public areas in which promoting ethical cultural activities; lack of parking spaces. This research promotes projectual actions that deal with these critical aspects in order to improve the potential. In an attempt to connect the Reggia and the area of the Enea Research Center it has been designed a building covering also an infrastructural role. In order to achieve the goal, firstly, a system of public stairs and lifts has been designed, then a public pedestrian ramp that serves as extension of the first floor terrace allowing to climb safely the tracks of Ferrovie dello Stato located between the two areas examined. The building has a basement used as a car parking and three upper floors. The surface of the building diminishes from the basement to the second floor reaching a total covered area of 5579sqm.

Program

coworking, library, meeting rooms, parking

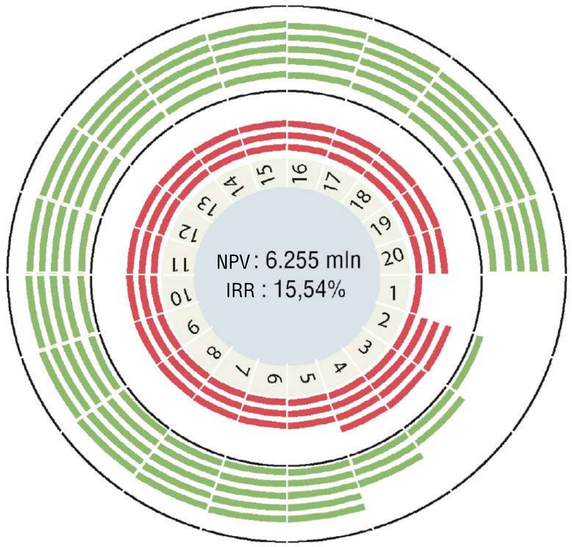
Covered area	**5579sqm**
Uncovered area	**4089,64sqm**
Levels above ground	**3**
Built Volume	**23929,19m³**
Estimated Cost	**€ 7.668.251,40**

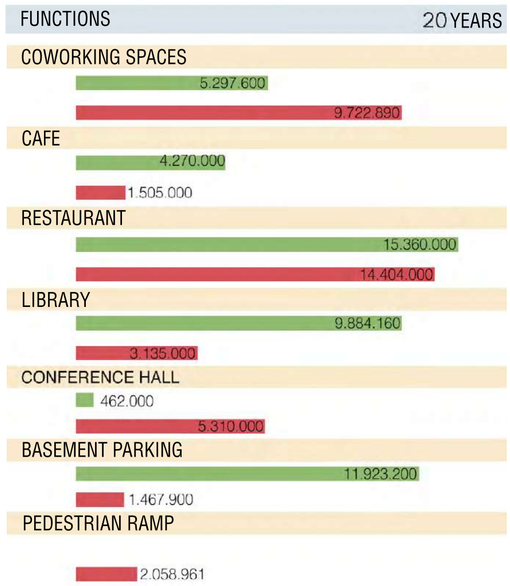


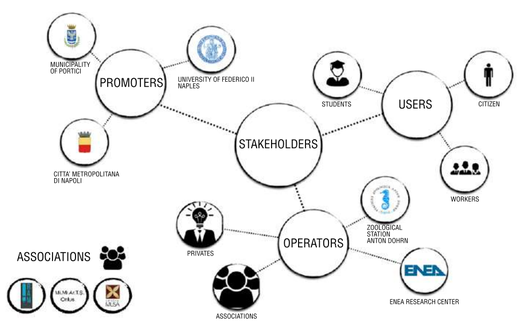
The building made of three floors above ground is destined for functions related to studies and work: coworking spaces, classrooms, library, common areas and meeting rooms. These functions have been thought to promote the cooperation among workers and students in order to create a new way of understanding work and study.



Through the analysis of similar works and through the preventive metric computation of expense, it has come to the hypothetical construction and managing costs of the project. The program proposed: coworking spaces, cafe, restaurant, library, meeting room and a basement car parking. Costs and earnings are based around twenty years and, through the project, it is possible to see how during the first four years the earnings are less than the cost with an increase during the fifth year and becoming stable with about one million per year. The NPV (Net Present Value) is six millions while the IRR (Internal Rate of Return) on a percentage equal to 15,54%. Moreover it has also been carried an analysis about stakeholders divided in: operators, users and promoters. The possible promoters are: the University of Federico II (Naples), the municipality of Portici and Città Metropolitana di Napoli. The possible operators are: Enea Research Center, the zoological station Anton Dohrn and some socio-cultural organizations.







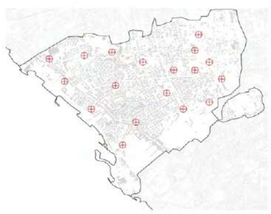
NPV, IRR AND STAKEHOLDERS

The charts represent the values of NPV and IRR the earnings and the costs calculated over twenty years. In the below charts on the right, are highlighted those representing the possible stakeholders (users, operators and the project promoters).



PORTICI'S PARK THE PROJECT IN THE CONTEXT

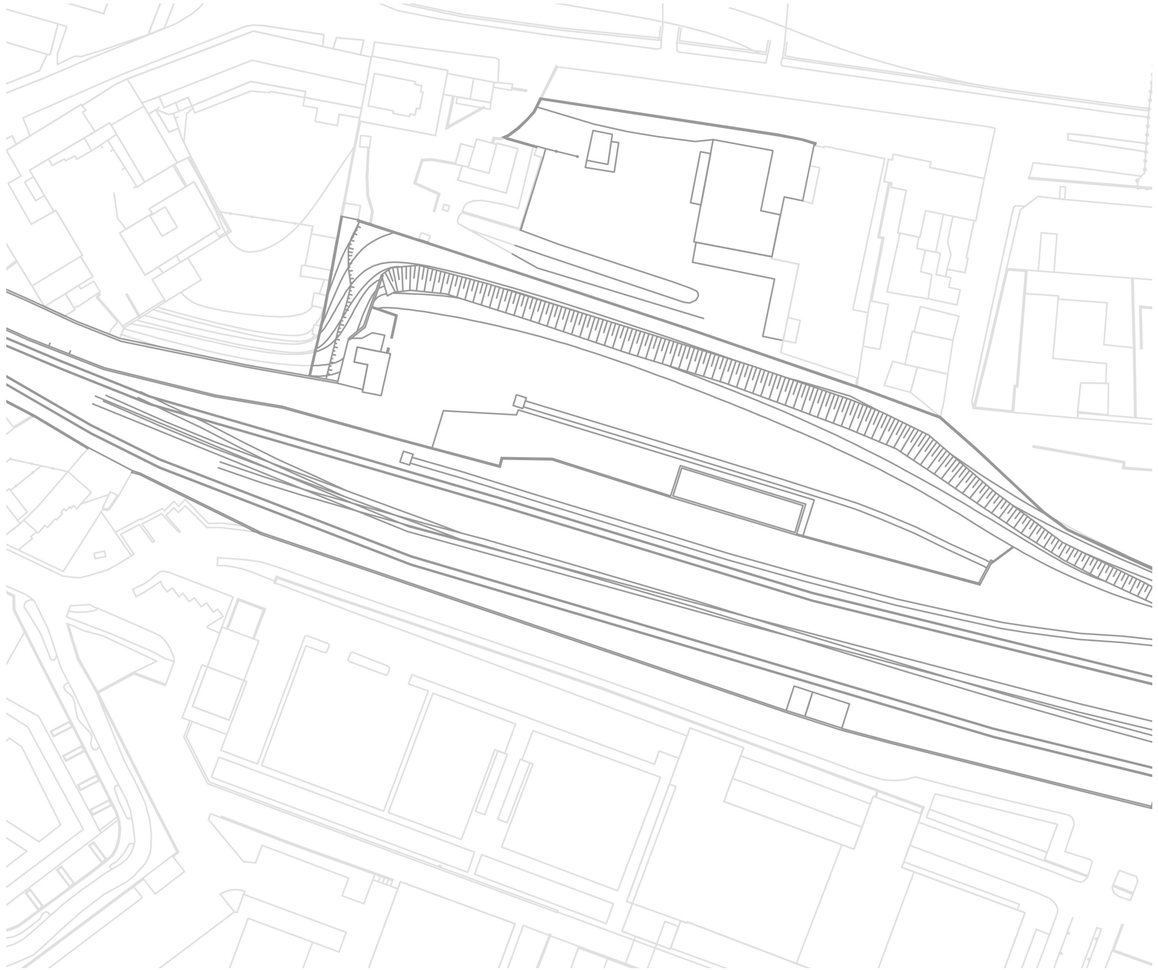
0 25m 100 200m



CAPTION

- SOUND BARRIER
- URBAN FURNITURE
- PAVEMENT EXTENSION
- PLANTING
- PUBLIC SPACE
- LIMITED TRAFFIC ZONE
- SPORTS FACILITIES



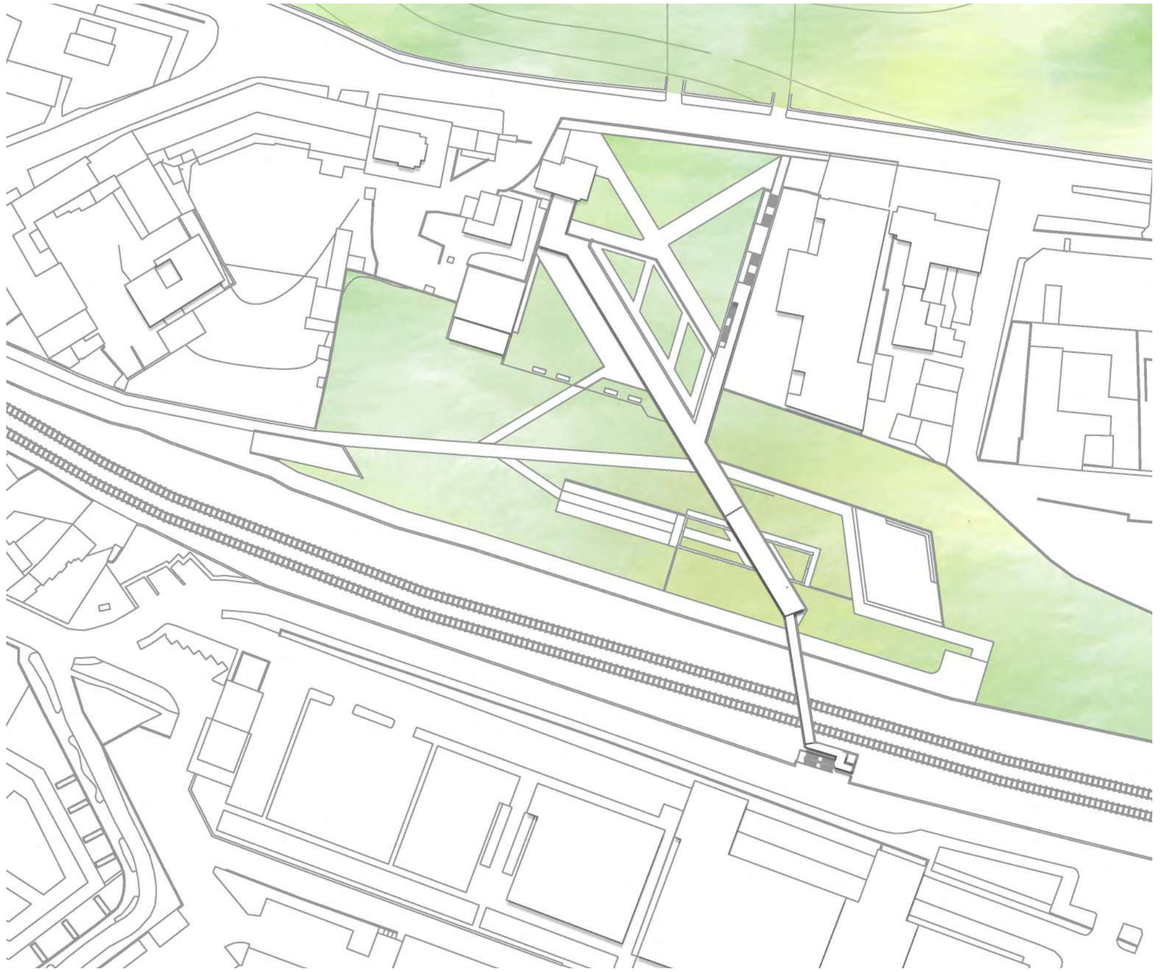


CURRENT STATE MORPHOLOGICAL STUDY URBAN ANALYSIS

0 20 50 100m

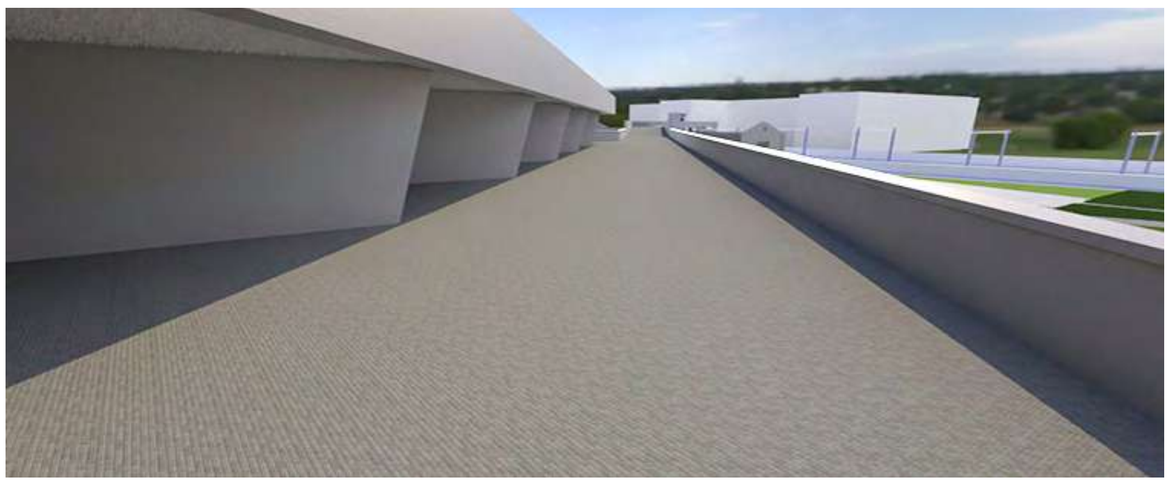


TERRITORIAL SECTION



DESIGN PROPOSAL

0 20 50 100m



VIEW OF THE PEDESTRIAN WAY

The covered surface of the project is equal to 5579sqm, while the surface of the external areas is 4089sqm. The project is about the building previously used as a freight yard and currently seen as a ruin.

The project aims to promote an architectural restoration based on cleaning and consolidation of the outer walls of the two gables.

It is separated crosswise by another volume that is also a support for the pedestrian ramp.

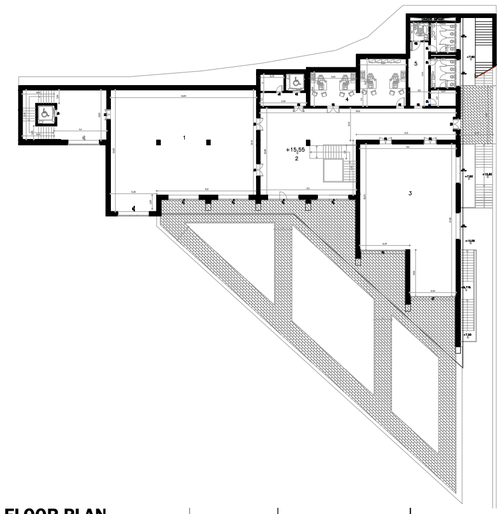
This added volume will be a designed area for the hospitality. The cafe's surface is equal to 106sqm.

The pedestrian path ends with a small infrastructural volume made of stairs and public lifts allowing to get on via Nuova Macello according to a wider accessibility, which links the port to the Enea Center.

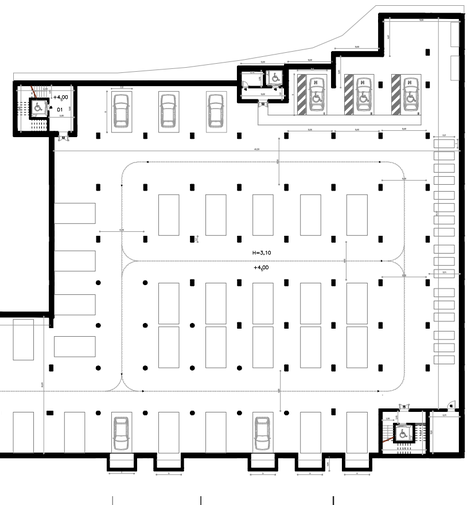
The purpose of the project is to solve some of the communication needs of the city, not fully satisfying.

Moreover, particularly interesting is the idea of exploiting and enlarging the already existing research net through which it becomes possible to create a cultural and social growing system.

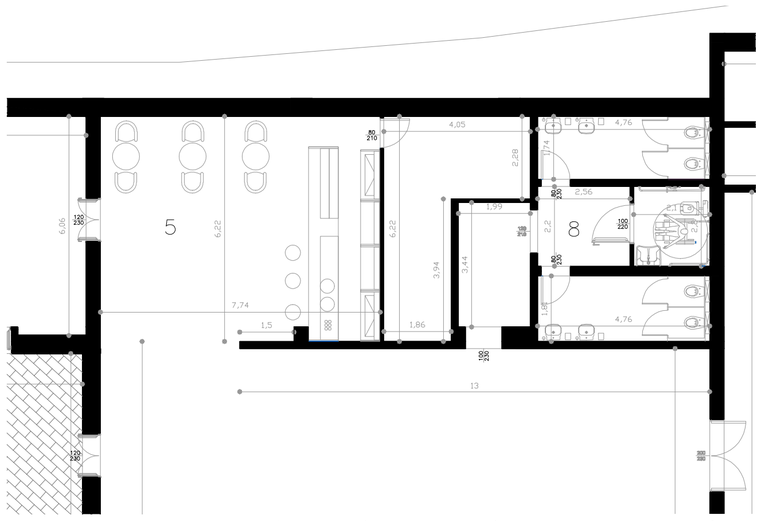
The idea is that a constant motion of workers and studentscan can make Portici a real cultural center.



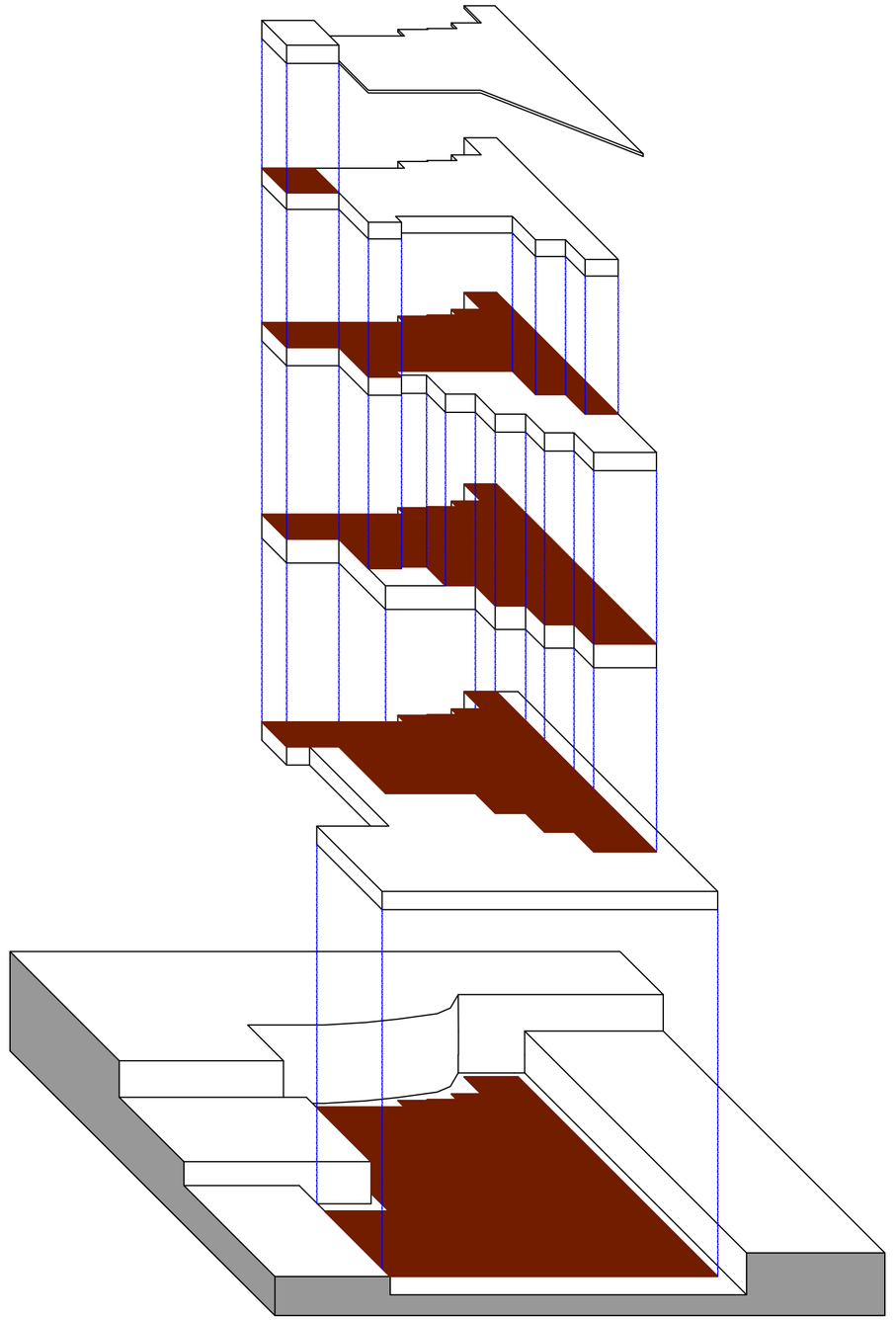
SECOND FLOOR PLAN 0 10 25 50m



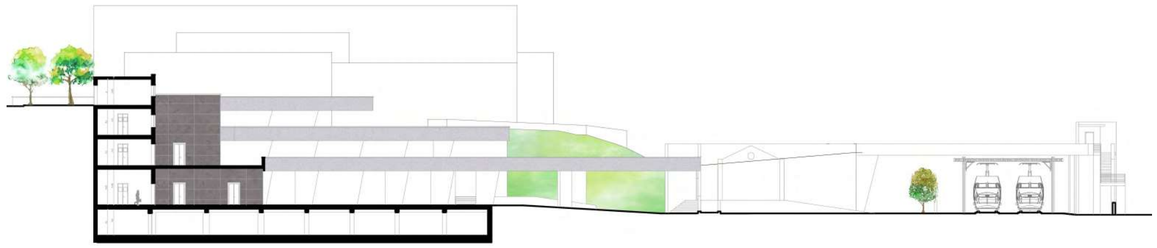
BASEMENT PARKING 0 10 25 50m



CAFE'S PLAN 0 2 5 10m



CONCEPT



SECTION A-A

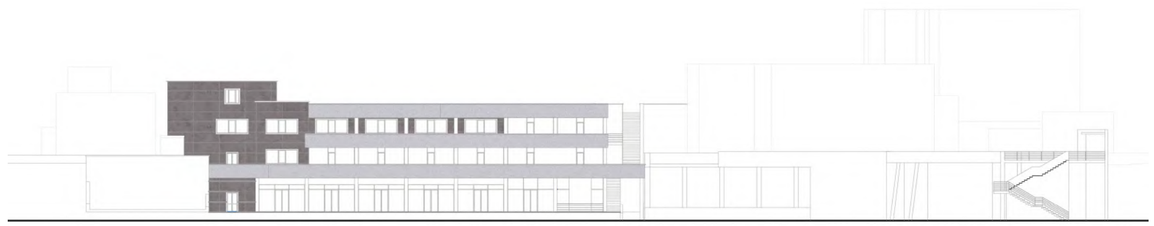
0 10 25 50m

1. Coworking space
2. Entrance
3. Hall
4. Library
5. Restaurant
6. Classroom
7. Café
8. Toilets



GROUND FLOOR + 7,50 m

0 10 25 50m

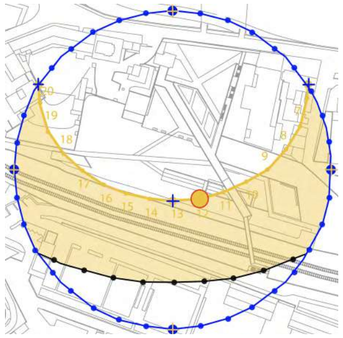


ELEVATION

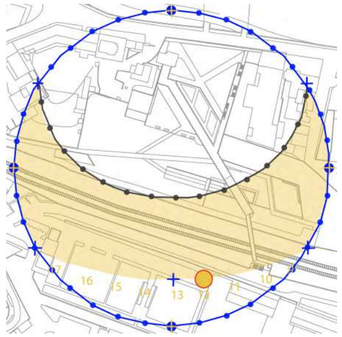
0 10 25 50m



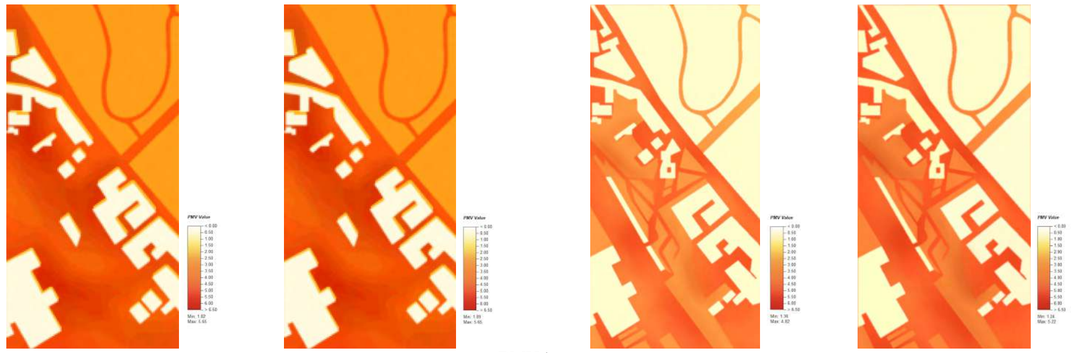
GENERAL VIEW



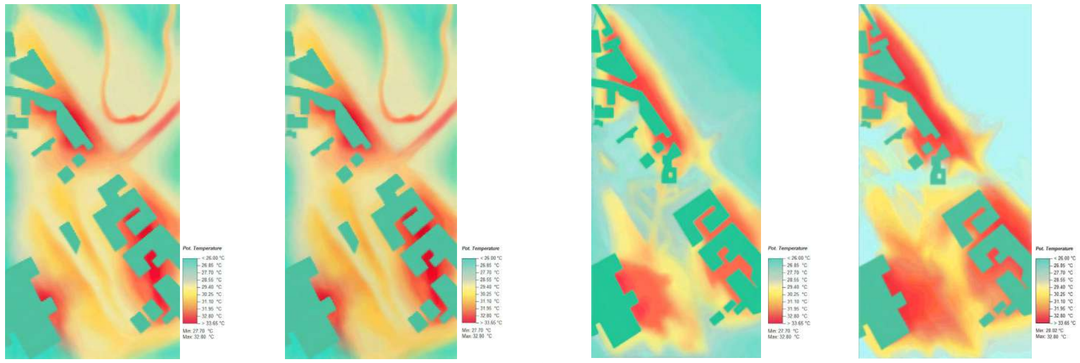
summer solstice | *21th June*



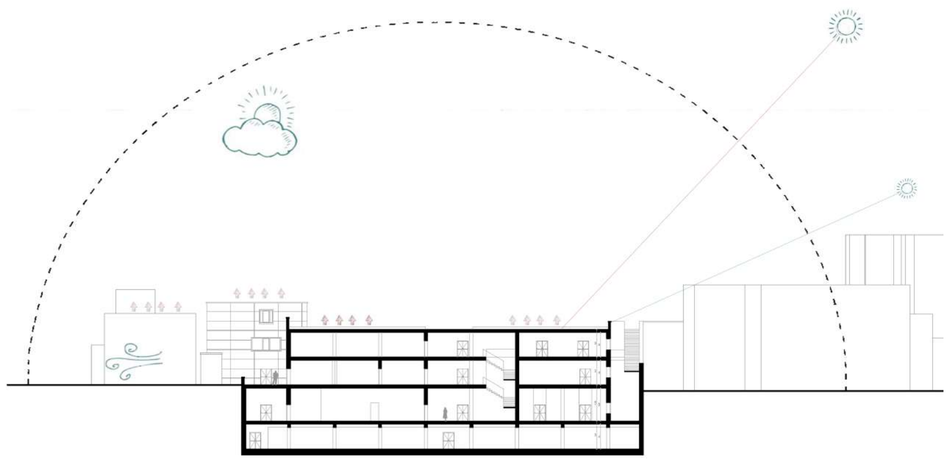
winter solstice | *21th December*



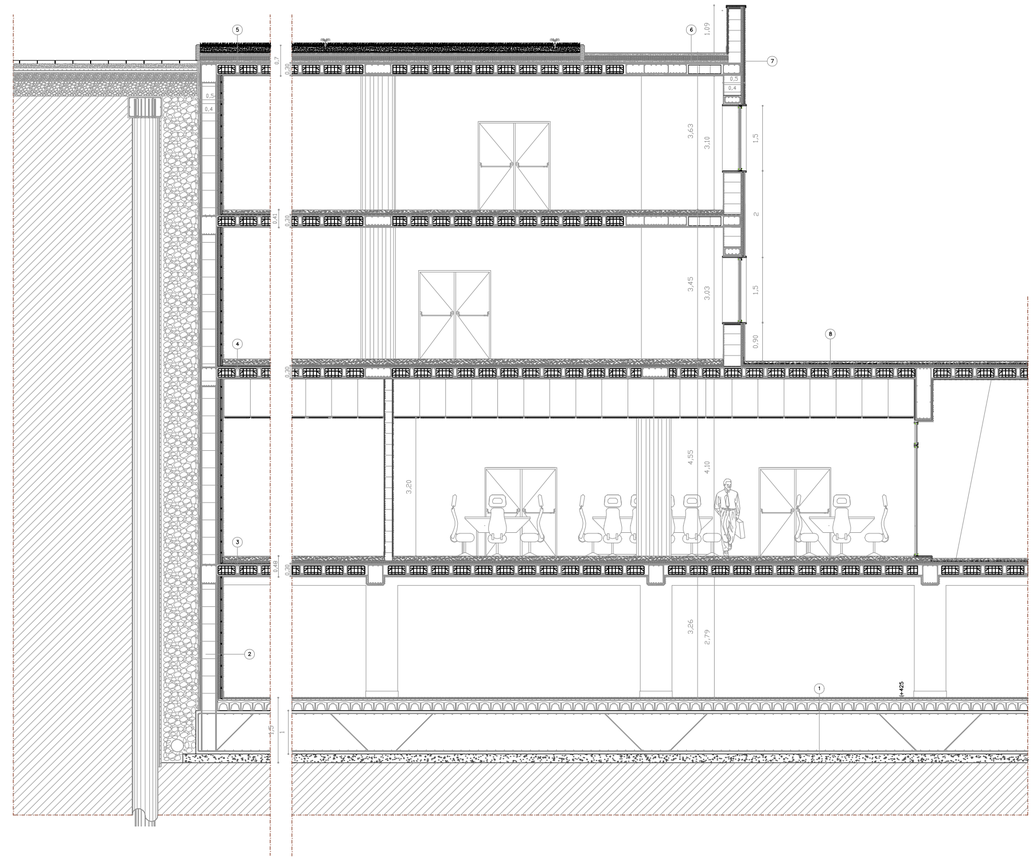
PMV |



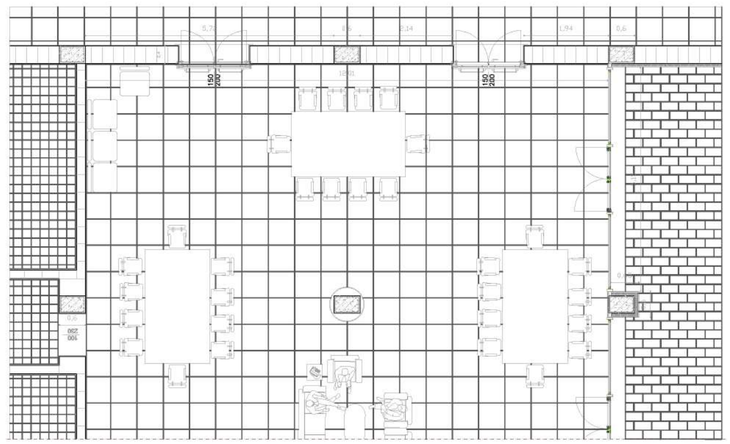
POT |



ENVIRONMENTAL SECTION



1. Foundation (foundation slab, ventilated crawl space, industrial paving)
2. Earth retaining wall (reinforced concrete, polystirene panel, brick tiles)
3. Intermediate slab (brick concrete, polystyrene panel, floor screed, paving)
4. Intermediate slab (ceiling, brick concrete, polystyrene panel, massetto di floor screed, paving)
5. Roofing slab (brick concrete, sloping screed, sleeve, polystyrene, green roof)
6. Roofing sslab (brick concrete, floor and sloping screed, sleeve, polystyrene, paving)
7. Vertical wall (honeycomb block, polystyrene, paneling)
8. External floor (brick concrete, floor and sloping screed, sleeve, polystyrene, paving)
9. Inserire elemento
10. Inserire elemento
11. Inserire elemento
12. Inserire elemento



PLAN AND SECTION OF THE BUILDING AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

ALESSANDRA MORELLI - SEATHROUGH THEATER

RECONNECTING LAND AND SEA

A PHYSICAL AND PANORAMIC RECONNECTION

SEA_THROUGH THEATER

The Sea_Through Theater is a project based on the rediscovery of the land-sea liaison, aiming to rearrange the landscaped continuity between the Park of Portici Royal Palace and the Granatello area.

The target is to recompose the continuum between inland and its privileged relation with the sea, improperly interrupted by the height difference and by the realization of the railroad.
The target is achieved through a system of connecting routes between the different heights and ensuring an adequate fruition of the waterfront and a new pedestrian accessibility, while fitting into the complex system of functions and highlights of the city.

The auditorium becomes a new element in Portici landscape, strategically located above the railroad height and abruptly breaking off on Napoli gulf.

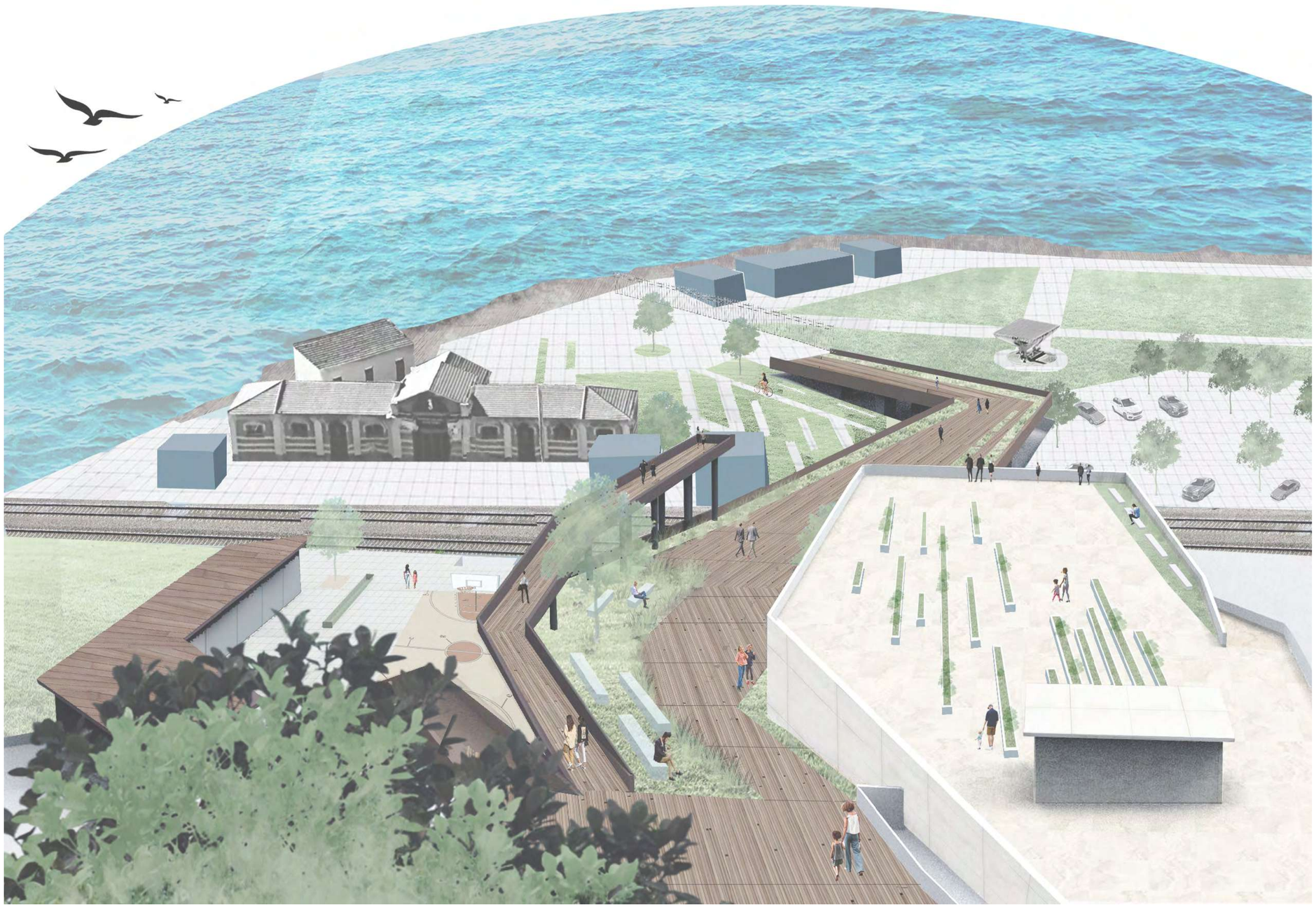
The perceptive relation between the building and its context “humanizes” the scenery, as echo-ing the historical original landscape.
The aim is reached through the re-connection of the heights differences, using a system of ramps that slowly descend towards the sea, as the auditorium building soars facing South-West from its outside and inside, through the open windows of the music room perceptually interrupting by the water.

The core of the project is in the notion of “union”, “convertibility” and easy and open access to everybody.

Program

auditorium, city park, public space

Covered area	**3042m²**
Uncovered area	**6338m²**
Levels above ground	**2**
Built volume	**85176m³**
Estimated costs	**19.866.418 €**



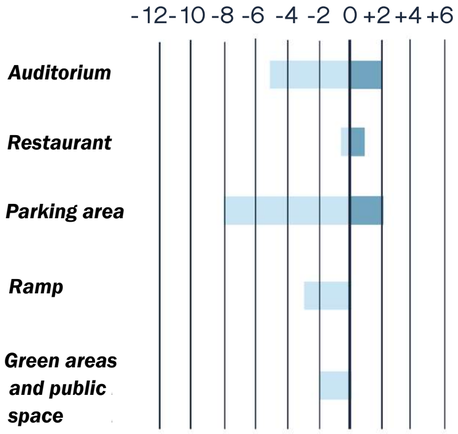
Insertion of the project into the urban context as a mean of reconnection between inland and coast, re-linking the Southern entrance of the Royal Palace of Portici Park to the Granatello Port, while setting up public and accessible green areas for an extended audience.

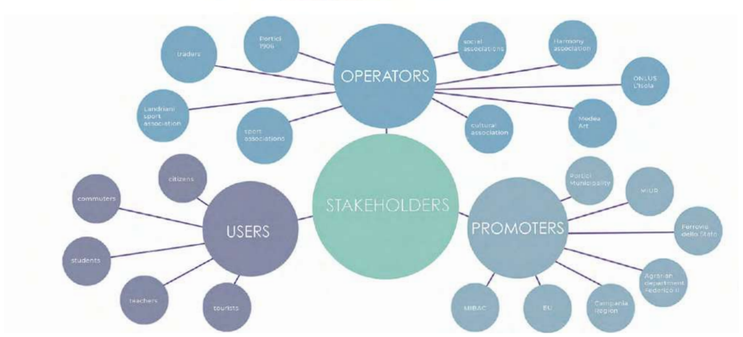


The insertion of the project inside the urban context is put into effect via a strategy based on the reconnection of the elements on plan and elevation. Leading settlement character is the historical relation passing through the buildings and the shoreline. In fact, after the realization of the Royal Palace of Portici by the Borboni Royals, the urban settlement has been characterized by the concatenation between buildings, green areas and sea. This link is also manifest in cross section, since the orography gently escorts the view towards the sea.

The railroad has formed a caesura within this narrative. Therefore the project identifies the hidden and virtual link between inland and sea and makes it explicit through the preconfiguration of the interplanar routes. The project works on two layers, plan and elevation. Plan-wise, the inland-sea continuity is replenished through a pedestrian ramp. Elevation-wise, through the same ramp the gentle slope towards the water is rebuilt. A circularity of routes is also created to allow the access to the different parts of the project located at different heights.



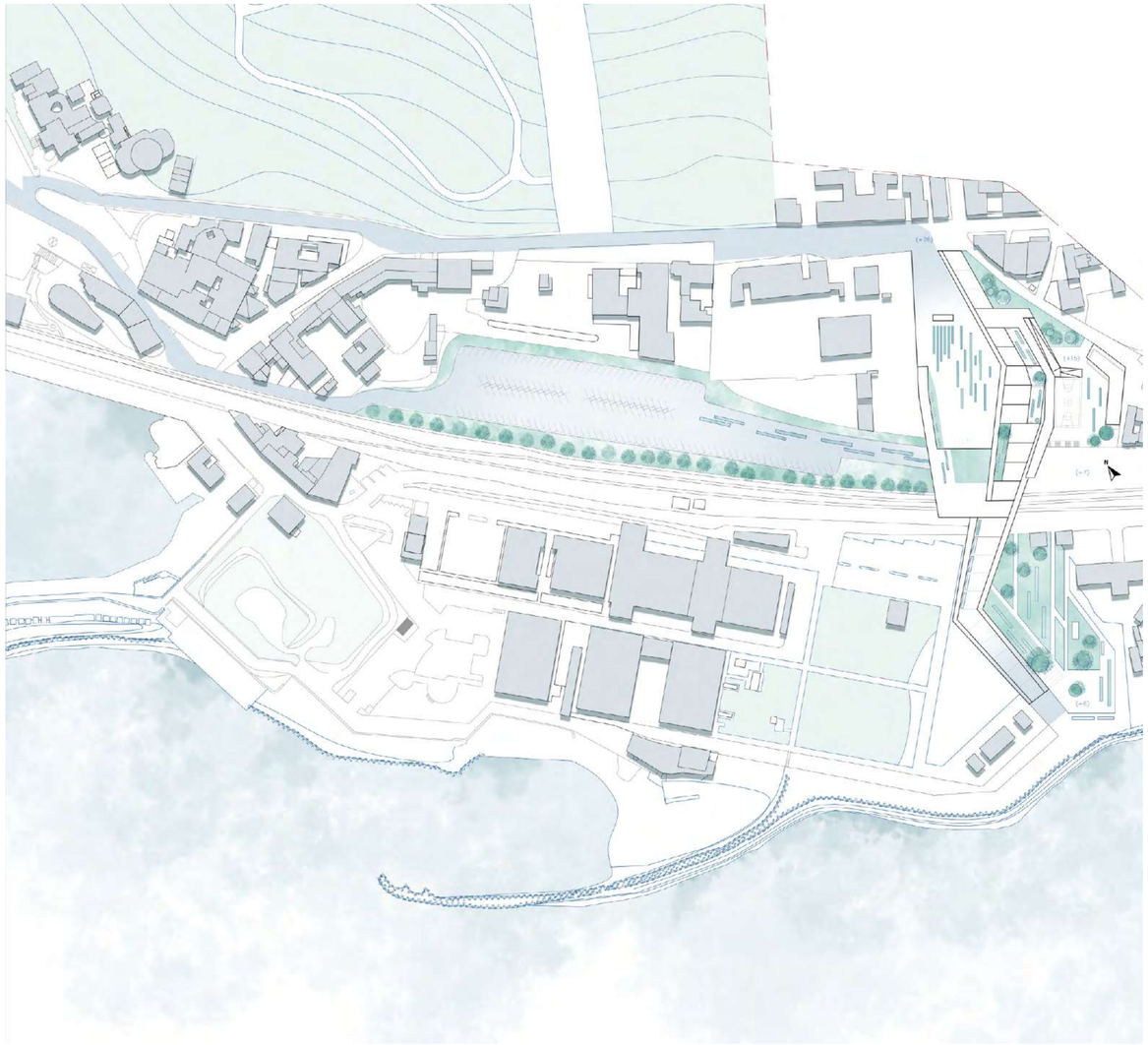




FINANCIAL ANALYSIS

From the financial analysis it results that the costs related to the construction of the entire complex can be already partially covered within an year thanks to the auditorium realization. The earnings are amplified after the fifth years thanks to the parking area and the finalization of the construction.

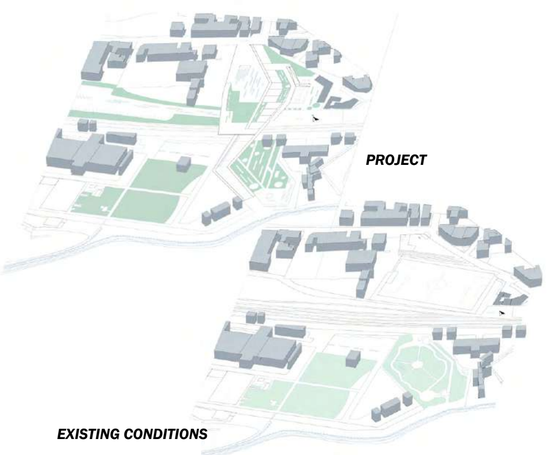
The strategy aims to increase the number of green public areas and cultural spaces, as well as allowing the creation of turistic poles and attractions. The acts executed are the re-connection between inland and sea and the project of public spaces. Together with the auditorium construction, the project foresees the realization of green areas and the improvement of the existing areas intended to be transformed into parks. Furthermore is foreseen the realization of a flexible space, a roofed plaza located at the railroad height, within which it's possible to host new activities and install temporary exhibitions. About the management, the projects identifies both a public and private administration: Portici municipality, Campania Region, MIUR, MIBAC and local entrepreneurship, such as cultural associations settled in Portici and the whole region, are all involved.

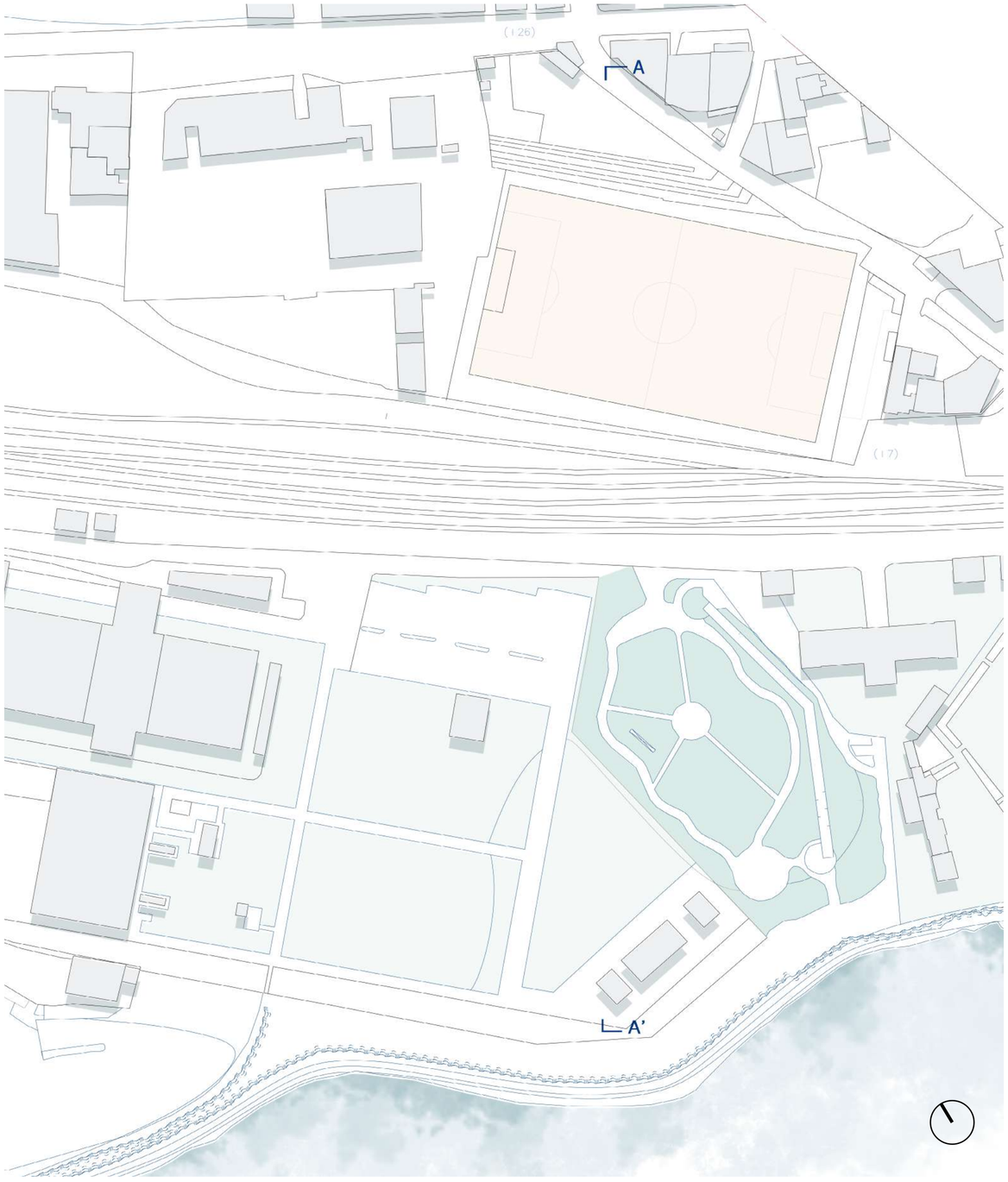


PORTICI PARK THE PROJECT IN THE CONTEXT

0 40 100 200m





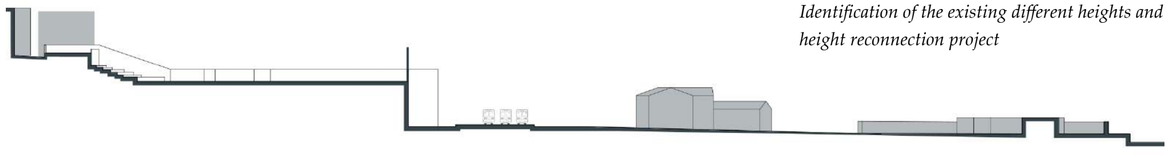


CURRENT STATE

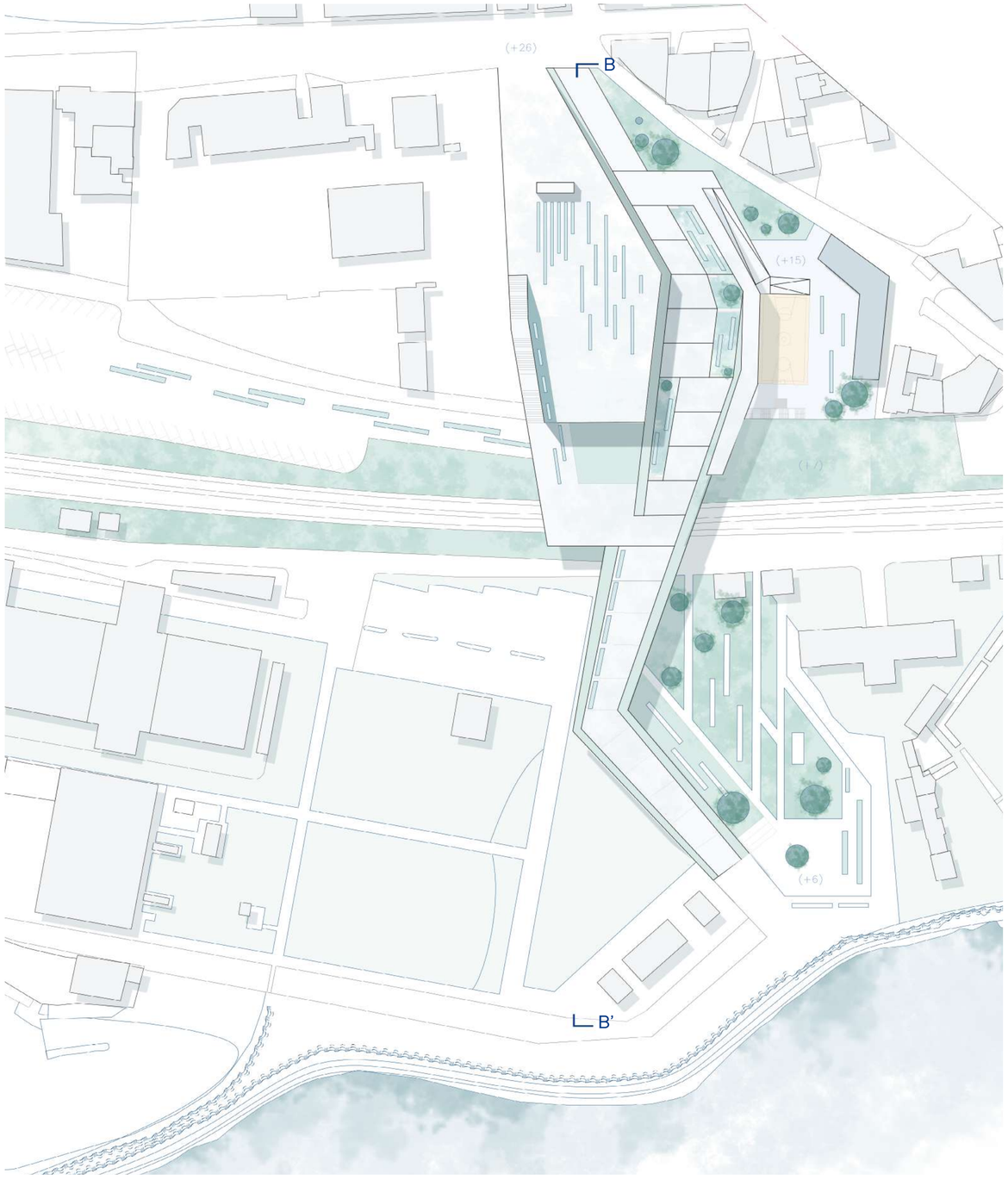
0 20 50 100m

TERRITORIAL SECTION

Identification of the existing different heights and height reconnection project

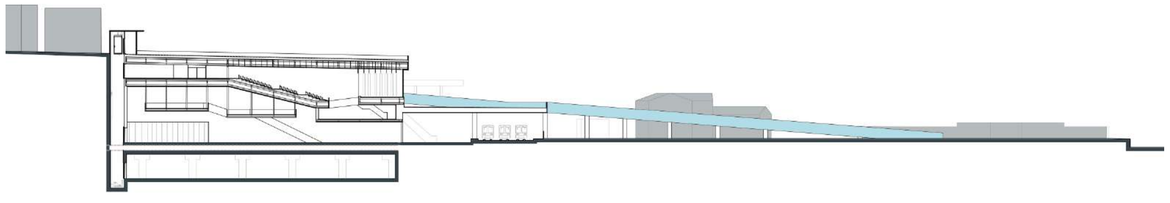


URBAN ANALYSIS SYNOPSIS



DESIGN PROPOSAL

0 20 50 100m



LARGER SCALE ACTIONS SYNOPSIS

The inland and the sea, even though are physically pretty close, to date are perceived as separated from each other. The distance between them is partly due to the height difference and partly due to the railroad presence that makes the threshold impassable.

Nevertheless the area offers many design cues since it allows a perfect vision of the surrounding coast, thanks to its elevation from the sea level, and because its located in a strategic point for a reconnection between the two parts of the city.

The first action is to design the auditorium building. It engages at the railroad altitude, level at which a roofed plaza is designed, and rises towards the former football camp heights, reaching it.

Perceptively the auditorium presence isn't captured, since it doesn't stand up as a building at a new altitude but it develops longitudinally at the same height of the former floor plane. The only extruded volume is a block were both stairs and lift are located.

A new green area is also designed. It substitutes the football camp concrete floor, while installing several green terraces where basket open camps, public sittings and spaces are located. A small building serviceable for restoration and temporary activities installation is also here designed.

Additional design action is the re-configuration of Anton Dohrn Park, while creating a system of trees and routes echoing the upper placed park.

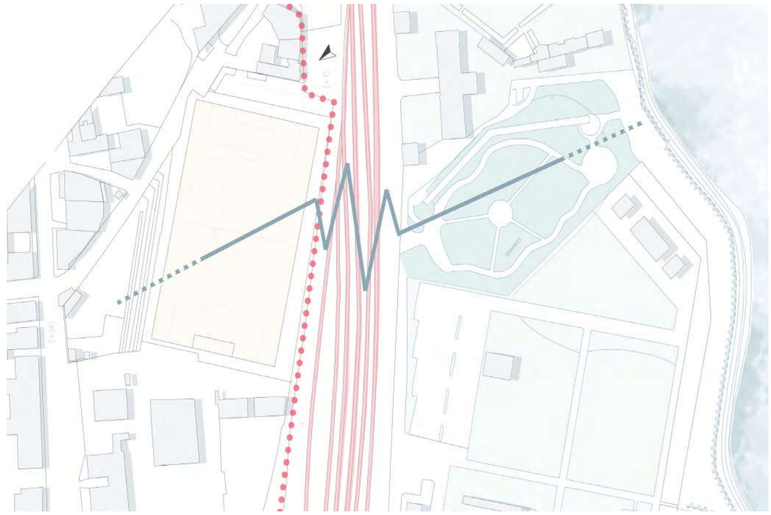
Last and definitive action lays in the ramp design. The main ramp originates from the camp height and partially embraces the auditorium, as if the latter is naturally rising from the ramp.

The ramp route gently stops in correspondence of the railroad creating a small open plaza before the auditorium main facade, where the sea sight is privileged.

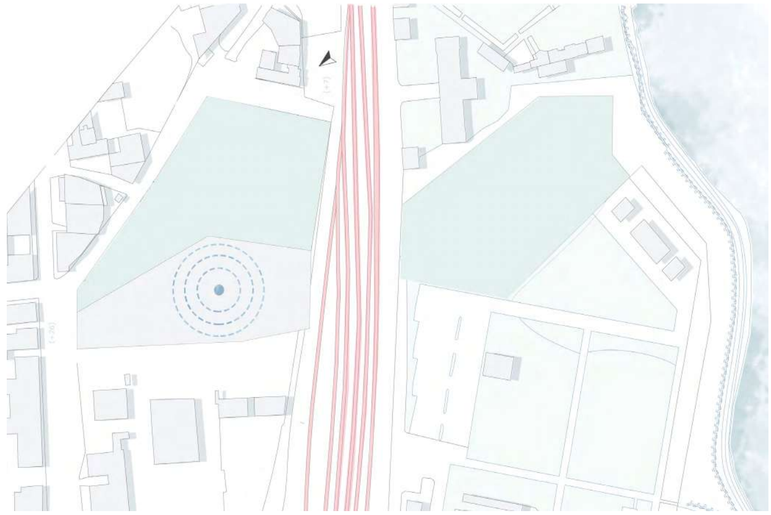
In the end, the ramp keeps slowly going down, fading into the Anton Dohrn Park.

A secondary elevated walkway is also designed, originating from the ramp upper height, allowing a peaceful sea sight from above.

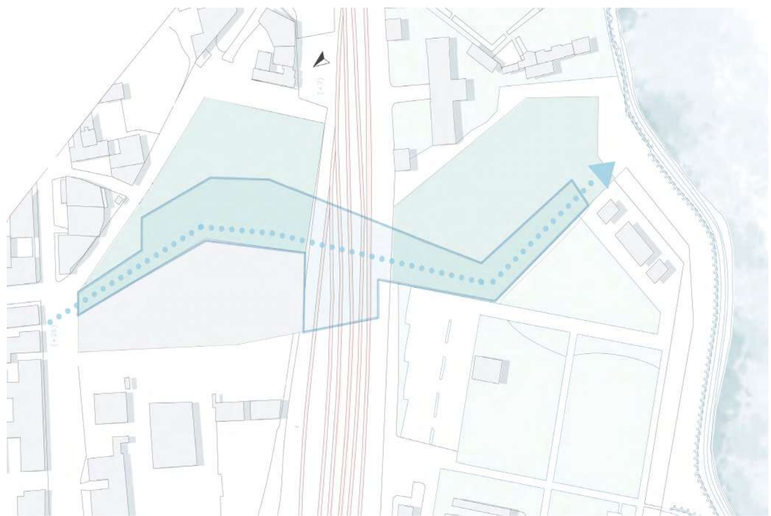
Therefore the Sea Through Theater project creates a physical and visual liaison between inland and sea.



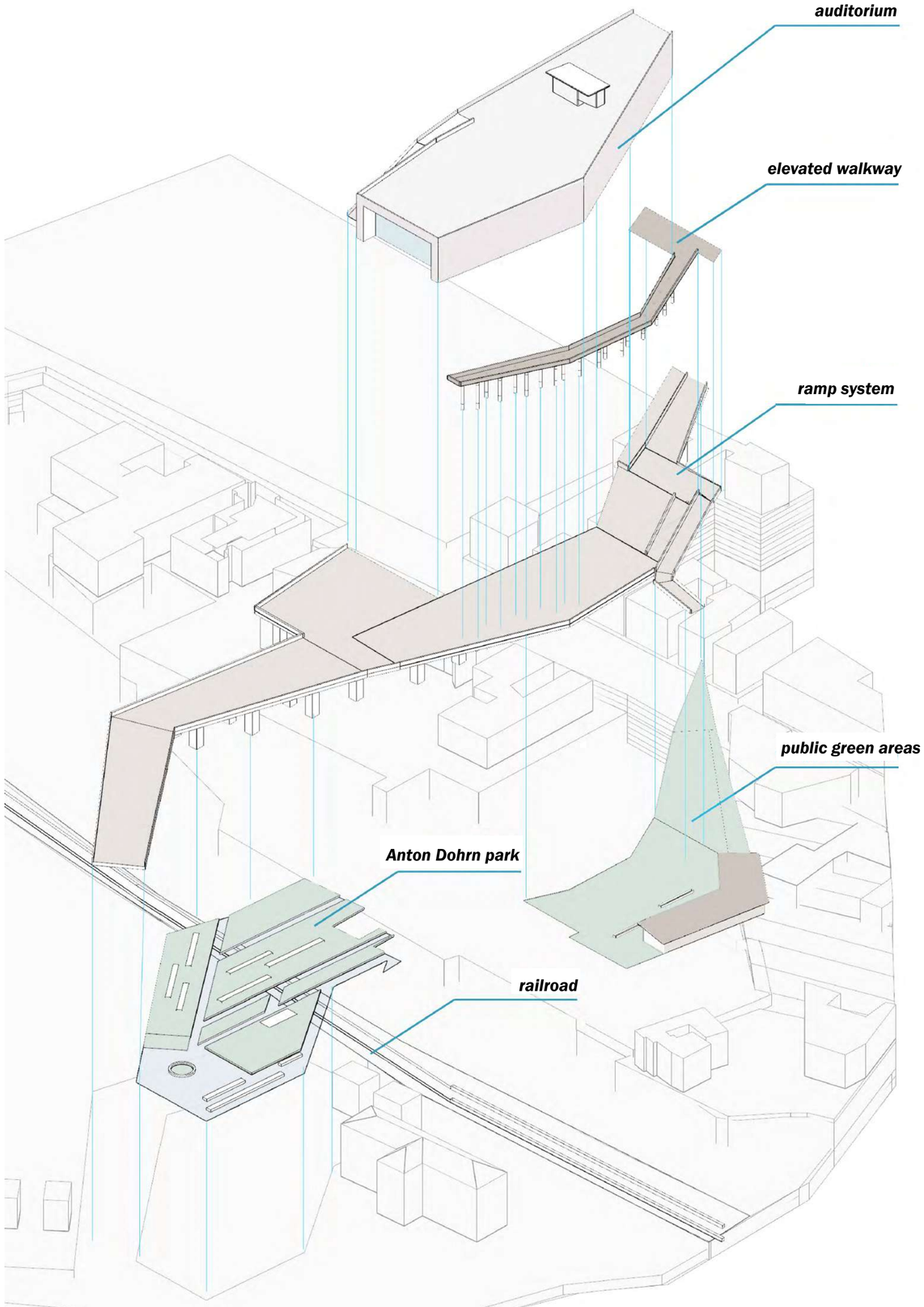
Analysis: abrupt interruption of the continuity because of height difference and railroad

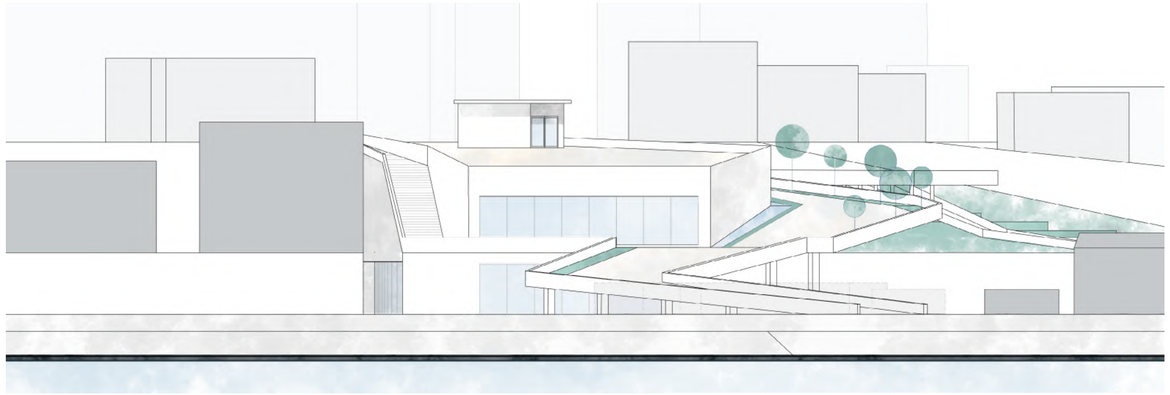


First design action: auditorium and public green areas project



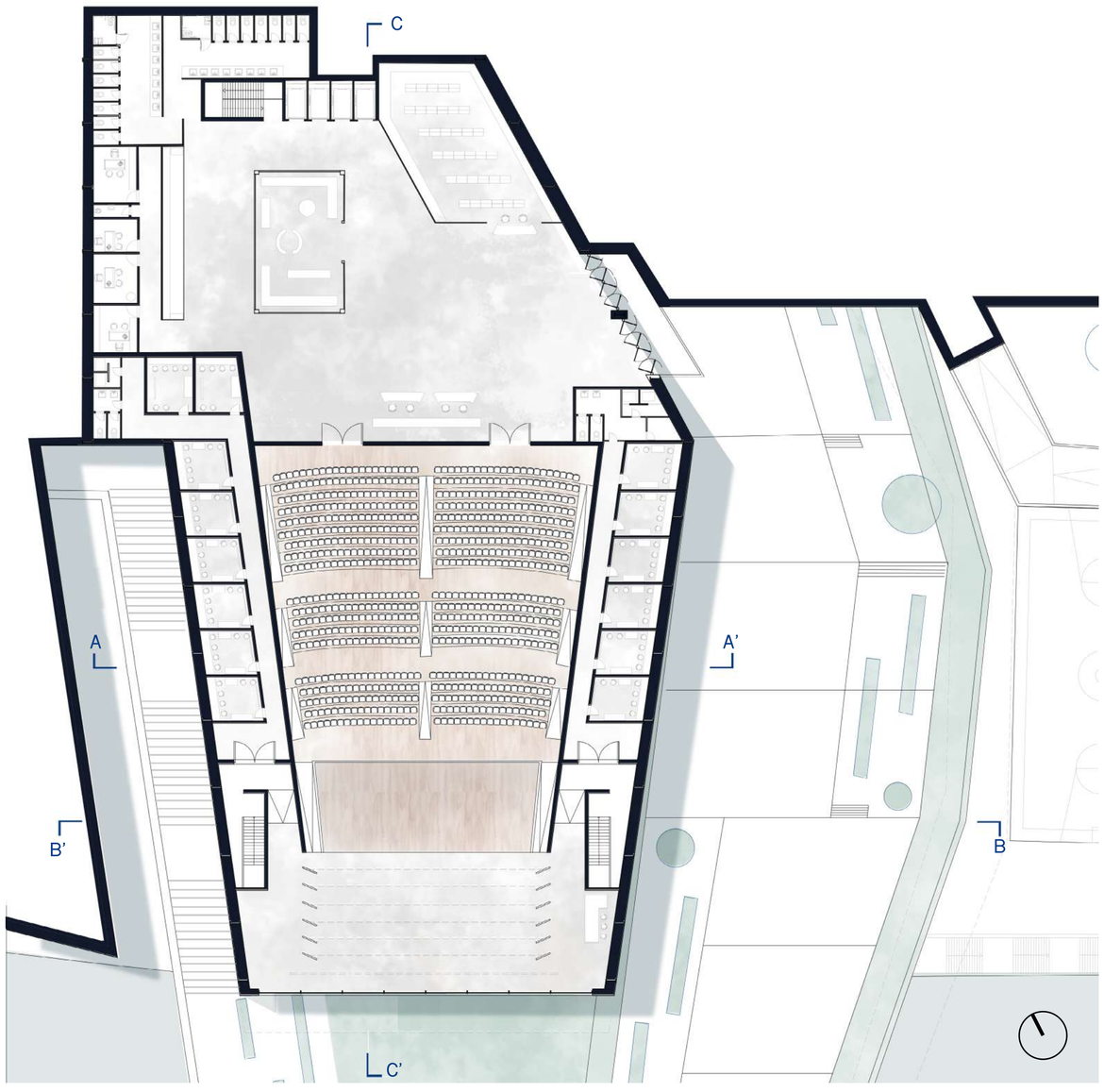
Second design action: connecting ramp project





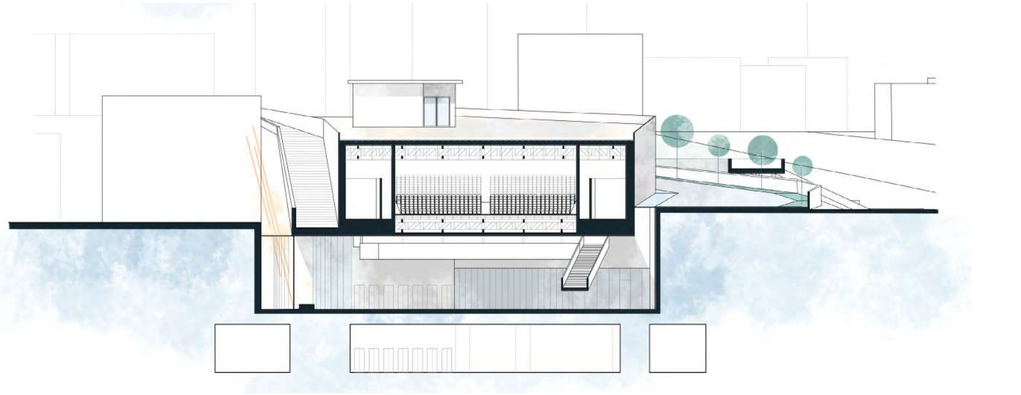
ELEVATION FROM THE SEA

0 10 25 50m



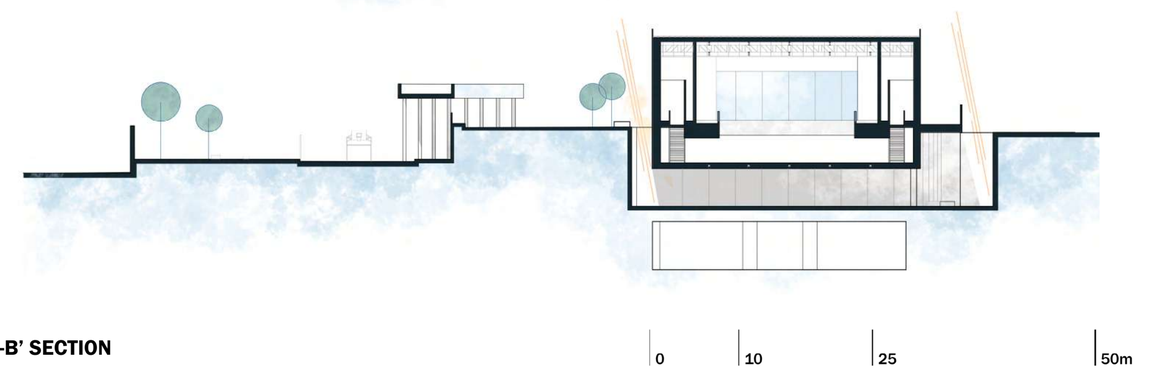
AUDITORIUM PLAN

0 3 10 30m



A-A' SECTION

0 10 25 50m

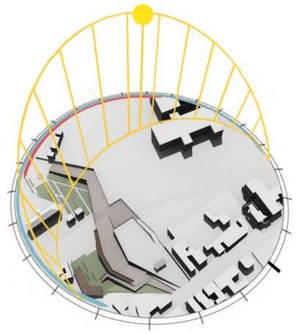


B-B' SECTION

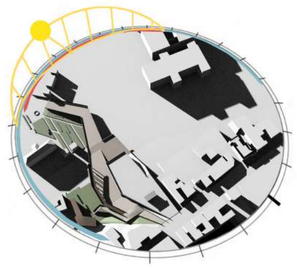
0 10 25 50m



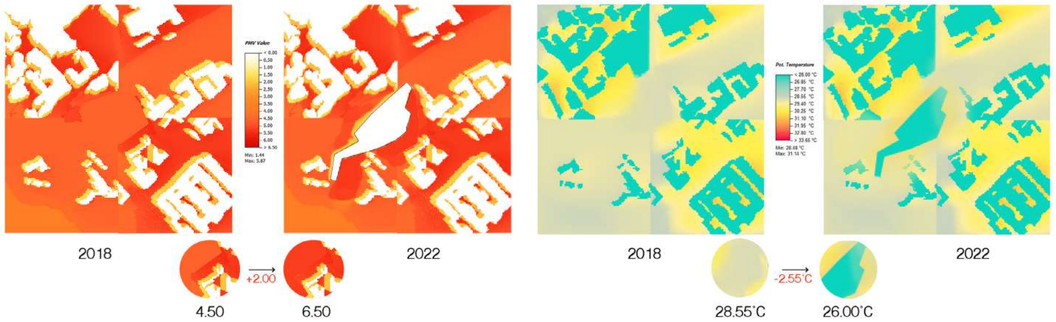
VIEW OF THE AUDITORIUM FROM THE RAMP



summer solstice

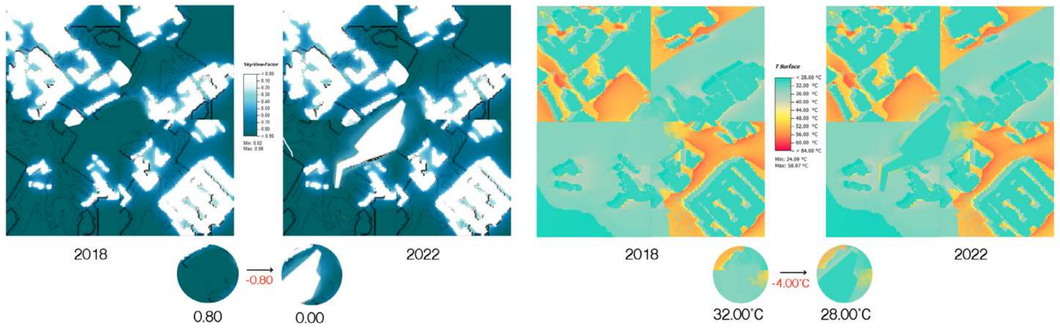


winter solstice



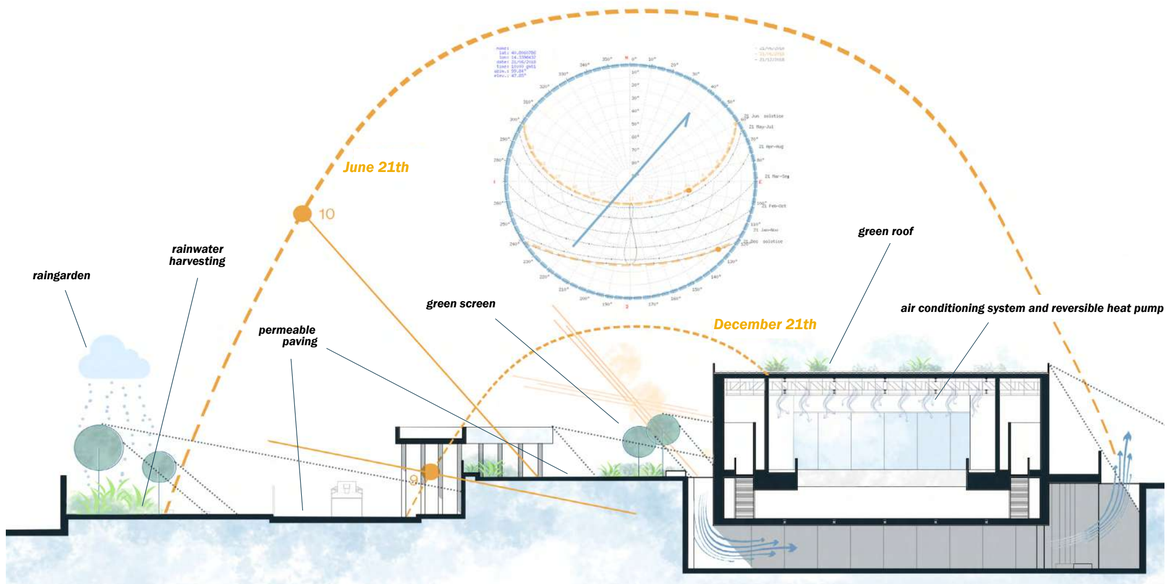
PMV | Termal comfort index

POT | Air temperature

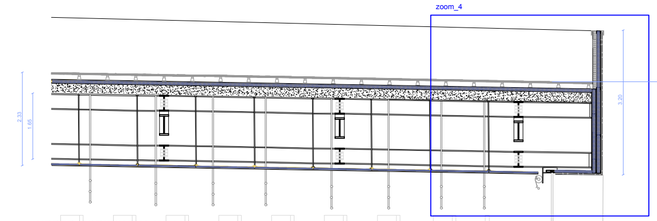


Sky View Factor - Sky visibility from the ground

TSURFACE - Superficial temperature



ENVIRONMENTAL SECTION

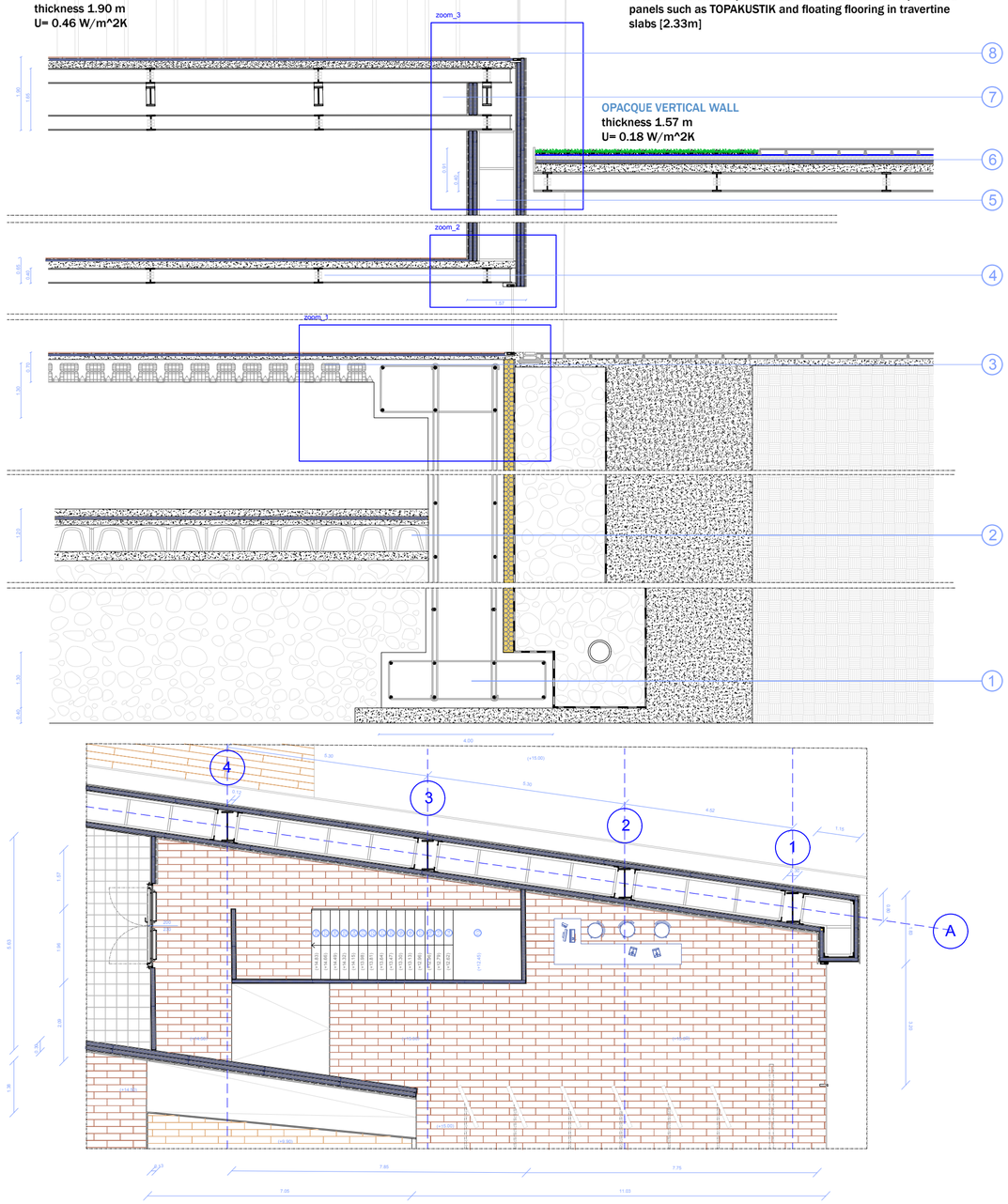


UPPER HORIZONTAL WALL
thickness 2.33 m
U= 0.33 W/m^2K

HORIZONTAL PARTITION TOWARDS UN-HEATED AMBIENTS
thickness 1.90 m
U= 0.46 W/m^2K

OPACQUE VERTICAL WALL
thickness 1.57 m
U= 0.18 W/m^2K

1. Reinforced concrete plinths reinforced with steel bars φ8 and steel set screws φ12 [1.30m]
2. Airspace on the ground with disposable formwork such as Iglu' Datiform [1.20m]
3. Reinforced concrete floor with lightening bricks [0.28 e 0.20 m] and steel electto-welded joists [0.70m]
4. Steel floor with corrugated sheet and concrete cast and wood panels flooring such as TOPAKUSTIK [0.65]
5. Vertical drywall with insulation such as Celenit N-C and metallic lightening boxes [1.57 m]
6. Steel floor with vapor barrier, insulation such as Celenit N-C, waterproof case, thin draining gravel layer, filtering geotextile layer and vegetable soil [0.91 m]
7. Floor on composed truss beam [IPE 400/IPE 600/IPE 400] with wood flooring in slabs such as TOPAKUSTIK [1.90m]
8. Stained glass window with thermal break steel fixtures and double gazing 4/16/4/16/4 such as Saint Gobain PLANITHERM 4S+ [0.20 m]
9. Roof floor on composed truss beam with countertop in wood panels such as TOPAKUSTIK and floating flooring in travertine slabs [2.33m]



DETAILED PLAN AND SECTION

PORTICI ADVANCED DESIGN STUDIO

MAFALDA PASTORE - URBAN JUNGLE

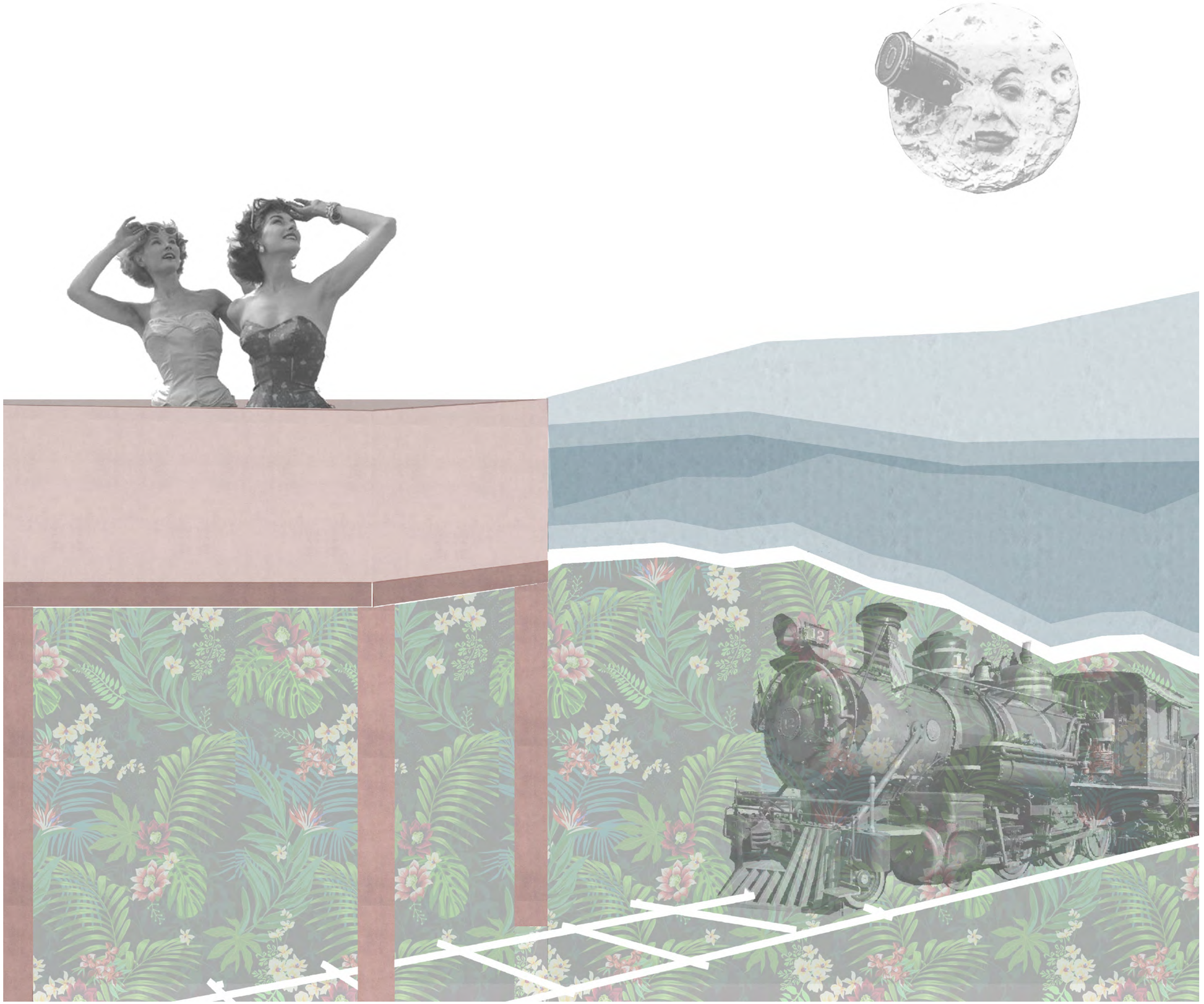
A STRATEGY AGAINST URBAN SPRAWL
RELATIONSHIP BETWEEN CITY AND SEA

Urban Jungle is born from an utopic idea: ''city'' and ''greenery'' are not two conflictual realities anymore, but two mixed elements, giving us new born urban scenaries.

The nature of men is giving a tag to everything around them, seeing places for what they are: the railway is none other than an infrastructure , the park is only a green space, the street is where the cars pass through…but what's happened when these tags fall, and the railway is not only an infrastructure, but a green-infrastructure capable to introduce new systems of connection?

Portici is the second italian city with a large amount of population so is simply to deduce that also its atmosphere is very polluted caused by its imbalance between buildings and green areas. So the first aim has been finding the "buffer zone", sometimes forgotten, where the level of urban stress are lessen and they are avaible to improve the quality of the atmosphere.

This is not enough if the pollution is worsen by the idea of standard mobility, based on the use of the own car, because is the most convenient and fast way to move. For this reason the second aim is to suggest a different mobility based on the sharing, the use of a place where exchang, not only of means of transportation but also, and above all, of relationship.



Program

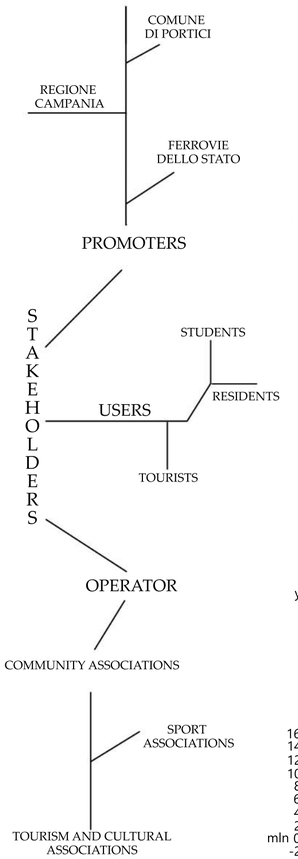
intermodal hub, urban park, outdoor sports center

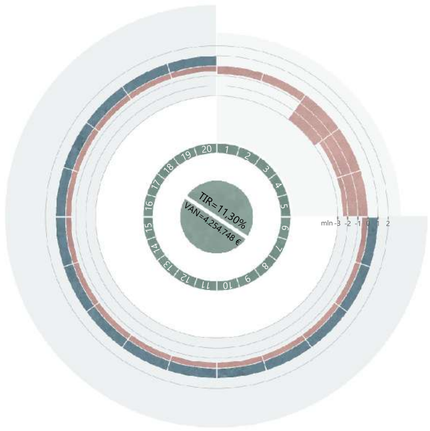
Covered area	**2000 m²**
Uncovered area	**17693 m²**
Levels above ground	**3**
Built volume	**25683m³**
Estimated costs	**2.216.400 €**

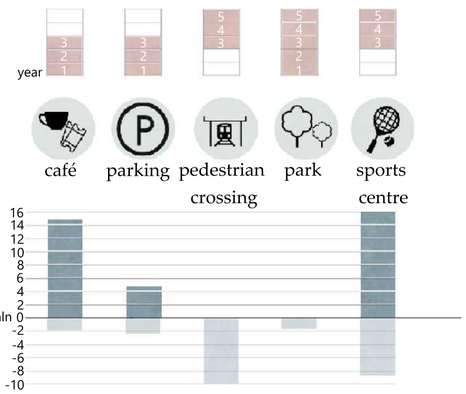
The introduction of new scenaries is based on the separation of the urban buildings from the new onces, giving back new point of view, raising them on higher levels. It is offered more dinamic ways to pass through the city, resolving the problem of the mobility barrier.



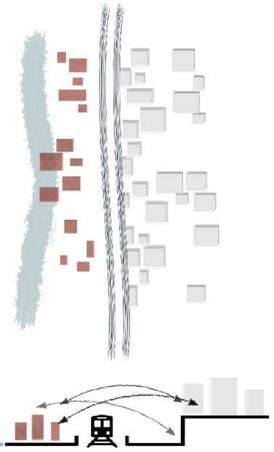
The project concerns the upgrading of two strategic areas for their positions, set between Corso Umberto I and Via Nuovo Macello, near the main attractions of Portici: The Royal Palace and the port of Granatello. Both are characterised by different heights that, with the railway, make an interruption between the city and the sea.
At present they are in decline: the first area concerns the ex railway yard of Portici, currently used as a parking lot. In this area there is a suggestive ruin, in decline too. The other area is currently used by the citizens because there is a football field.

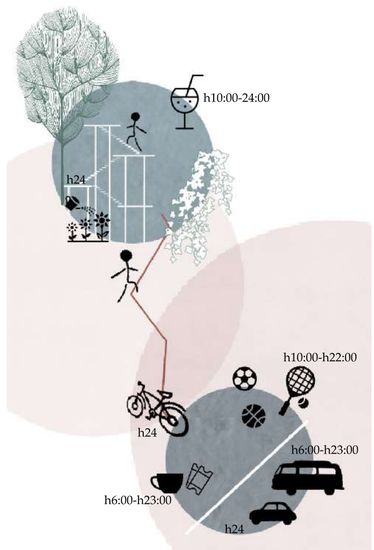




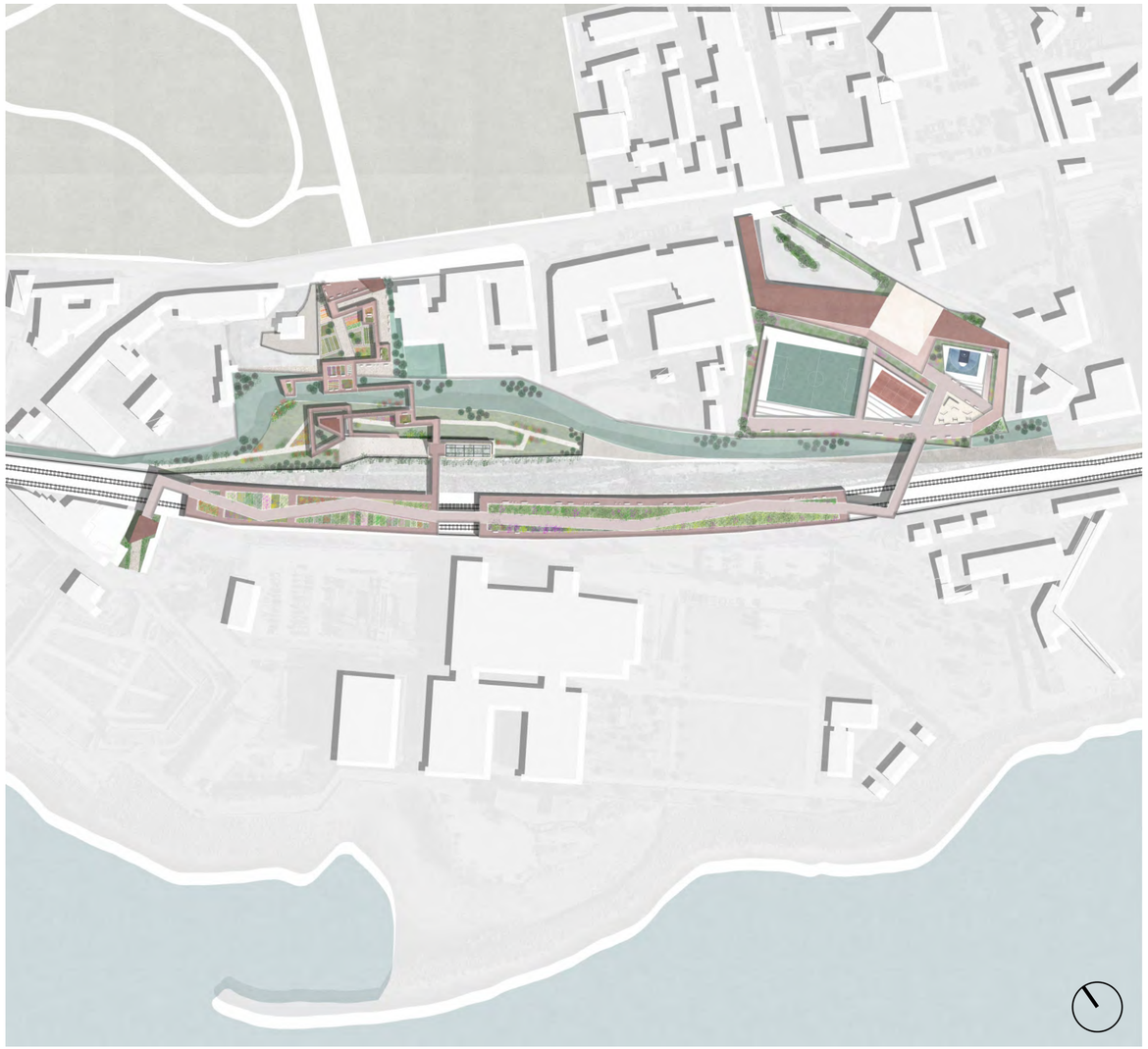


SEA TO CITY
recover connections between city and sea

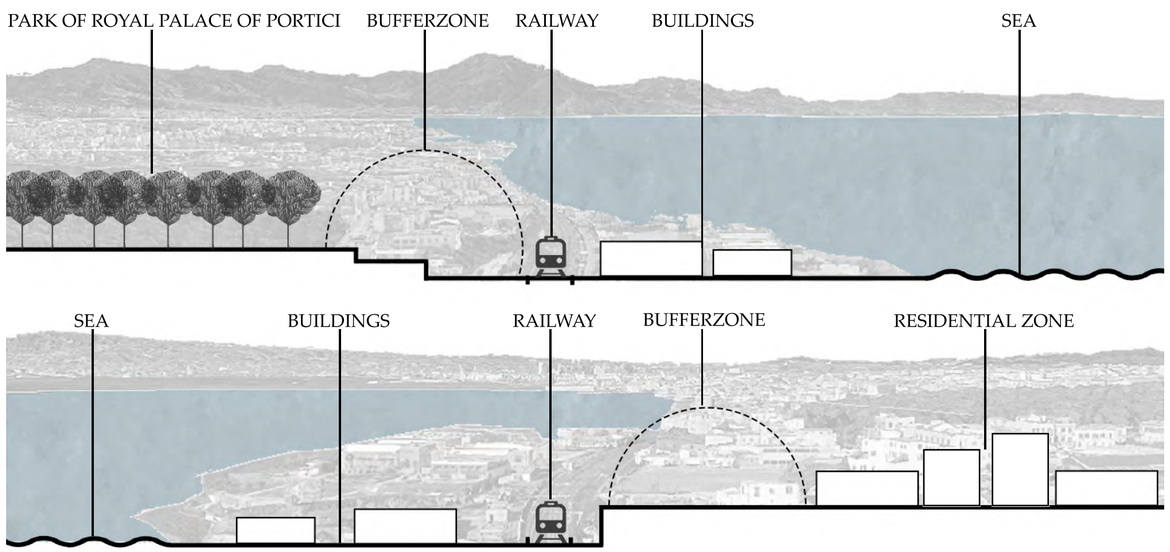


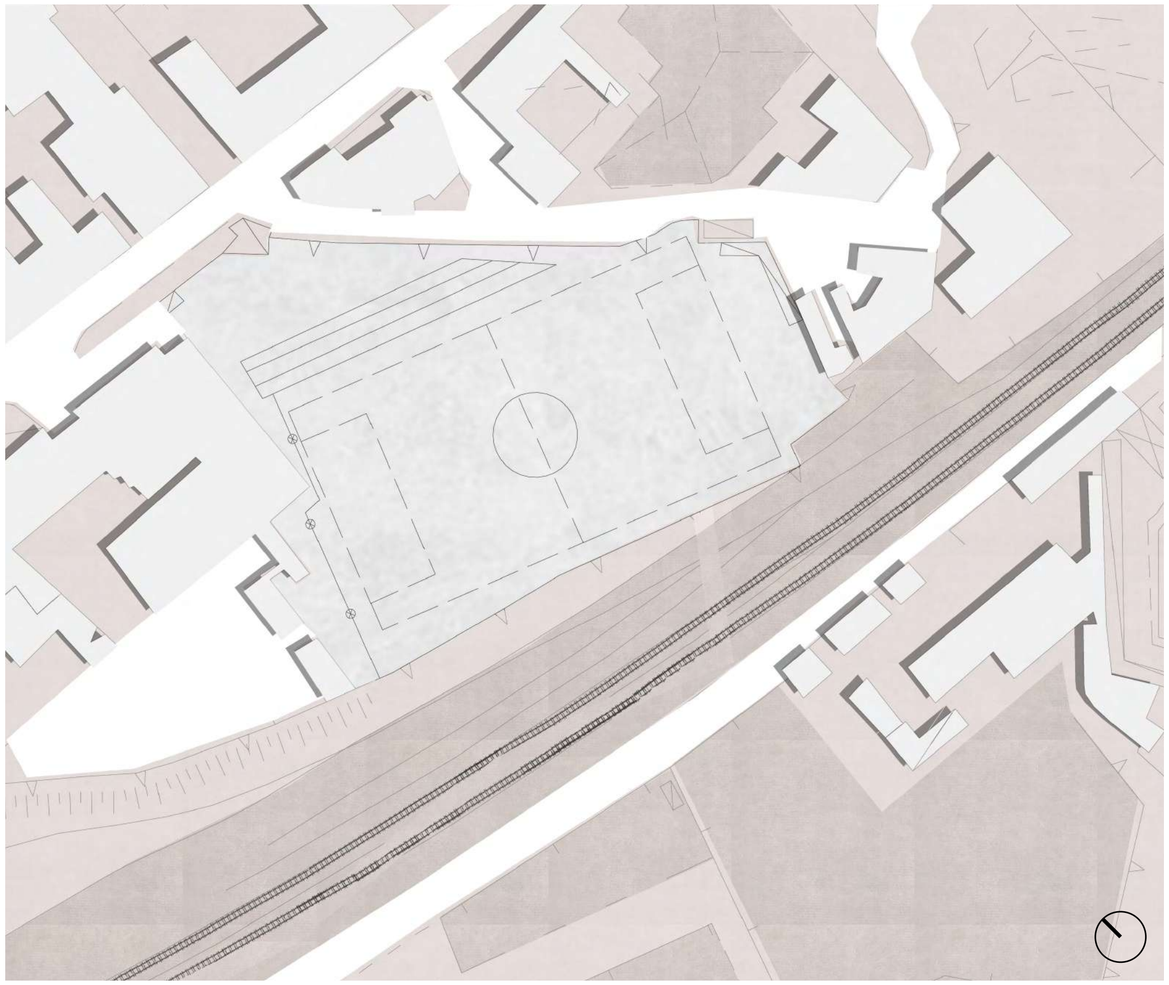


ESTIMATIVE EVALUATIONS
Identification of potential stakeholders. Analysis of revenues and investment costs on a twenty-year forecast. Single function plan.

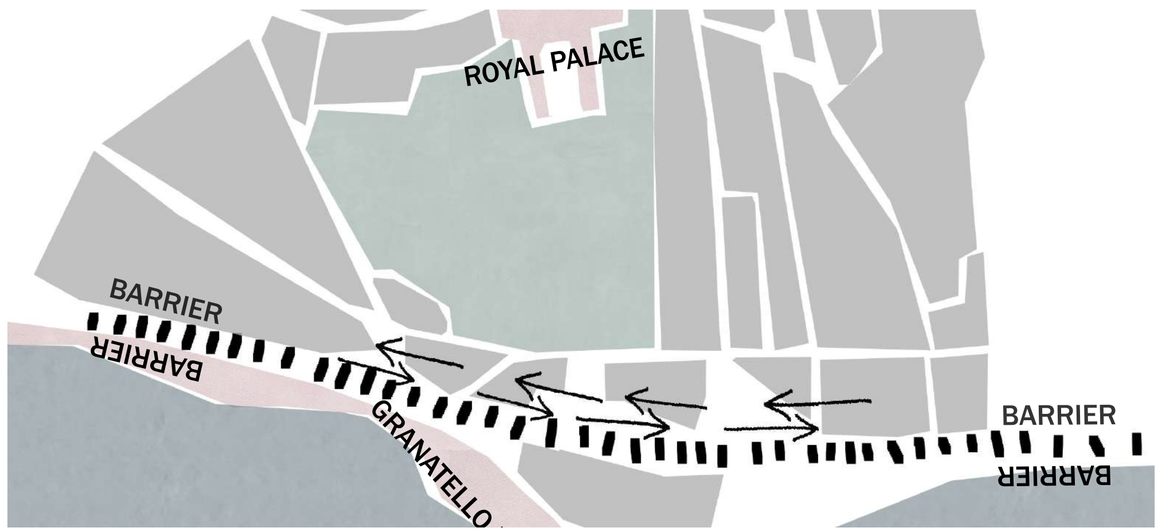


PORTICI PARK THE PROJECT IN THE CONTEXT



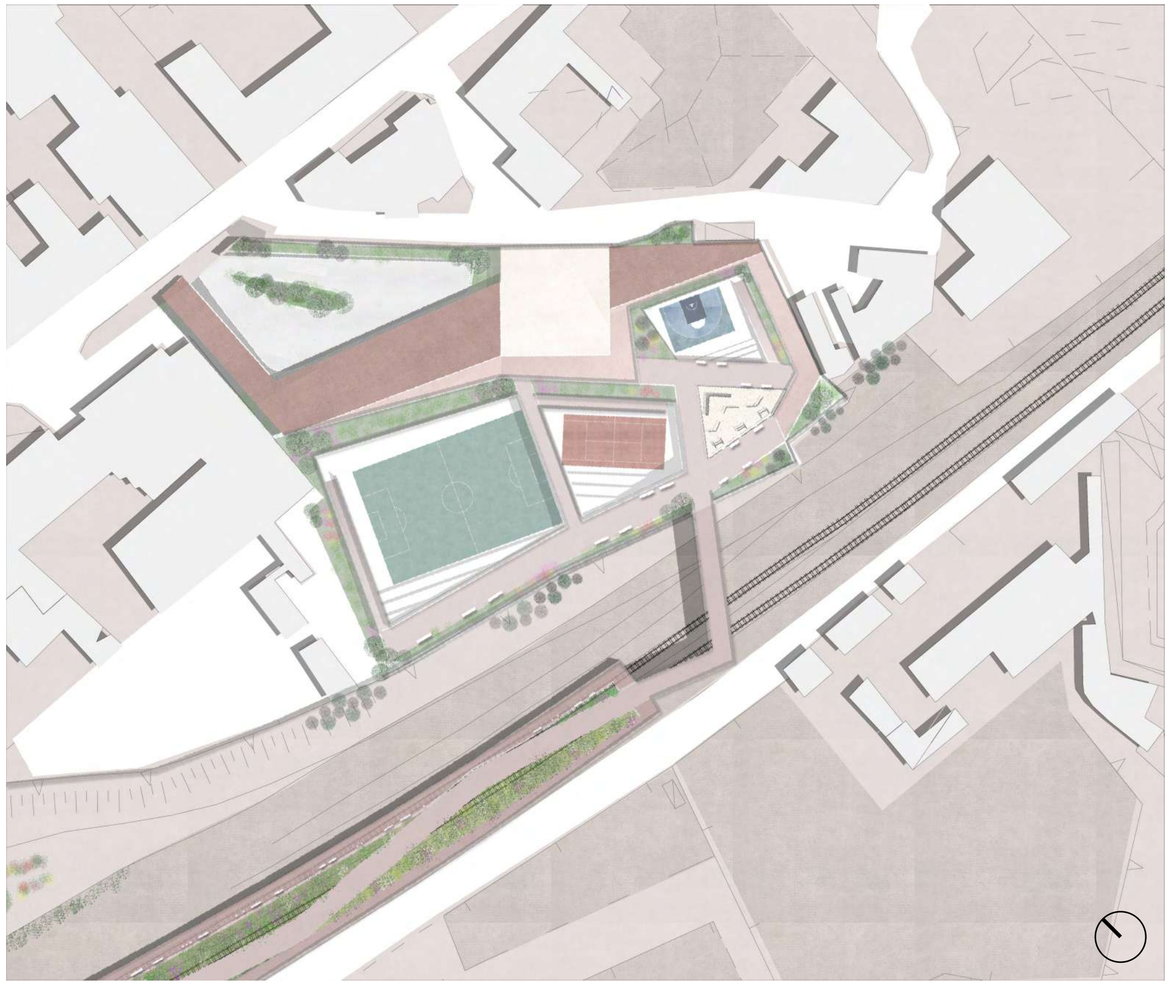


CURRENT STATE

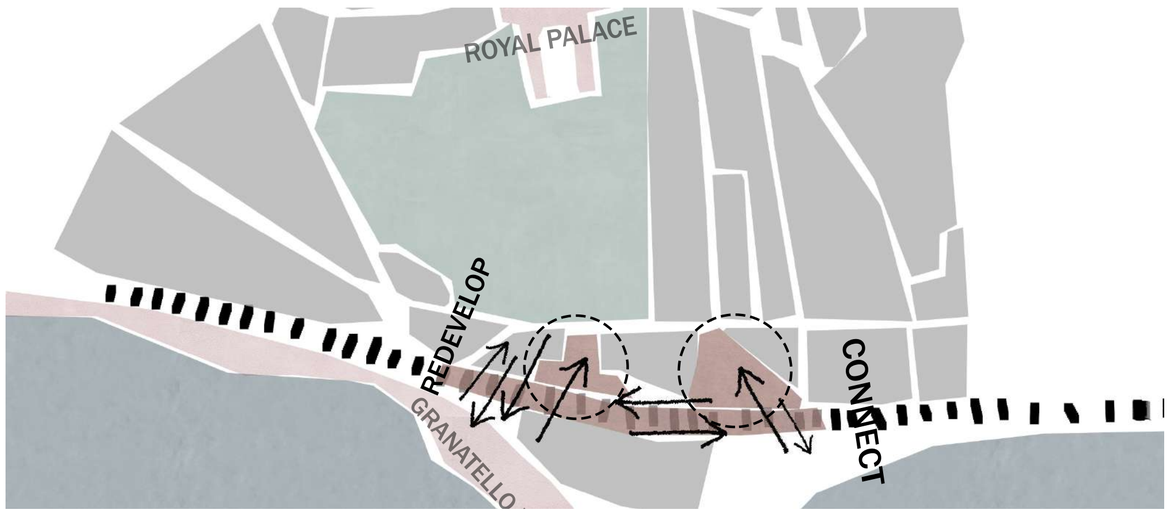


The broken city

SUMMARY OF URBAN ANALYSIS



DESIGN PROPOSAL



The stitched city

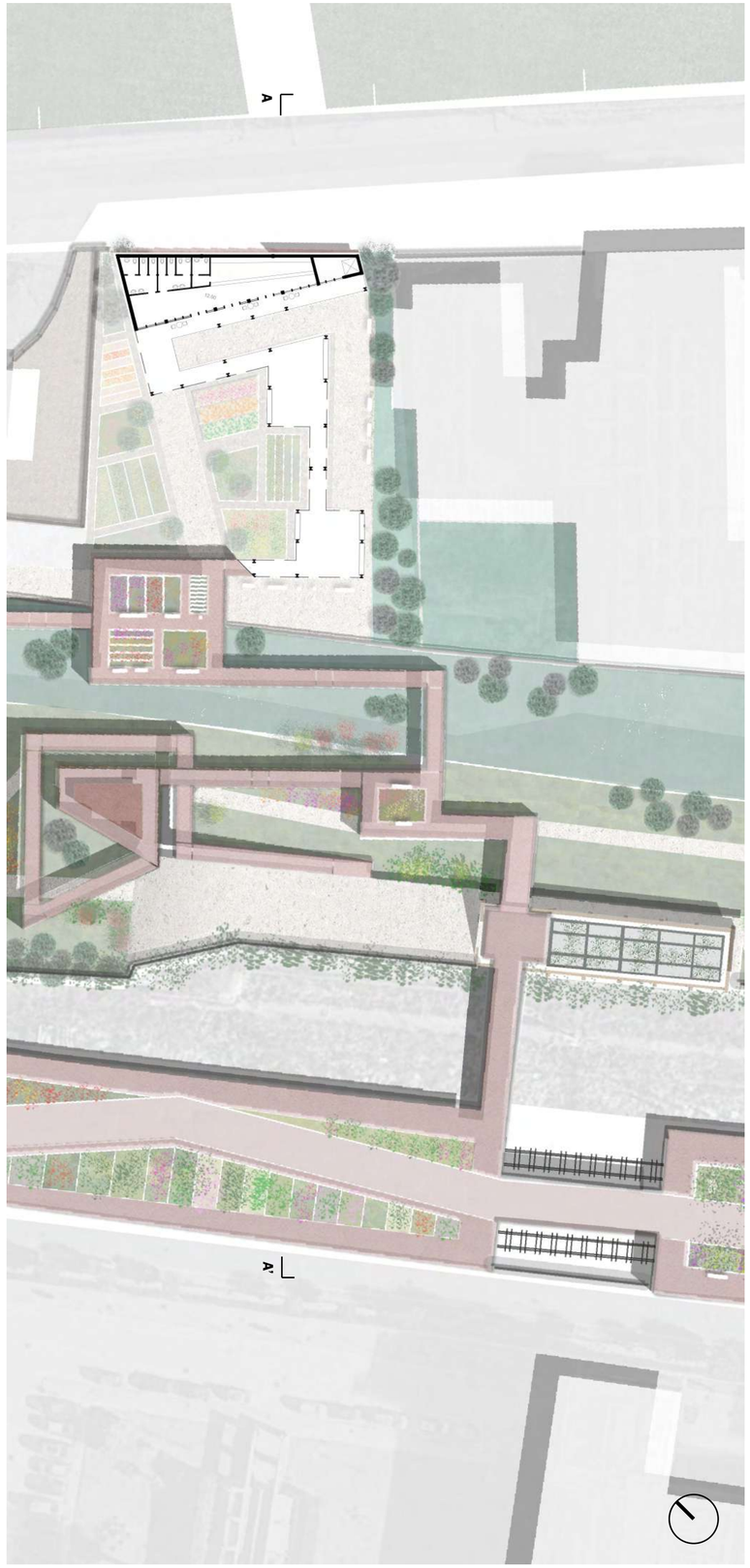
SUMMARY OF ACTIONS ON URBAN SCALE

Reconnecting city-sea and searching for new breathing areas are the main themes of the Urban Jungle project. This strategy takes shape through the creation of a public park and an intermodal hub.

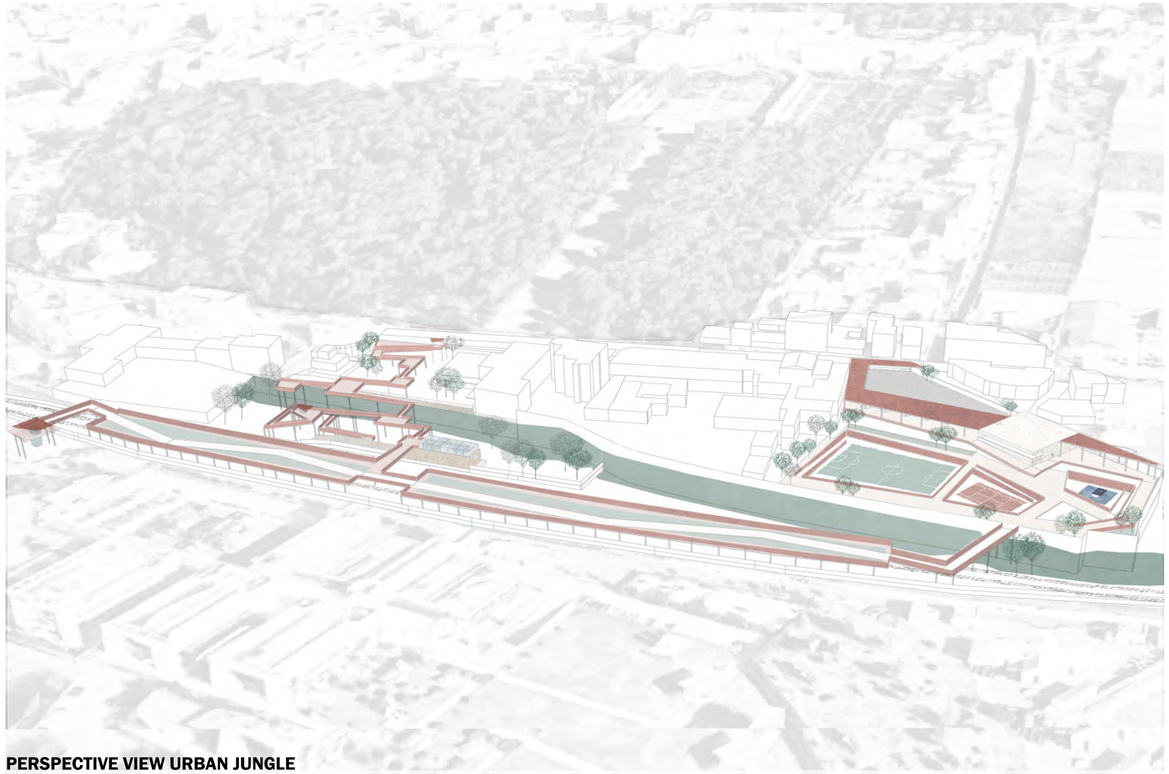
The park is characterized by a path made of raised steel ramps, that support the different heights at the foot ofn the Royal Palace. It is a real system of pedestrian infrastructure in the green, able to hold the different multidirectional fluxes. The rooftops contain spaces dedicated to botanical urban gardens, to promote the social involvement in the project.
Besides this dynamic system of reconnection, there are two more buildings: a stone ruin and an ex-novo building respectively at the beginning and at the end of the path. The ruin is actually without coverage, so it has an indipendent structure inside, made of steel and glass. This structure hosts an expo-lab space which supports the Agraria department university. The ex-novo building is under the path and it is made of a steel structure with the function of restaurant area of the park.

The second area has been trasformed into an intermodal hub, which is a space to park and change means of transport. In the hub is possible to find buses and bike sharing service, but there are also lots of sport activities and leisure spaces to increase the pedestrian movements and decrease the car flux. The squared building developed on two main level: on the ground floor there are a ticket booth and an indoor and outdoor waiting space, covered by a corten roof. From the ticket booth, through a vertical connection, it is possible to arrive to the cafè, which is at a lower level. It is a double heights space that access both to the underground parking and the front park. The park can be reached also from a path outer the building, through a corten ramp that wraps it.

The two systems are connected with a longitudinal boulevard made by the rails covering. This gangplank ends with a vertical connection at the back of the port of Granatello.



JUNGLE PARK GROUND FLOOR PLAN



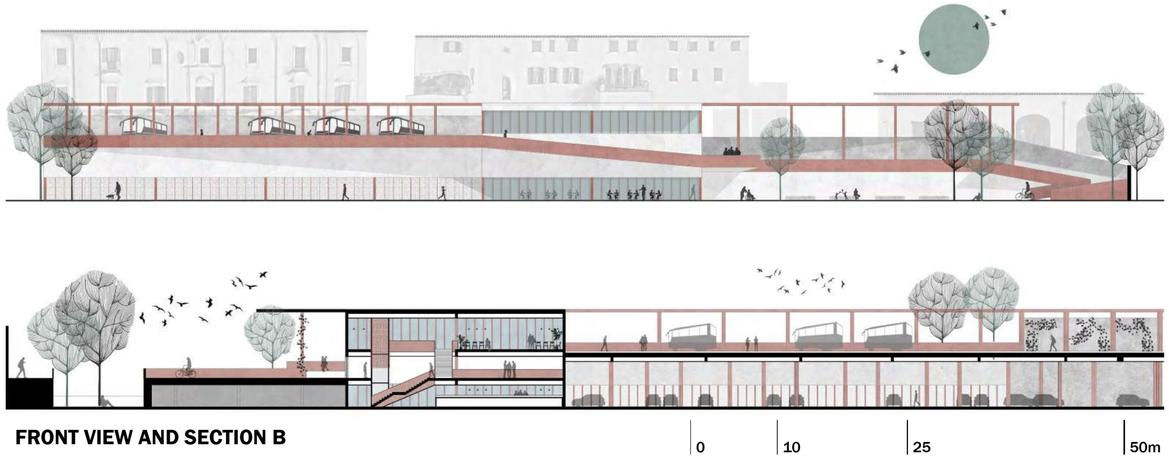
PERSPECTIVE VIEW URBAN JUNGLE



SECTION A



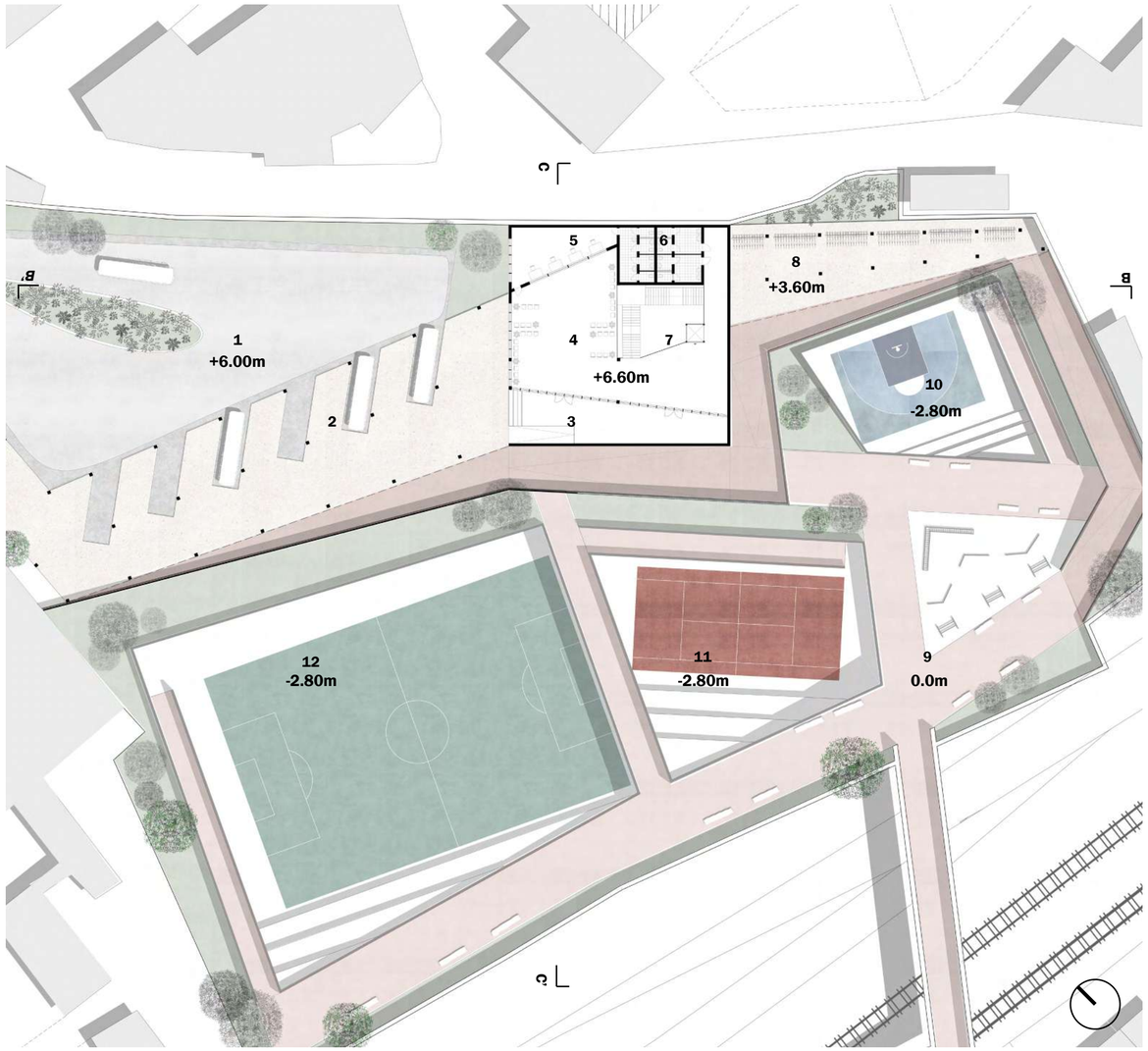
RUIN VIEW IN THE JUNGLE PARK



FRONT VIEW AND SECTION B

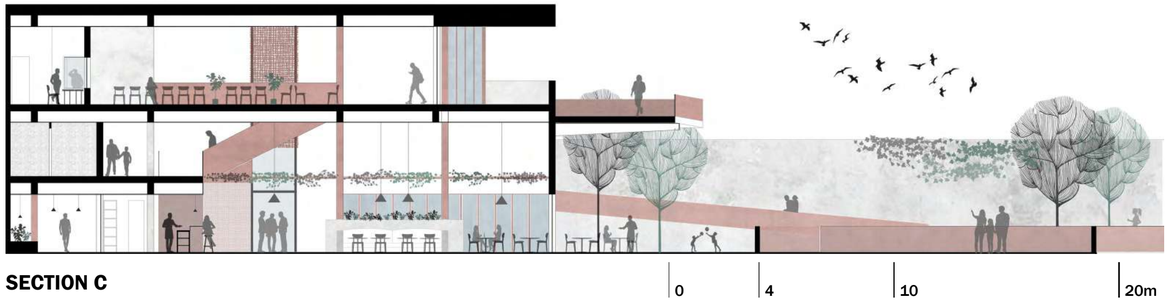
0 10 25 50m

1. Bus entrance
2. Bus station
3. Hub entrance
4. Ticket point
5. Ticket office
6. Wc
7. Connections
8. Bike sharing
9. Park
10. Basket court
11. Tennis court
12. Football court



SECOND FLOOR PLAN + 6,60m

0 10 25 50m

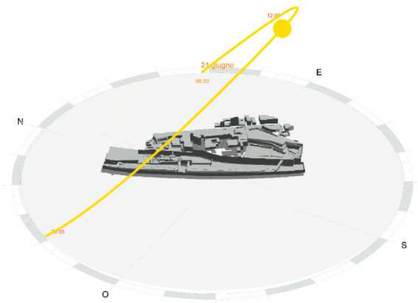


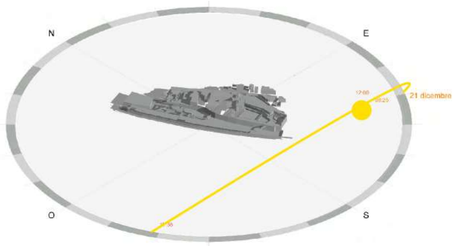
SECTION C

0 4 10 20m



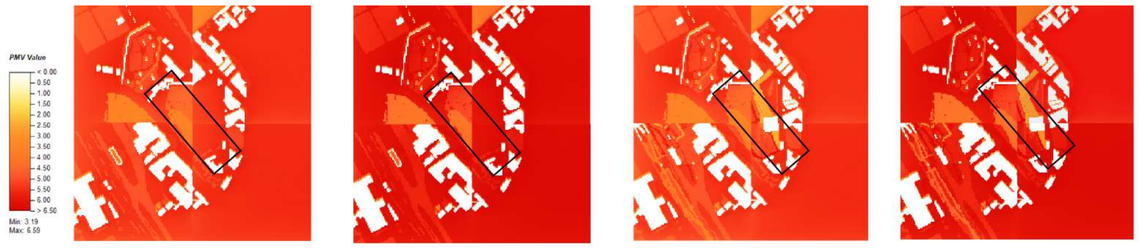
OUTSIDE BUILDING VIEW





summer solstice | *21 giugno*

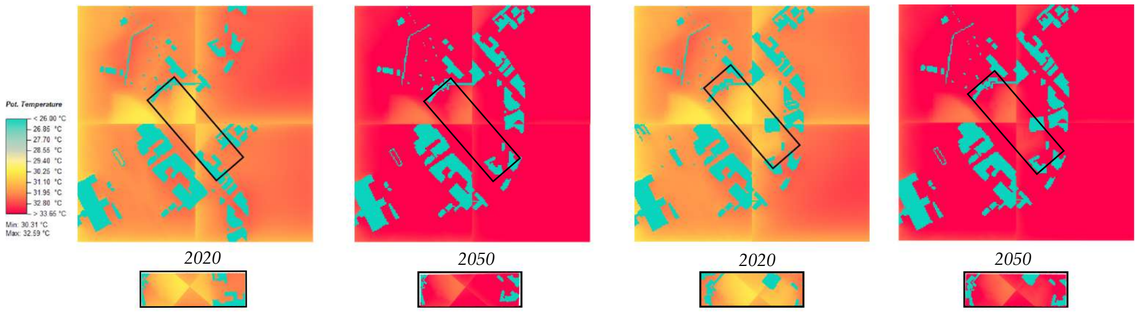
winter solstice | *21 dicembre*



2020 *2050* *2020* *2050*

5.0<PMV < 5.50 *5.50<PMV< 6.00* *4.50<PMV< 5.00* *5.00<PMV< 5.50*

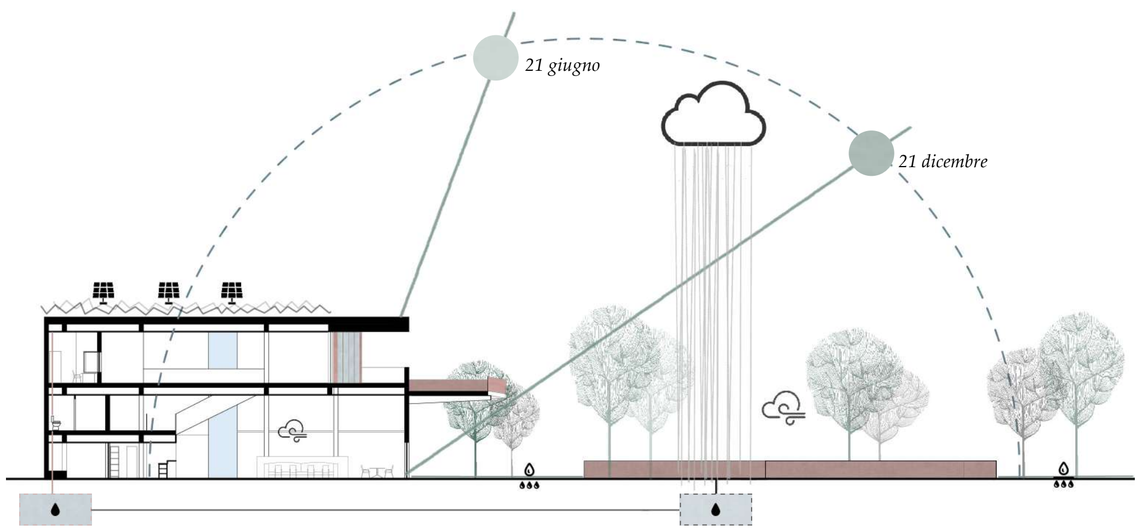
PMV | Thermal sensation index



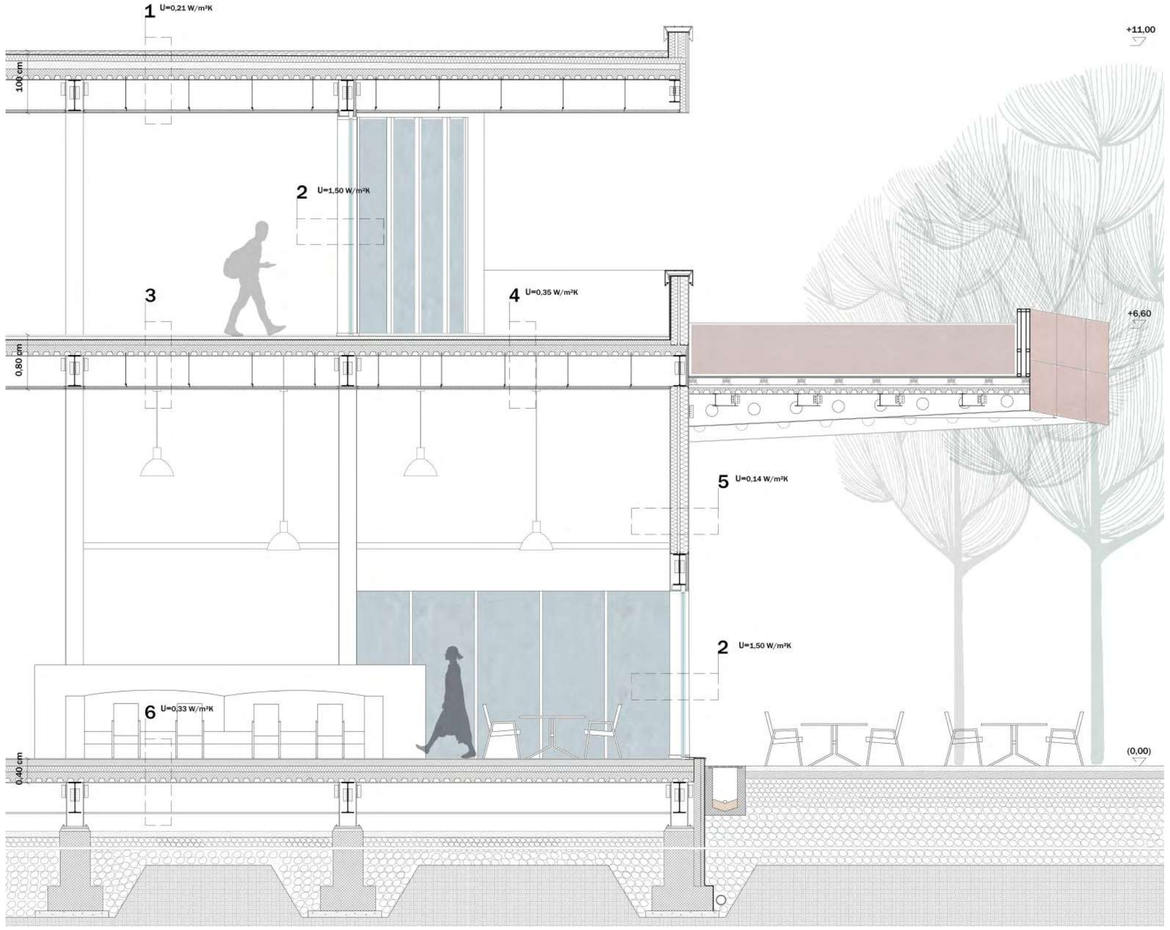
2020 *2050* *2020* *2050*

31.10°C<POT<31.95°C *POT>33.65°C* *30.25°C<POT< 31.10°C* *31.95°C<POT< 32.80°C*

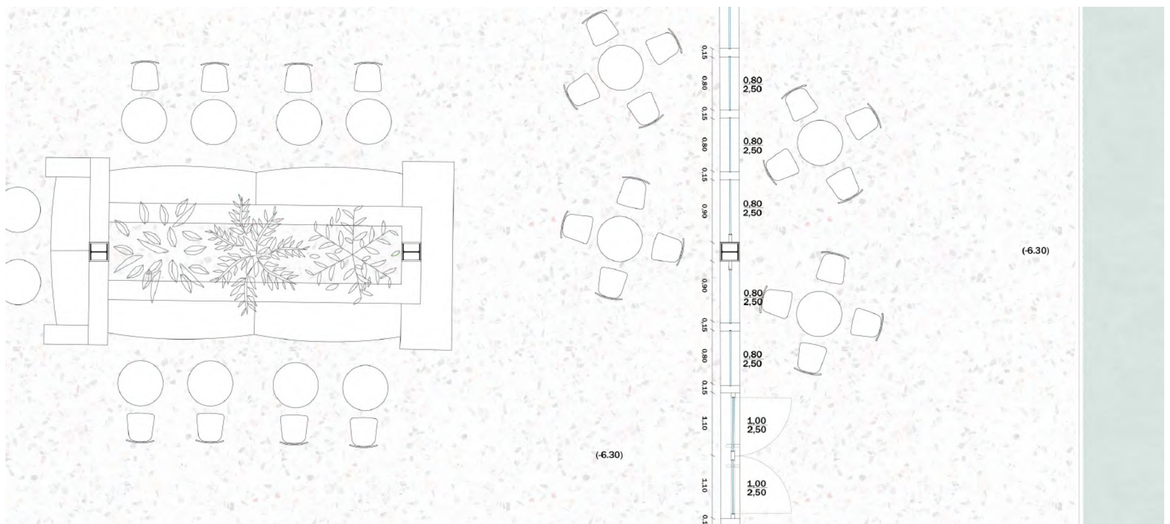
POT| Air temperature



ENVIRONMENTAL SECTION



1. Roof covering: layer of gravel pebbles, bituminous sheath, insulation, slope screed, corrugated sheet with casting
2. Thermal break window, double low-emissivity glass 4-12-4
3. Inner floor in-in: floor in stoneware, mortar, insulation, corrugated sheet with casting
4. Inner floor in-out: floor in stoneware, mortar, insulation, corrugated sheet with casting
5. wall: plasterboard panel, insulation, air gap, insulation, plasterboard panel
6. floor on air chamber: floor in stoneware, insulation, corrugated sheet with jet



CAFE PLAN AND SECTION SCALA 1:50

PORTICI ADVANCED DESIGN STUDIO

ANTONIA SODANO - PARK'S CONTINUUM

A NEW TIME OF THE PROJECT

CONNECTION BETWEEN PORTICI AND ERCOLANO

Two architecture's archetypes that are reconciled and blended in this project on an area between Portici and Ercolano: the connection and the center.

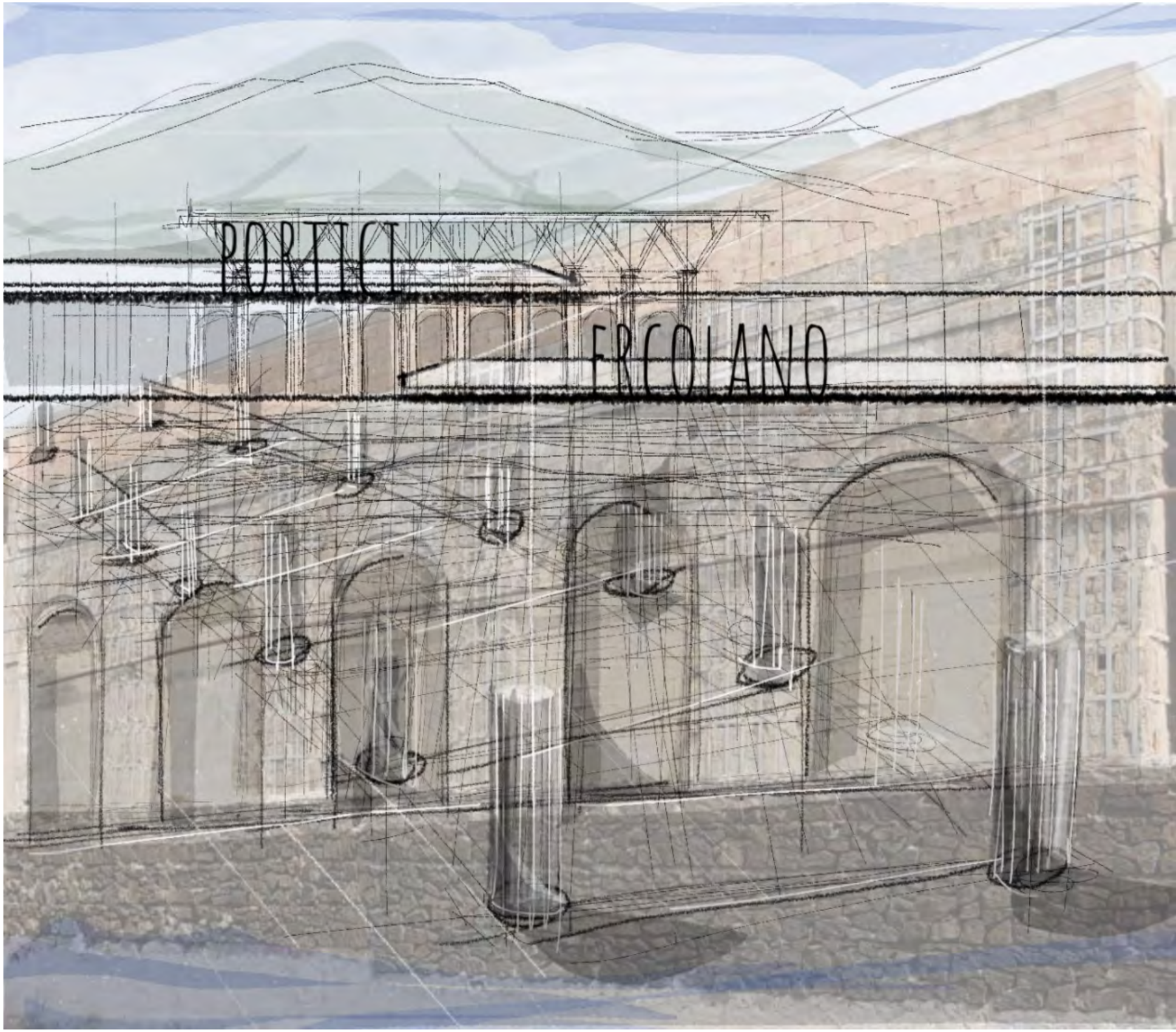
From the first meditation on the territory studied, the need to recover a system of territorial relations and connections lost over time appears evident. The wish is to restore the sea-built area-Vesuvio link, as well as the intention to establish a connection between two neighboring territories, Portici and Ercolano, in a border area that becomes, through the project, a center and connection. The urban element of "Reggia di Portici" is configured as a gap which appears as an element of separation between the two municipalities. There is an "on this side" and a "beyond" with respect to the urban gap of "Reggia di Portici". The area that is "beyond" the municipality of Ercolano is an area of stasis about building densification compared to Portici. This is a peri-urban area, a borderline (limes), a nobody's land. Althought the area is just a few steps from the center of Portici, it's very deterioreted but the relationship with the nature of the place is still present.

The intention is to transform this border into a center. The design operation moves from a territorial scale to an architectural scale, always preserving the idea of a strong connection and relationship with the context, with the pre-existing things and what will be the permanencies in the project.

Program

Urban-agricultural park, railway station, cultural activities, commercial activities, hotel, exhibition gallery, market space, parking, public spaces

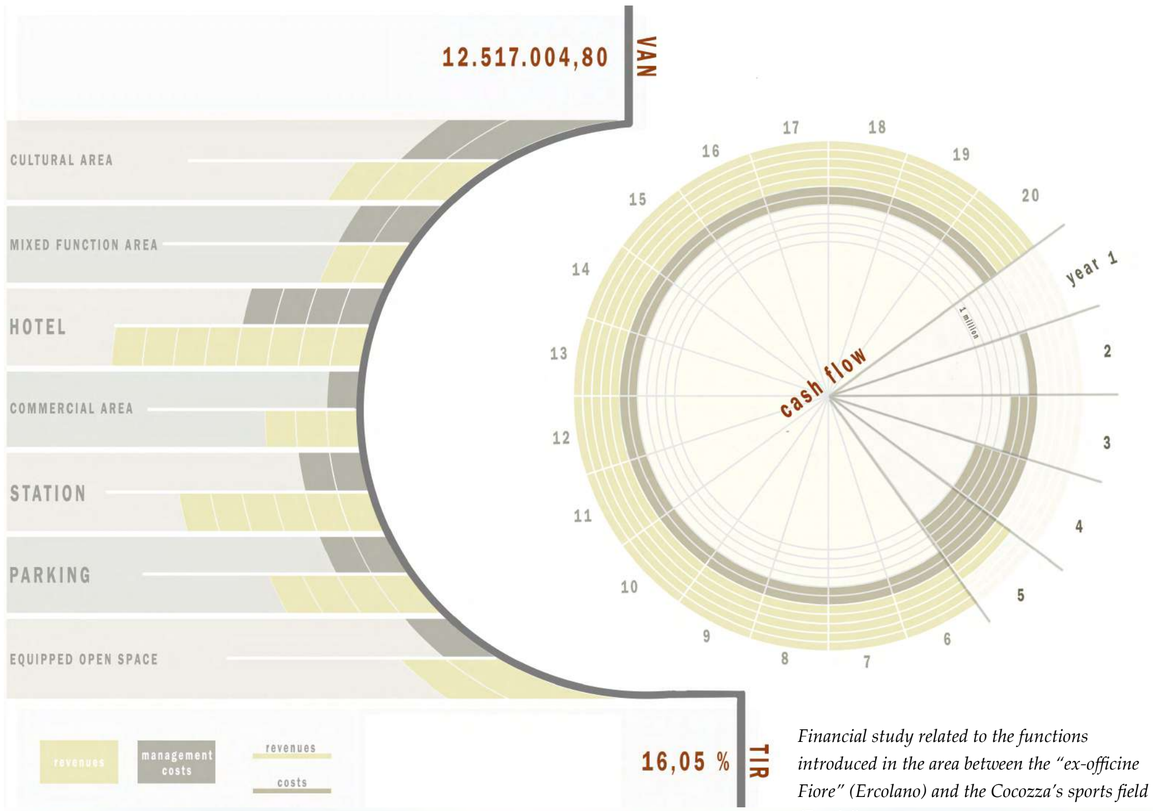
Covered area	**13187m²**
Uncovered area	**23150m²**
Levels above ground	**3**
Built volume	**79122m³**
Estimated cost	**€17300000**



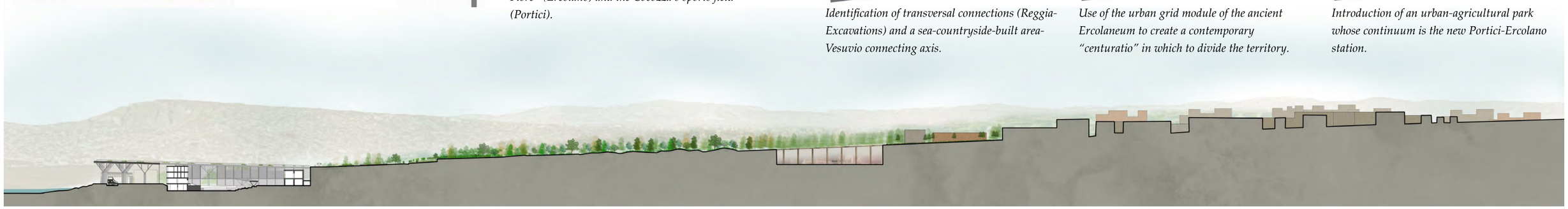
In order to establish a reconnection between Portici and Ercolano, the project proposes the construction of an urban-agricultural park where the front on the sea is a new Portici-Ercolano station, conceived as a continuum of the park.



The intention is to create an urban-agricultural park that connects the "Reggia di Portici" with the archeological excavations of Ercolano. The park provides, in addition to a set of urban functions, the exploitation of the soils according to their natural agricultural vocation. This operation allows for a longitudinal connection between Portici and Ercolano, therefore between the Reggia and the Excavations, through the introduction of two axes designed as "parkways" that are inserted into an agricultural-urban patchwork. At the same time, a transversal sea-coast-building-Vesuvius connection is guaranteed through the introduction of a complex of functions, appropriately studied through a financial analysis of the costs and revenues, that are introduced in the new Portici-Ercolano station conceived in the area of the "ex-officine Fiore", that's in the municipality of Ercolano, and the current Cocozza sports field, that's in the municipality of Portici, with the desire for a cyclical return of connections between the parties. The intention of connection and relationship with the territory is evident in the section below.



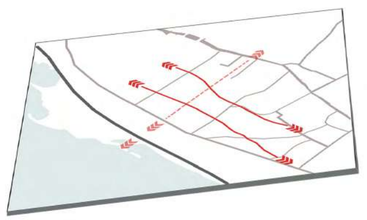
Financial study related to the functions introduced in the area between the "ex-officine Fiore" (Ercolano) and the Cocozza's sports field (Portici).



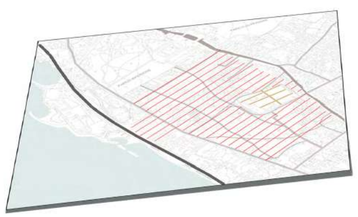


PORTICI PARK THE PROJECT INTO CONTEXT

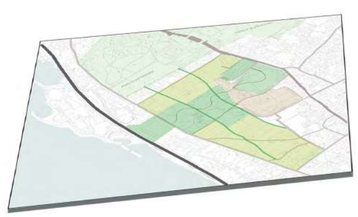
scale 1:5000



Identification of transversal connections (Reggia-Excavations) and a sea-countryside-built area-Vesuvio connecting axis.

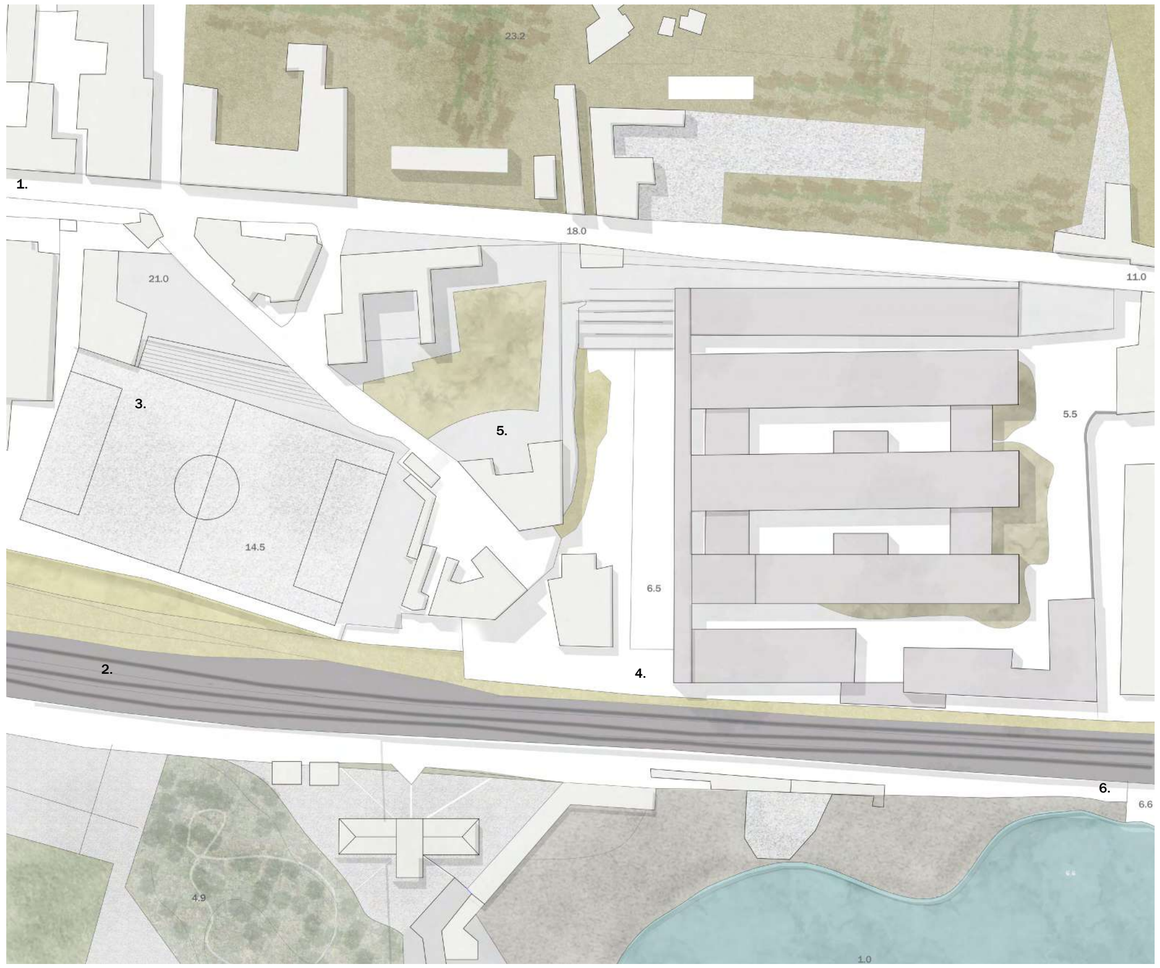


Use of the urban grid module of the ancient Ercolaneum to create a contemporary "centuratio" in which to divide the territory.



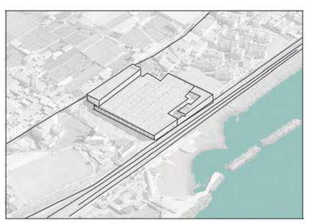
Introduction of an urban-agricultural park whose continuum is the new Portici-Ercolano station.

1. Corso Umberto
2. State railway Na-Sa
3. Cocozza's sport field
4. Ex-officine Fiore
5. Residential buildings
6. Gateway to the sea area

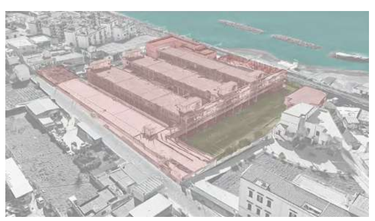


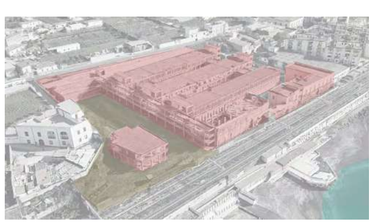
scale 1:1300

CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS







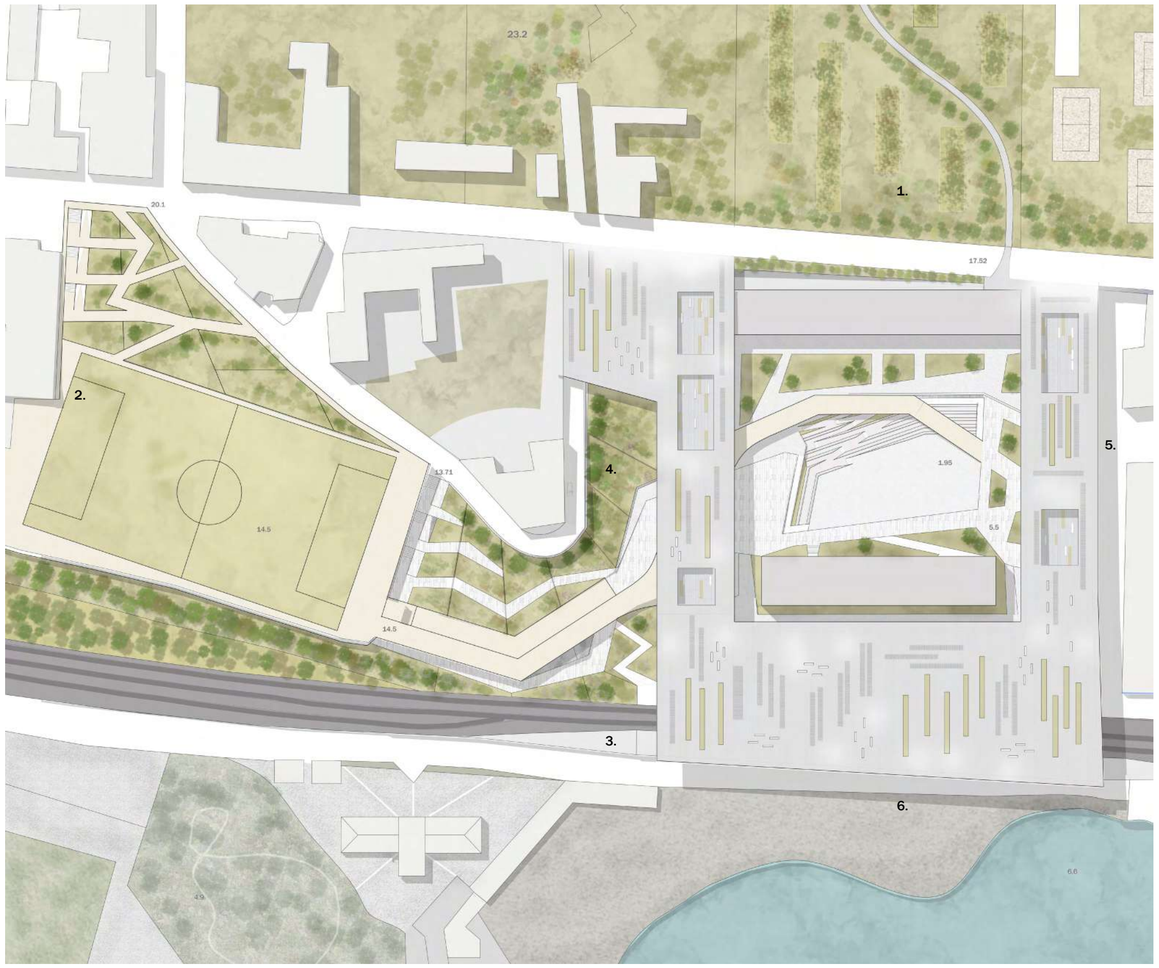


EX-OFFICINE FIORE

The building of the "ex-officine Fiore", a former industrial building, has had a reconversion and transformation for the construction of a new set of buildings to become a college for the Federico II's agricultural faculty in Portici. The whole construction of the college was never completed. There are two nineteenth-century buildings that overlook the railroad tracks, subject to transformations over time. The will is to think of a "new time" for the project's area, starting with the recovery of some elements and with the introduction of others.

SUMMARY OF URBAN ANALYZES

1. Urban-agricultural park
2. Renovated sport field
3. Railway station
4. Connecting green space
5. Buildings of the project
6. New gateway to the sea area



scale 1:1300

DESIGN PROPOSAL

The central section shows the whole system, from the built area of Ercolano (to the right) to the sports field of Portici (to the left). The desire for a relationship between the territorial parts is highlighted through the project intended as a connector.



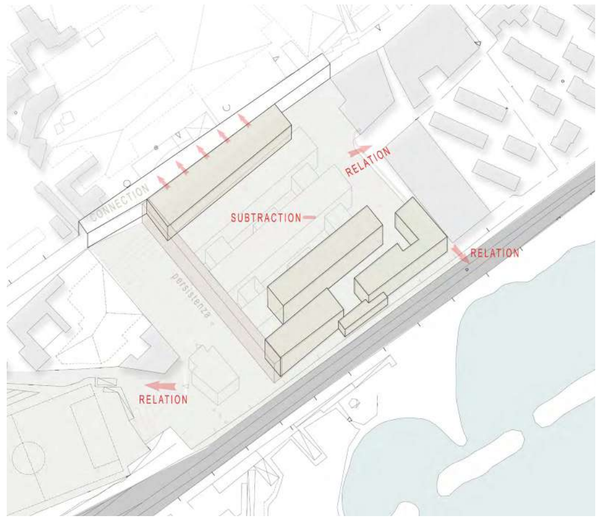
TERRITORIAL SECTION

Connection. Center. Cover-opening. Excavation. Forum.

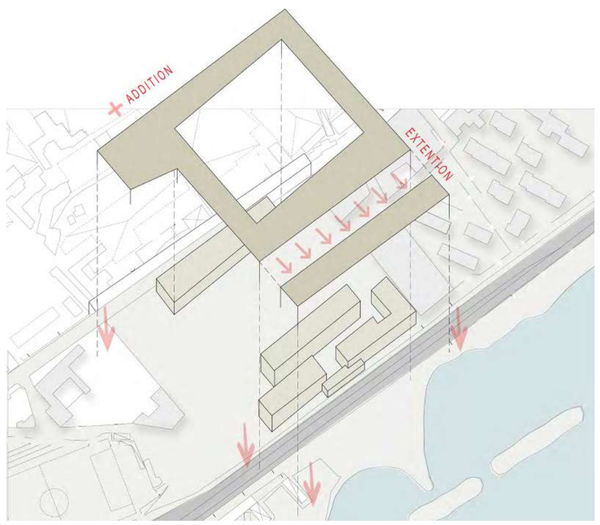
Starting from the relationship on a territorial scale that is established with the introduction of the park, we work by making a reflection on the pre-existing elements in the area and their possible changes. The idea of the excavation is introduced so as to have a square-forum as an element of centralizing empty space. Two of the pre-existing unfinished concrete buildings will be recovered, by carrying out a subtraction operation. A relationship is established with the context and with the square and a roof-square is introduced as a new element, in relational and height continuity with the park. In fact, relationships develop on several levels. We always try to keep a relationship with the outside area .The empty space that is generated by the compositional operations carried out is a centralizing space of the existing full spaces through the presence of a peristyle, which recalls the idea of the forum, which is part of, enters and exits the building. The large cover space from the height of the park extends to integrate the track area, in line with the introduction of the new function of the Portici-Ercolano station. Therefore the center, that is a square-forum which is an excavation in relation to the roof, and the connection, that is the peristyle /portico, are clear themes. Furthermore, the roof, which is proposed as an element of continuity, becomes a building itself. The cover path (connection space) exits the building to become an outside space in continuity with the pre-existing park, through ramps, and with the will of a connection to the sports field's area at different levels. The pre-existing nineteenth-century elements are also recovered, in which further a subtraction operation is carried out, recovering the building envelopes and introducing vertical supports in continuity with the roof. The supporting elements are tree pillars. The idea is that of continuity with the green of the park, also introduced on the large roof. The cover space therefore has a unifying power of the various pre-existing elements and at the same time, through the peristyle-portico, guarantees an open-covered relationship that accentuates the nature of the area's public space. The intention is to have an architectural district and to provide a public space on several levels. In fact, the operation intends to regenerate and redevelop the area with the introduction of a big collective space.



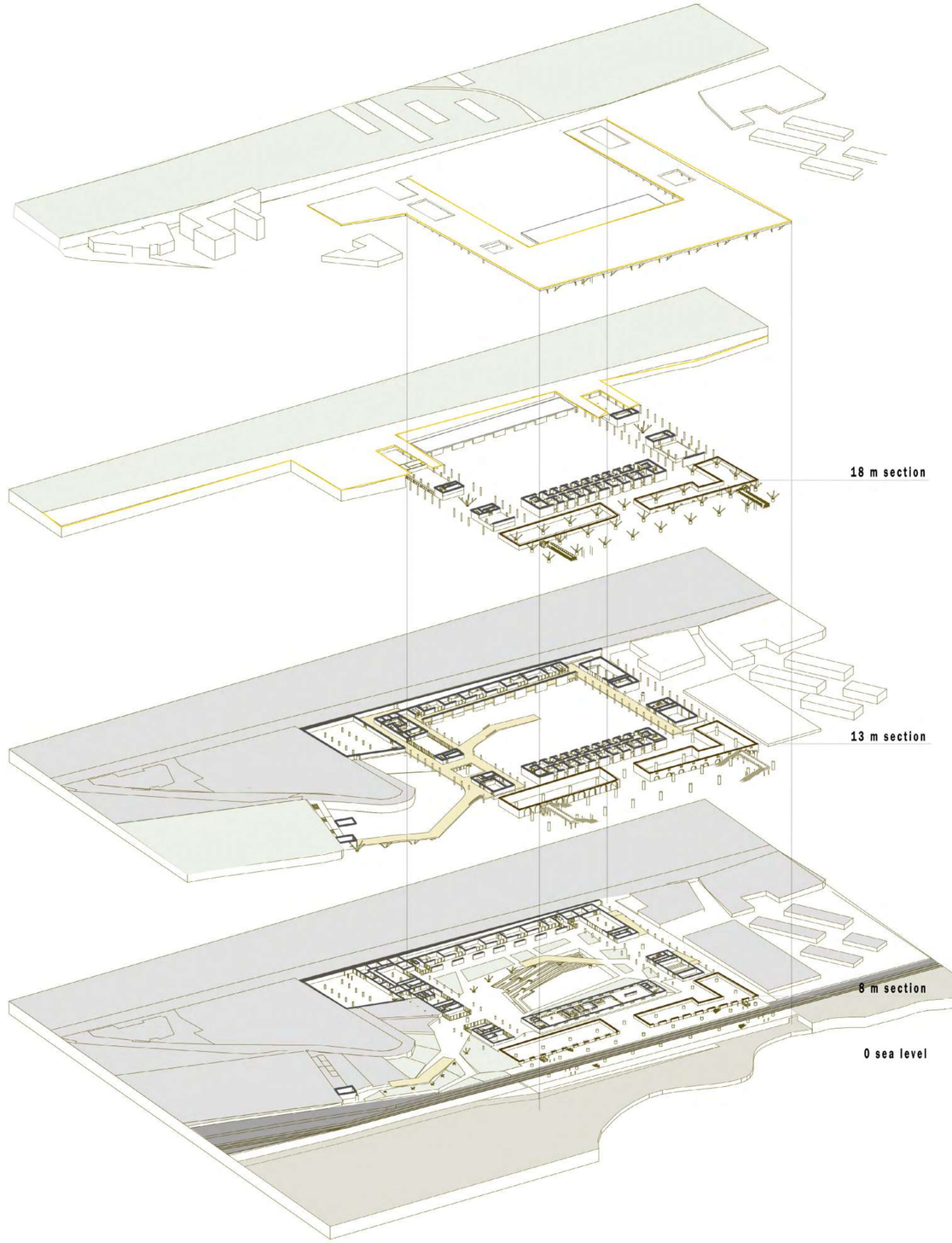
Study of pre-existing elements



Persistences and relations with the context.



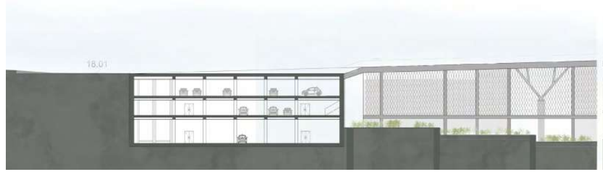
Introduction of the cover space of connection.



EXPLODED ISOMETRIC VIEW OF THE PROJECT AREA



VIEW FROM THE SEA



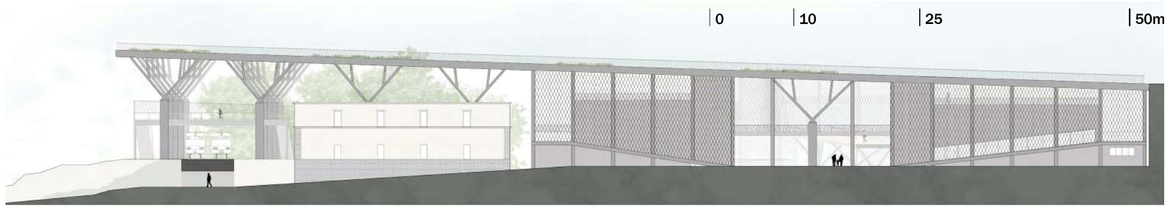
SECTION D-D'



SECTION E-E'



SECTION F-F'



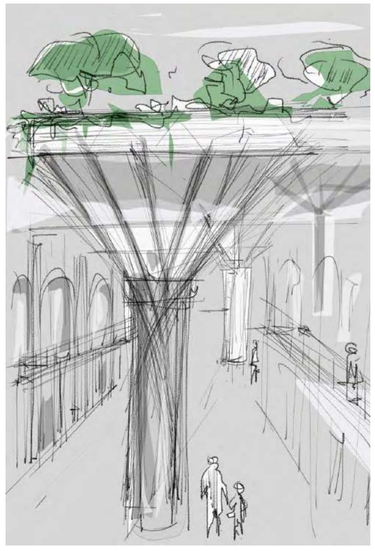
SECTION C-C'

0 10 25 50m



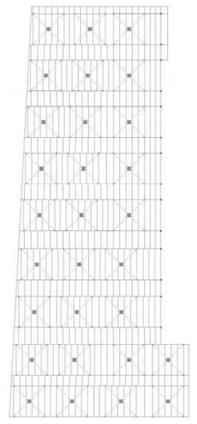
LEVEL 1 PLAN+ 7,79m

0 10 20m



THE TREE PILLAR AS SUPPORT

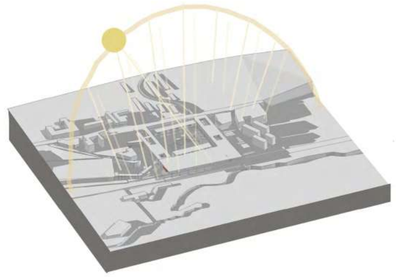
1. railway station
2. conference room
3. library
4. commercial activities
5. hotel
6. exhibition gallery
7. Bike sharing
8. bar/restaurant
9. open-air theater



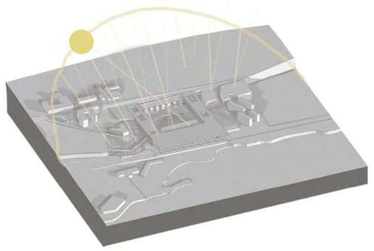
study of the station's carpentry



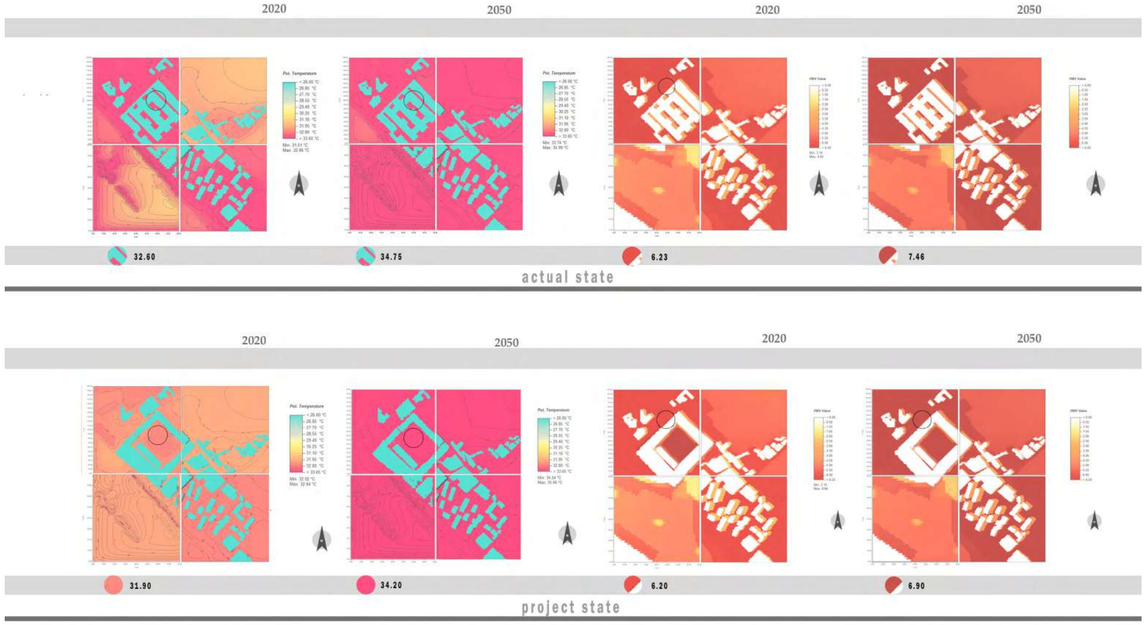
THE RAILWAY STATION



Summer solstice | *21 june*



Winter solstice | *21 december*



POT | *Air temperature*

PVM | *Thermal sensation index*

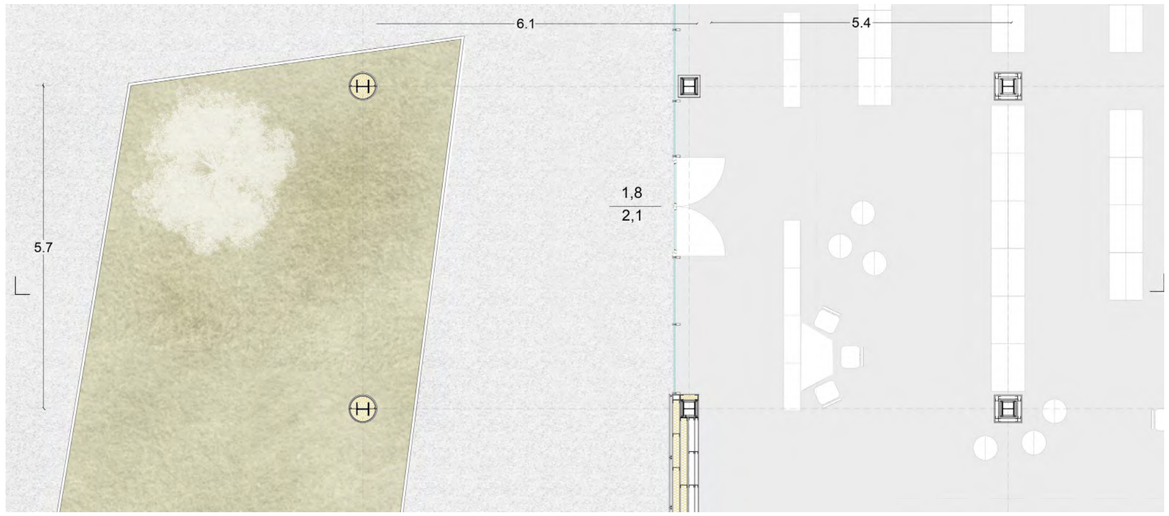


ENVIRONMENTAL SECTION

The “library block” is explored as an example of the construction type and environmental considerations made for the whole project complex. This block constitutes one of the volumes in which the space below the large roof is divided. The spaces surrounding the library are covered-open connection spaces that are considered as an external environment. These spaces are as a filter between inside and outside and improve the internal thermohygrometric conditions by reducing the returns due to radiation, favoring cooling, ventilation and avoiding the vertical closures to suffer the effects of dry-wet cycles. These connection spaces are protected by a specially “screening veil” designed ad hoc with recycled material of the place. The big walkable roof is designed with a drainage system for collecting rainwater and is equipped with photovoltaic flooring.

1. Lower closure in contact with the ground with grade beams in reinforced concrete, air chamber, deck of steel beams with a corrugated sheet slab, xps insulation, expanded clay base and drainage flooring for exteriors based on natural stone and resin.
2. Lower closure as walkable roof.
3. Structural glazing with frame type “Schuko FW 50+” with triple low-emissivity glass.
4. Vertical closure made of dry construction composed of a counter wall in metal structure and gypsum sheets, a dry wall, with two insulation panels in rock wool, one of which is an external coat and the other is a facing in panels of steel.
5. Horizontal closure as a walkable roof with green elements consisting of a countertop for outdoors on the internal side, collaborating corrugated sheet, slope screed, XPS insulation, expanded clay substrate and “Floradrain” type drainage system both under the flooring in self-locking concrete blocks and the green tanks.





LIBRARY’S PLAN AND SECTION SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

SARA TEDESCO - ACROSS THE FRINGE

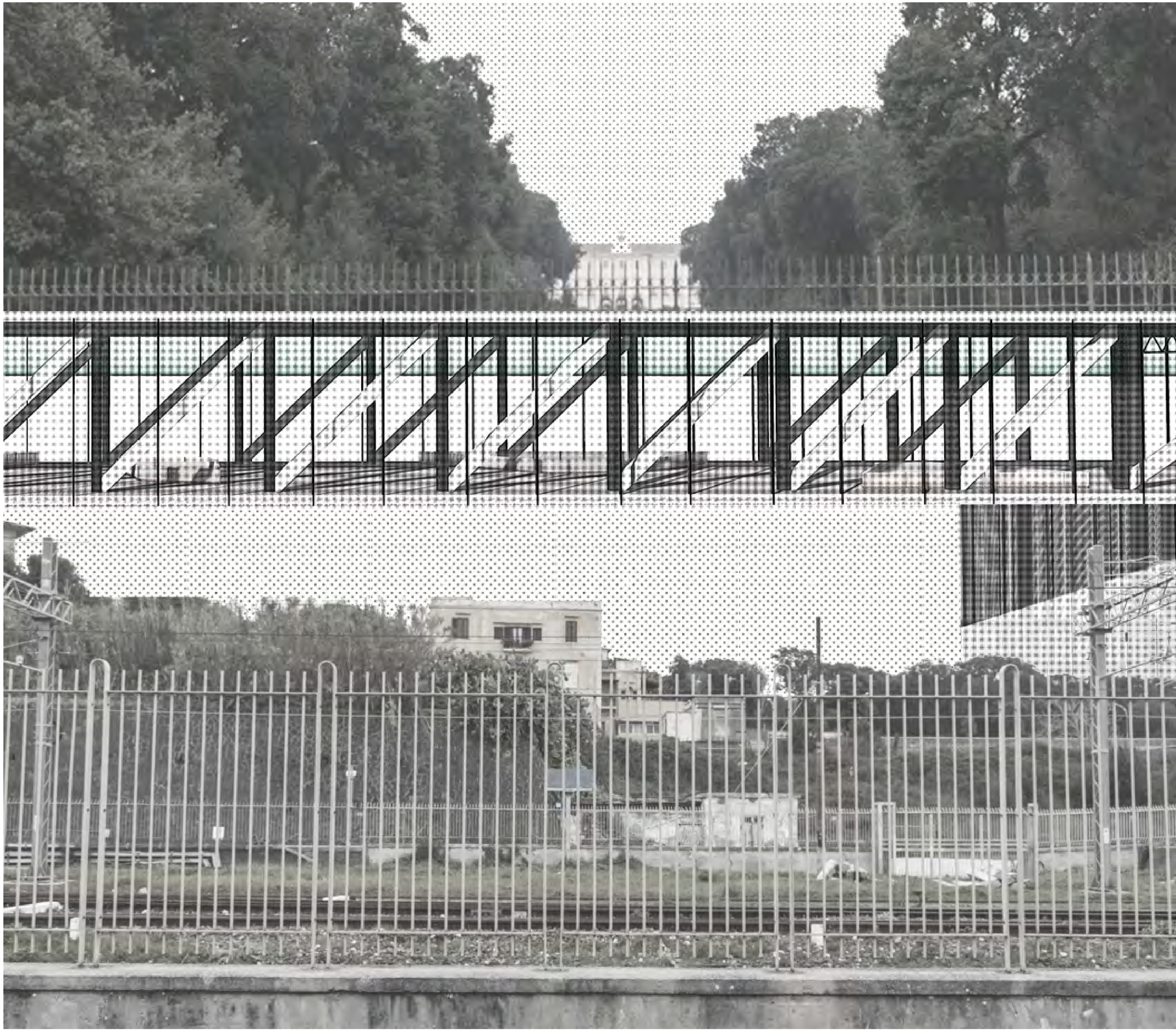
CONNECTION BETWEEN THE LOWER PARK OF PORTICI'S REGGIA AND THE GRANATELLO PORT

The red thread of the project is the REconnection between the lower park of Portici's Reggia and the Granatello port. This connection, so natural long time ago, gradually faded away due to city development and railroad construction, that separated the city from its costal line. The way to realize this REconnection is through the building acting as a bridge between the two sides, aiming toward the sea and climbing over the railroad. This will be the occasion to add a series of experimental vegetable gardens, following an unrealized project of the faculty of agriculture, based in Portici. The floor at the street level acts as an extension of the Reggia's park, thanks to the presence of the vegetable gardens, therefore assuming the role of public space in this context. The connection is not limited to the one above mentioned, but is extended to former freight yard, now in a state of neglect and used as a parking lot. This space will be converted as a park area and the re-functionalization of the yard is also planned. The REconnection aims to link and bring near areas which are now separated, using paths usable and accessible from everyone.

Program

coworking, study rooms, temporary exhibitions, café and idea-store

Covered surface	**3.412 mq**
Uncovered surface	**7.010 mq**
Built volume	**34.884 mc**
Estimated cost	**6.657.706,50 €**

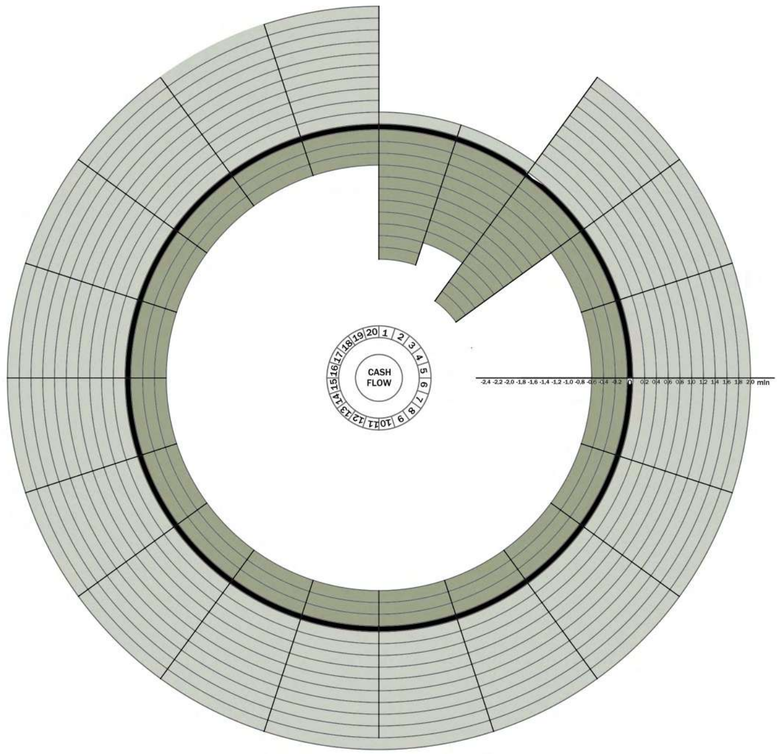


The goal of this project is to rescue and connect all the marginal areas to the former rail station, connecting Portici's Reggia with the sea and generating a new city core in an area rich of history, natural beauty and culture, thus solving problems related not only to this area but to the entire city of Portici.



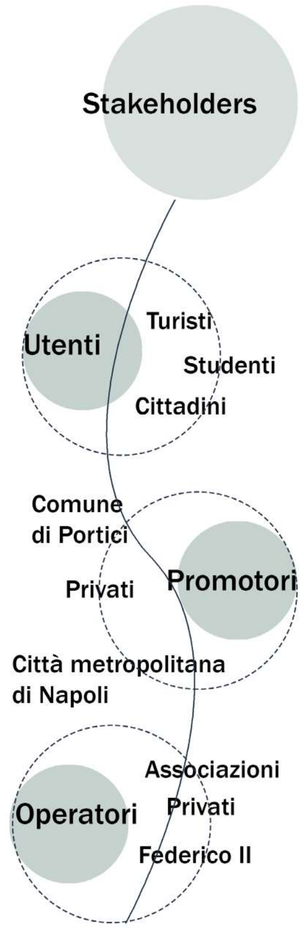
The project was planned for the Agriculture Faculty students', for the association "Più orti in città" and overall for all the citizens, to whom is provided a space for study and for a multitude of activities, both didactics and recreational. A financial study was performed to verify the feasibility of the project, that could be funded by different sponsors, such us the city of Portici, the Metropolitan city of Naples and also private investors.

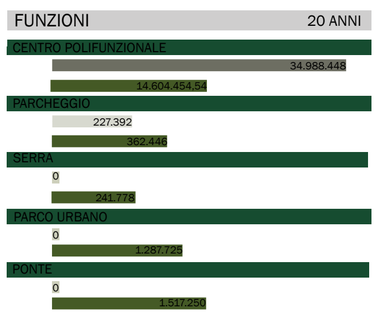
The majority of the spaces of this area are abandoned and not available to the citizens. The presence of the railroad is the cause for the presence of marginal areas and height's differences that complicate the area's situation.

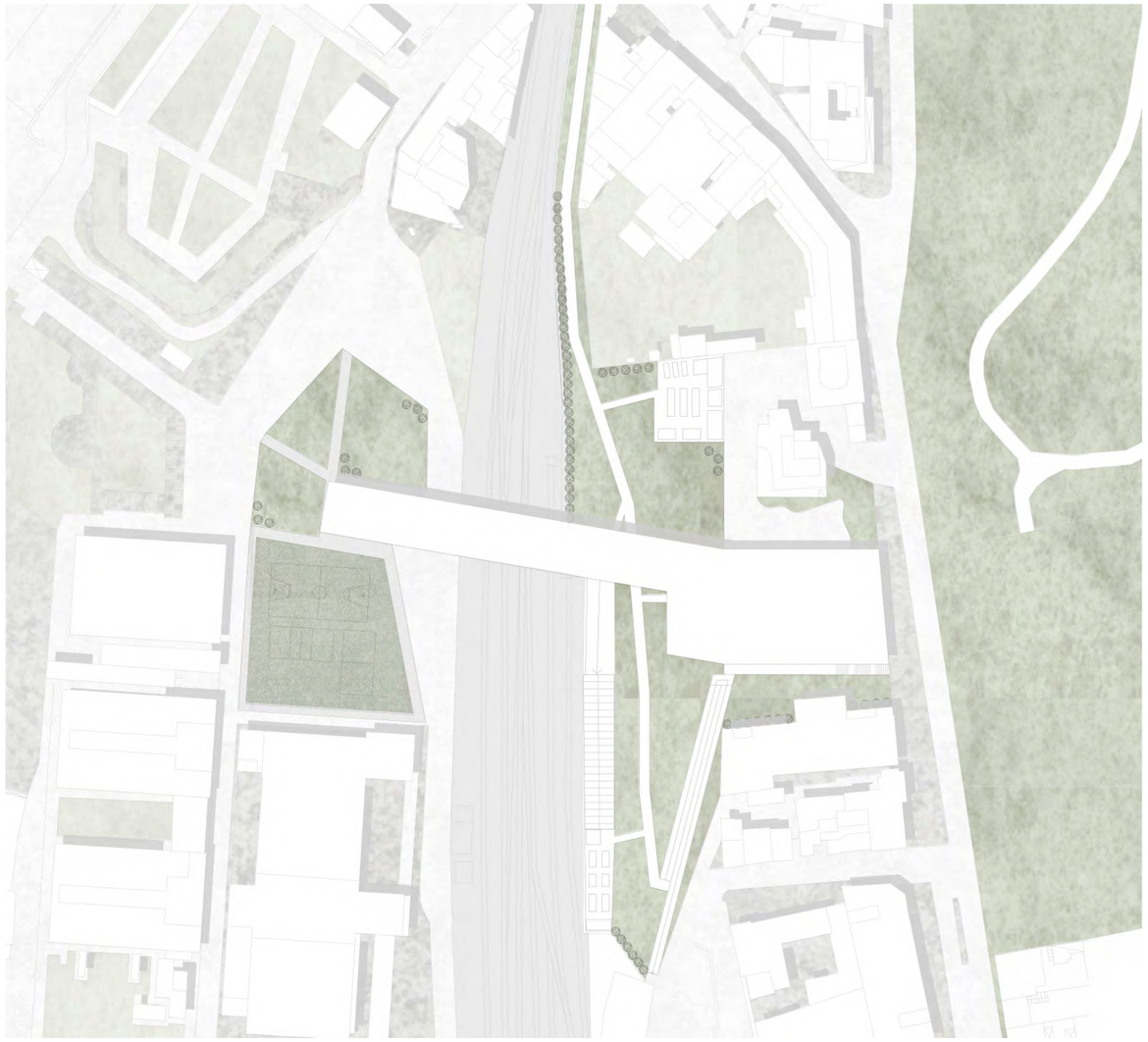


CASHFLOW

Revenues and costs of the building over 20 years







PORTICI PARK THE PROJECT IN THE CONTEXT

0 30m 60m 125m





CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

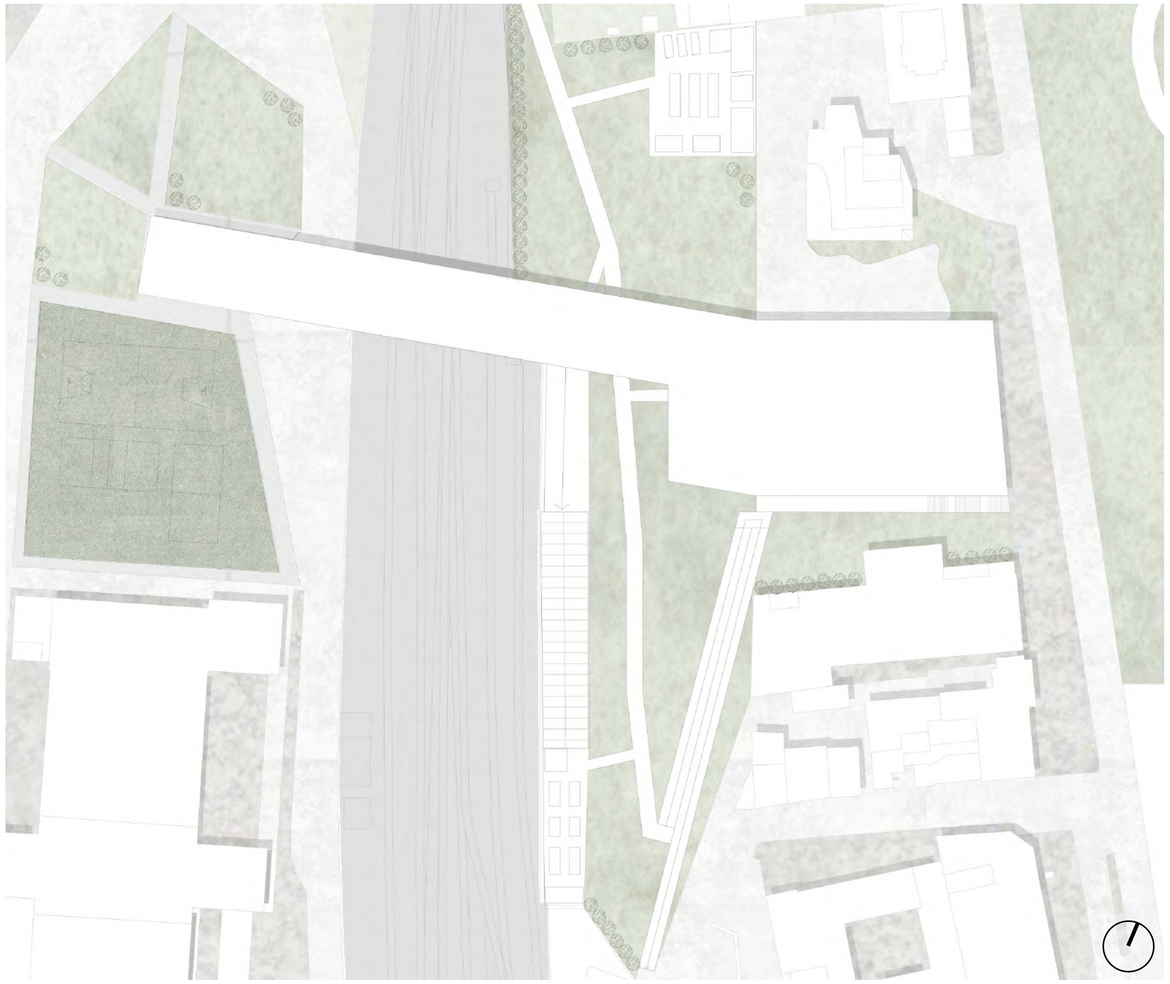
0 22m 45m 90m



SYNTHESIS OF URBAN ANALYSES

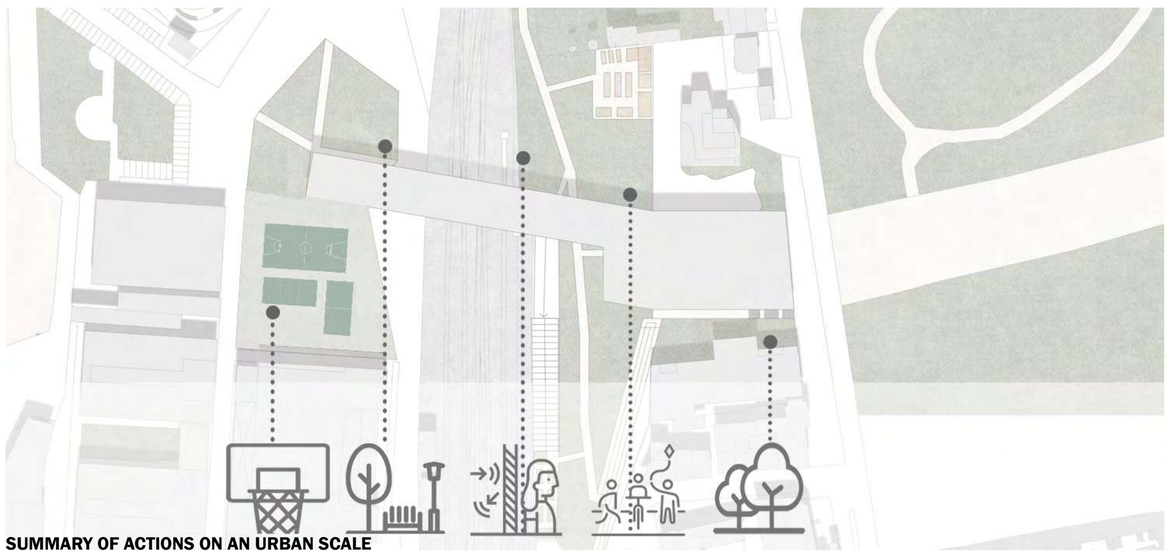
CRITICAL ISSUES

Identification of the barriers between the lower park of Portici's Reggia and the Granatello port



DESIGN PROPOSAL

0 22m 45m 90m

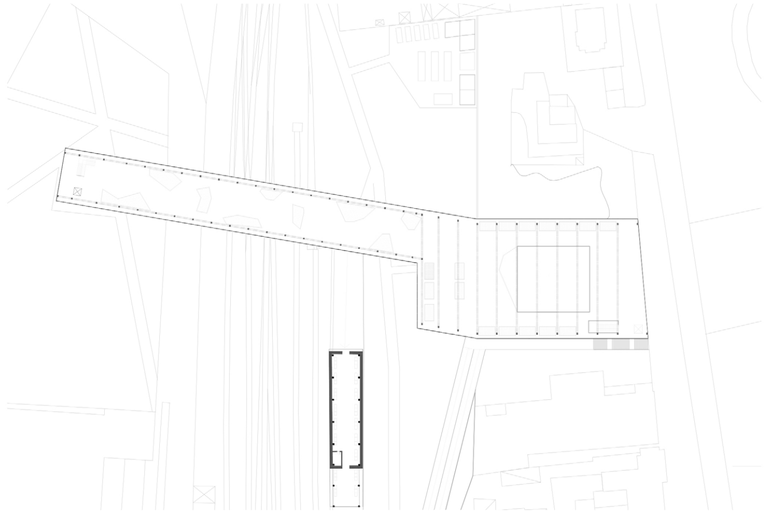


SUMMARY OF ACTIONS ON AN URBAN SCALE

The floor at the street level acts as an extension of the Reggia's park, thanks to the presence of the vegetable gardens, therefore assuming the role of public space in this context. This space is shaped not only as a crossing place, but also a place of gathering and living. The connection is not limited to the one above mentioned, but is extended to former freight yard, now in a state of neglect and used as a parking lot. This space will be converted as a park area and the re-functionalization of the yard is also planned to host the glasshouse of the experimental vegetable gardens.

The building is organized on four level according to the different heights levels that allow to reach the different functions and the park. This is a project with many functions, including co-working, study rooms to support the faculty of agriculture, with a bar and an idea store at the park floor. All the internal spaces are connected by lift systems and communicating using double height spaces. The fundamental element of the REconnection is the bridge, that stands out materially and structurally from the rest thanks to the presence of the reticular structure and the use of shielding glass.

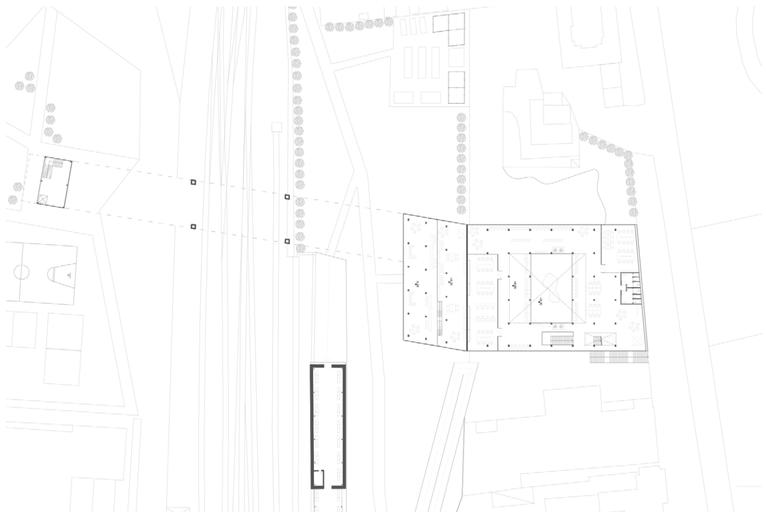
The internal spaces are characterized by double heights that which overlook an internal green space used for temporary exhibitions.



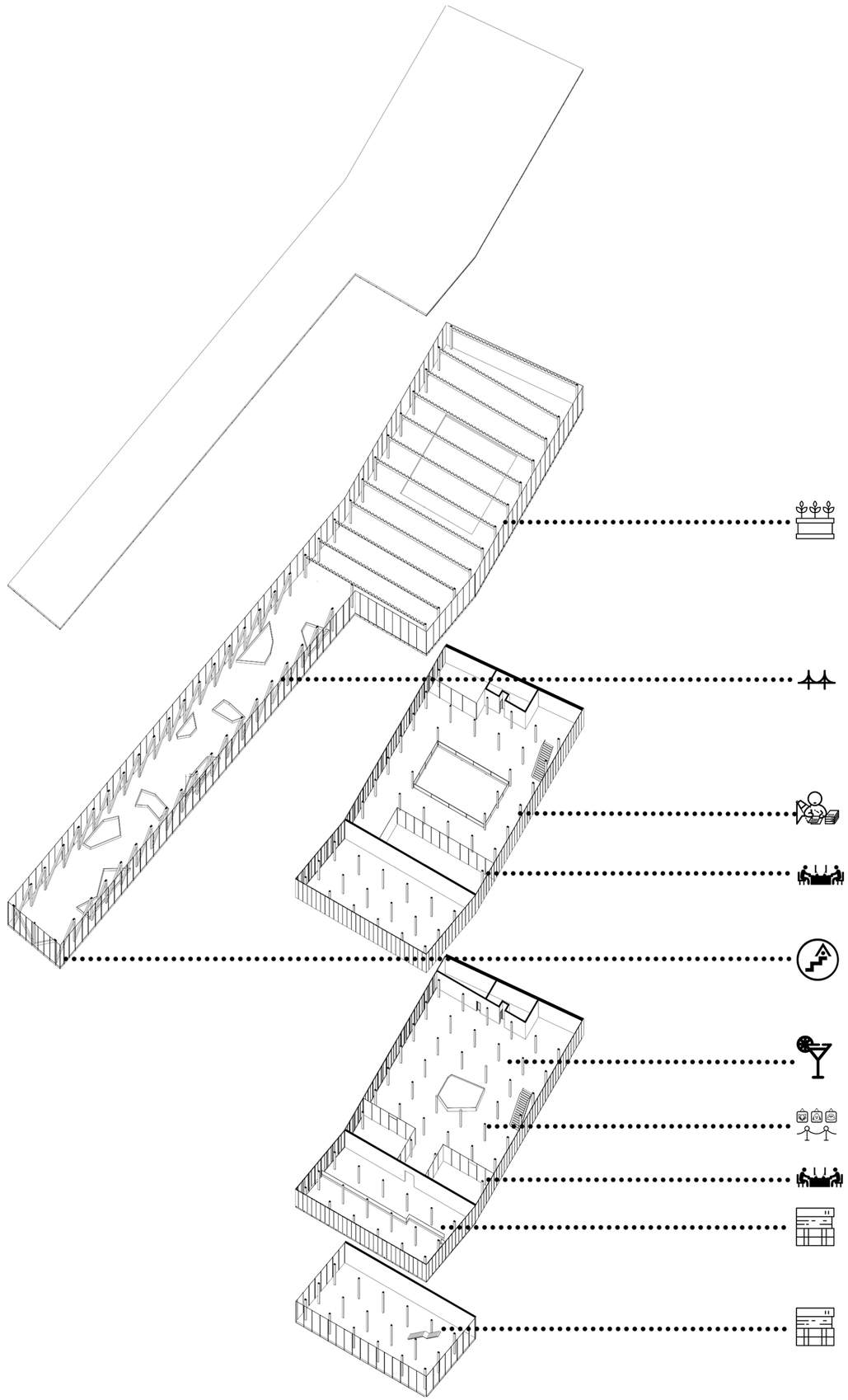
Spatial configuration of experimental gardens and crossing

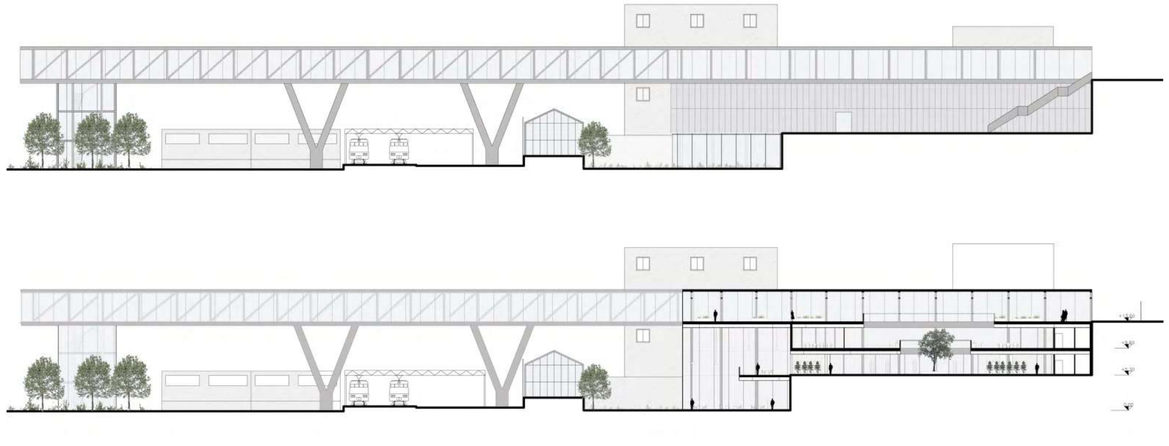


Second level spatial configuration



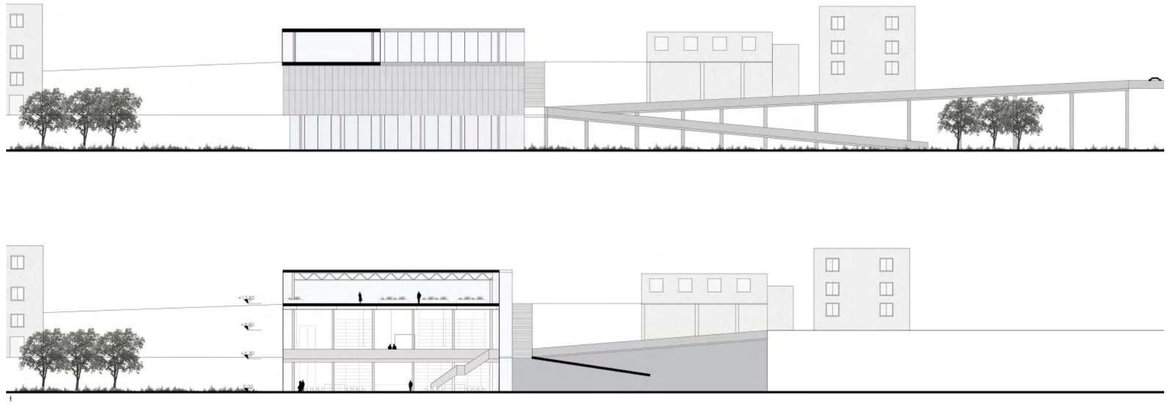
Park level configuration





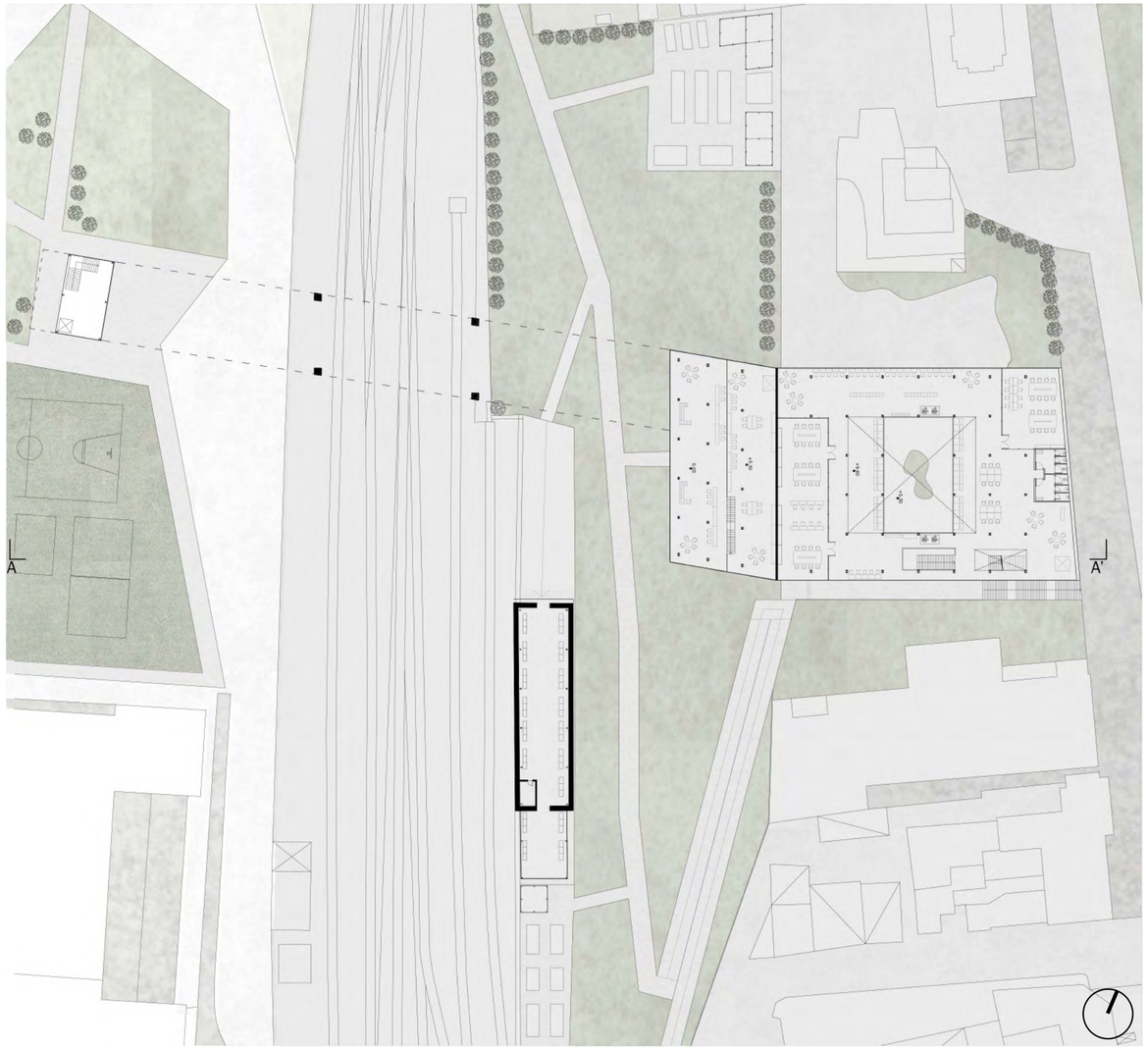
SECTION A-A’

0 10m 30m 60m



SECTION B-B’

0 10m 30m 60m

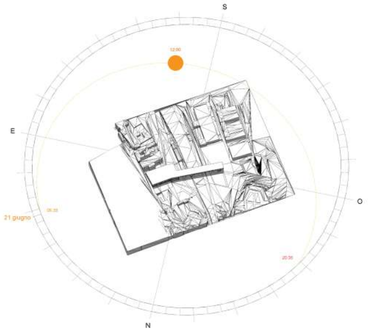


SECOND FLOOR (+5.30)

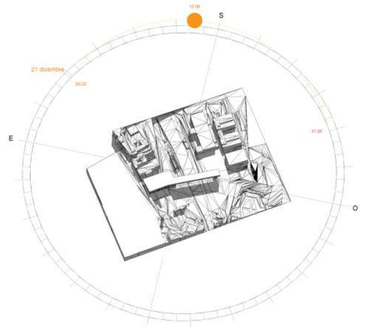
0 10m 30m 60m



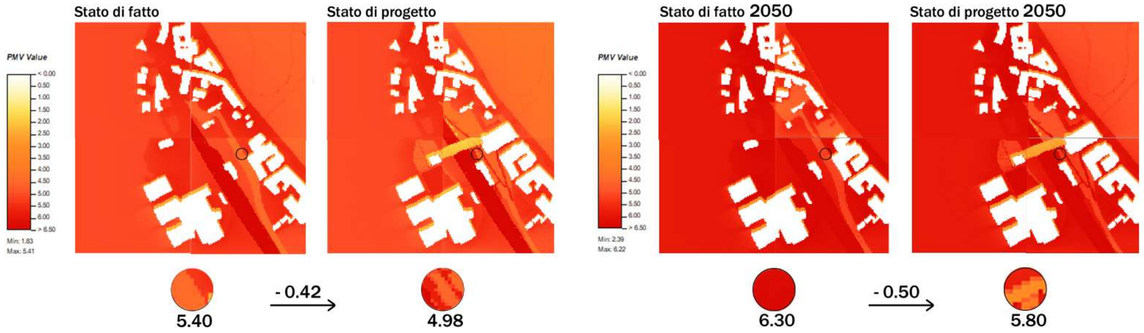
PARK VIEW



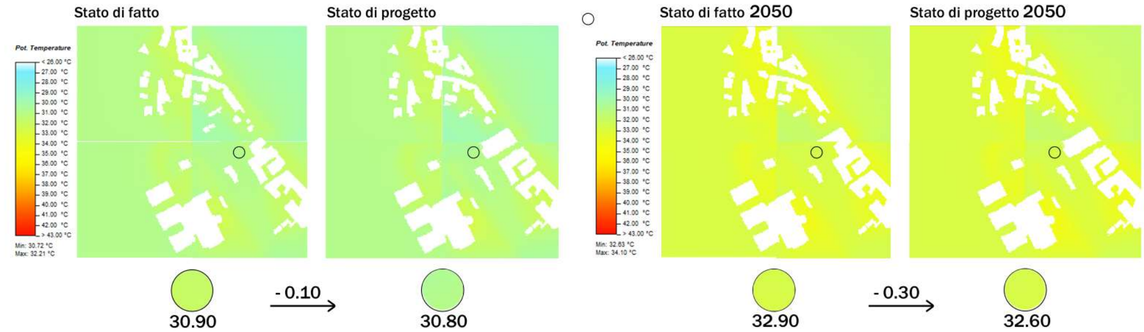
summer solstice | *21 june*



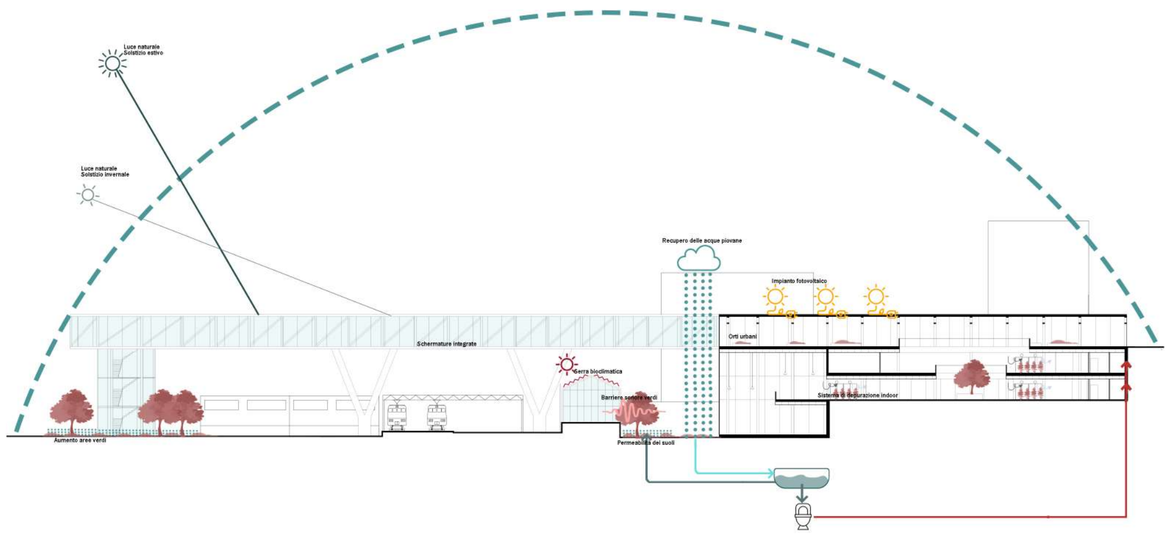
winter solstice | *21 december*



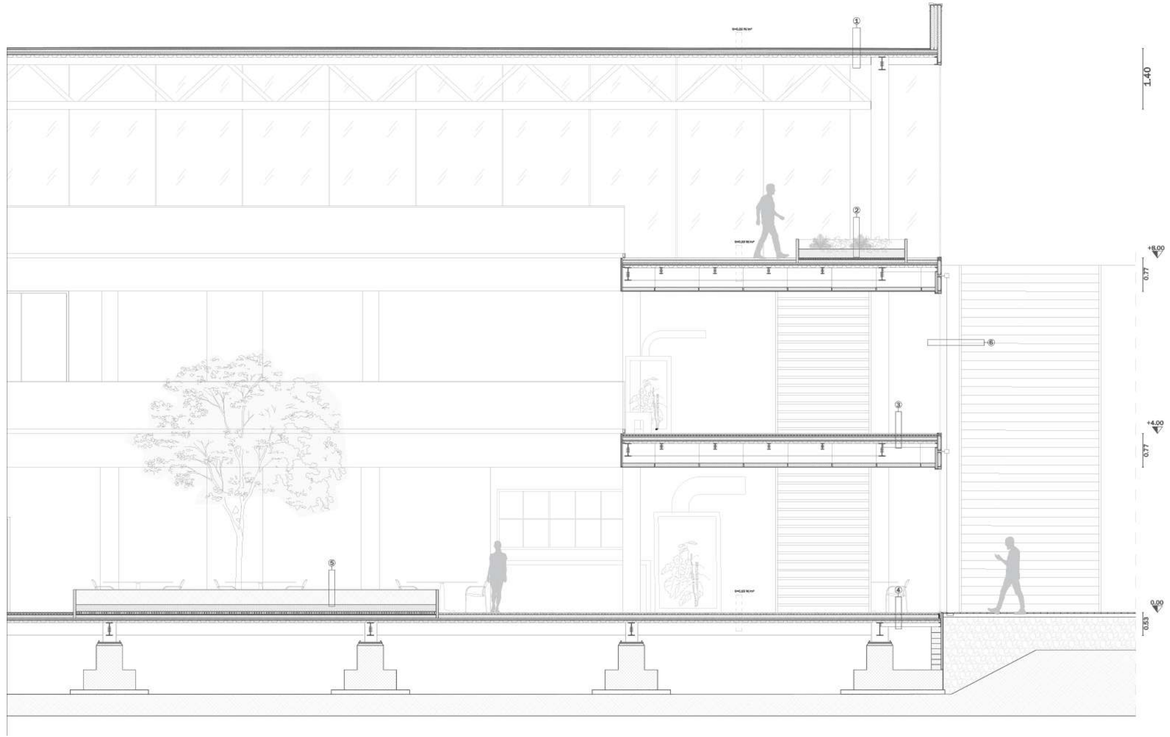
PMV | Thermal sensation index



POT| Air temperature



ENVIRONMENTAL SECTION



1. ROOF COVERING
Flooring
Double sheet in gypsum fiber
Waterproof case
Wood fiber insulation
Granular leveler
OSB panel
Corrugated sheet
Reticular beam

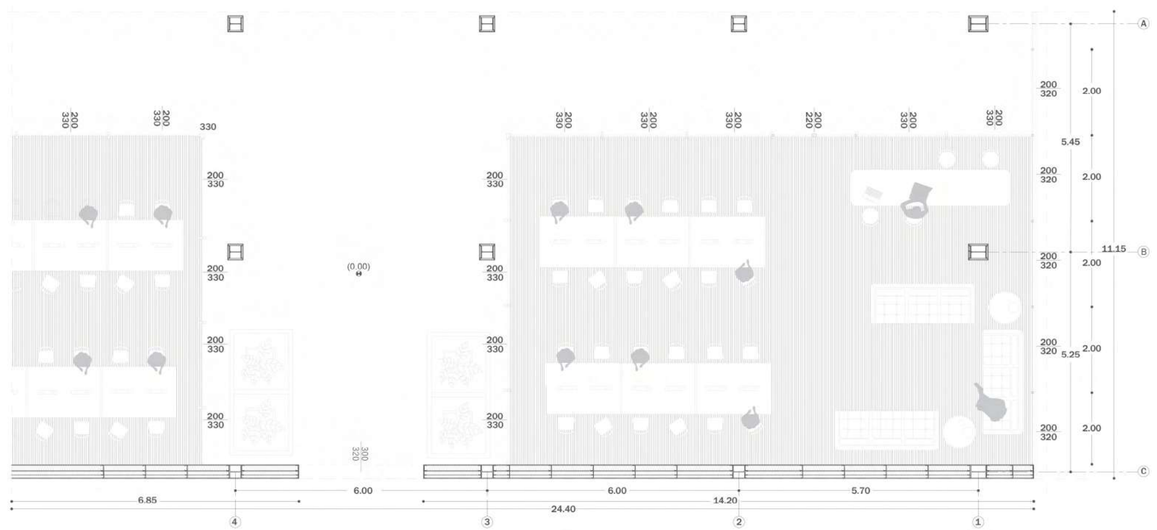
2. HANGING GARDEN
Vegetation
TerraMediterranea TMI
MediFilter MF1 filter sheet
Accumulation layer, drainage
Accumulation felt
synthetic root-inhibiting membrane
Separation layer:
Thermal insulation
Vapor barrier

3. INTERMEDIATE FLOOR
Linoleum
Double slab in gypsum fiber
Granular leveler
Wood fiber insulation
OSB wood panel
Corrugated sheet
Ipe beam
Rock wool insulation
False ceiling in gypsum fiber

4. GROUND FLOOR
Linoleum
Gypsum fiber rod
Radiant floor
Mineralized wood wool insulation
Granular leveler
OSB wood panel
Corrugated sheet
IPE beam

5. INTENSIVE GREEN
Vegetation
TerraMediterranea TMI
Compensation layer in Lapillo
MediFilter MF filter sheet 1
Accumulation layer, drainage
Protection and accumulation felt
anti-root membrane
Separation layer: geotextile
Thermal insulation
Vapor barrier

6. TRASPARENT VERTICAL WALL



PLAN AND SECTION OF THE PUBLIC SPACE SCALA 1:100



WATERFRONT
L'AREA DEL LUNGOMARE

10. Park[ing] Portici Claudio Cappiello
11. Sea line Carlo Cioffi
12. CrossXRail Antonio Leone
13. The door of the sea Giulio Montefoschi
14. Hidden Identies Valentina Pignata
15. Crossover Alessia Rocca
16. Wellness road Mariarosa Sarracco
17. Retro(water)front Marialisa Scotto Rosato

PORTICI ADVANCED DESIGN STUDIO

CLAUDIO CAPPIELLO - PARK[ING] PORTICI

NEW PARKING CONCEPT

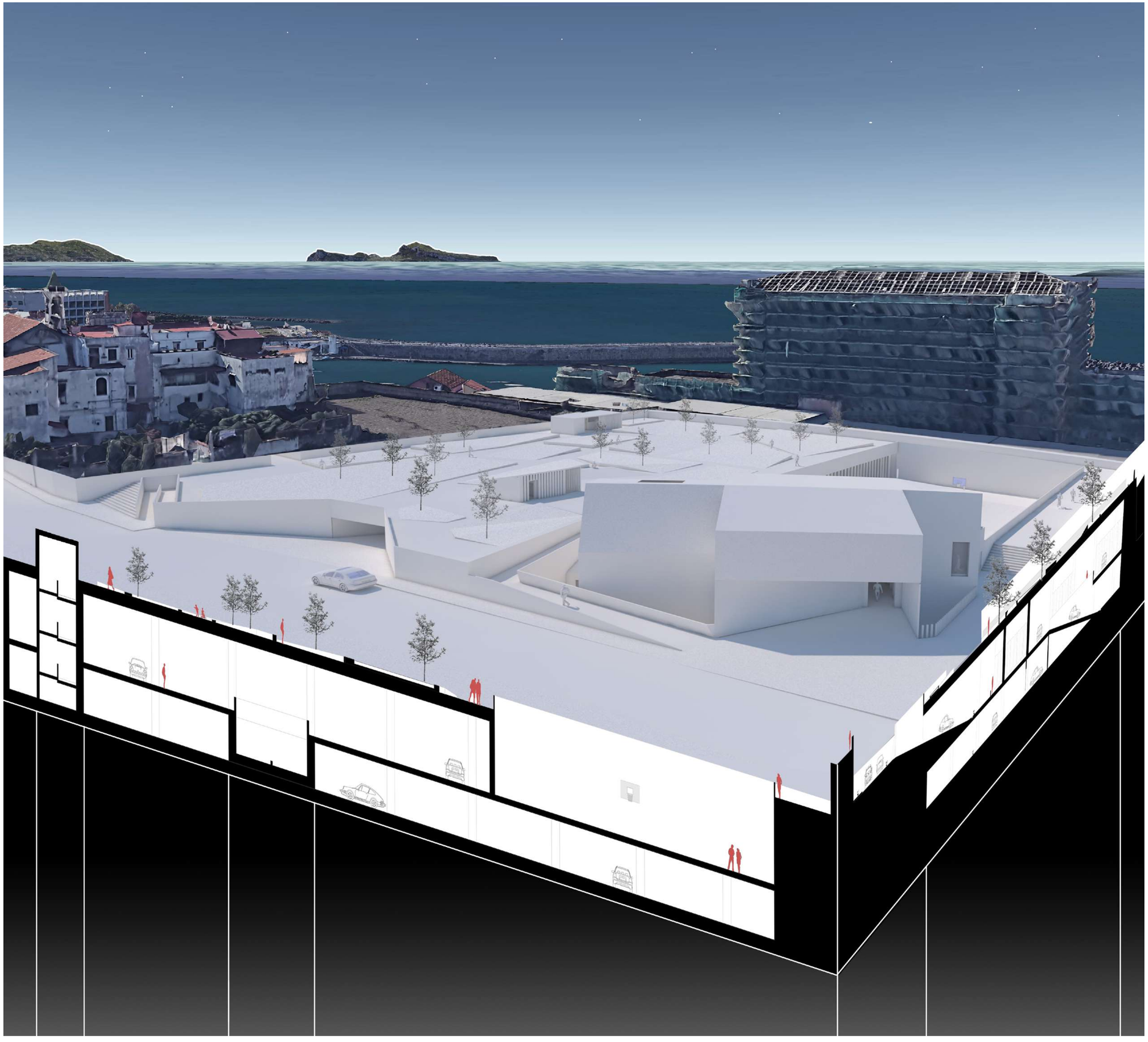
CONNECTION/LOWER PARK OF THE PALACE-SEA

The Municipality of Portici, located on the slopes of Vesuvius, in an extremely fertile area with a mild climate, with centuries of history and primates, is today the subject of study, to increase public resources and benefit from a wonderful seaside city. The city has particular problems of population density and construction, for many years it has been at the top of the rankings for the number of inhabitants / km², even at the European level. The large population, in constant movement, generates traffic and pollution, while temperatures are often very high, also due to the unequal distribution of urban greenery. Among the major needs that the area presents, there is the lack of meeting spaces for the community, caused precisely by the massive construction of the area. Despite this, within the Municipality there are various areas and structures that are in disuse conditions. A problem not to be underestimated, highlighted by the population, is the lack of parking spaces and the difficult accessibility to the waterfront, limited only to some underpasses, so as not to allow full enjoyment of the sea. The intervention in this case aims to solve some of these issues dealt with, through the connection that once existed between the lower park of the Royal Palace and the sea, through the historic Villa d'Elboeuf currently undergoing restoration. On the cover you can see the photo insertion of the new covered underground parking project in the square, connected to the new sports center, in the area adjacent to the Church of S. Pasquale and the Villa.

Program

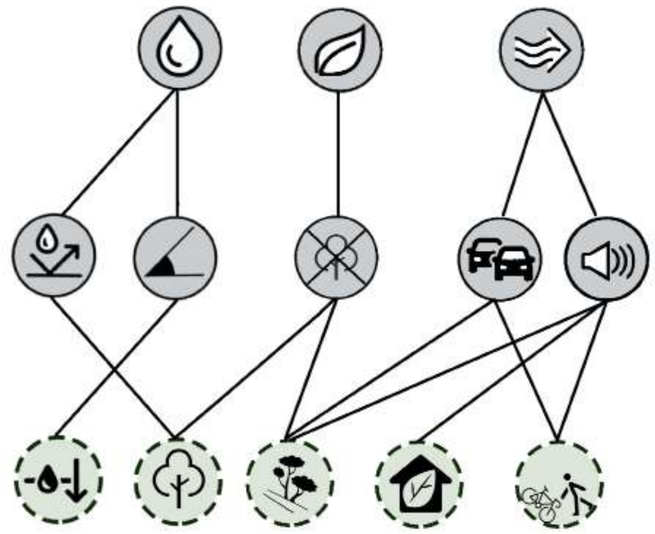
parking , urban park, sports center

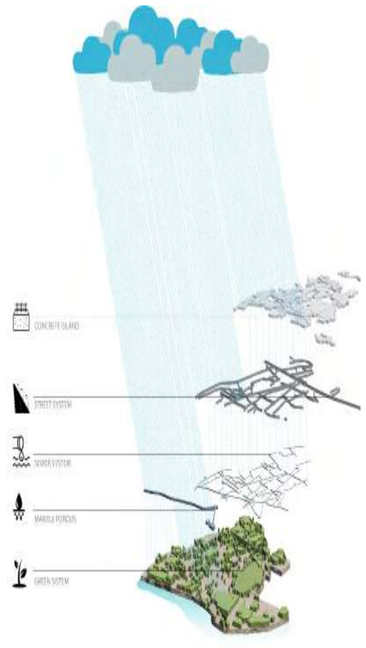
Covered area	**1.270m²**
Uncovered area	**5.553m²**
Levels above ground	**2**
Built volume	**25.965m³**
Estimated cost	**11.070.007,00€**

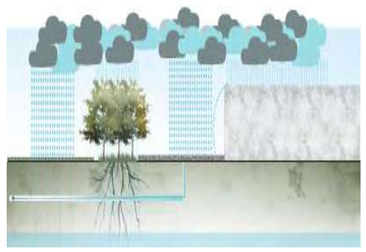




After a careful study of the criticalities of the Portici area, the major problems of atmospheric and sound pollution and soil permeability problems were highlighted. Precisely this condition is also a direct consequence of a strong construction density, as well as housing, which is harmful for the recycling and disposal of water.
In a second phase of the problems encountered, solutions were proposed that aim to limit these conditions and thus improve the livability of the area. In addition to an efficient ecological upgrade of buildings, which can be considered as a long-term goal, some of the solutions proposed, such as the construction of cycle paths and the promotion of sustainable types of mobility, aim for a much shorter timeframe. The construction of permeable roads in some areas is also very important, avoiding the accumulation of water due to the steep slope.







SOLUTIONS

- Permeable soil
- Tree planting
- Green shields
- Ecological building upgrade
- Sustainable mobility



PARK[ING] PORTICI THE PROJECT IN THE CONTEXT

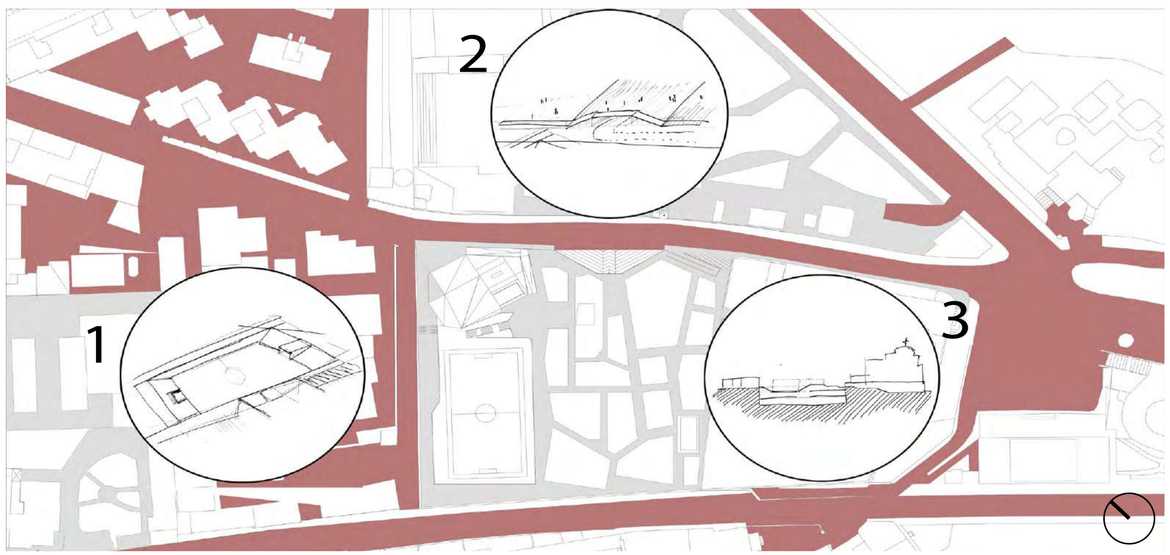
0 20 50 100m

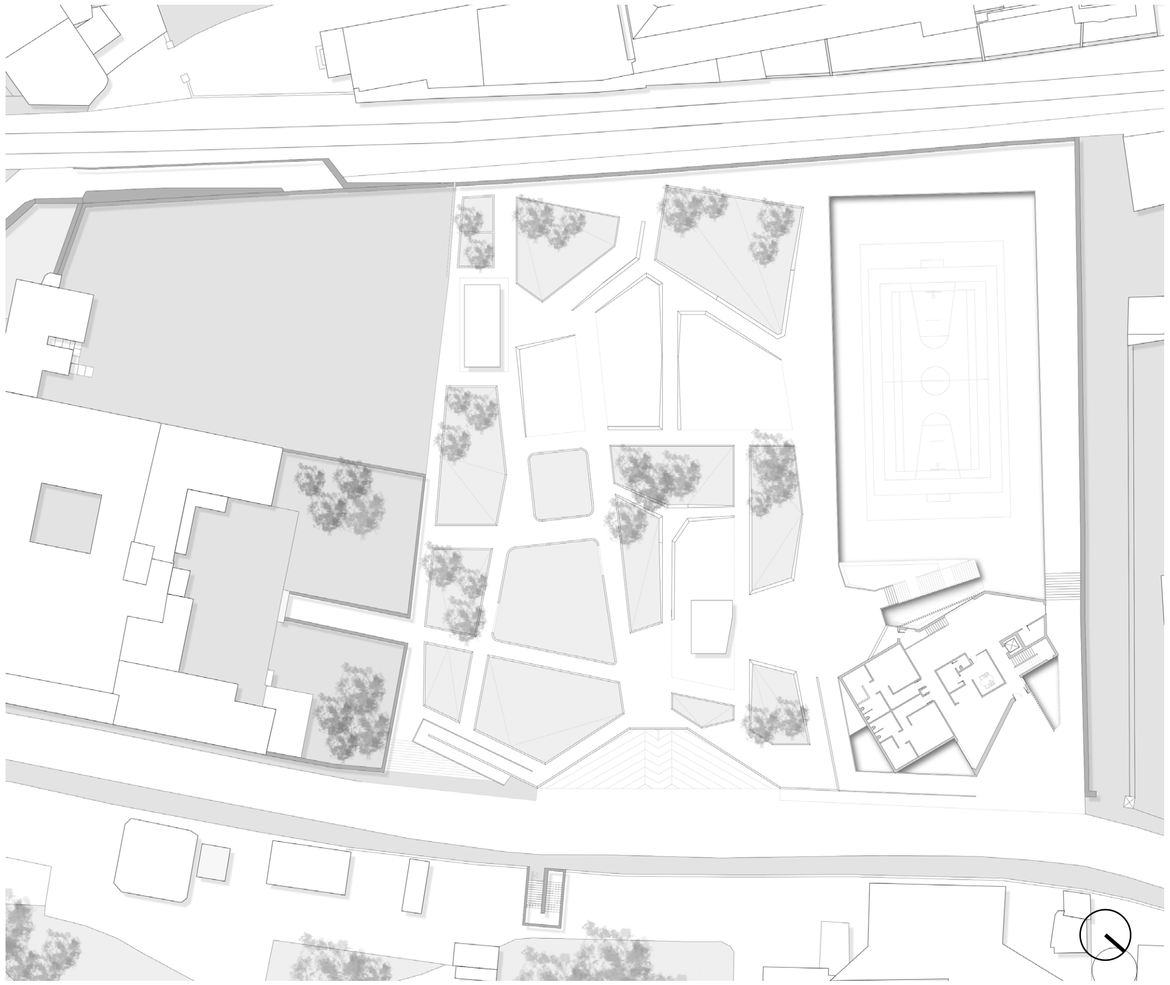






CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS 0 10 25 50m





DESIGN PROPOSAL 0 10 25 50m



The new square/parking-sports center project is proposed not only as a service for the population, but also aims to improve urban planning problems, such as reduced support equipment for schools, parking lots and connections to the main points of interest.

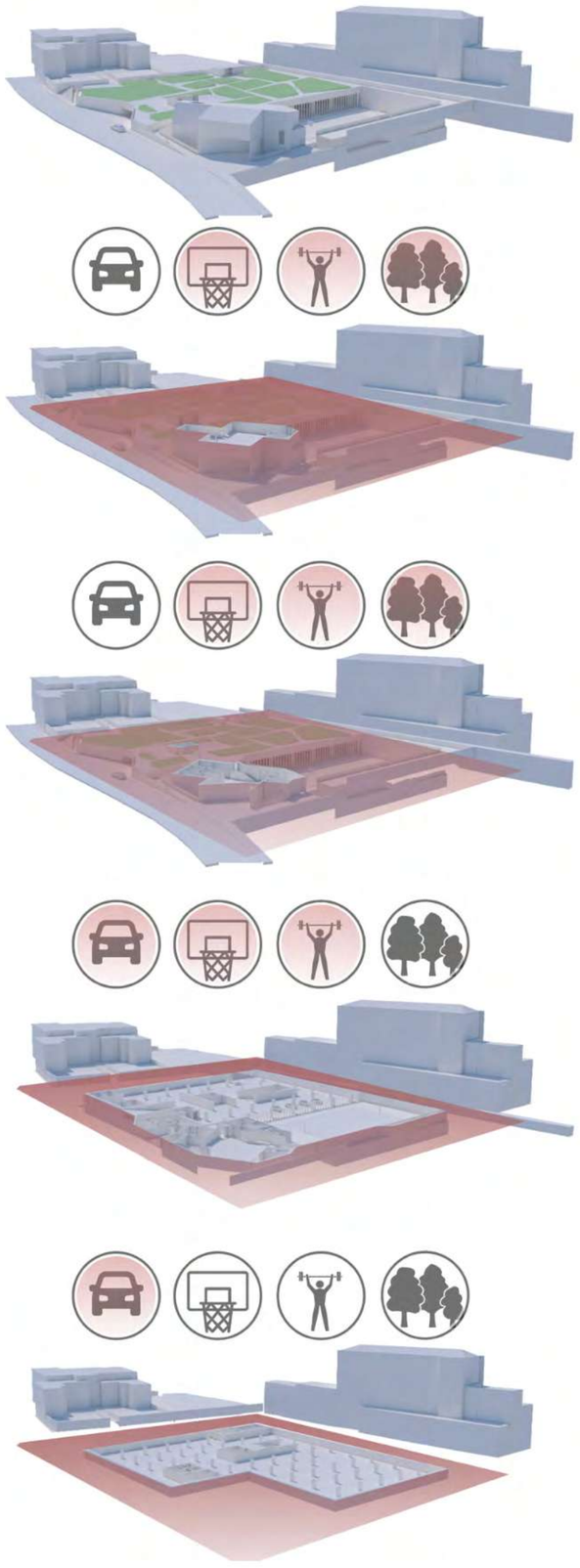
The project starts from a study of the PUC (Municipal Urban Plan) where it is possible to read the need to reconfigure the entire area behind Villa d'Elboeuf, an area that currently has a paid public parking with some abandoned green areas from which it was possible to read old traces of a small football field.

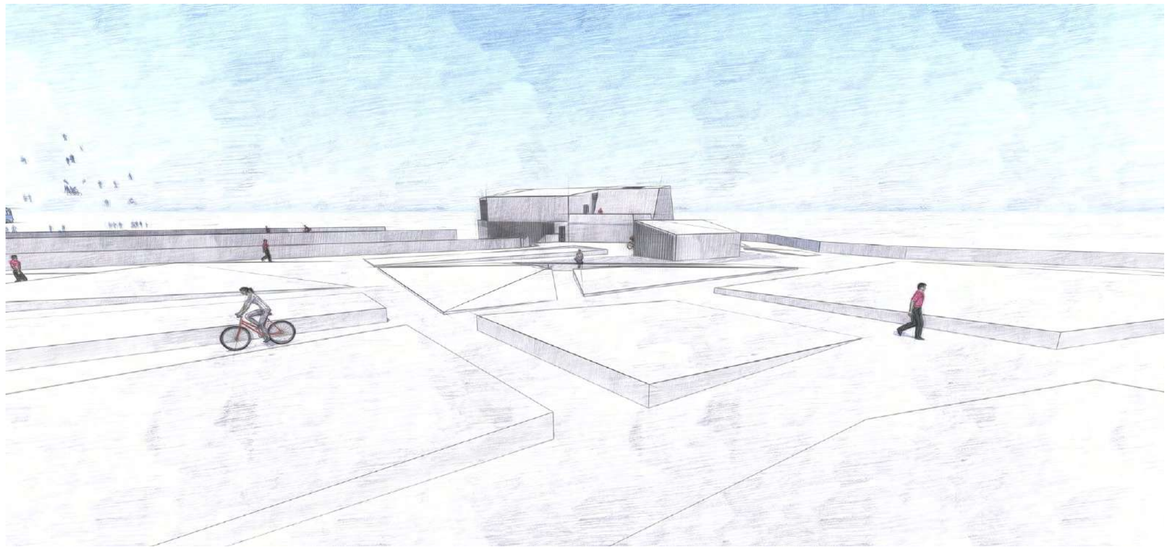
Fundamental elements for the project idea, which starts by overturning the parking function, creating underground floors with a new public square above it, equipped with outdoor sports equipment and play areas for children.

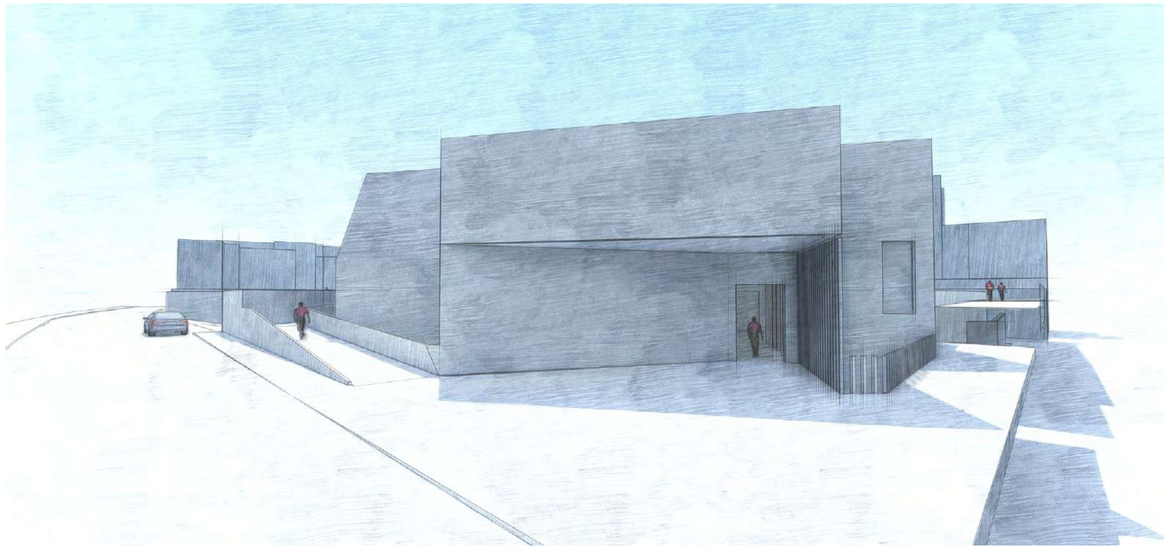
The starting point of the project is the retraction of the wall that delimits the area in Via Emanuele Gianturco, creating an opening for the entrance to the new underground parking, in this way it will have a higher floor on which the new square will rest.

The difference in height is solved with two entrances, both equipped with stairs and ramps. A new sports center will complete the range of sports facilities that starts from the Villa Comunale and thus extends to the Villa d'Elboeuf.

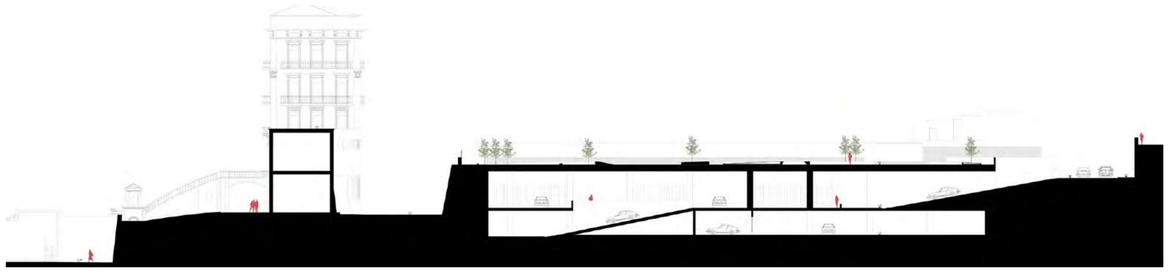
The car park will be connected to the new sports center and the station via a gently sloping exit on the first basement floor.The sports center with two levels above ground and one underground communicates with the car park through a sports field located at the same level as the car park.



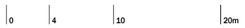








SECTION C

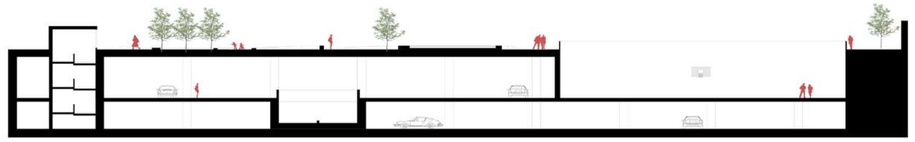


1. Entrance
2. Hall
3. Office
4. Men locker room
5. Women locker room
6. Cardio room



LEVEL 0 PLAN + 1,88m

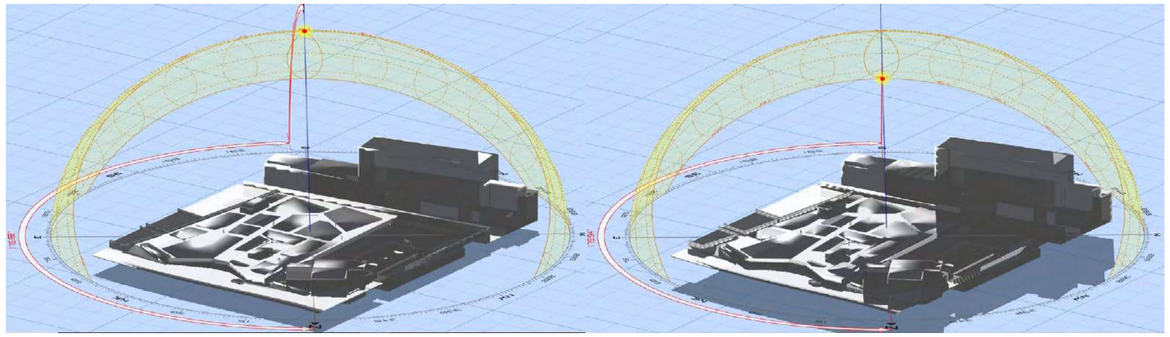




SECTION D

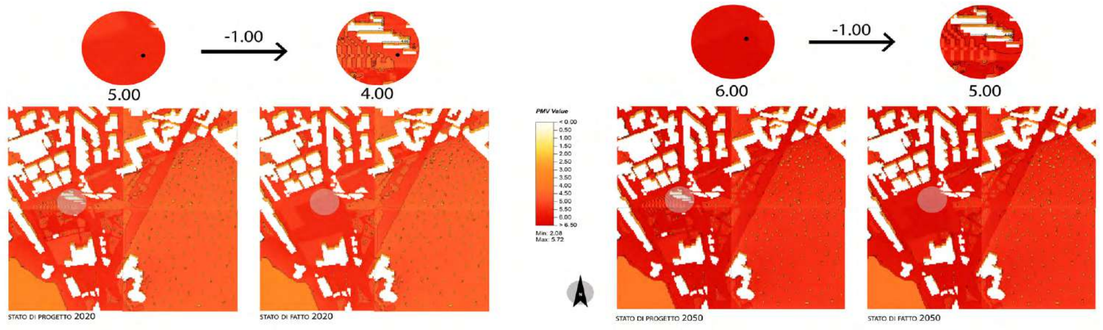




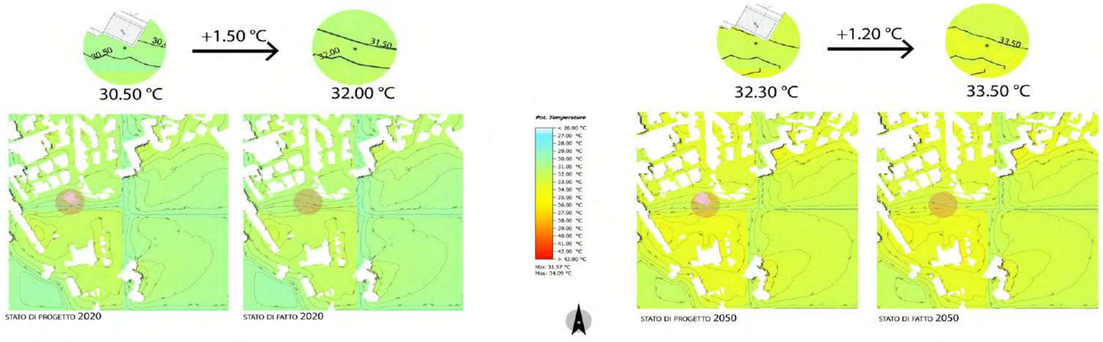


summer solstice | *june 21*

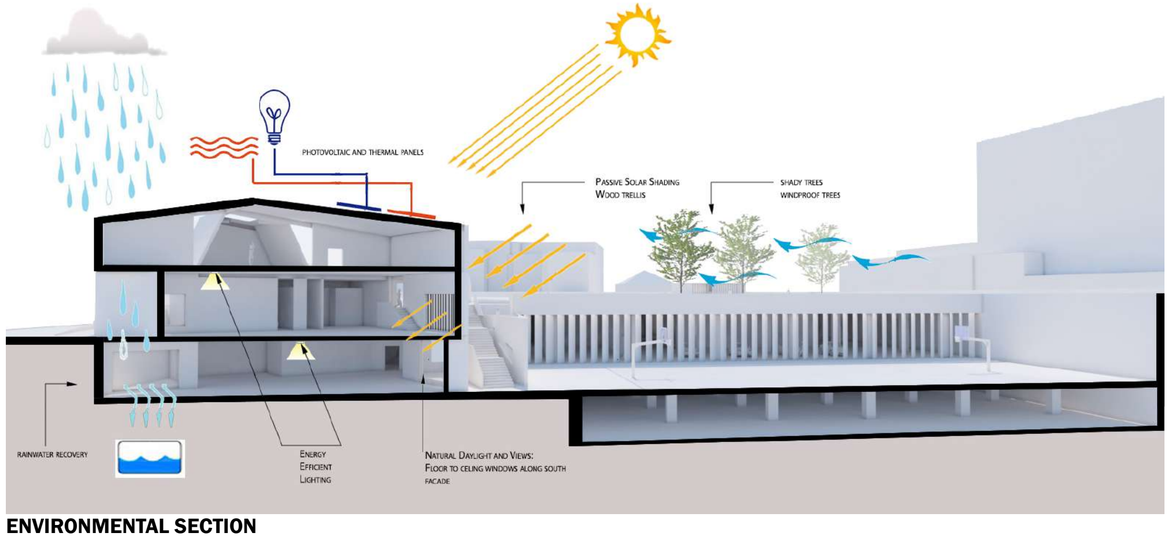
winter solstice | *december 21*



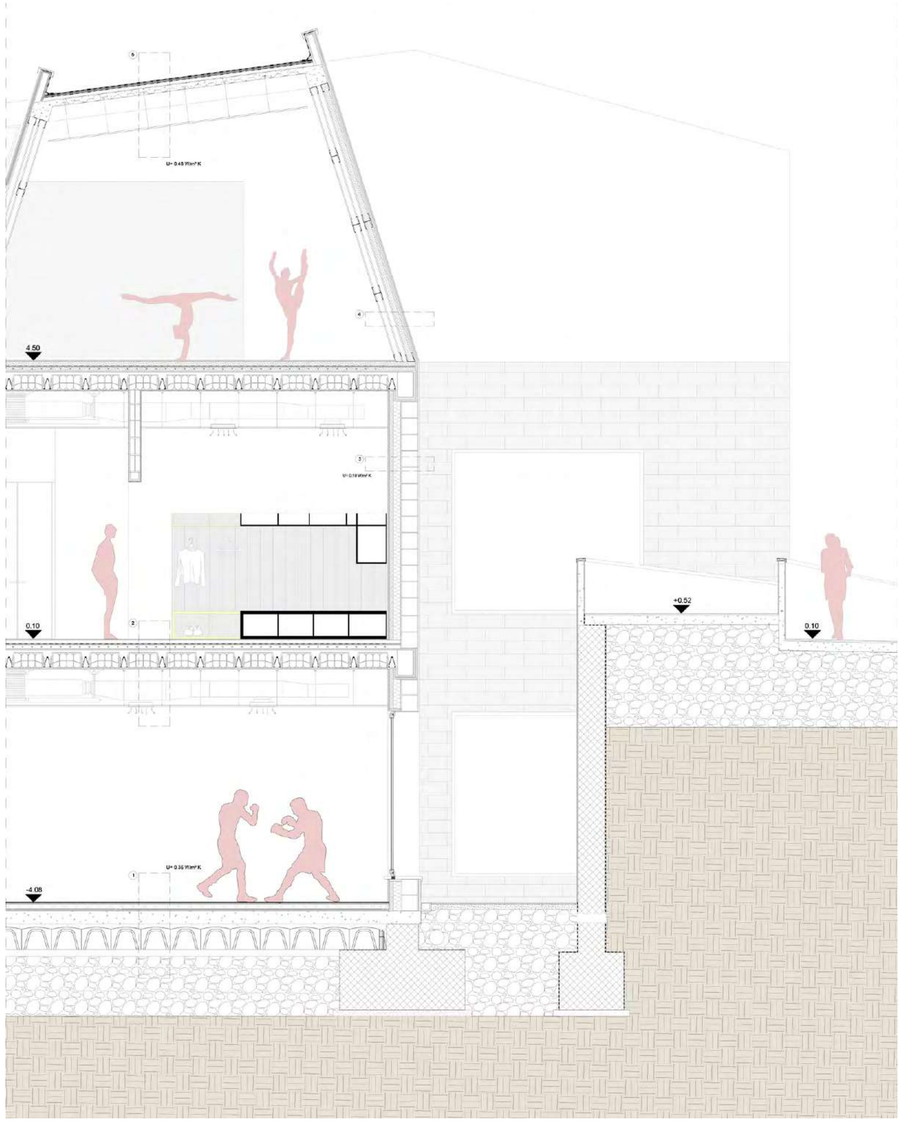
PMV | *thermal sensation index*



POT| *temperatures*



ENVIRONMENTAL SECTION



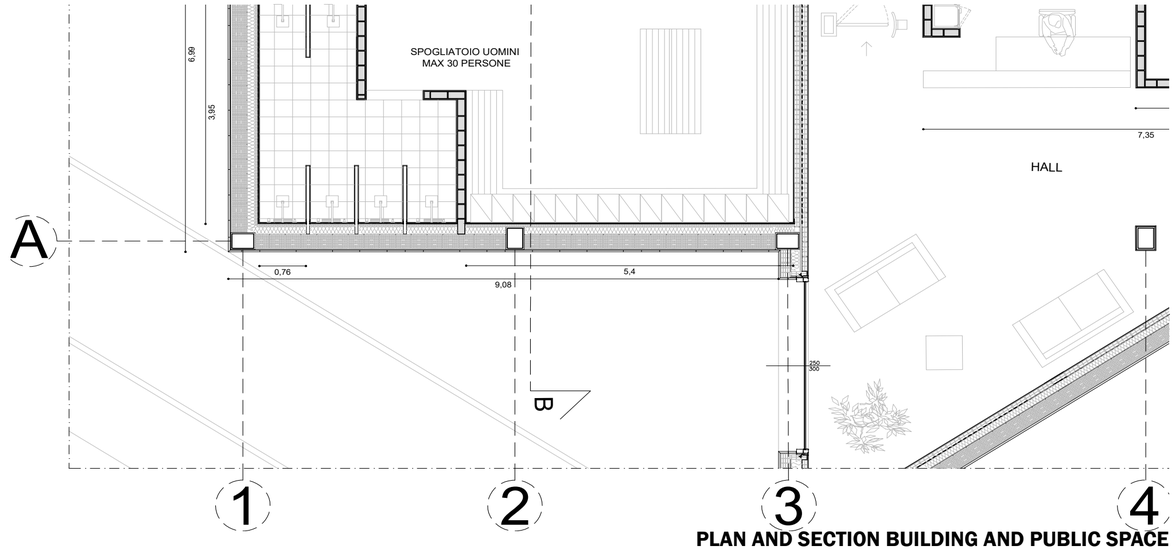
1. Floor in contact with the ground on ventilated crawl space with igloo, equipped with radiant heating.

2. Intermediate floor in brick with rock wool insulation and PVC flooring.

3. Perforated brick infill wall with rock wool insulation and plaster counter-wall, externally clad in natural white stone.

4. Rock wool infill wall with air chamber and plaster counter-wall, covered with plaster.

5. Roof slab made of corrugated sheet metal and concrete completion casting, covered with waterproof bituminous sheath.



PLAN AND SECTION BUILDING AND PUBLIC SPACE

PORTICI ADVANCED DESIGN STUDIO

CARLO CIOFFI - SEA LINE

A STRATEGY FOR A NEW CONNECTION

CONNECTION BETWEEN THE CITY AND THE SEA

The design study that was carried out started with the desire to create a system of parks, green areas and the desire to establish new public areas for the community and for the entire population.

The design study to meet these needs started from what is the seafront of excellence such as the Pietrarsa Railway Museum and the Granatello port with the Villa d'Elboeuf, but also for its proximity to the lower part of the palace of Portici as well as the remaking of what is the part of the water-front of Portici.

The Sea Line Project constitutes the desire to return to the city of Portici its characteristic of a seaside city, which to date is completely denied by the presence of the railway which creates a clear separation between the sea and the city, not even allowing the presence of the sea to be perceived. sea to the population of Portici, which pours into the heavily built-up area.

So our proposal is to create a new completely pedestrian viability that can revive and enhance what is the seafront of excellence, but also a way to give back to the city part of an area completely used as a technical element of passage of the railway line .

Our proposal to create a structure that overlaps that of the railway line, gives the possibility of having a double use of the space on several levels but also of giving accessibility of great value to the Portici coastline.

Program

sport facilities, urban park, social and culture center

Covered area	**5235m²**
Uncovered area	**19000m²**
Levels above ground	**1**
Built volume	**47115m³**
Estimated cost	**14mln€**

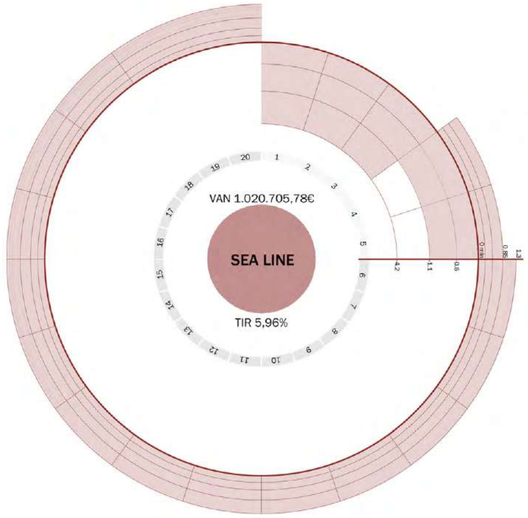


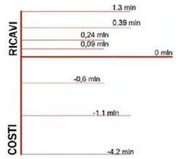
The Urban project, as highlighted in the cartography, starts from the railway line that cuts the sea front and the city in two, creating this clear break, the Sea Line project wants to respond to this need by giving a new way of using the coast through new accessibility.

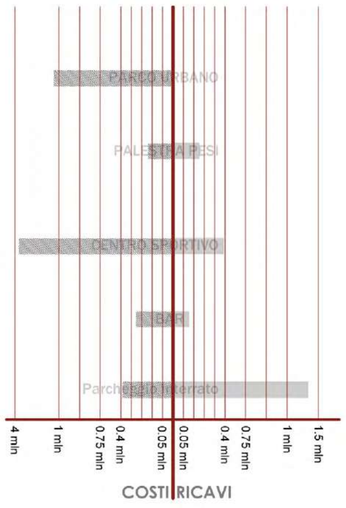


The project aims to connect through this new infrastructure that goes from the port of Granatello to Pietrarsa a new way of using the spaces on the seafront, but also to have along this infrastructure the possibility of new spaces for the community and for public activities. and social as well as public green areas.
This infrastructure not only has the task of improving only what is the use of the seafront or public activity, but also what is the sound impact that the railway creates on the surrounding town. The infrastructure responds to this need primarily by burying what is the railway site but also by arranging green areas along this line that have the characteristic of absorbing the sound impact. The objectives of this project are the greater use of places with new public activities, improve accessibility, the possibility of enjoying such an important resource as the sea but also the possibility of donating an area for sport to the population, for free time and conviviality.

CASH FLOW AND MANAGEMENT COSTS







CATEGORIE DI STAKEHOLDERS

Promotori

Amministrazione comunale
Enti Pubblici
Ferrovie dello stato
Associazioni turistiche
Museo Ferroviario di Pietrarsa

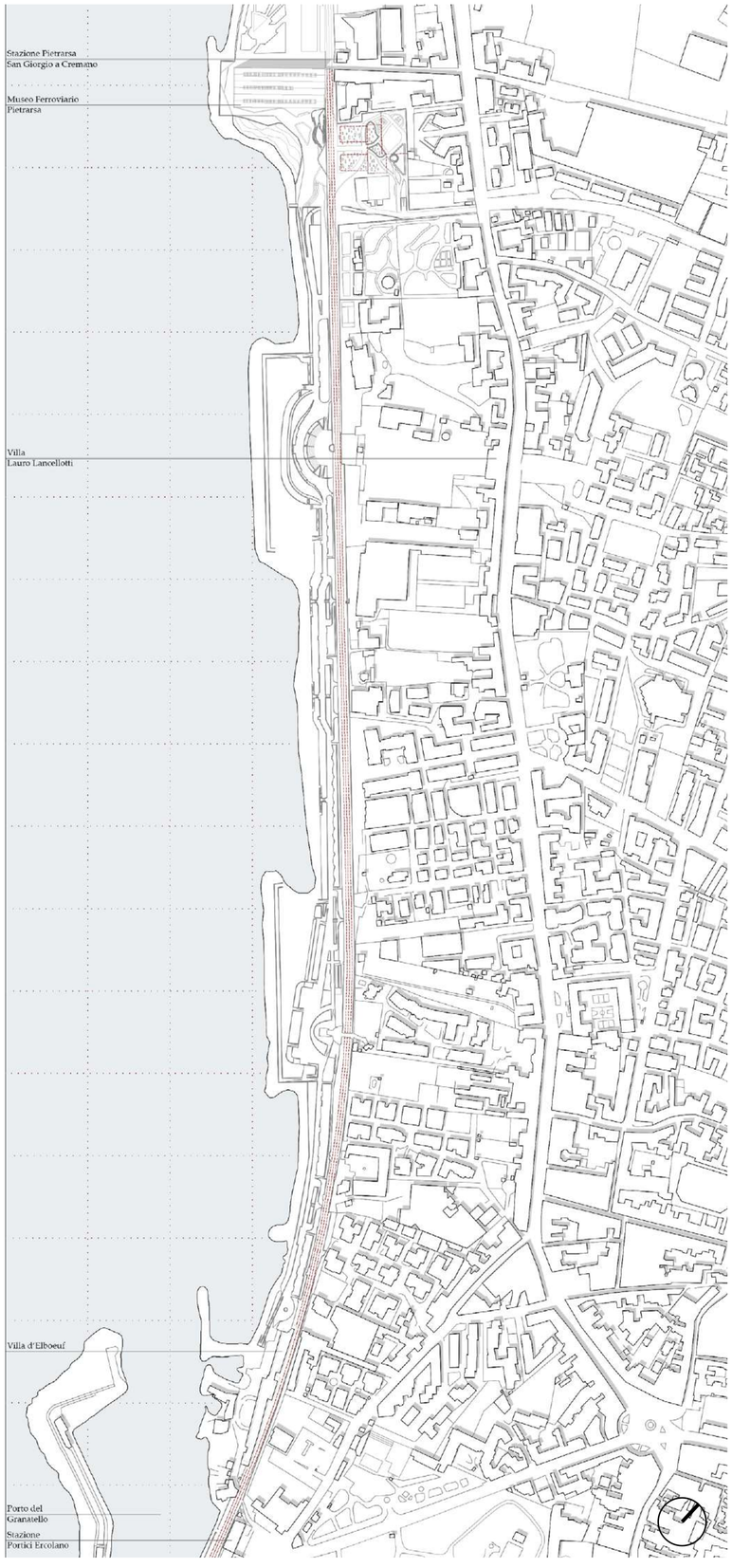
Utenti

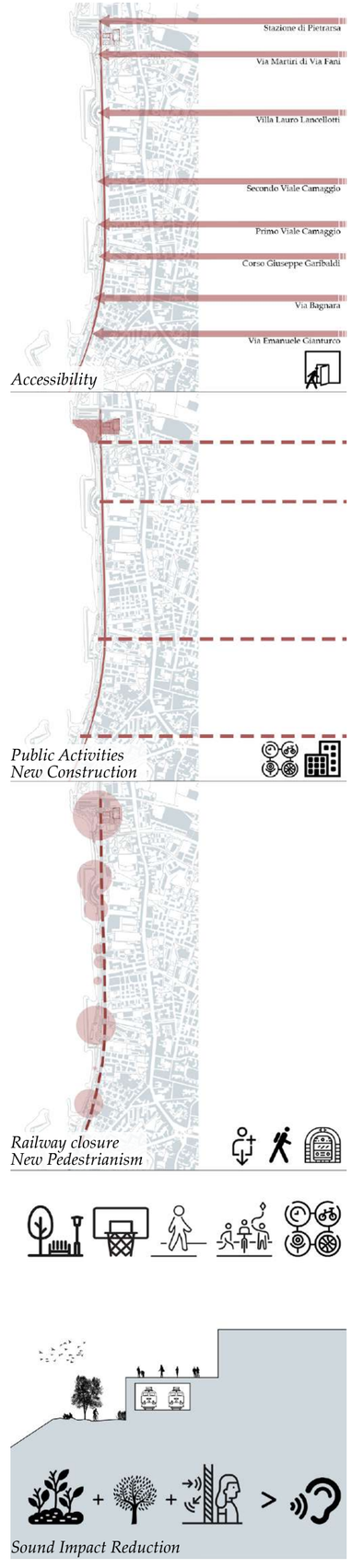
Residenti
Turisti

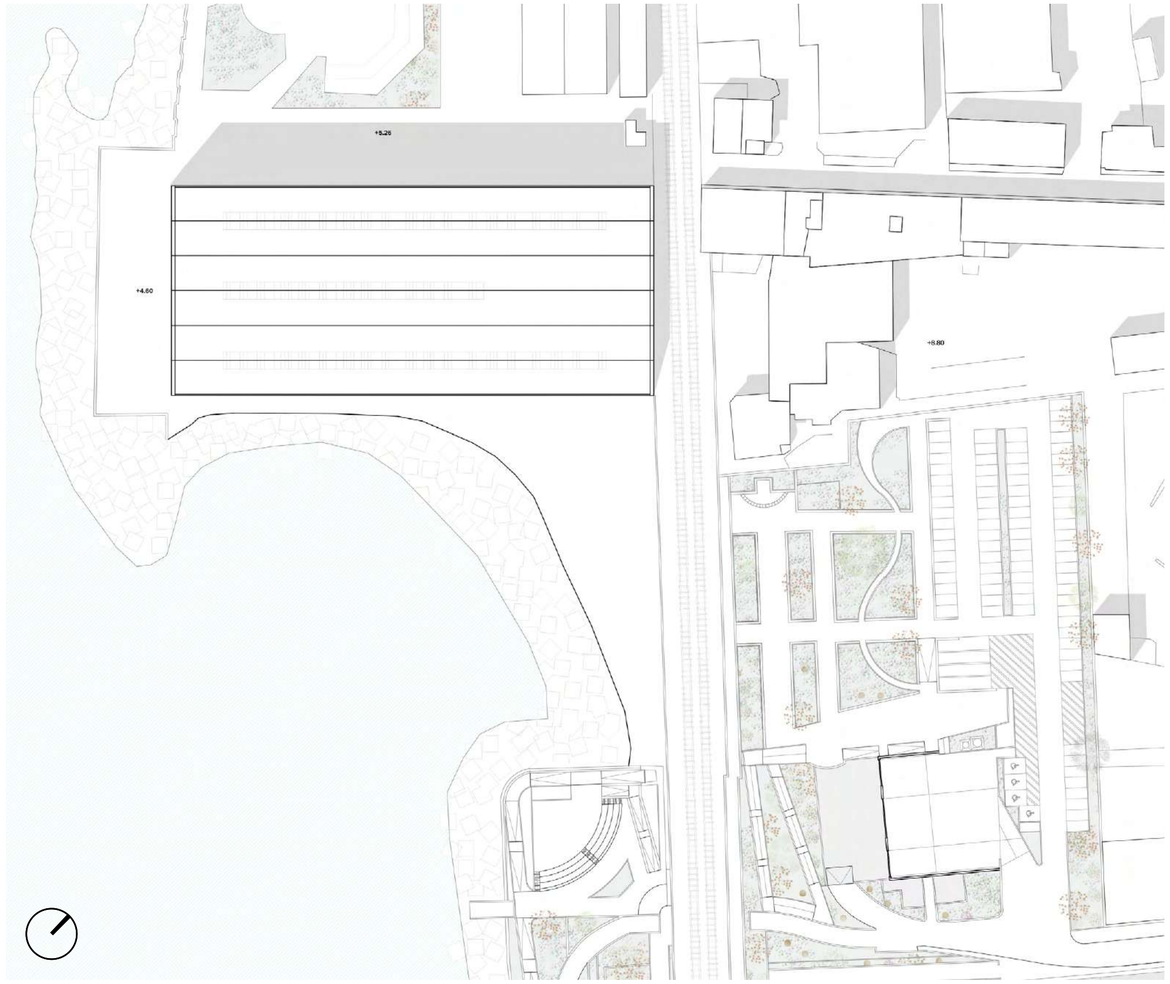
Operatori

Associazioni socio culturali
Privati investitori

OBIETTIVI	AZIONI
SFRUTTARE -Fruizione attività pubbliche **BENEFICIARE** -Miglioramento accessibilità **GODERE** -Valorizzare il waterfront **USUFRUIRE** -Nuove attrezzature pubbliche	**IMPLEMENTARE** -Inserimento di nuove attività collettive **RICONFIGURARE** -Riconfigurazione della viabilità pedonale **AMPLIARE** -Interventi di ampliamento verde pubblico **RIFUNZIONALIZZARE** -Rifunzionalizzazione aree abbandonate

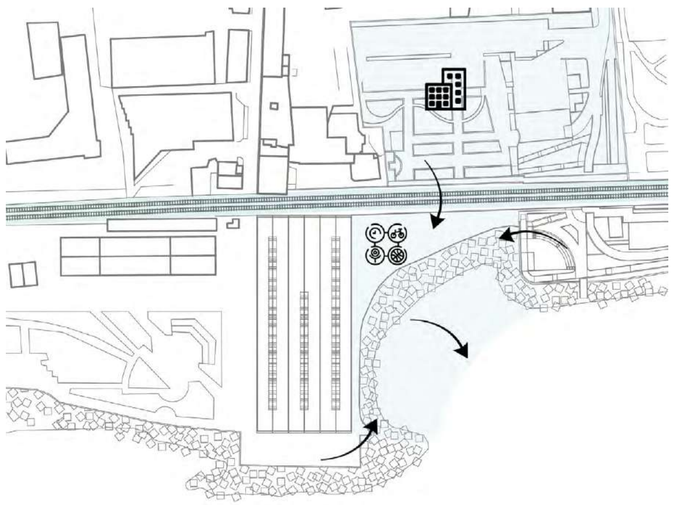




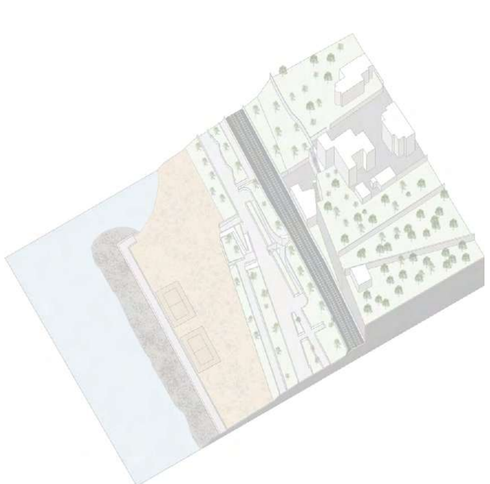


CURRENT STATE

0 20 50 100m



SUMMARY OF URBAN ANALYSIS
Areas of intervention closed to the public use_ project actions



CURRENT STATE: ACCESS FROM VIALE CAMAGGIO

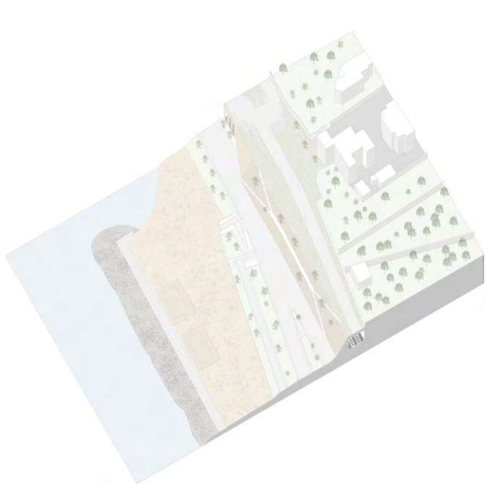


DESIGN PROPOSAL

0 20 50 100m



PEDESTRIAN FLOWS
Graphing of pedestrian routes in the area and in its vicinity



DESIGN PROPOSAL: CLOSURE OF THE RAILWAY

The adjacent area The Pietrarsa Railway Museum, analysis and conformation of the neighboring spaces, how the building with its sports functions was located within the park and in relation to the existing railway infrastructure.

The area in which the main sports activities and the public green system are centered is the one adjacent to the Pietrarsa Museum, the area was chosen for the many barriers and completely inaccessible areas.

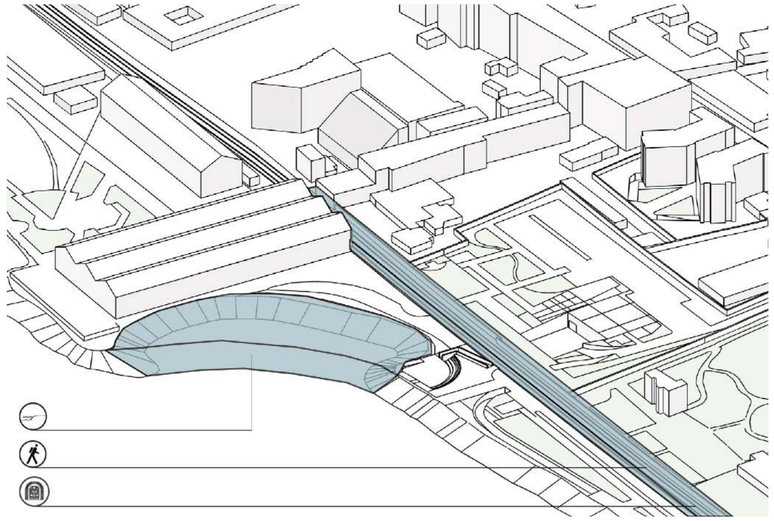
The first actions carried out in the area to deal with the problems that characterize the area were to create the railway closure and therefore the new pedestrian route, also to give a new use to the area bordering Pietrarsa and therefore the possibility of continuing the water-front system, moreover to give a new direct accessibility from the sea to the museum, it was decided to widen what is the coast line so as to create an environment a new square on the water that can give a terminal to the along the sea of Portici but also to insert a system of terraces that can give access to the entire infrastructure.

The second action performed is that of preparing the area that will host the building with its sports and parking activities, developed completely underground so as to configure and develop a park system on its roof and then exploit the spaces in their entirety, but also to solve the question of the railway barrier to which the building connects with its roof.

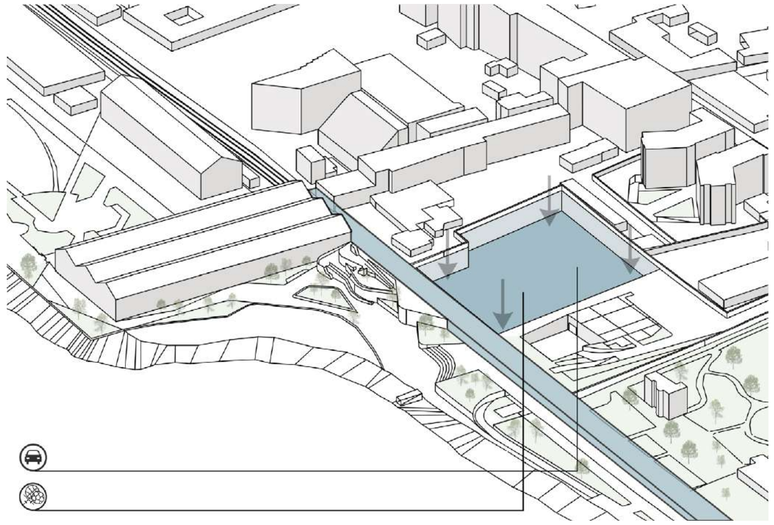
The third phase that characterizes the definition of the ground, given by the roof of the building, is configured according to the internal spaces and the desire to let in more natural light from above through skylights positioned on the roof, but also from a study of pedestrian flows that run through the entire area.

The park is characterized by planted and greening areas but also by areas for the play-ground or for outdoor sports activities.

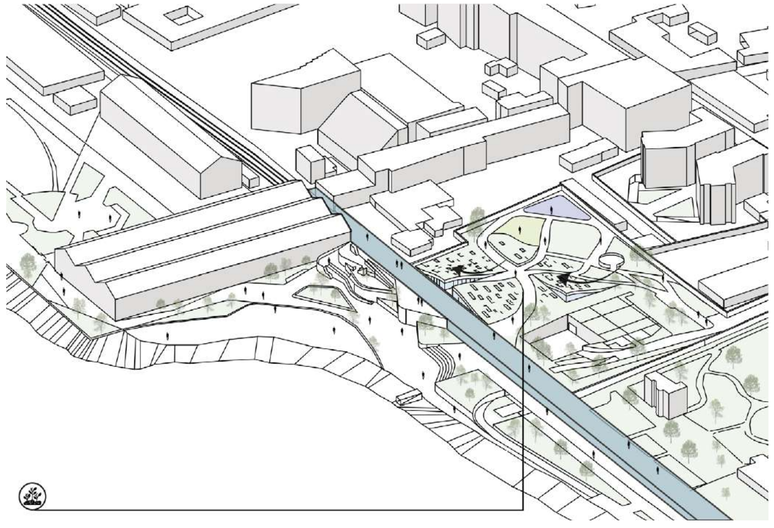
The entire infrastructure thus solves the main problems, from the barrier to accessibility but also configures a new elevation from the sea for the water front.



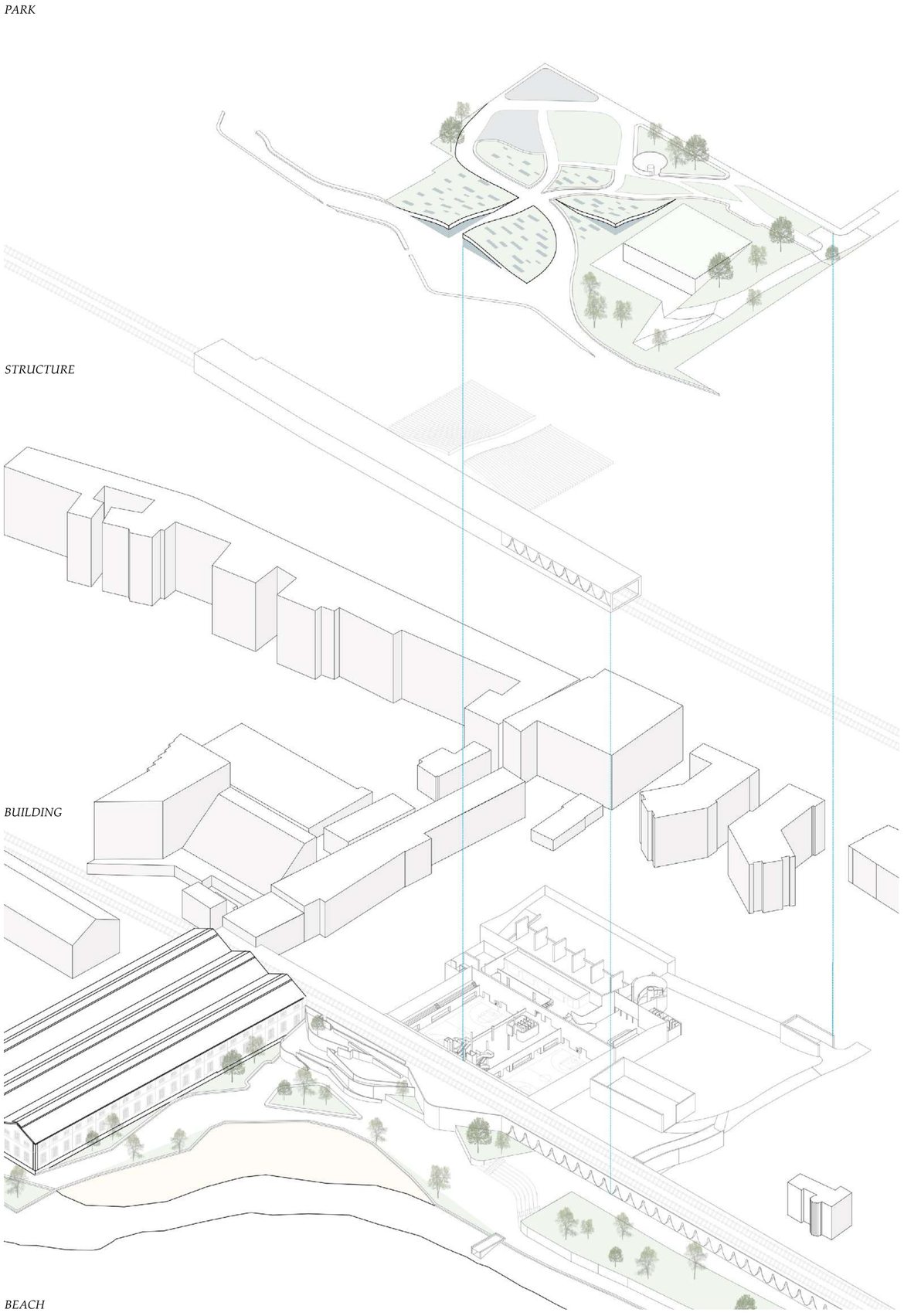
CONFIGURATION OF THE COASTLINE AND CONSTRUCTION OF THE RAILWAY TUNNEL



SOIL COMPOSITION AND CONSTRUCTION OF THE BUILDING



COMPOSITION OF THE SOIL AND ROOFING OF THE BUILDING





1. Entrance
2. Lobby
3. Parking
4. Male locker room
5. Female locker room
6. Thermal power station
7. Deposit
8. Gym N ° 1
9. Gym N ° 2
10. Services
11. Infirmary

SECTION A

0 8 20 40m



LEVEL -2 - 6,50m

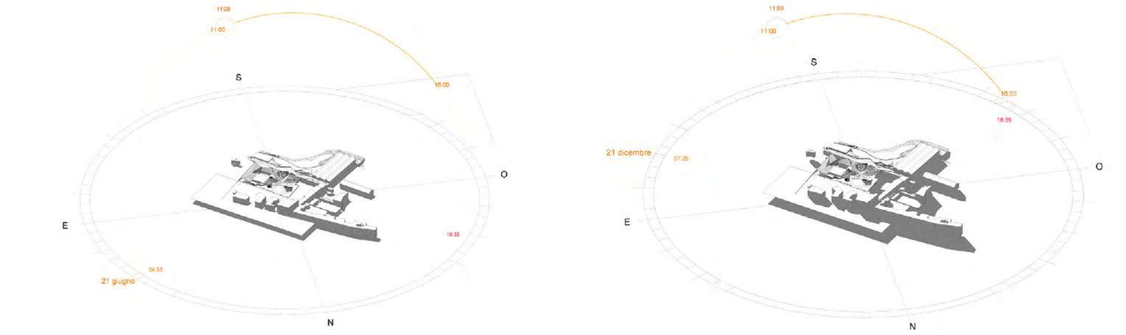
0 10 25 50m



VIEW OF THE PARK

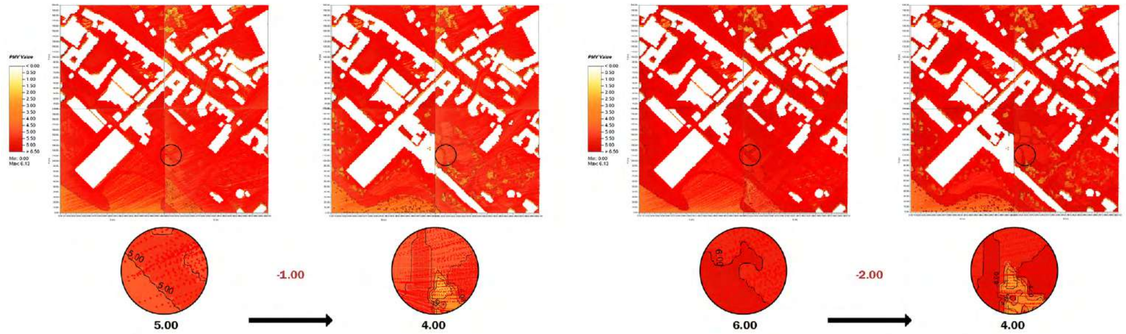


VIEW FROM THE PEDESTRIAN ROUTE

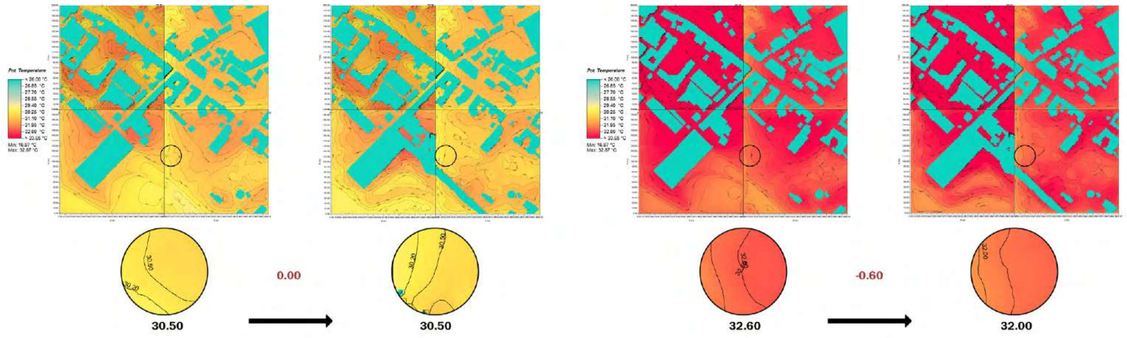


summer solstice | *June 21st*

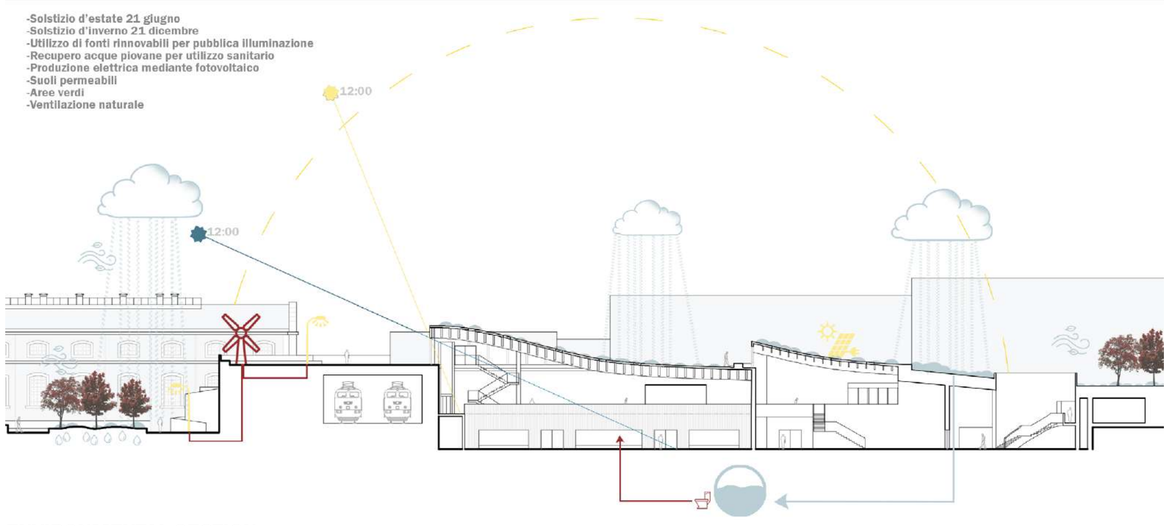
winter solstice | *December 21st*



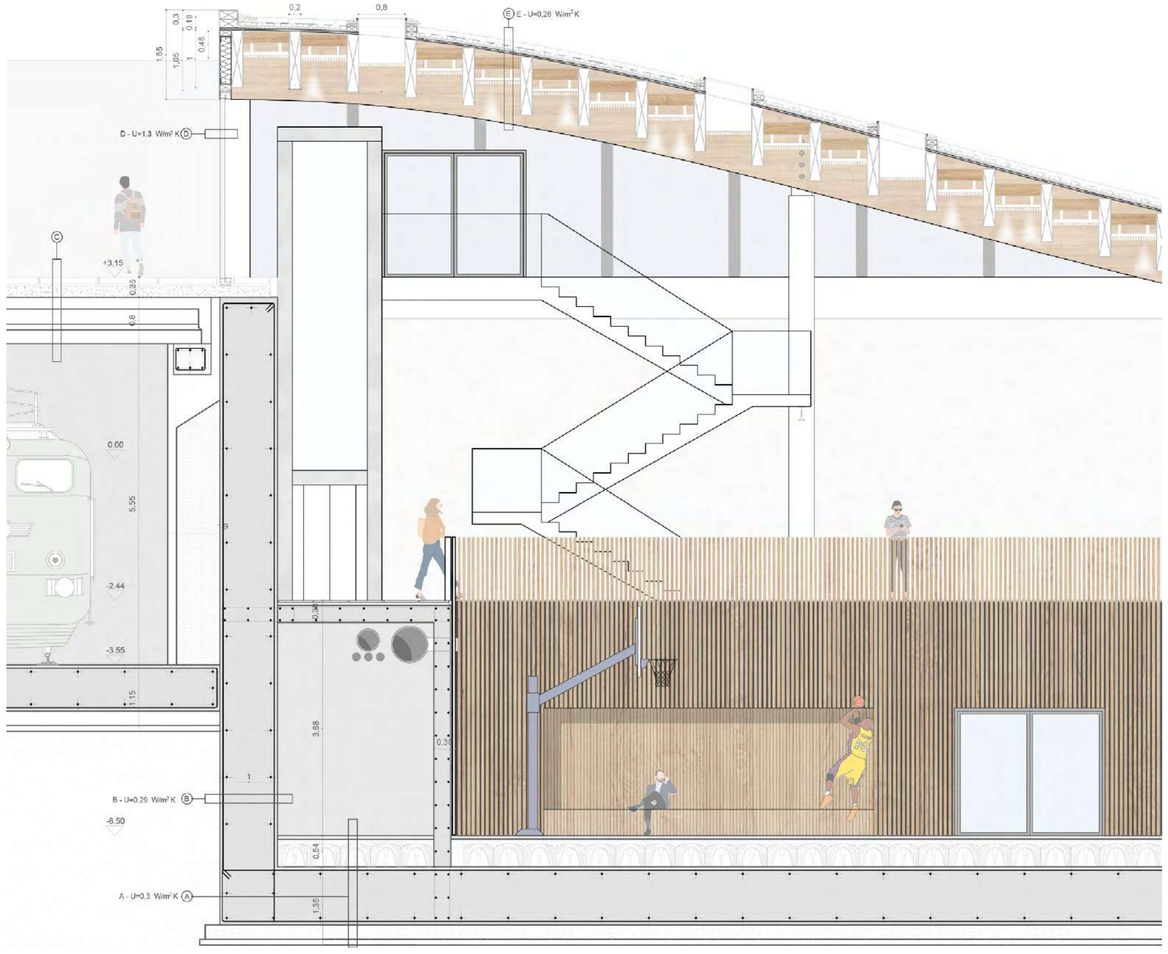
2020 *PMV | Thermal sensation index* *2050*



2020 *POT| Air temperature* *2050*



ENVIRONMENTAL SECTION

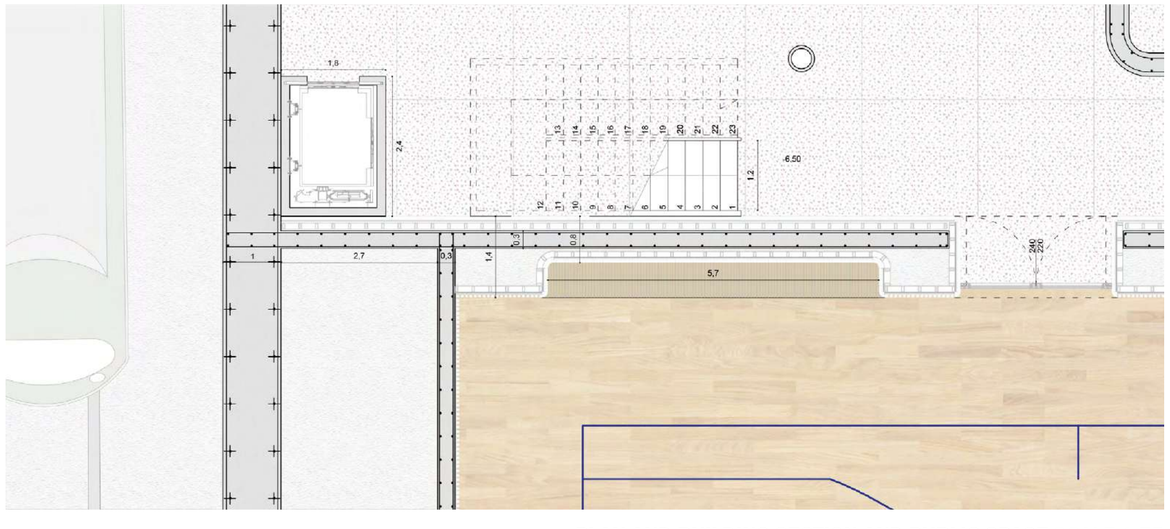


A. LOWER CLOSURE
1. Compact soil
2. Lean 200mm
3. Theater foundation
4. Air chamber in igloo 450mm
5. Reinforced concrete screed 90mm
6. Tesin floor flooring

B. VERTICAL CLOSURE
7. Reinforced concrete bulkhead 1000mm

C. RAILWAY UPPER CLOSURE
8. Deck in reinforced concrete
9. Completion sole 200mm
10. Bedding layer 200mm
11. Self-locking concrete flooring

E. EXTENSIVE TOP CLOSURE
12. Lamellar beam BSH 200x1000mm
13. OSB panel 30mm
14. Daku fsd 2082mm
15. Daku Stabilfilter SFE 1,30mm
16. Daku Grid 4
17. Topsoil layer



PLAN AND BUILDING SECTION AND PUBLIC SPACE SCALE 1:75

PORTICI ADVANCED DESIGN STUDIO

ANTONIO LEONE - CROSSXRAIL

A STRATEGY AGAINST FRAGMENTED SPACES CONNECTION BETWEEN THE URBAN PATTERN AND THE WATERFRONT

The city of Portici shows particular problems in the scope of housing and building density, for many years it has reached the peaks of this special classification, this problem has led over the years to a stratification of criticality.

The large population, in constant movement, generates traffic and pollution; temperatures are often very high due to the unequal distribution of green spaces.

Furthermore, one of the attractions of the city, its railway, first in Italy by birth, is now a problem for the population, as it is read as a shear between the city center and the sea.

The CrossXRail project aims to integrate the dense urban fabric with the waterfront, acting on two main axes to reconnect the polarities of the city. Another goal is the enhancement of the Pietrarsa Museum and the railway itself, which is incorporated into the project, with the aim of being perceived as a value and not a critical issue.



Program

public terraces, park, café/restaurant

Covered area	2298m²
Uncovered area	11624m²
Levels above ground	1
Built volume	1354m³
Estimated cost	1.636.274,00€

The preliminary analysis starts from the study of the elevation trend of the waterfront/ railway/road section, which in fact is divided into three inaccessible levels, and this non-permeability constraint is particularly evident in the final part of the new waterfront, completely abandoned and left out of the new system, excluding Pietrarsa.

In a second phase, a diagnostic operation was carried out on the area, mapping the major criticalities, focusing on noise and environmental pollution, permeable and impermeable soils.

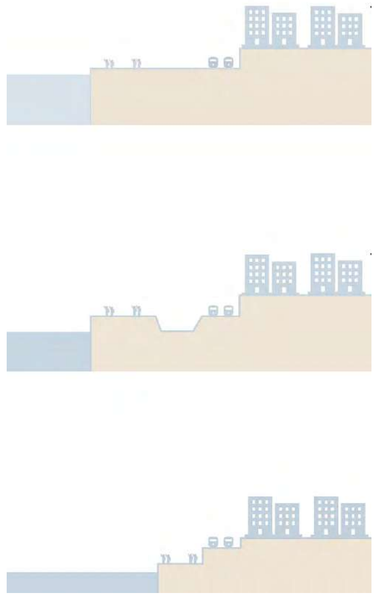
In a city with such a high construction density, the phenomenon of heat islands often occurs, in the absence of permeable soils and green areas the temperature rises, just as the issue of recycling rainwater becomes critical.

From this analysis comes the idea of intervening with a soil and paving project, not only to aim for the integration between the urban fabric and the waterfront, but also because in this way a buffer area is created that acts as an outlet for the dense built environment.



TERRITORY DIAGNOSTICS
It can be seen in this analysis how the highway and the railway act as two impassable barriers, but the integration of these two is not impossible if we consider their role as connectors.

URBAN PATTERN/WATERFRONT SECTIONS



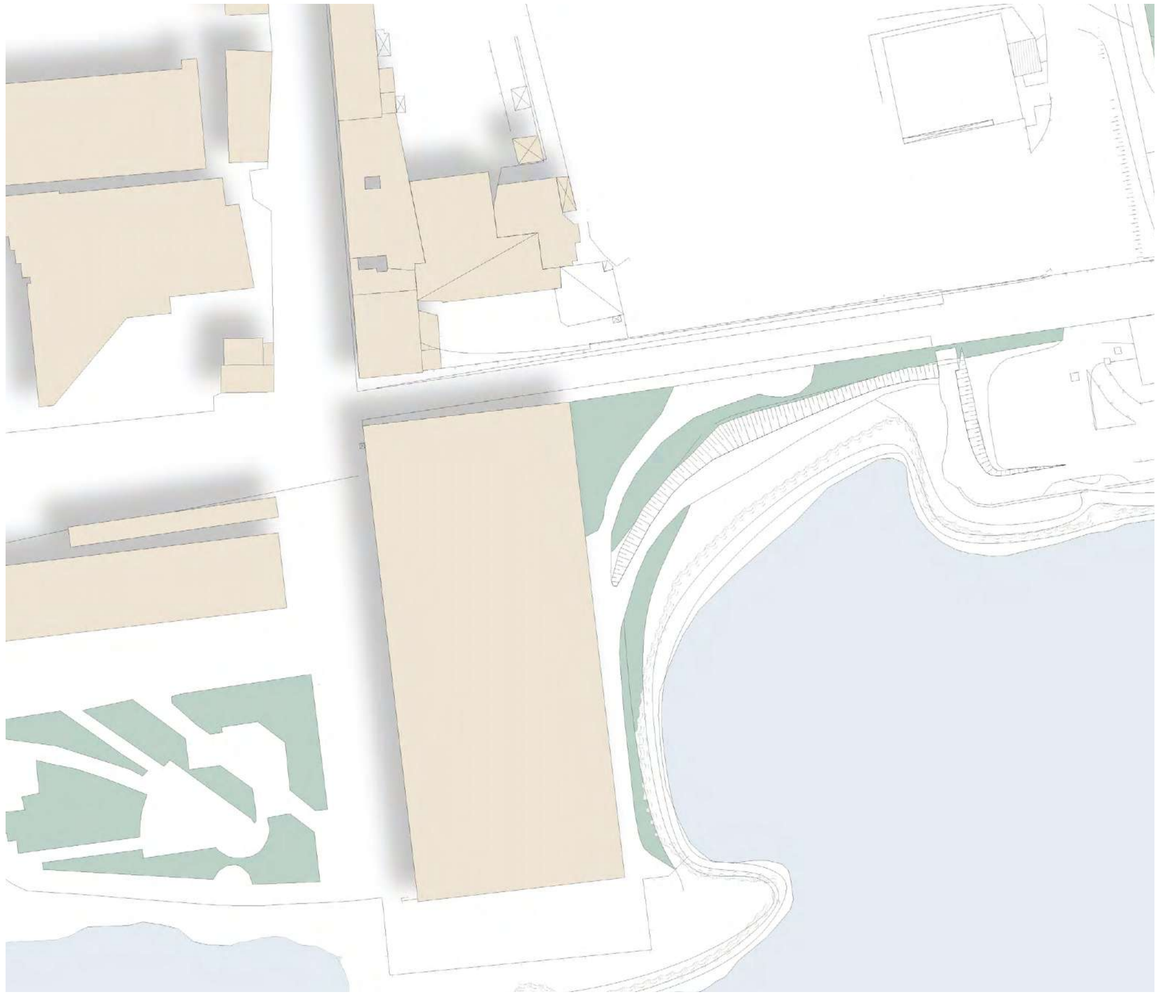
MAIN AXES



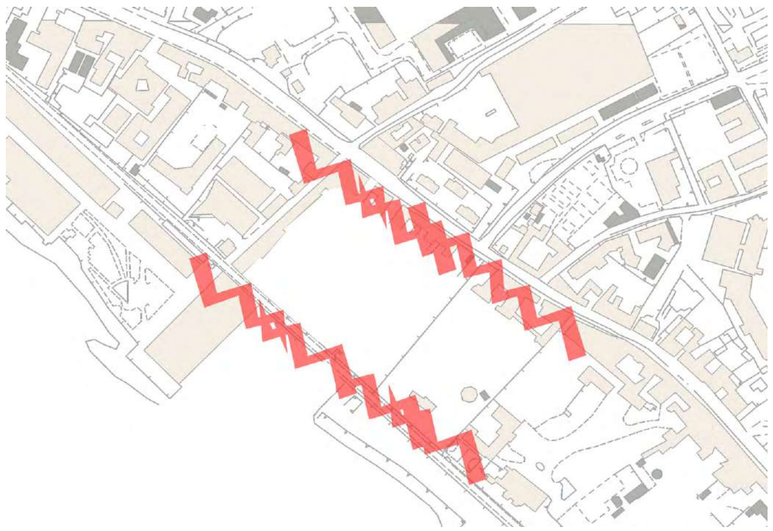


CROSSXRAIL PROJECT CONTEXT

0 75 150m

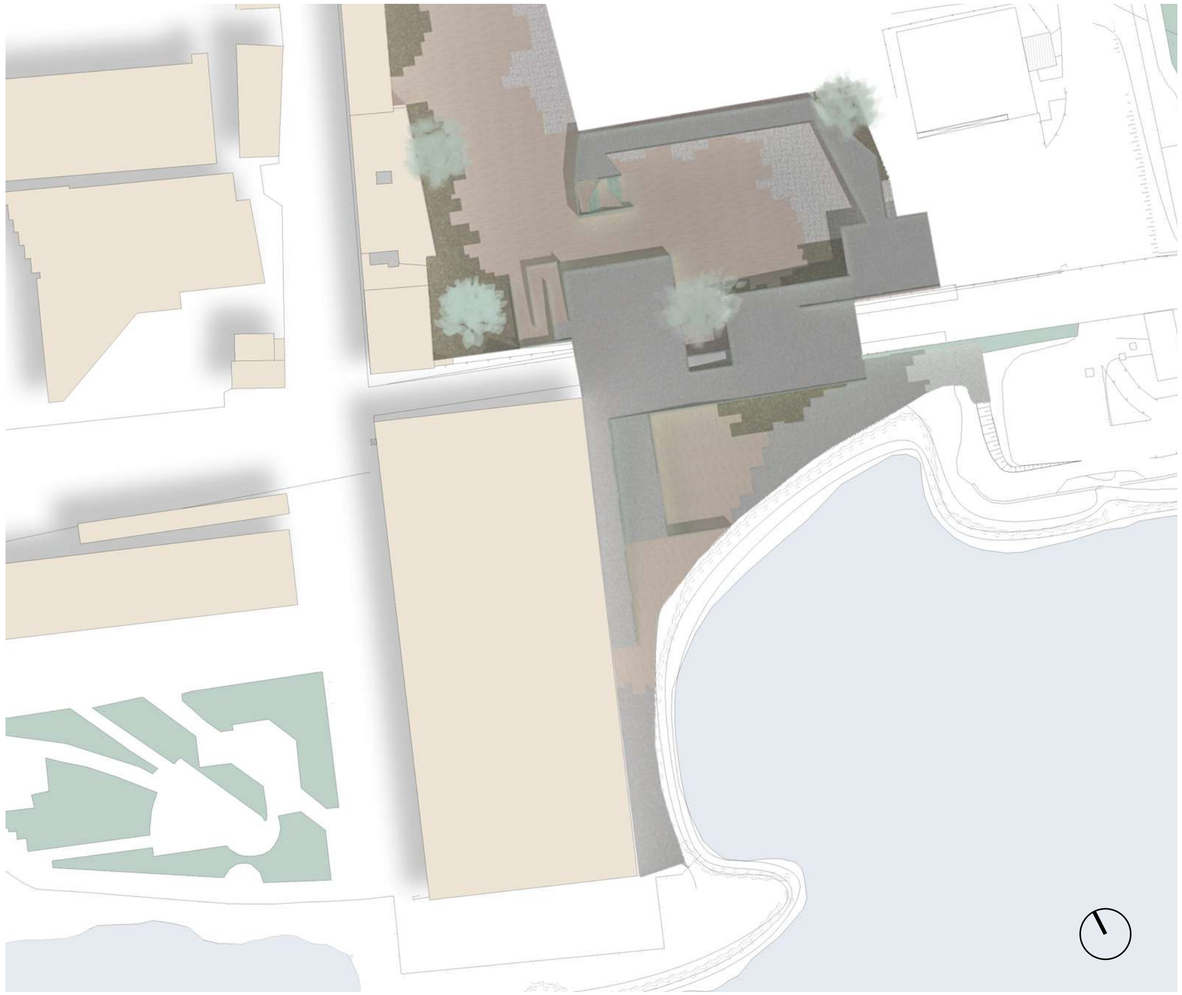


CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

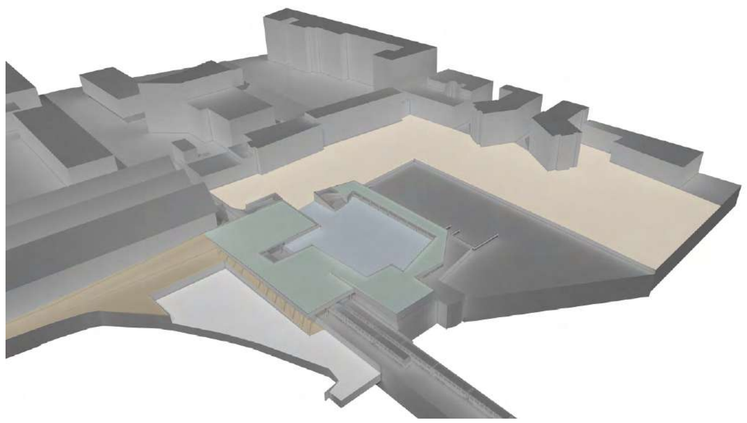


URBAN ANALYSY SYNTHESIS

In the current state, the building curtain and the railway ensure that the portion contained between them does not have a true urban dimension. It hardly seems to exist unless you live in the neighboring buildings

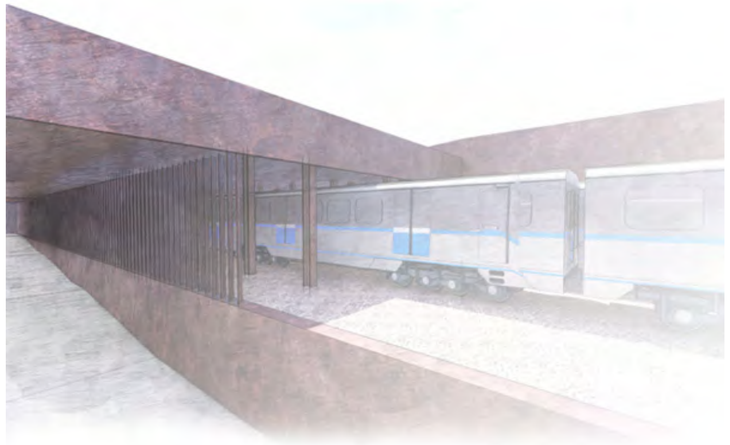


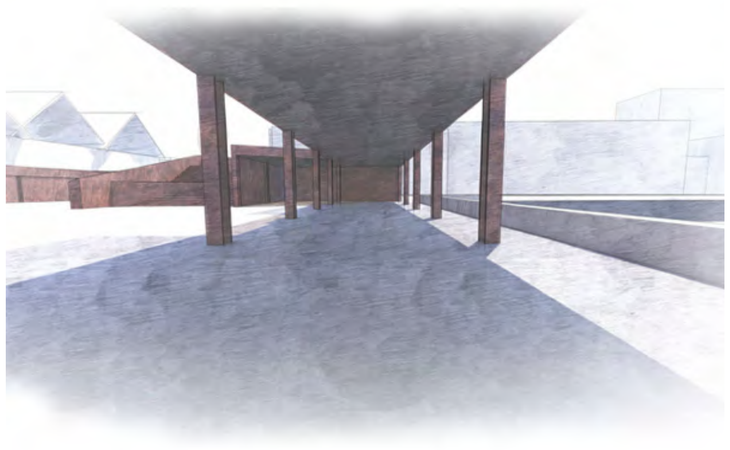
DESIGN PROPOSAL



ACTIONS SYNTHESIS URBAN SCALE

- Permeable membrane between the urban fabric and the waterfront
- Lift system center
- Lift system
- Start/End waterfront
- Access system to Pietrarsa Museum

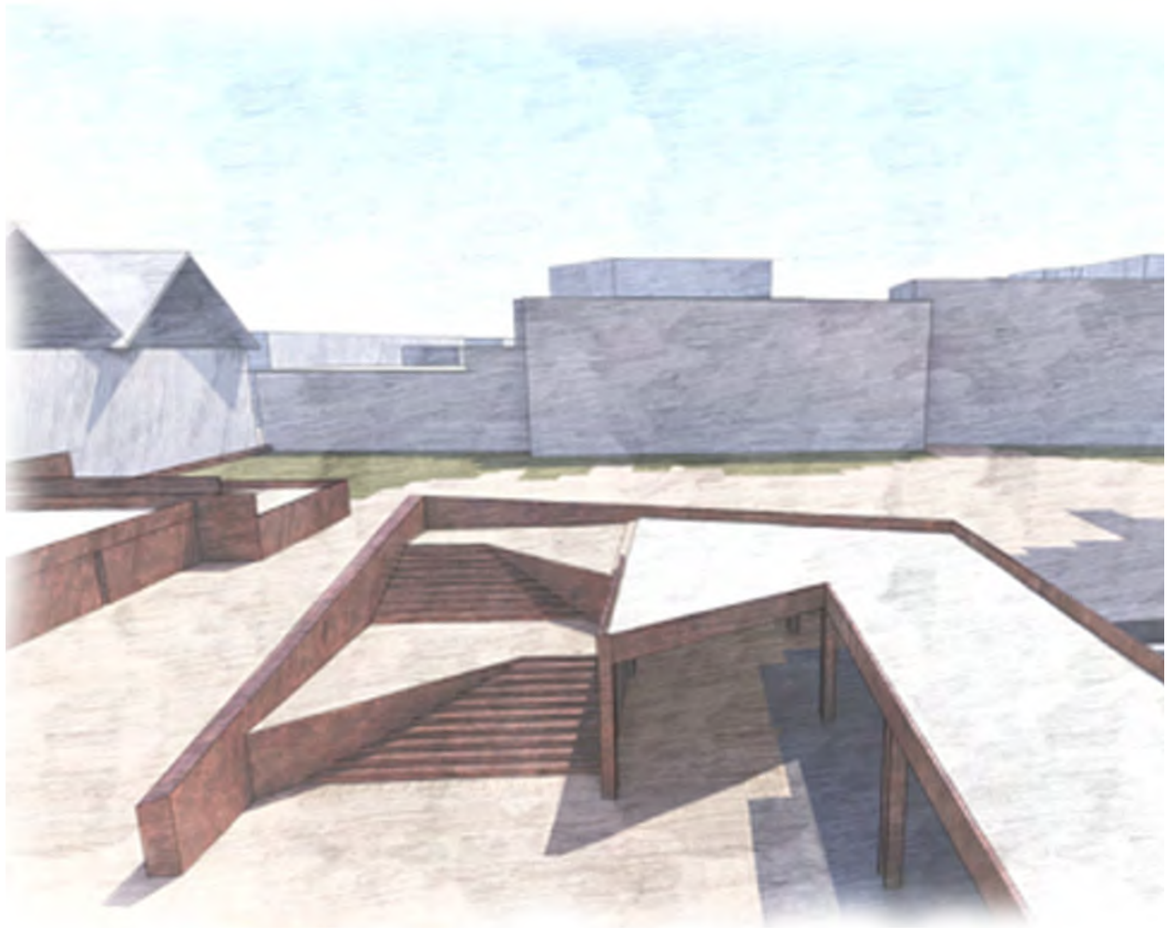


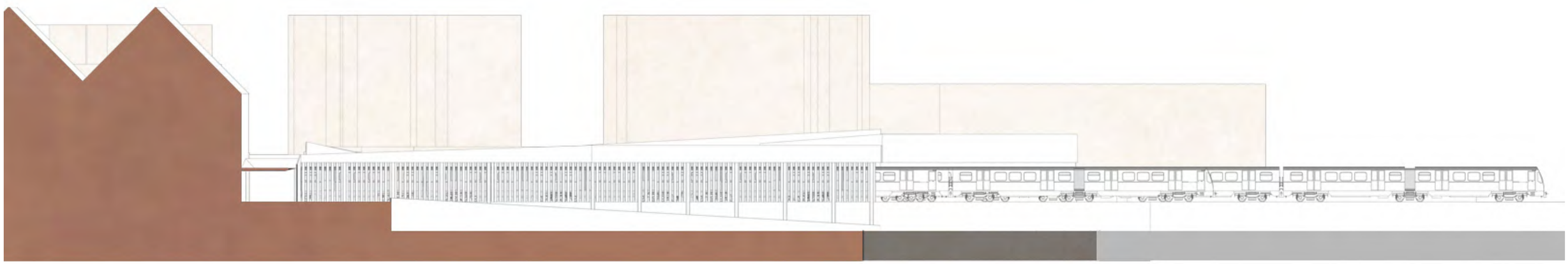


From the desire to have a crossing system and not a single element, a first concept was born, defined by a system of terraces, which cross the railway and define an access to the Waterfront and to the Pietrarsa museum. An industrial character is sought, to recall the history of the place.

The connection of the lift system generates an aggregation area, a square on the sea.

Access to the Pietrarsa museum is identified by walking along the edge of the coast, entering directly into the museum's garden.







SECTION A



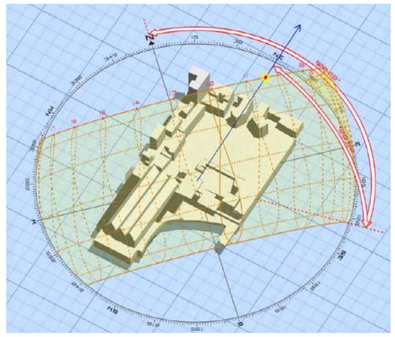
SECTION B



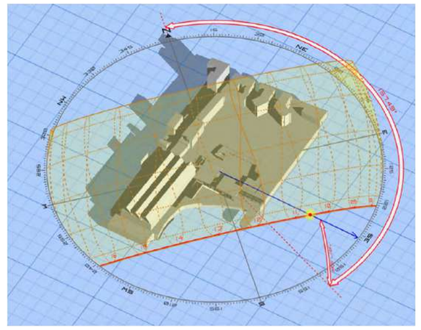
ROOF PLAN



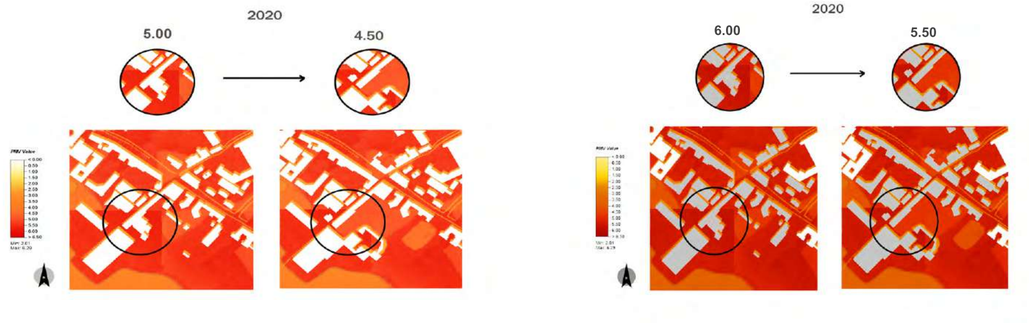
SEA SQUARE



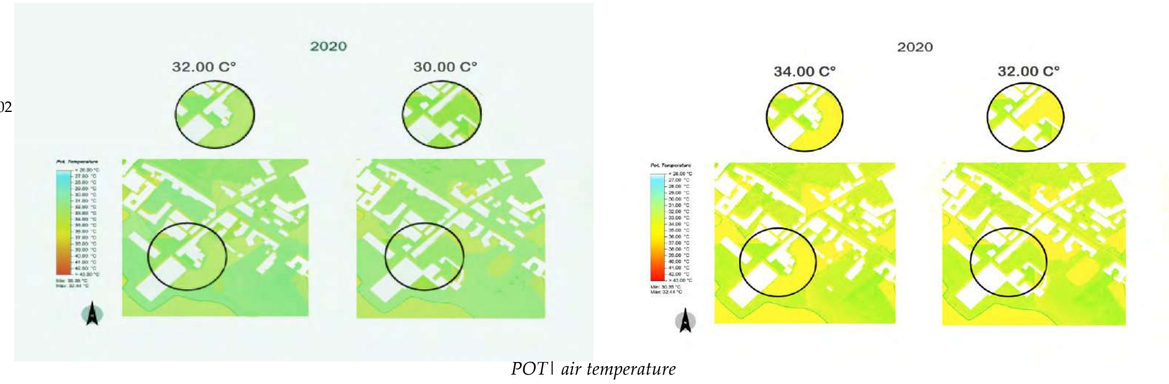
summer solstice | june 21



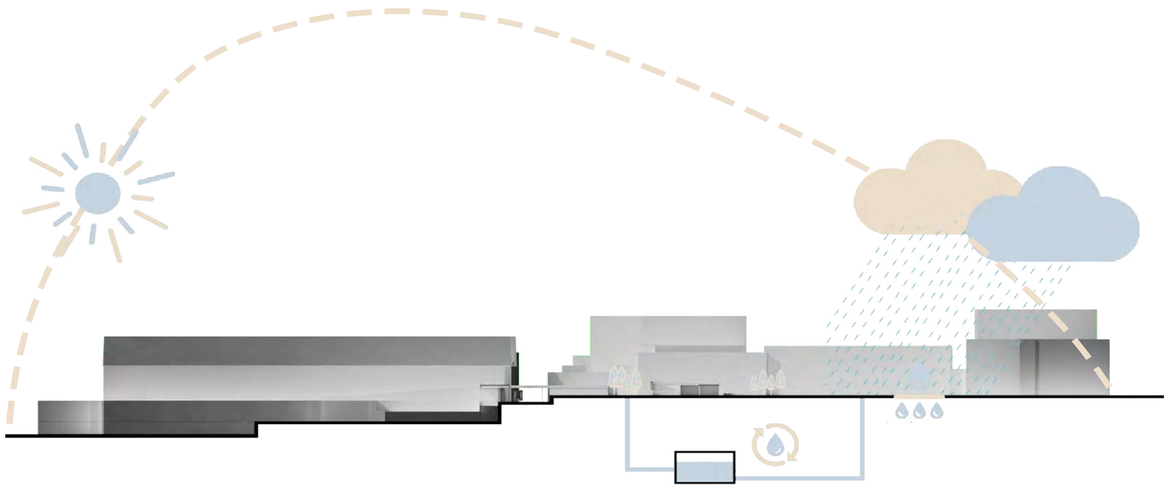
winter solstice | december 21



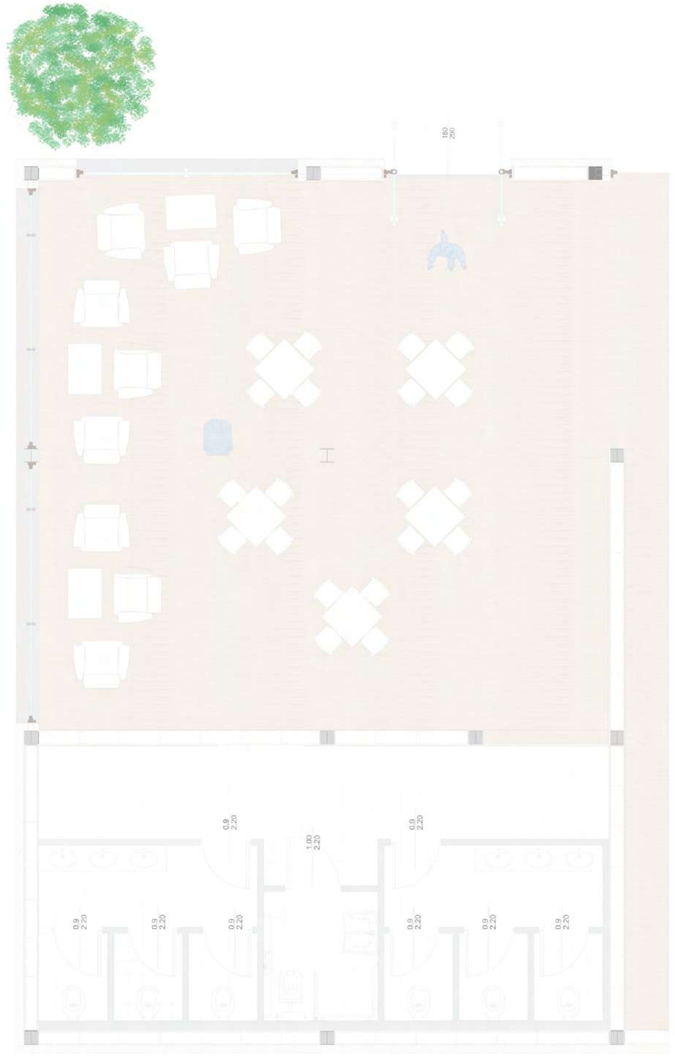
PMV | Thermal sesation index



POT | air temperature



ENVIRONMENTAL SECTION





DETAILED PLAN AND SECTION

PORTICI ADVANCED DESIGN STUDIO

GIULIO MONTEFOSCHI - THE DOOR OF THE SEA

A STRATEGY AGAINST URBAN OBSTACLES

CONNECTION BETWEEN CORSO GARIBALDI AND THE WATERFRONT

On the slopes of Vesuvius and in correspondence with the historic "Golden Mile" stands Portici, a city, rich in history and art, which for years has experienced a contrast with the widespread problems especially related to urban planning.

Over the years, uncontrolled urban growth has caused an exponential increase in housing density, with data far above the European and world averages.

Among the most inconvenient needs that the area presents is the lack of meeting spaces for the community, caused precisely by the massive construction of the area. In contrast to these data, however, on the ground of arcades there are various areas and structures that are in disuse conditions.

Another problem highlighted by the population is the difficult accessibility to the waterfron, limited only to some underpasses, which therefore does not allow full usability of the sea and of the new project under construction.

This intervention therefore aims to solve some of these problems by connecting Corso Garibaldi to the waterfont, encouraging pedestrian and cycle paths, in such a way as to also propose a sustainable alternative to the excessive traffic of the city.



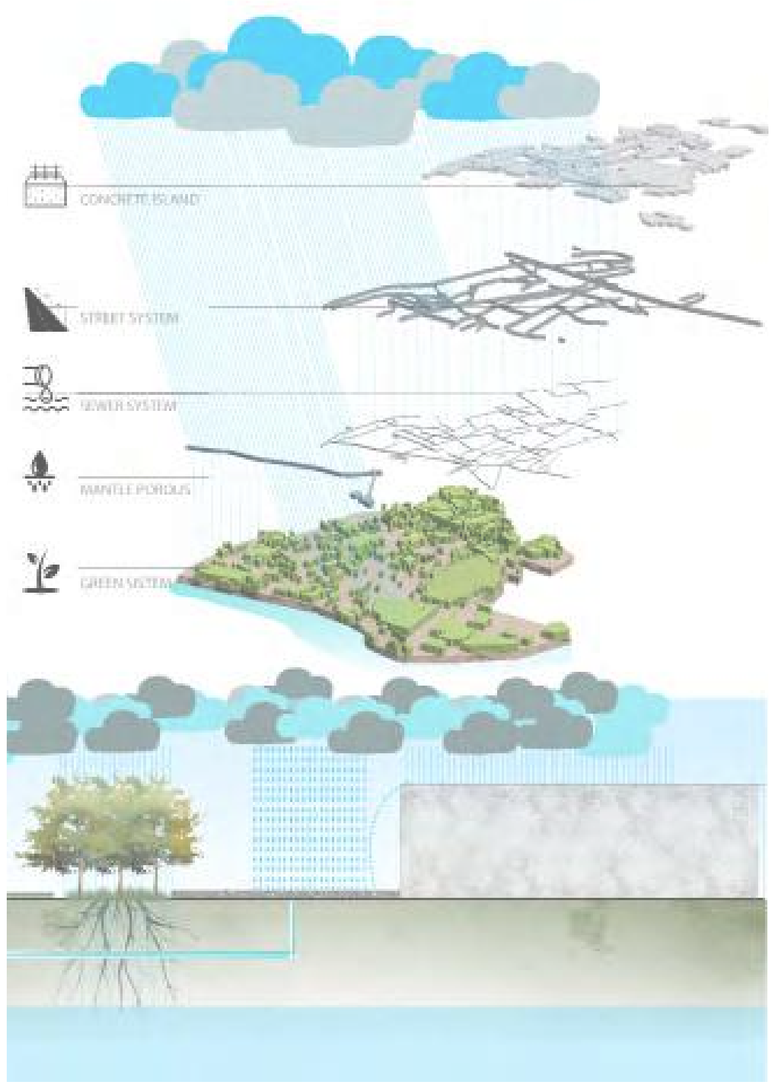
Program

urban park, pedestrian and cycle paths, bike sharing, exhibition halls, coworking

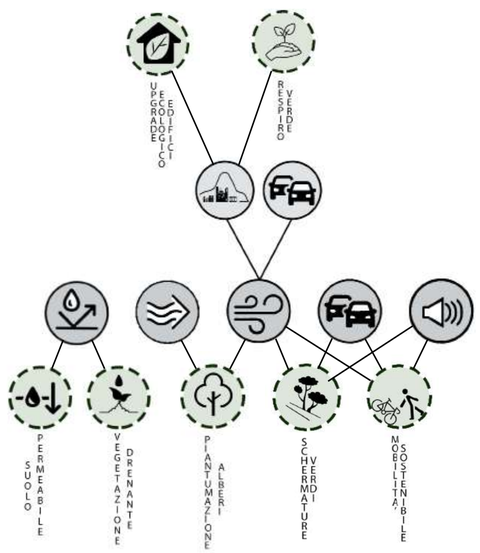
Covered area	2200m²
Uncovered area	5000m²
Levels above ground	3
Built volume	8800m³
Estimated costs	5.045.355,00 €

After carrying out a study on the criticalities of the arcade area, the major problems were highlighted from the point of view of pollution, both atmospheric and sound, and from the point of view of ground permeability. Precisely this condition is also a direct consequence of a strong construction density, as well as housing, which is harmful for the recycling and disposal of water.

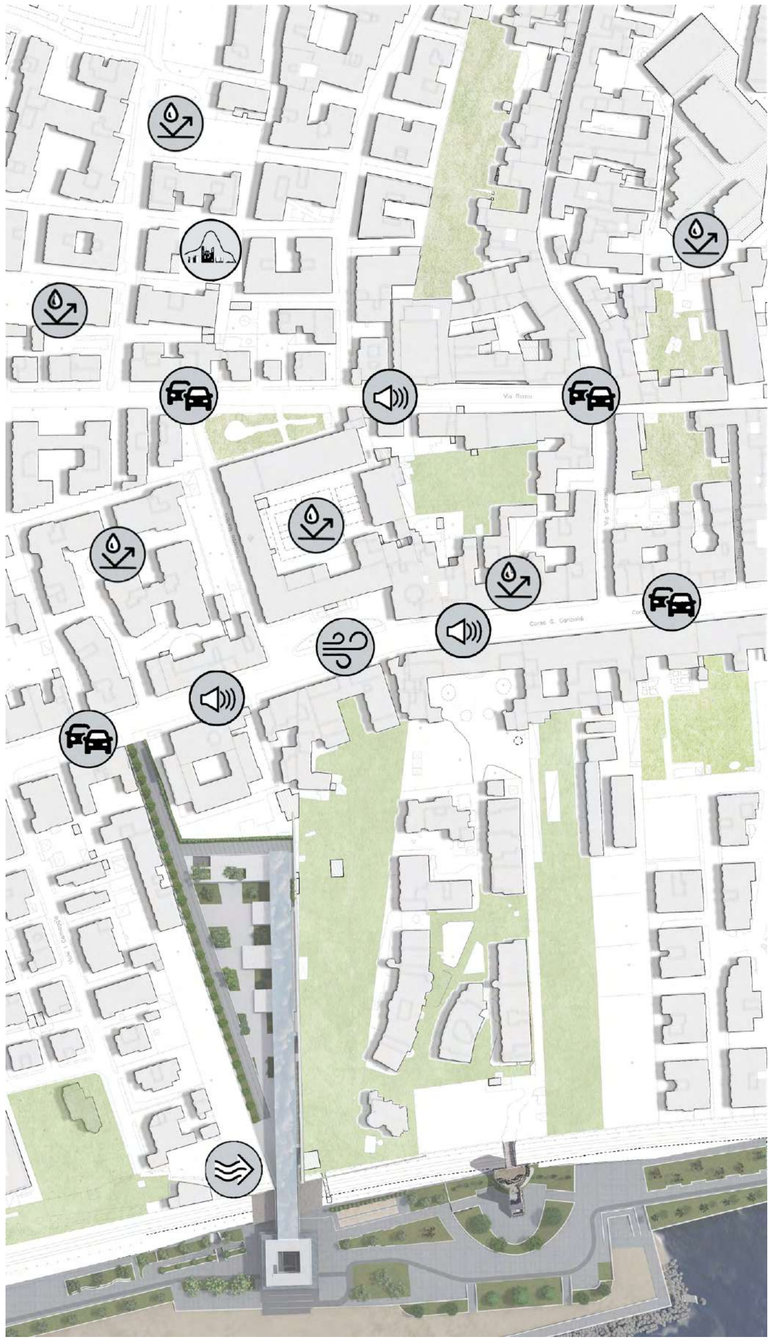
In a second phase, solutions were proposed to the problems encountered, which aim to limit these conditions and thus improve the livability of the area. In addition to an efficient ecological upgrade of the buildings, which can be considered as a long-term goal, some of the solutions proposed, such as theconstruction of cycle paths, and the promotion of sustainable mobility types, aim at a realization with much shorter time frames.







SOLUTIONS



PORTICI PARK





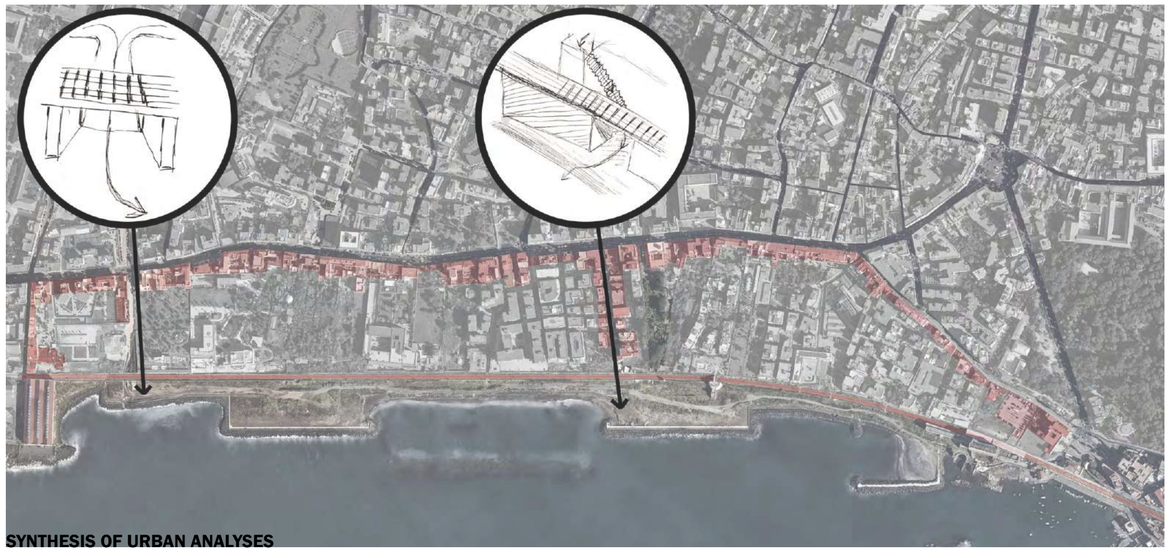


Barrier consisting of a curtain of buildings that does not allow connection to the waterfront



CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 20 50 100m



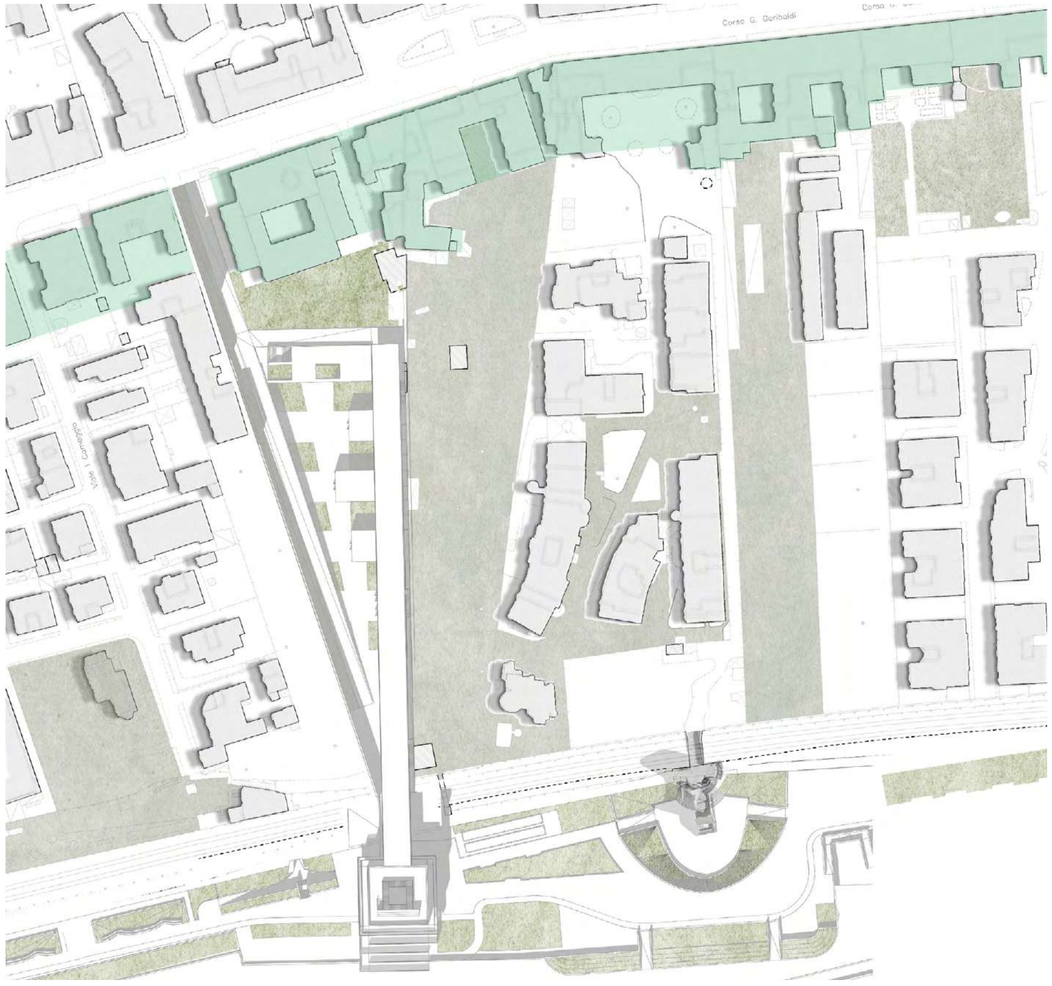
SYNTHESIS OF URBAN ANALYSES

Corso Giuseppe Garibaldi

Cycle link to the Waterfront

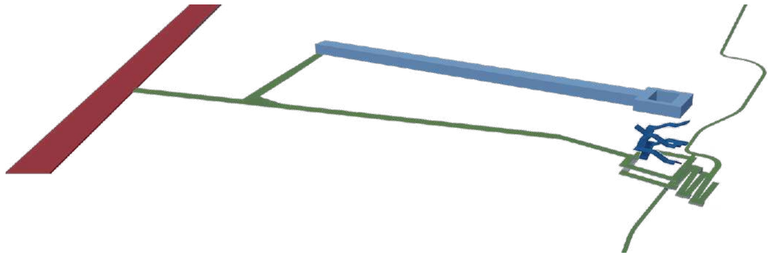
Pedestrian connection to the waterfront

Opening of the Gate in the Barrier

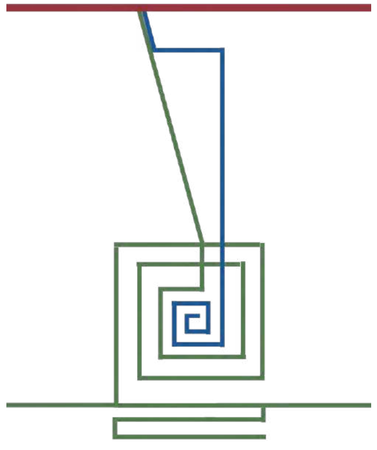


DESIGN PROPOSAL

0 20 50 100m



SYNTHESIS OF THE CONNECTING ELEMENTS

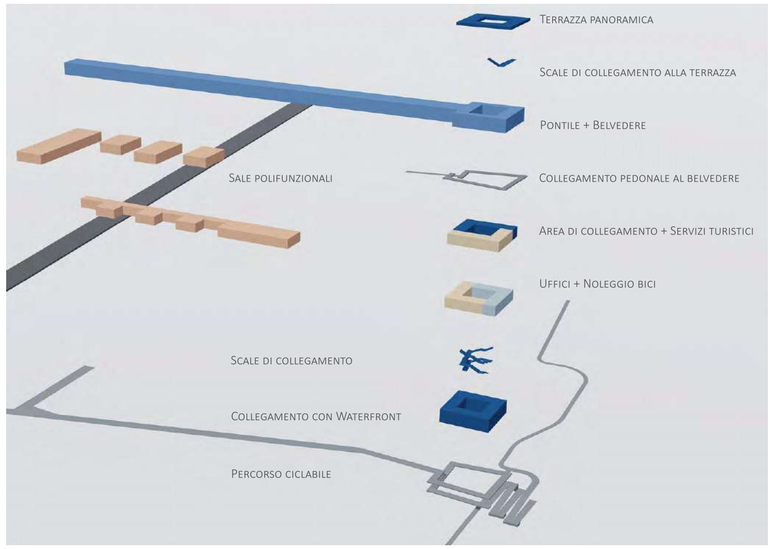


ACCESSIBILITY SCHEME

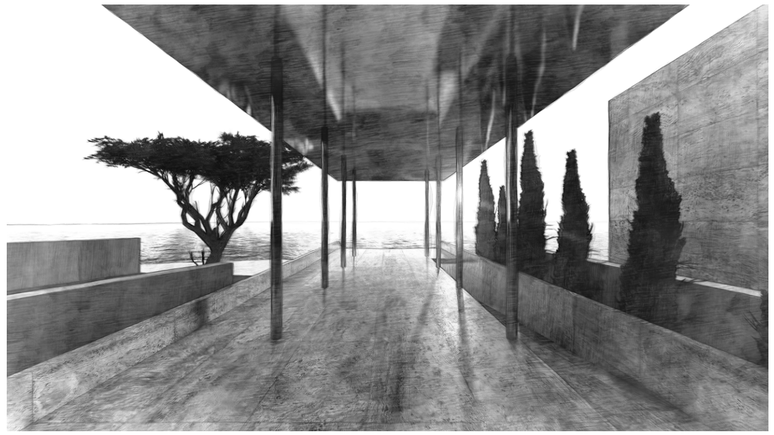
conceptual scheme of links to waterfront

The intervention aims to be, not only an element of crossing the building curtain, but also an extension of the public dimension of the city. Inside, in fact, we find various types of functions, such as exhibition rooms and coworking offices, which give the building a dynamic character as it is constantly crossed by a flow of people at various times of the day, an architecture that changes continuously, so like its inhabited area.

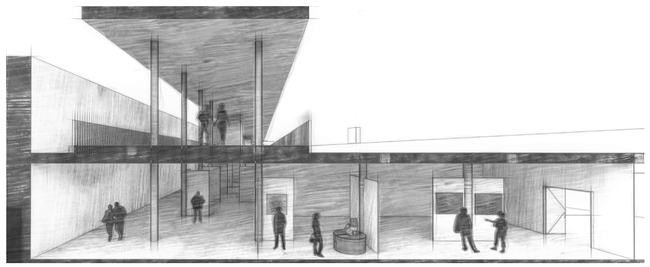
The dynamic component is the most prominent feature, in fact it is made even more evident by the descent and ascent system from the waterfront, which extends in a much wider way thanks to the connection to a cycle path system that starts right from the activity of bike sharing present in the place. The work can therefore be considered as a mediation between functionality and form, which is grafted into the city as an extension of the latter.



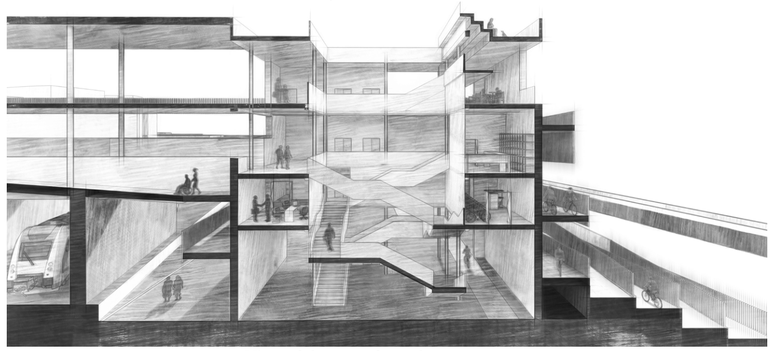
Summary of project components



"The door to the sea"



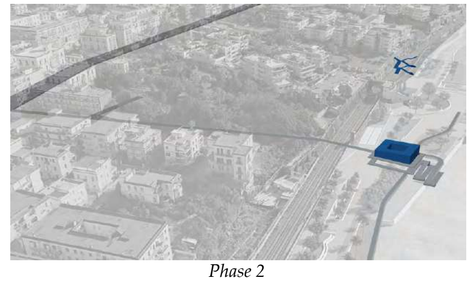
View of the exhibition rooms



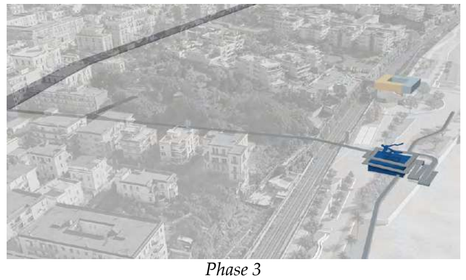
View of the waterfront descent systems



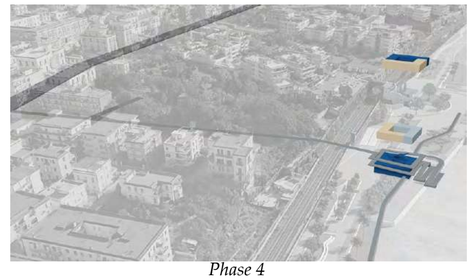
Phase 1



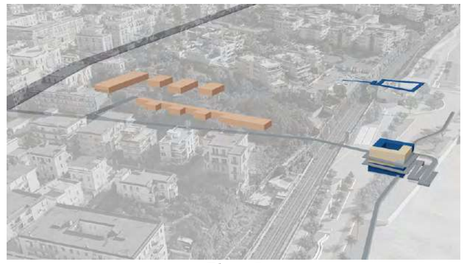
Phase 2



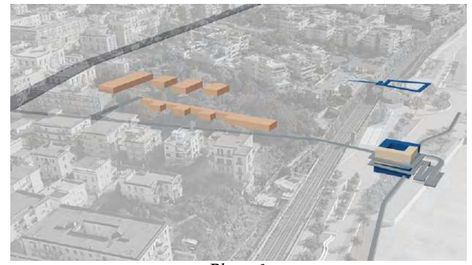
Phase 3



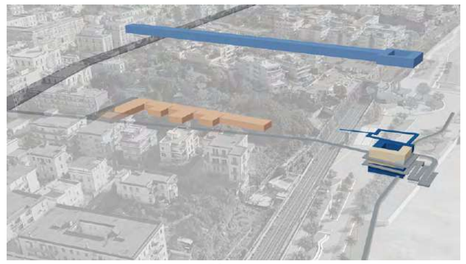
Phase 4



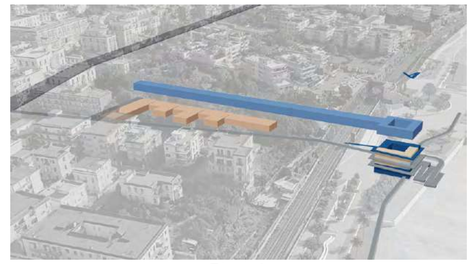
Phase 5



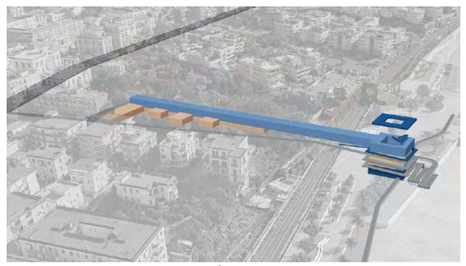
Phase 6



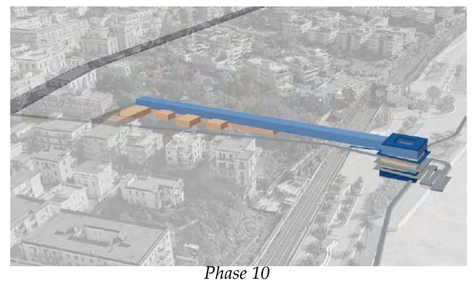
Phase 7



Phase 8

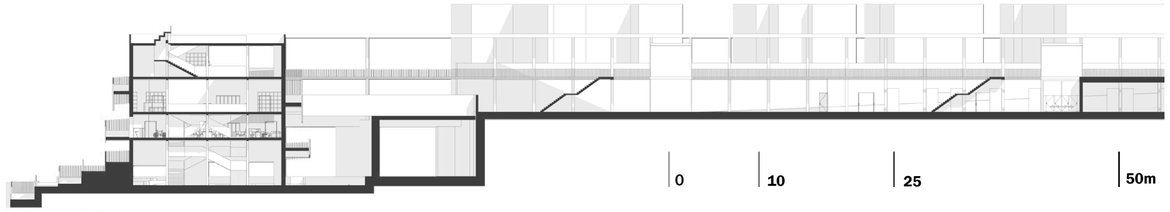


Phase 9



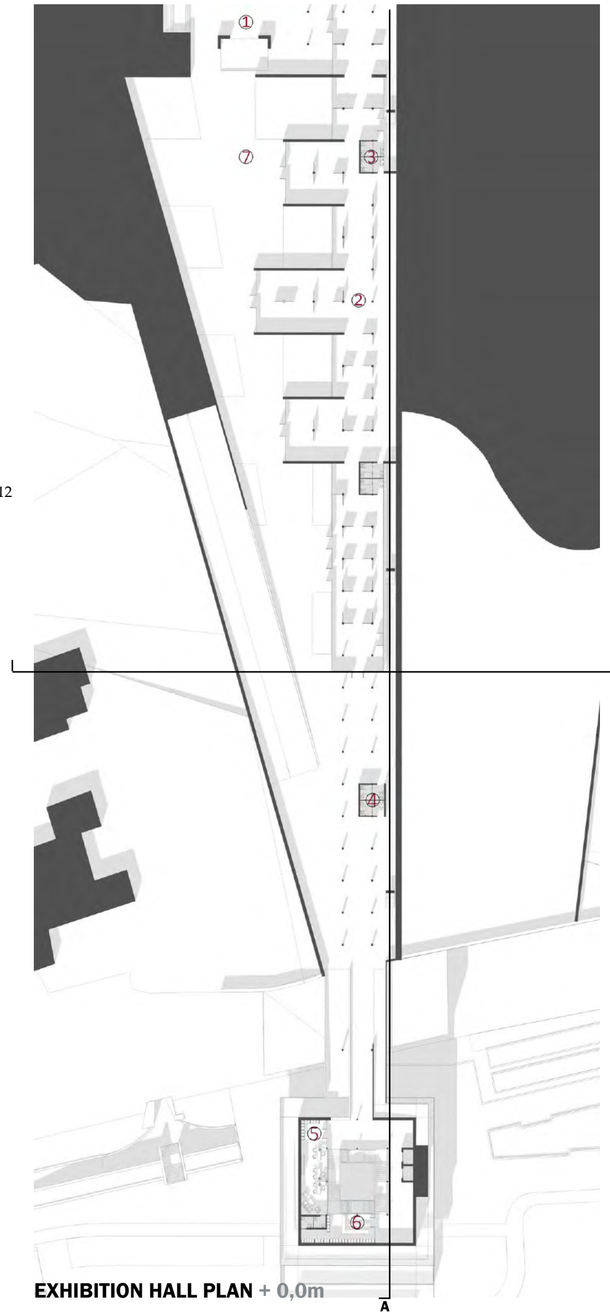
Phase 10

Phases of composition of the project

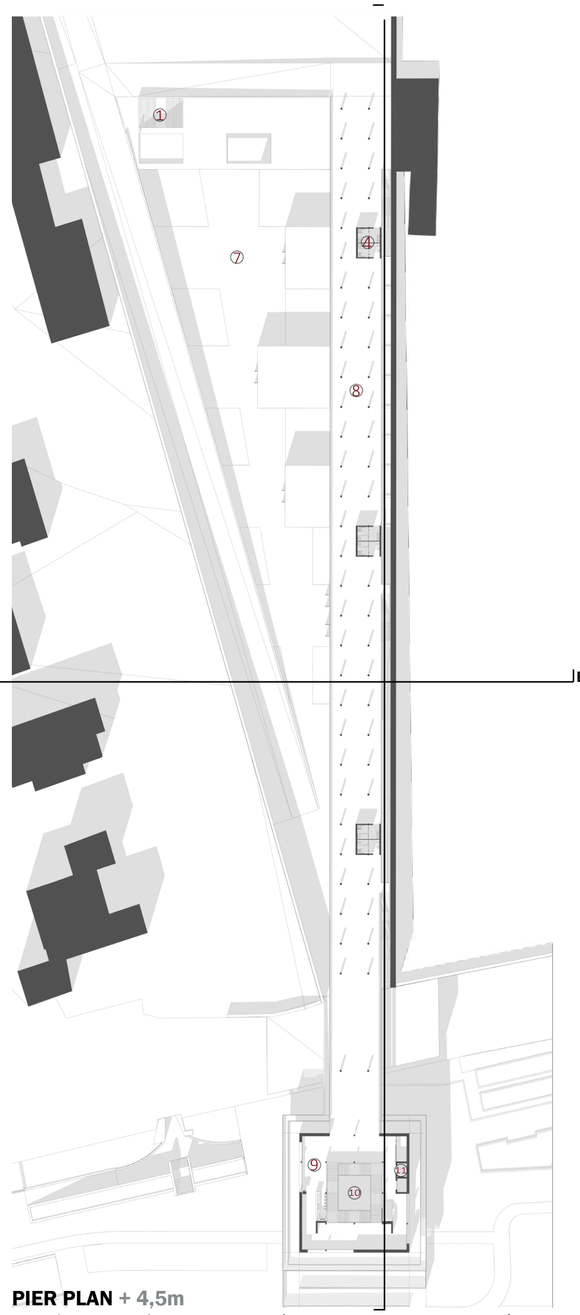


SECTION A

1. Entrance to Exhibition Rooms
2. Exhibition Rooms
3. Toilet
4. Public toilet
5. Coworking office
6. Tourist info point
7. Park
8. Pier
9. Bar
10. Connection to the Waterfront
11. Elevators



EXHIBITION HALL PLAN + 0,0m



PIER PLAN + 4,5m

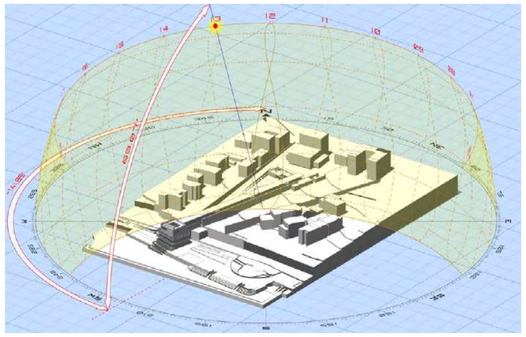




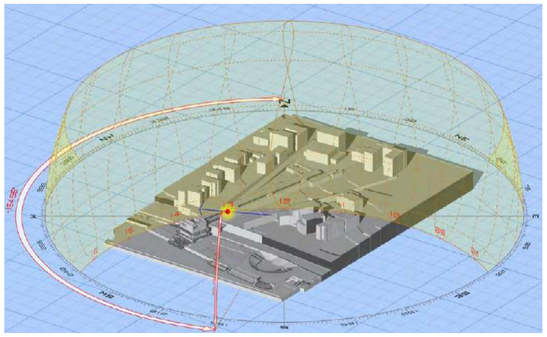
SECTION B



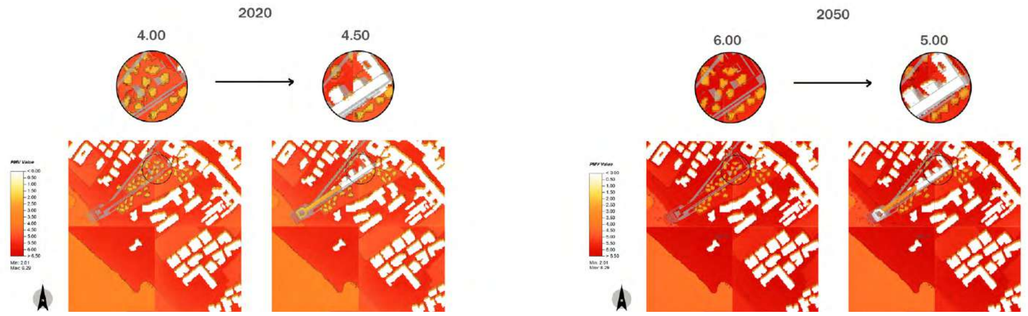
VIEW FROM THE SEA



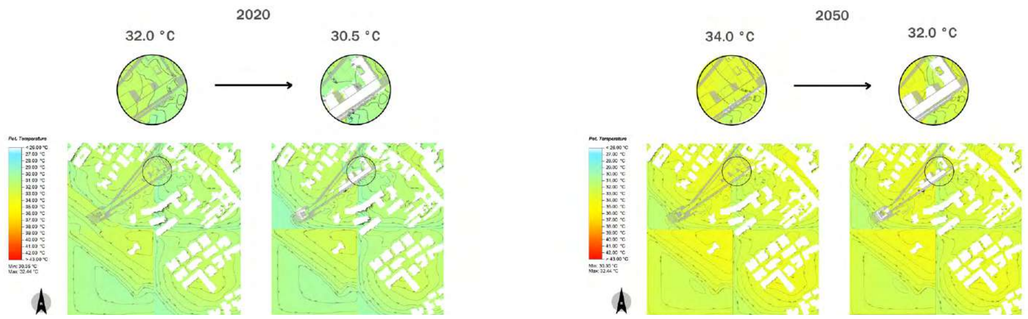
summer solstice | *21 June*



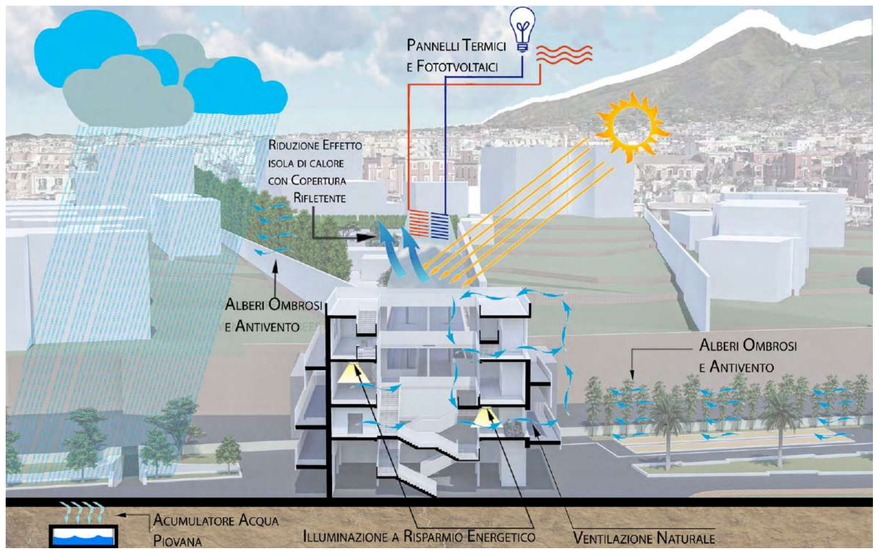
winter solstice | *21 December*



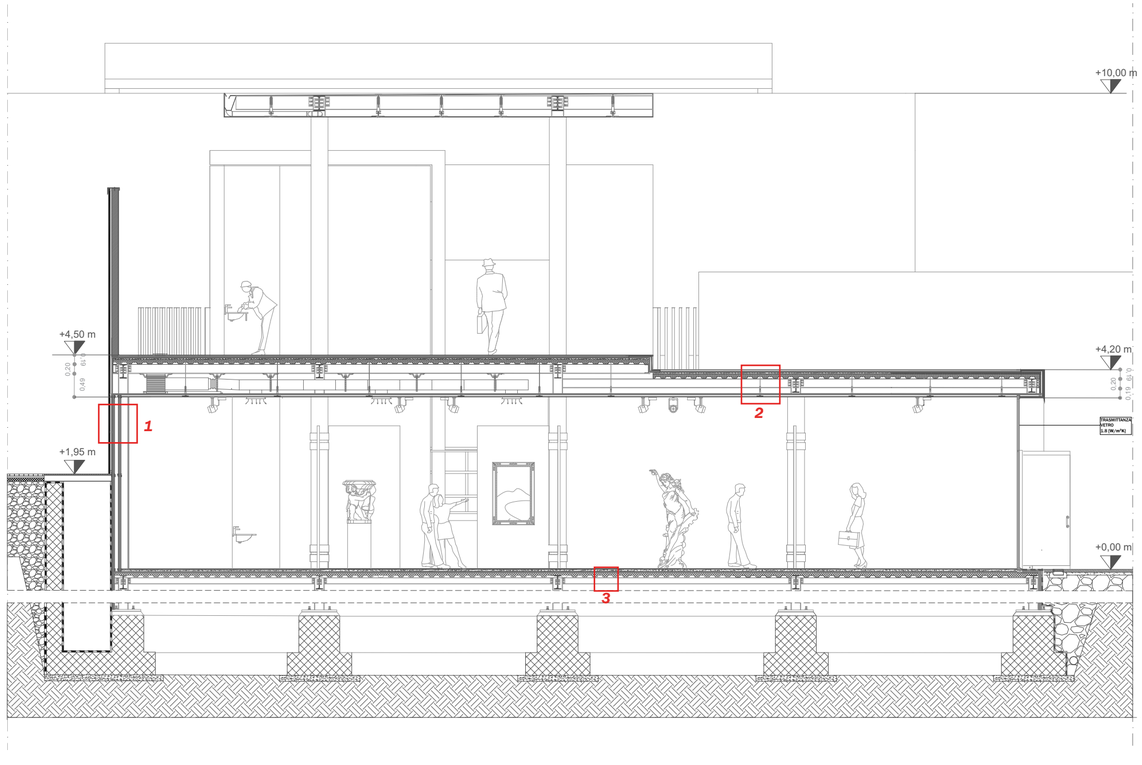
PMV | *Thermal sensation index*



POT\ *Air temperature*



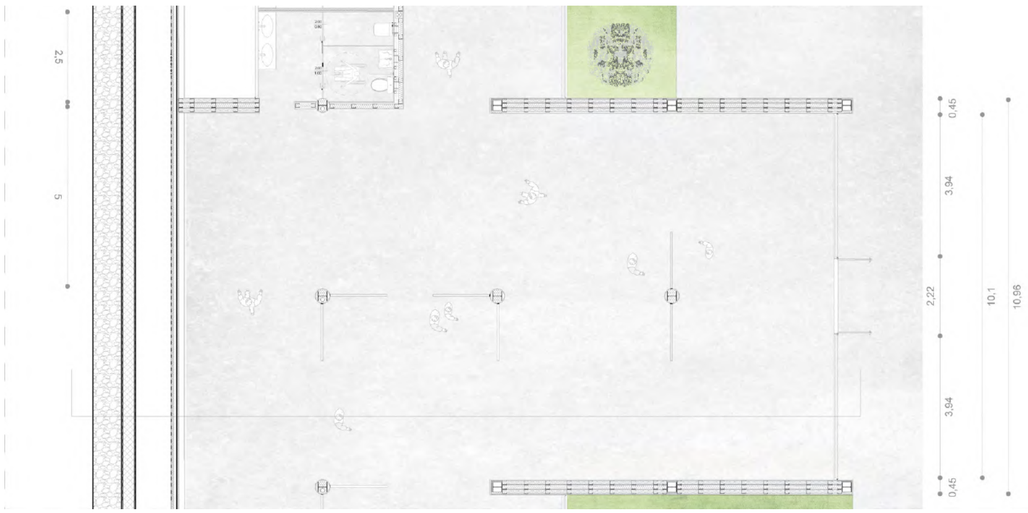
ENVIRONMENTAL SECTION



1. Wall package consisting of: 2 cm plasterboard slab, double layer of thermal acoustic insulation separated by air vacuum and external closure with 6 cm allegerite concrete slabs. Transmittance 0,45 [W/m2k]

2. Horizontal partition package composed of: false ceiling consisting of 2cm plasterboard panels and 5cm thermal acoustic insulation panels, corrugated sheet with CLS jet, thermal acoustic insulation panels covered with a 5cm vitrified concrete layer. Transmittance 0,38 [W/m2k]

3. Lower horizontal partition package consisting of: corrugated sheet with CLS jet, thermal acoustic insulation panels covered with a 5 cm vitrified concrete layer. Transmittance 0.354 [W/m2k]



BUILDING AND PUBLIC SPACE DETAILED PLAN AND SECTION

PORTICI ADVANCED DESIGN STUDIO

VALENTINA PIGNATA - HIDDEN IDENTITIES

PROMOTING AND SPREADING CULTURE, REVIVING THE ECONOMY ENCOURAGIGING SOCIAL INTERACTION

«[...] The city records the attitude of a culture and an era in the face of the fundamental events of its existence. The dome and the bell tower, the open road and the closed courtyard, do not only tell the story of the different material adaptations, but also that of different conceptions of human destiny».
L. Mumford, *The Culture of Cities*, 1938

The area identified for the intervention includes Villa Menna, one of the famous Villas of the Golden Mile, and adjacent land. The Villa was built in 1742 on the remains of buildings destroyed by the eruption of Vesuvius in 1631. It was owned by the D'Amendola family who hosted King Charles of Bourbon several times during his hunting trips. Queen Maria Amalia of Saxony, on the other hand, loved to stroll along the terrace overlooking the sea.

The aim of the project is to give new life to the historic building, placing an International School of Crafts there and, above all, to create a sort of coffee house nearby, according to the eighteenth-century tradition. The first literary cafes were born in Europe towards the end of the seventeenth century and, later, in the midst of the Enlightenment, alongside writers and poets, they gathered young intellectuals to discuss art and social customs, and businessmen to discuss new investments and discoveries. scientific.

With the intent, through the existing structures and those of the project, to give impetus to culture and the economy and, at the same time, to encourage social interaction, a series of spaces have been allocated to the promotion of craftsmanship and identities local, and set up common services for the socialization and participation of the inhabitants. With these structures it is proposed to trigger a bottom-up strategy starting from the small district area up to a larger scale.

Program

auditorium, student and foreigner dorms, exhibition halls

Covered area	**1909,07m²**
Uncovered area	**11293,54m²**
Levels above ground	**3**
Built volume	**9132,65m³**
Estimated cost	**5592545€**



“The cultural armor of the territory woven on the diversification of local cultures may be able to provide diversified scenarios to the needs of development, (...). Local cultures, in fact, expressing diversities and specificities of places, are reflected in the structure of social demand, in the identification and use of resources, in the choice of technologies and methods of transformation”. **(M. Carta, The Cultural Armor of the Territory, Franco Angeli 1999)**

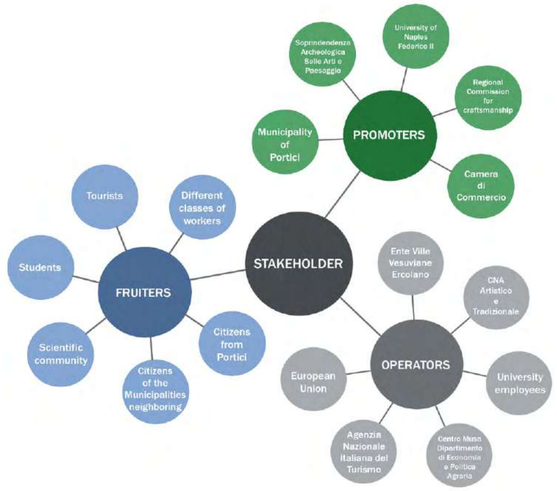


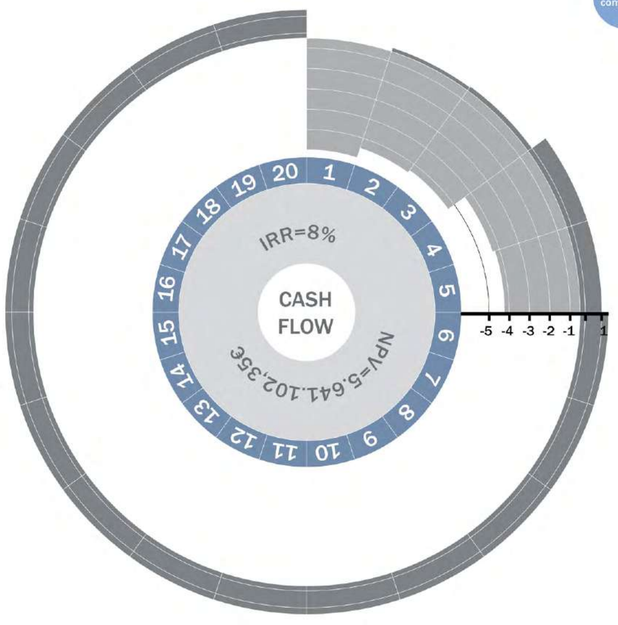
The study of a territorial area, aimed not simply at the knowledge of the territory, but at its transformation, must involve respect for its own characteristics. In urban design and landscape architecture one must not look at places as mere spaces in which to configure new arrangements or to place new structures; instead, it is necessary to take into account the existing and, above all, those properties which are transitory, but constitutive, such as the relationships and the space-time dynamics.

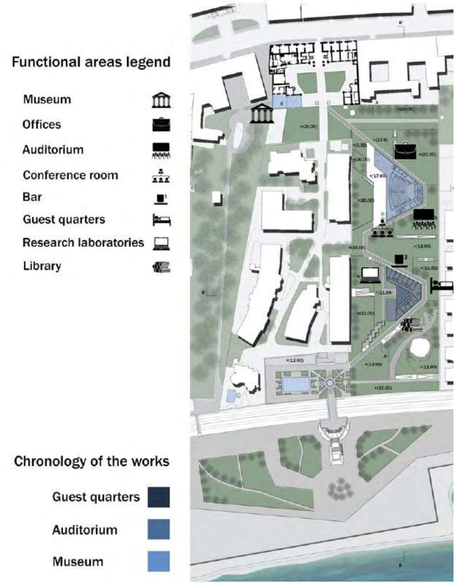
To take a concrete form, which can also be managed over time, the transformation project can and must take place through the involvement and concertation of specific networks of actors. Promoters, operators and users must co-participate in the project through different forms of involvement, ensuring its realization, operation and management in immediate and future times.

The transformation mechanism must be supported by a feasibility study.

To draw up the Economic and Financial Plan, we proceeded by functional areas, quantifying unitary and total construction and management costs and revenues, distributed over a period of twenty years, on the basis of a specific chronology. The Cash Flow, of which the relative diagram is shown together with the NPV and the IRR, made it possible to verify the concrete feasibility of the project proposal.

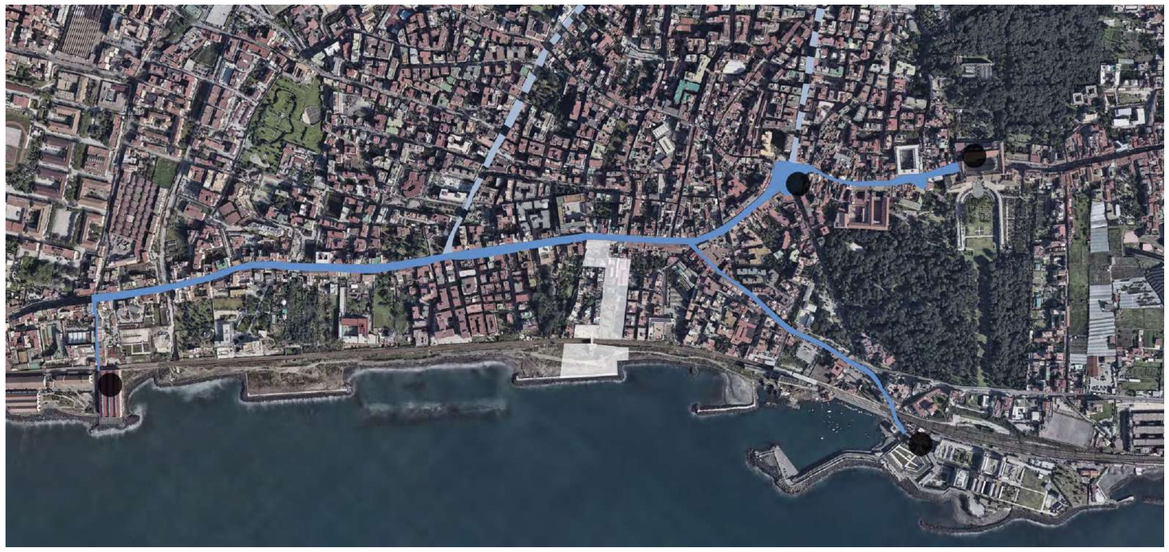








PORTICI PARK THE PROJECT IN THE CONTEXT

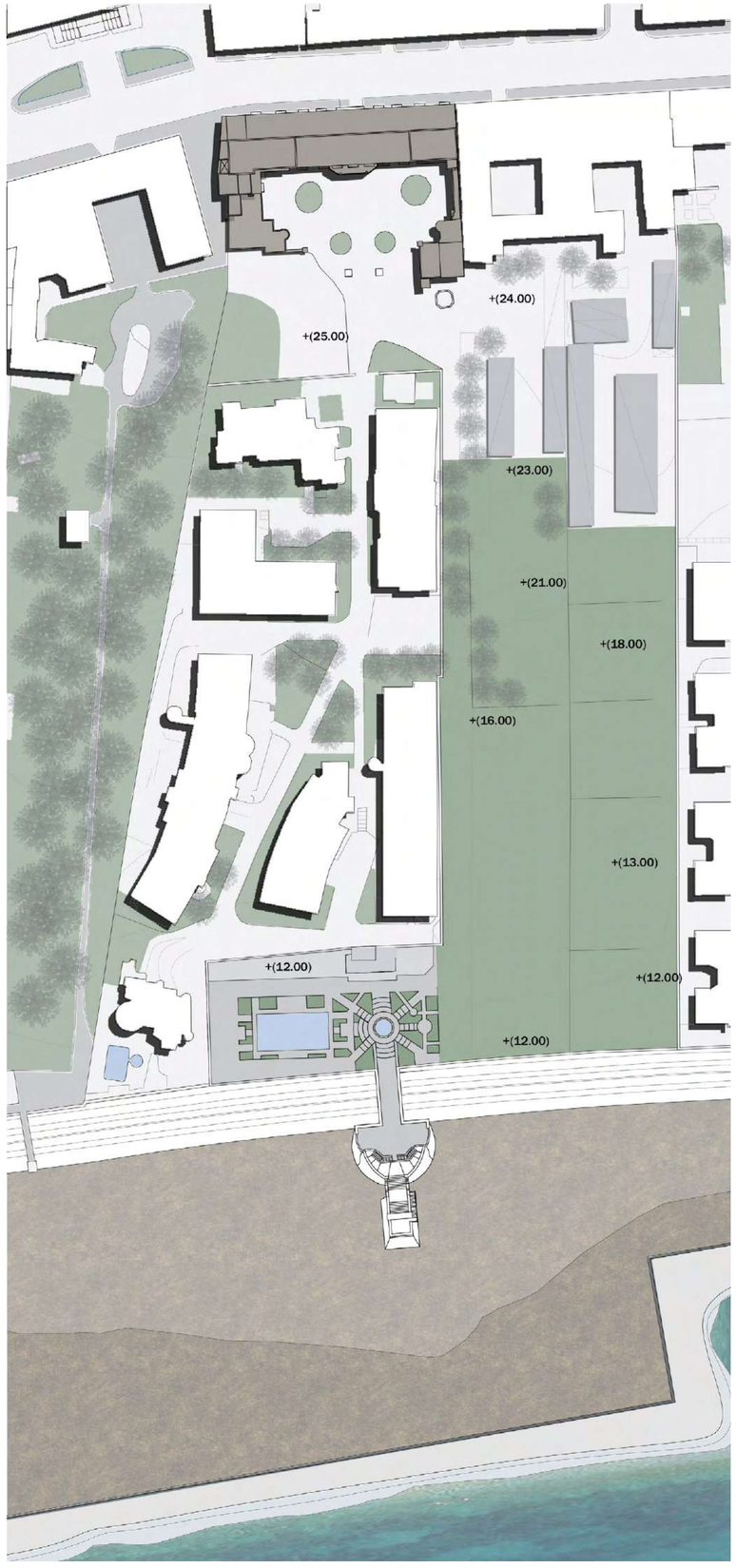




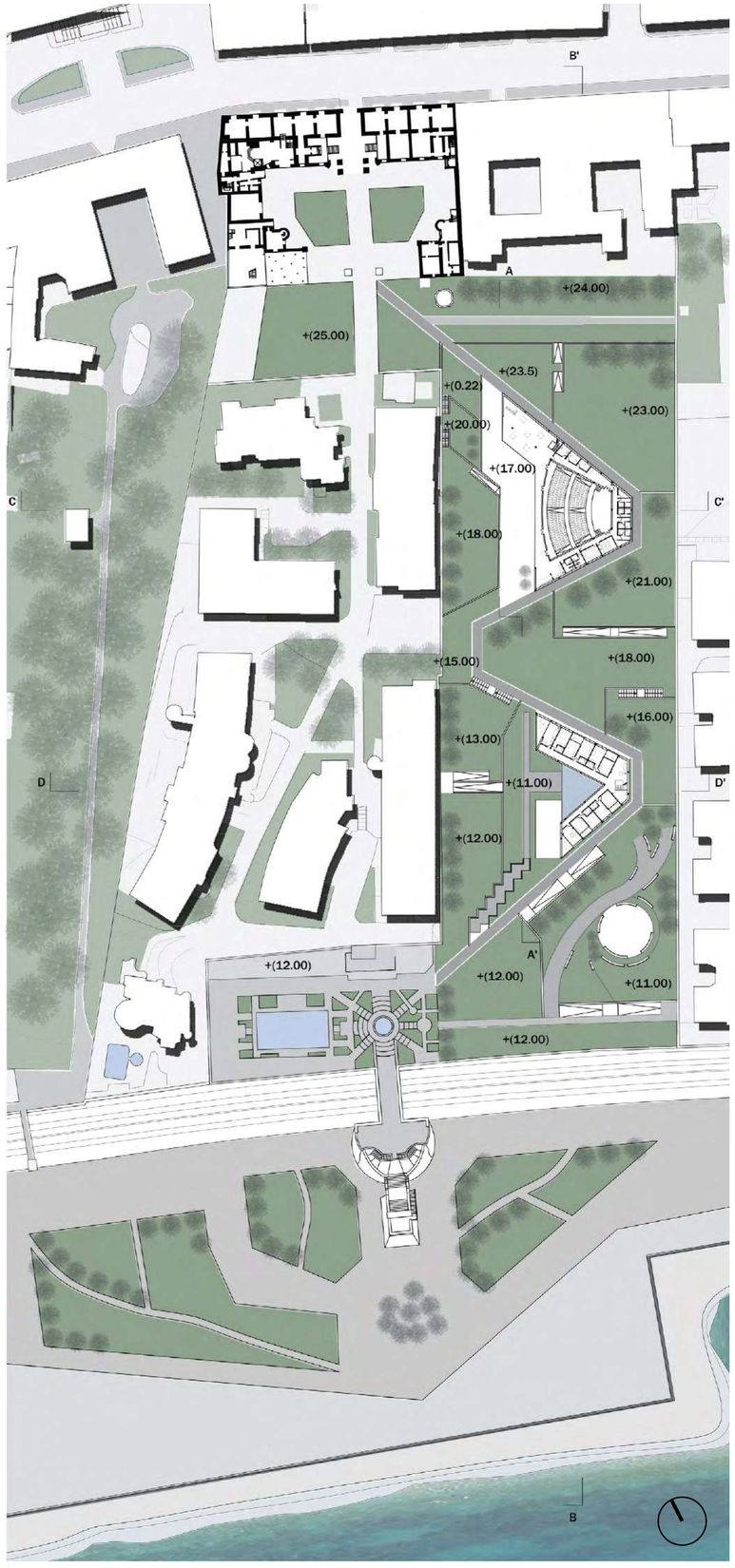




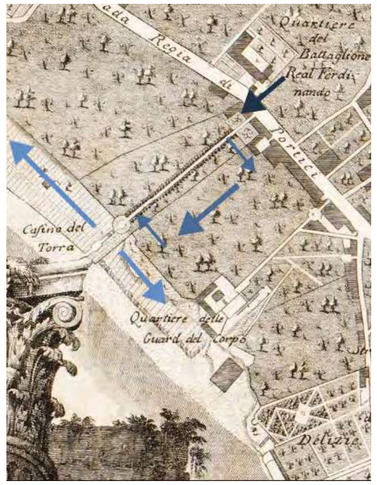




LANDSCAPE STRATEGY



PORTICI PARK



Topographic map of the city of Naples and its outlines, Giovanni Carafa Duca di Noja, 1750
Project guidelines



Localization of excavations



Insertion of the new volumes in the project area

The internal facade of Villa Menna, damaged by overlapping and later additions, has a protruding vestibule in the central area surmounted by the balcony of the noble floor. The octagonal pillars of the arches refer from the front to an exedra that defines the courtyard and which, through two columns, delimited the entrance to the garden, which does not exist today. Sold and parceled out in the 70s of the last century, it has been transformed into a private park. Only the ancient terrace that overlooked the “Lido Dorato” remains of it.

The “double L” plan of the Villa presents an asymmetry between the right and left wings of the rear front, probably due to the destruction of a part during the eruption of Vesuvius in 1631. The new steel and glass building restores a sort of symmetry, welcoming inside exhibitions and activities related to the school and / or outside

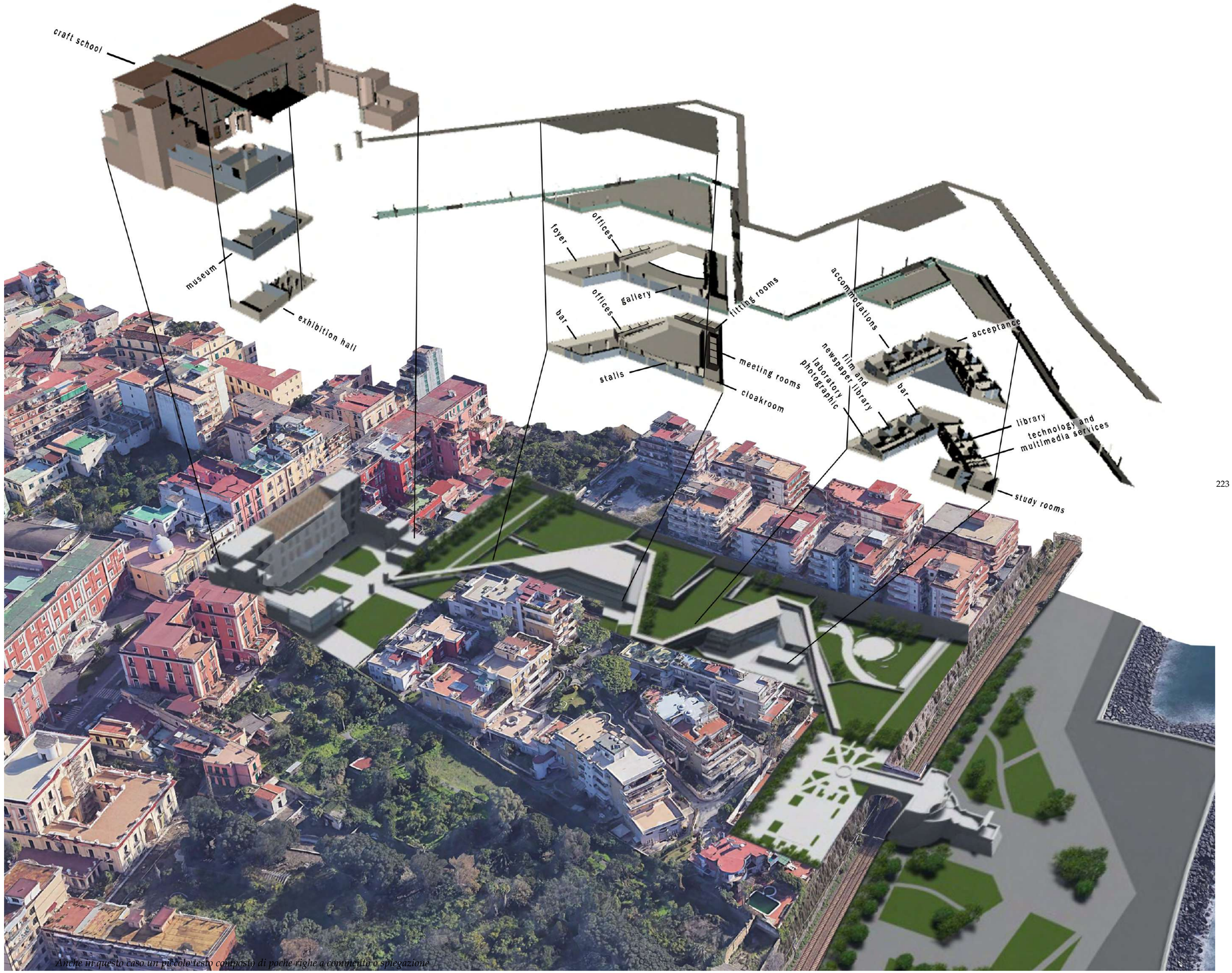
A path, lying on the slope of the land like SANAA’s Grace Farms River Building in New Canaan, descends to the terrace which leads to the beach. Partly enveloped in its roof, between large green terraces, there are two project buildings.

The first is on two levels and houses an auditorium; the second, located at an altitude of 11.00m above sea level, hosts the laboratory activities to support the school on the ground floor and a guesthouse on the first floor.

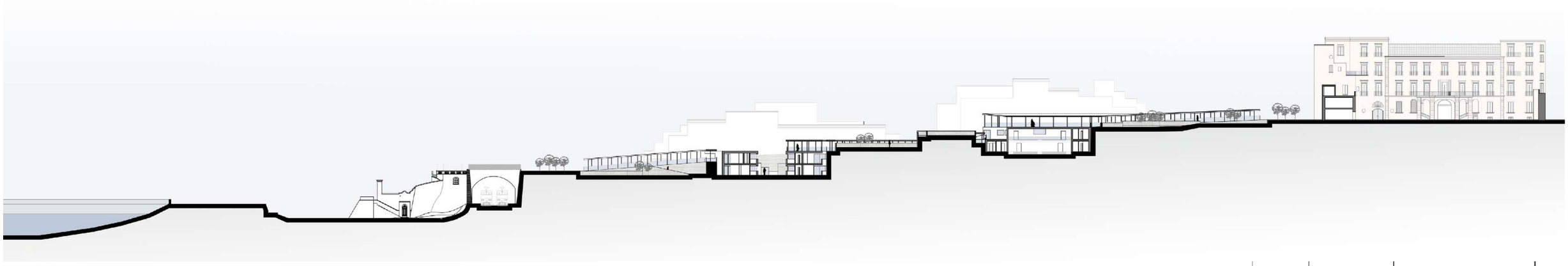
The terraces, which can be accessed from the covered promenade and the roofs of the two buildings, provide students with spaces for the display of objects of their own manufacture and areas equipped for outdoor study and comparison.

Common areas are also available to users of the guesthouse and the auditorium. They ensure community cohesion and socializing.

At the end of the route, a rest area allows you to admire the sea and access the imposing eighteenth-century staircase which, to this day, allows direct access to the coast. For the latter, in the area in front of the study area, green areas have been provided with new plantings that emphasize access to the staircase.



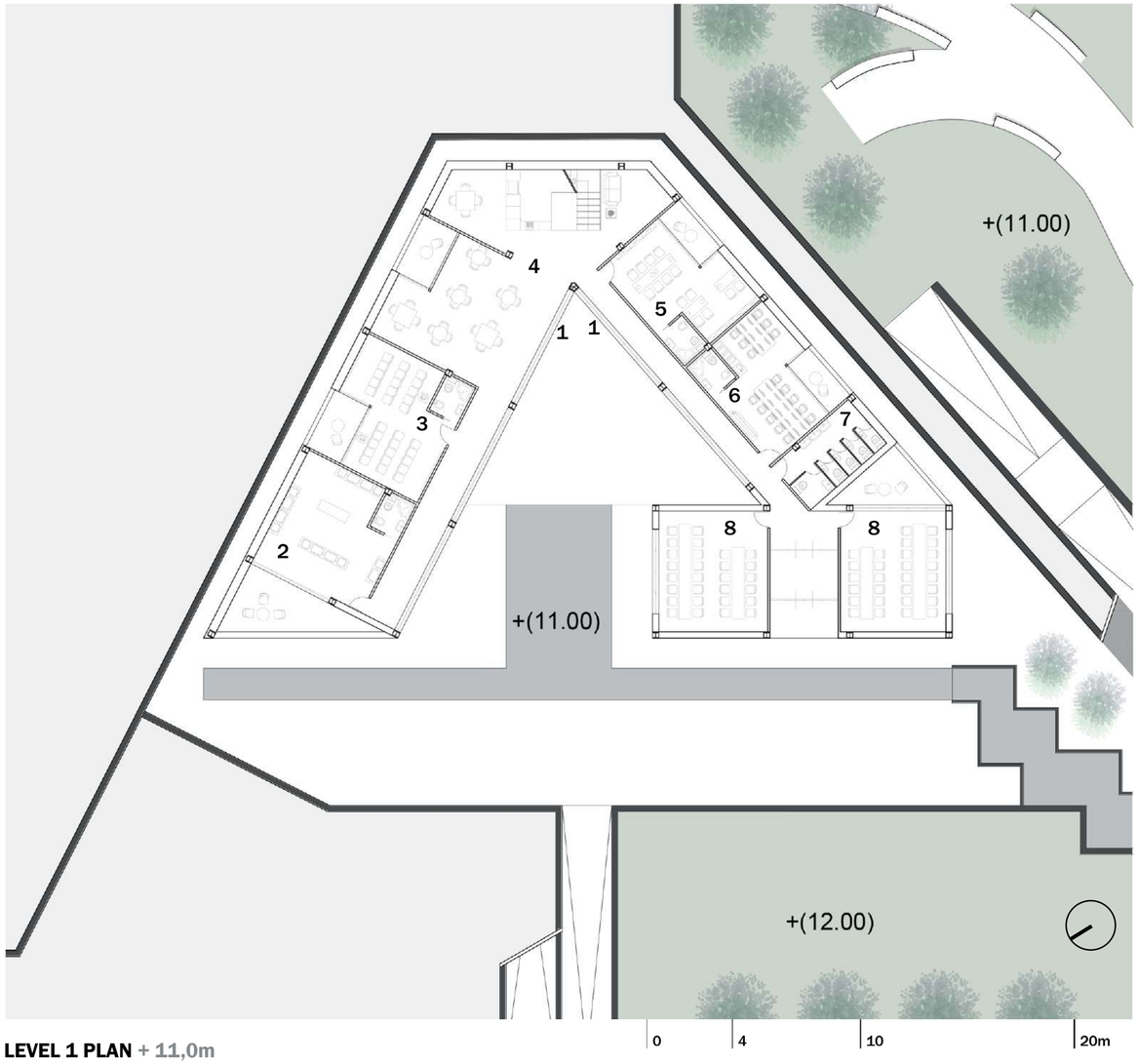
Anche in questo caso un piccolo testo composto di poche righe a commento o spiegazione



SECTION BB'

0 20 35 70m

1. Entrance
2. Computer laboratory
3. Film and newspaper library
4. Services
5. Bar
6. Library
7. Technology and multimedia services
8. Study rooms



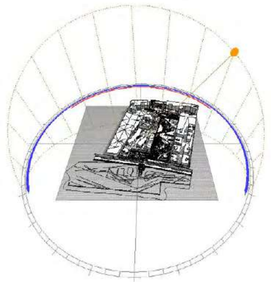
LEVEL 1 PLAN + 11,0m



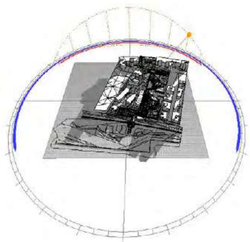
GUEST QUARTERS EXTERNAL VIEW



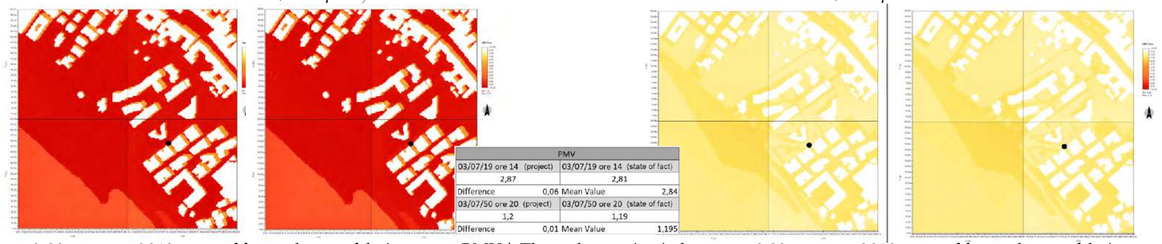
OPEN SPACE



summer solstice, 4.00 pm | june 21



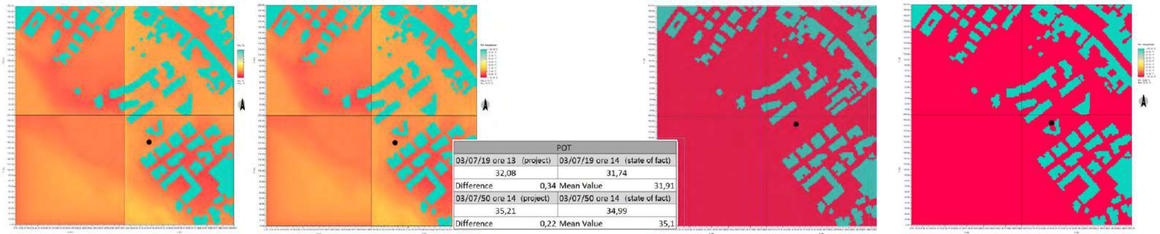
winter solstice, 4.00 pm | december 21



2.00 pm, year 2019; state of fact and state of design

PMV | Thermal sensation index

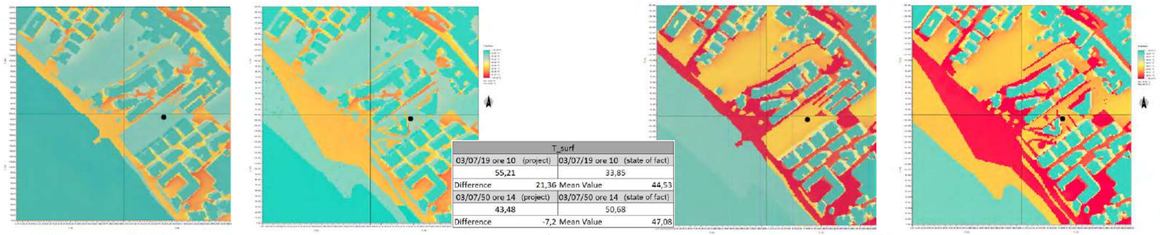
8.00 pm, year 2050; state of fact and state of design



1.00 pm, year 2019; state of fact and state of design

POT | Air temperature

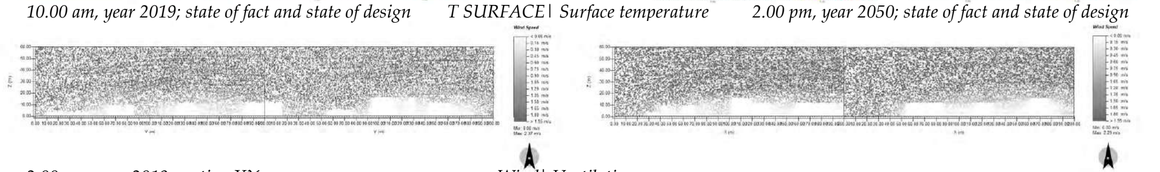
2.00 pm, year 2050; state of fact and state of design



10.00 am, year 2019; state of fact and state of design

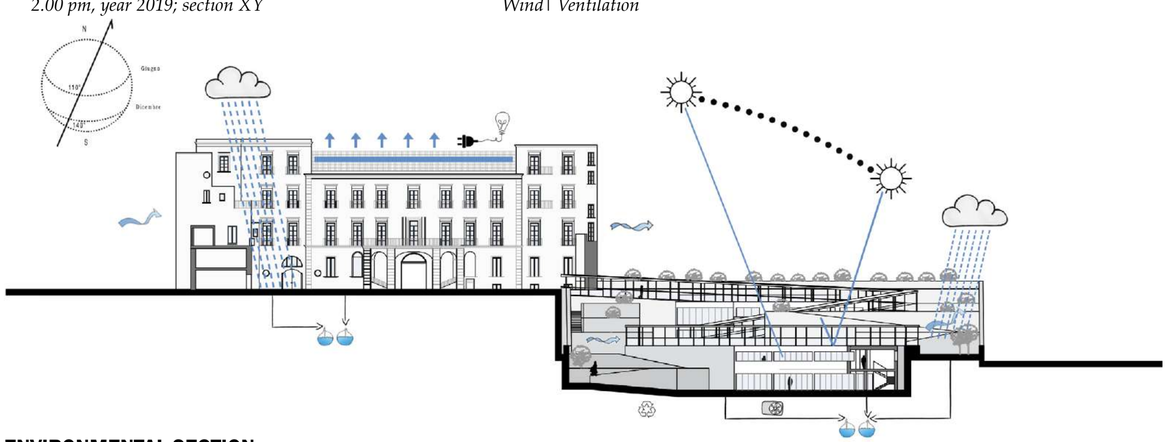
T SURFACE | Surface temperature

2.00 pm, year 2050; state of fact and state of design

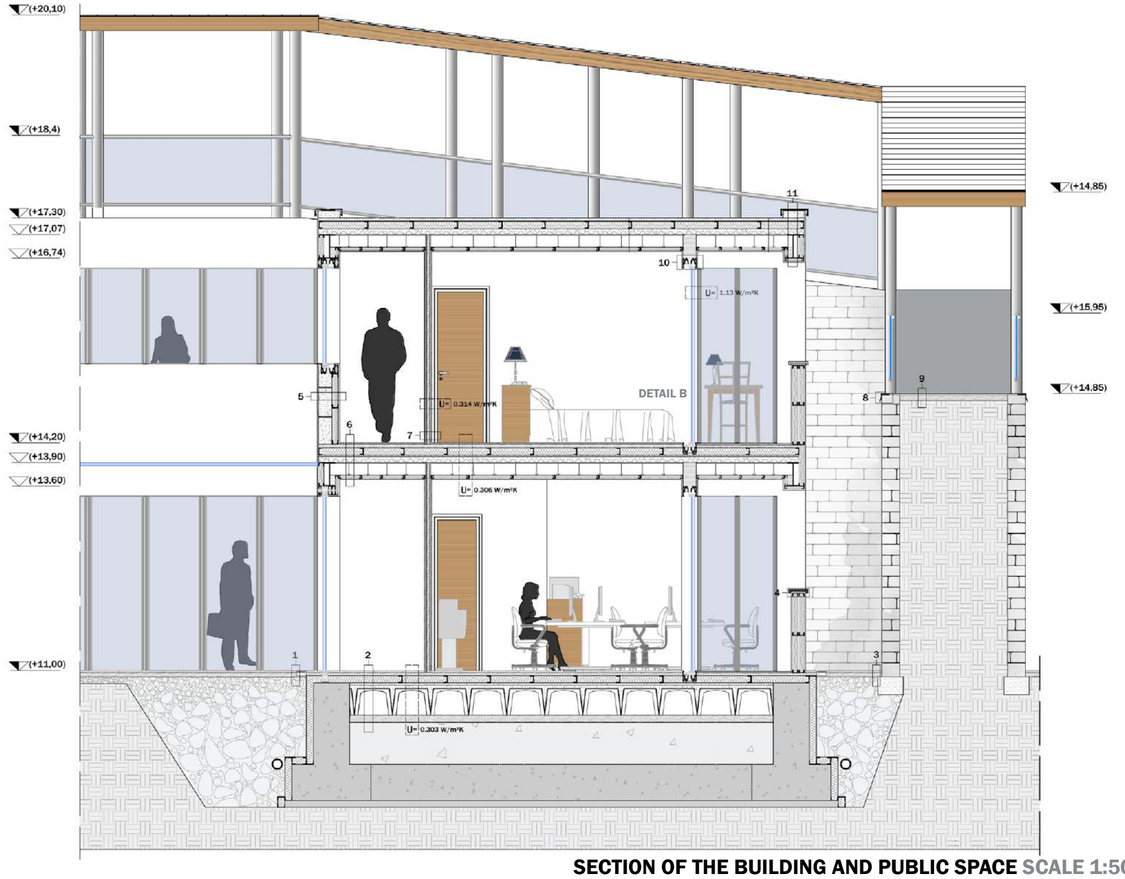


2.00 pm, year 2019; section XY

Wind | Ventilation

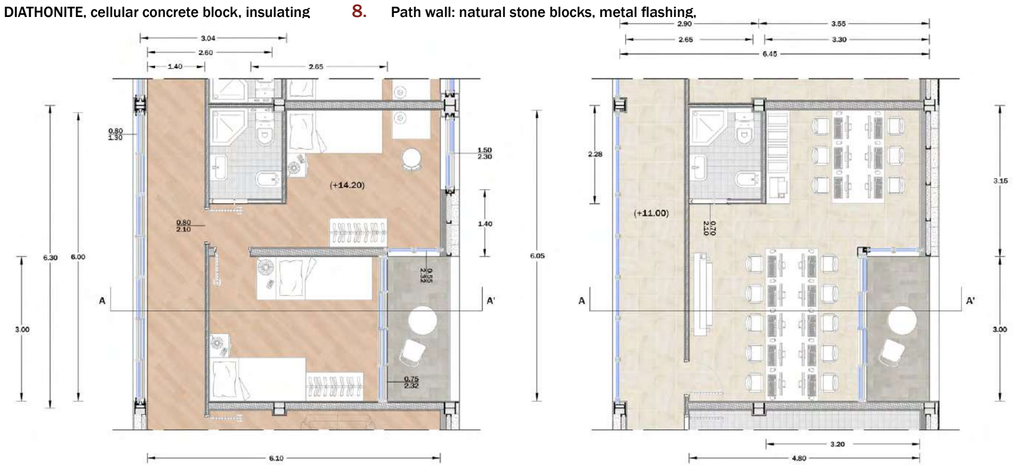


ENVIRONMENTAL SECTION



SECTION OF THE BUILDING AND PUBLIC SPACE SCALE 1:50

1. External flooring: gravel, screed, ceramic tiles with glue, metal rainwater drainage channel.
2. Floor slab stratigraphy on the ground: compact ground, polypropylene, lean concrete, igloo, glass fiber MAT 300 gr/smq for epoxy-vinylester polyester resin, concrete casting with electro-welded mesh, insulating panel in extruded polystyrene XPS, screed, ceramic tiles with glue.
3. External flooring: concrete curb, gravel, screed, ceramic tiles with glue.
4. Loggia wall: UNP metal corner profile, plaster, marble cap.
5. Opaque vertical closure: external thermo-acoustic plaster DIATHONITE, cellular concrete block, insulating panel in extruded polystyrene XPS, internal plaster.
6. Inter-floor slab stratigraphy: internal thermo-acoustic plaster DIATHONITE, insulating panel in extruded polystyrene XPS, secondary beam IPE, corrugated sheet, cast concrete with electro-welded mesh, vapor barrier, insulating panel in extruded polystyrene XPS, screed, parquet in oak wood with glue.
7. Internal partition: lightened thermo-insulating plaster with plaster holder mesh, sheet plasterboard, MAPETHERM XPS extruded expanded polystyrene insulation panel, sheet plasterboard, lightened thermo-insulating plaster with plaster holder mesh, metal skirting board.
8. Path wall: natural stone blocks, metal flashing, concrete layer.
9. Path paving stratigraphy: compacted ground, natural screed, concrete layer.
10. Loggia fixture: Planitherm 4S EVO internal glass, Schüco ASS 77 PD.HI fixture, fiber cement panel, internal thermo-acoustic plaster DIATHONITE.
11. Roof slab stratigraphy not practicable: internal thermo-acoustic plaster DIATHONITE, insulating panel in extruded polystyrene XPS, main beam IPE, panel in fiber cement, secondary beam IPE, corrugated sheet, cast concrete, insulating panel in extruded polystyrene XPS, slope screed, concrete block, sheath, metal flashing.



PLAN OF THE BUILDING AND PUBLIC SPACE SCALE 1:100

PORTICI ADVANCED DESIGN STUDIO

ALESSIA ROCCA - CROSSOVER

A STRATEGY OF RECONNECTION BETWEEN THE CITY OF PORTICI AND THE SEA

this project was born from the ideology to reconnect the city of Portici to the sea. Villa d'Elboeuf has been considered as a start point, due to tha fact that place was an ancient landing point.

From this moment the projectual ideology has flued like it wasn't waiting for anything else.

As said, the ancient villa d'Elboeuf has been a landing point for a long time and it has been considered like that till some latest centuries. It was a trionphal arc to the city of Portici. It welcomed illustrious and historical figures, the most importants of all was the royal spanish family, the Borbone. From that place they moved to the royal palace of the homonymous city.

So it's very evident the strong ideology of the villa as an element of access and as an element of riconnection with the sea. From thi point was born the projectual concept, the idea of "CrossOver", the reconnection between the Villa and the royal palace, passing by the same ancient Saint Pascal' convent, another very interesting point of the town.

The latest in particoular acts like a binder between the waterfront, and so the villa, and the city, in particoular with the royal palace and the square of Saint Pascal, nowadays an important point of switch.

The project itself acts like a binder between these elements, but offering activities forecasting a pause and, in a simple and actual word, freetime.

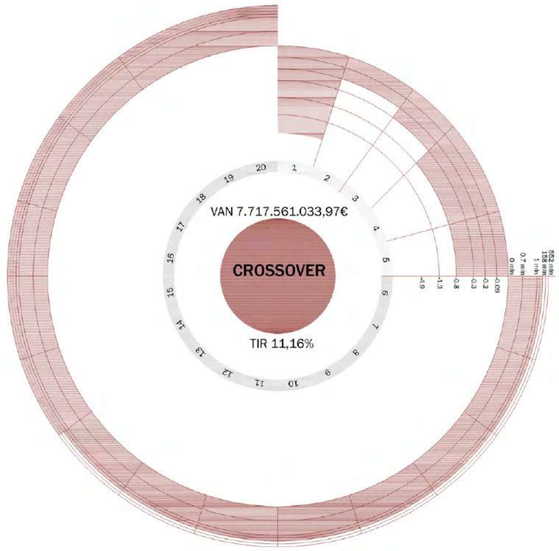
Program

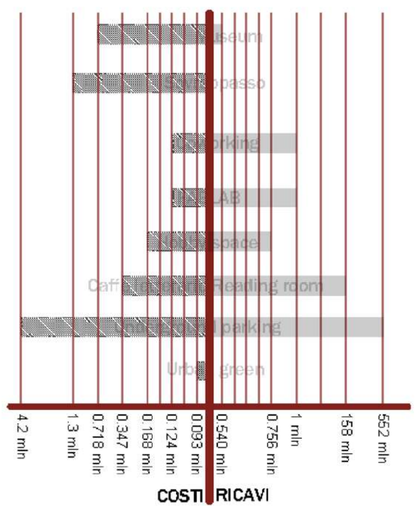
social activities, public space

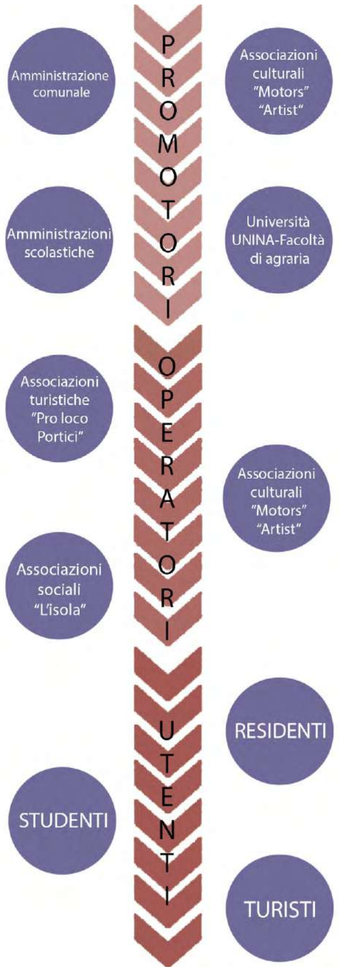
Covered area	**3.271,26m²**
Uncovered area	**1.818,6m²**
Levels above ground	**4**
Built volume	**22.098,05m³**
Estimated cost	**7.917.561,034€**



First of all, in a project realization, is needed to face the economic issue. Indeed it's very important to define which are construction costs, already planned for the next years. Simultaneously it's needed to consider management fees and revenues as well. These things, all together, thought by an accurate logic reasoning during projectual phases, allow to gain in the time the required funds to go on with the project itself, without too much economic outings.At the end there are the Stakeholders, which show who want the realization of the project, who builds the project and who will benefit it.



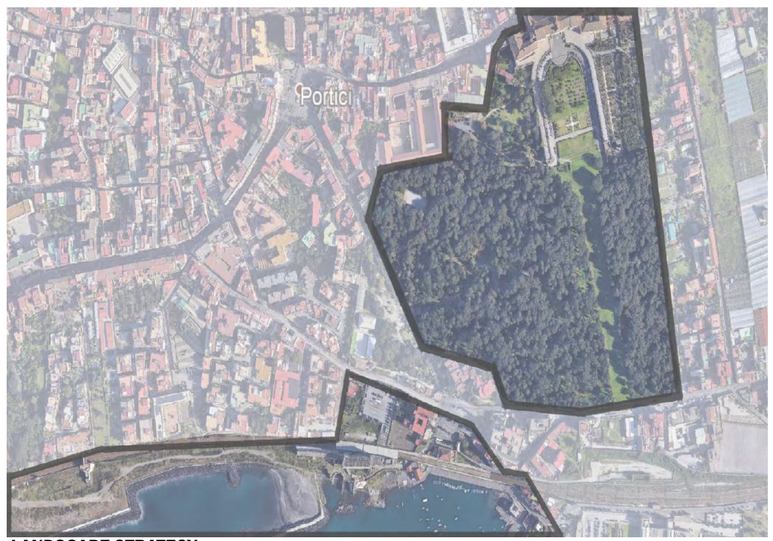




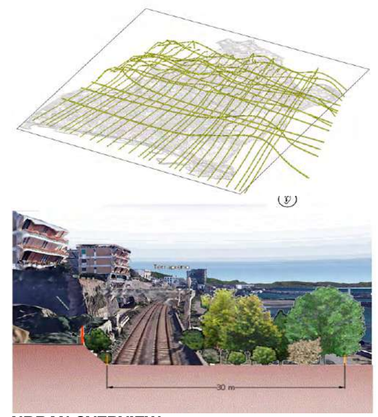


PORTICI PARK THE PROJECT'S FRAMEWORK

0 4 10 20m



LANDSCAPE STRATEGY



URBAN OVERVIEW

Territory and sound's map, key word of this page. Here are, indeed, rapresented the most important places in this area of the city and an analysis of the sound



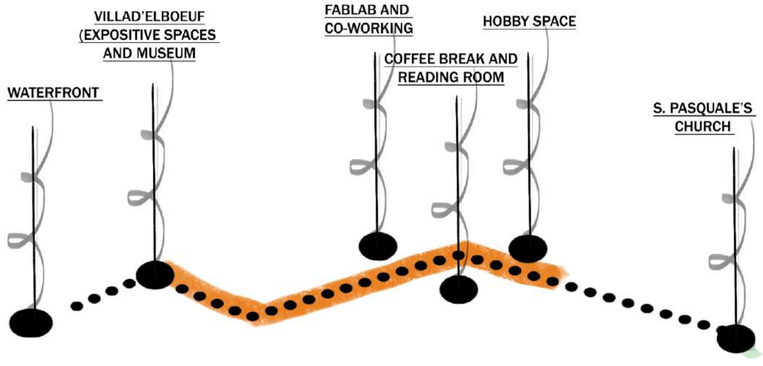
CURRENT STATE MORPHOLOGICAL AND URBAN ANALYSIS

0 10 25 100m

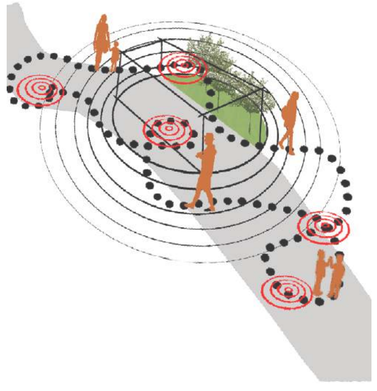


DESIGN PROPOSAL

0 10 25 100m

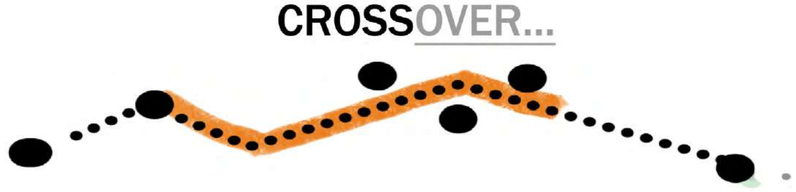


PROJECT'S ANALYSIS



ORIGIN

The project was born with the idea to recreate a place where people can stay or just crossover.

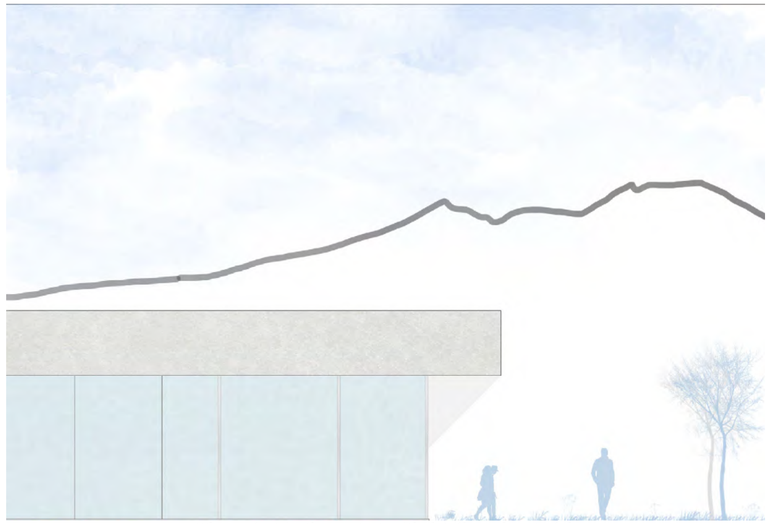




PROJECT CONCEPT

History. Landscape. Projectual logic. These words own these two next pages.

It's indeed inserted a view of the project with its material in a bigger space, whose background is dominated by the figure of the famous Vesuvio, that dominates the city of Portici itself.



The project in the contest with details and materials

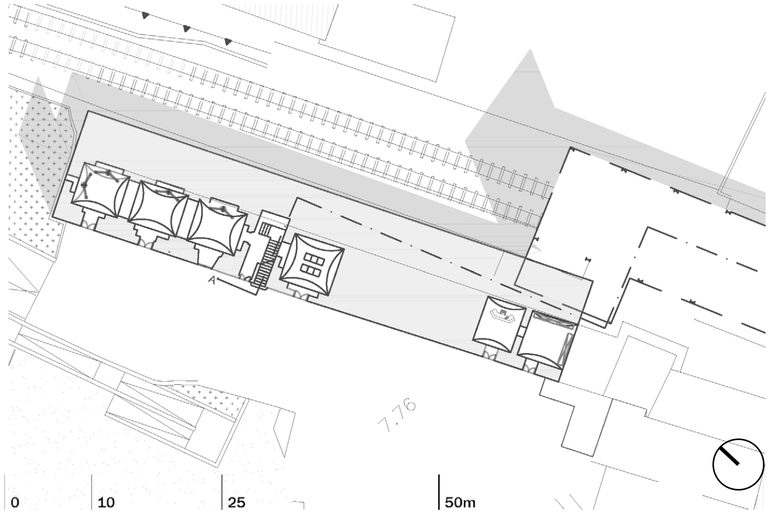
Scrolling throug the observation of tha first page become evident the plants of what is a volume of the villa d'Elboeuf. This volume actually has been left in decay, so the project poroposes itself to give it back its splendour, changing it in the famous point of access to the city, giving back to the villa itself ita ancient duty of arc of triunph.

The project proposes to set up, in this volume, a museum dedicated to the historical villa d'Elboeuf itself, very important for many reasons as we can just imagine. Museum aside, the volume is supposed to host spaces for arts and cultural events.

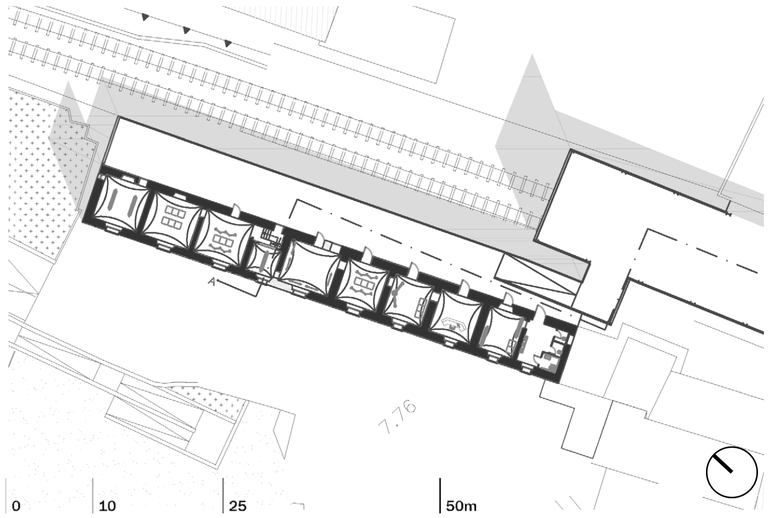
The Villa offers itself to the public, or better to its necessities.

In the next pageit's reported a decomposition of what actually is the project; in fact it's composed, starting from below, from an underground, the main request of Portici's inhabitants. Nex level the graphic represents the park with the annexes buildings, two dedicated to social activities and manula works, and two dedicated to freetime, or bettere to the ardently and wanted pause from the frenetic life.

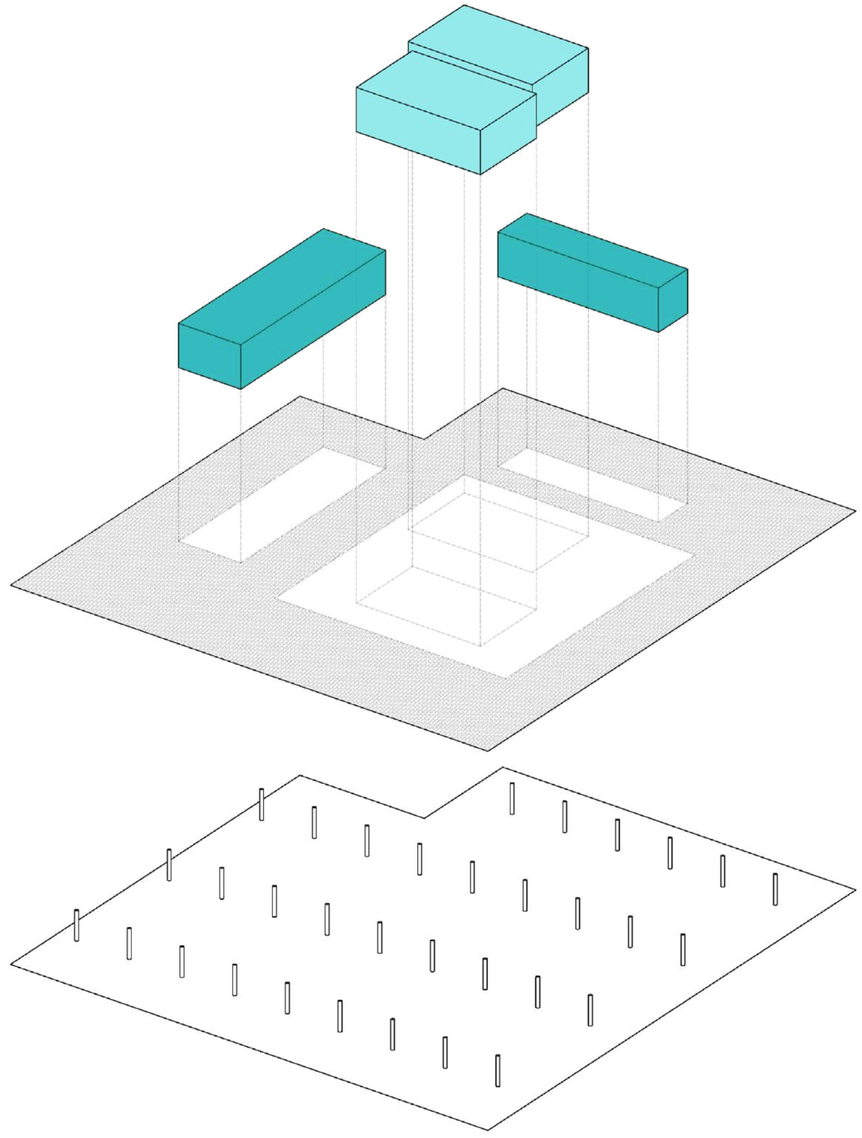
It's a little, quite place in the world of Portici..



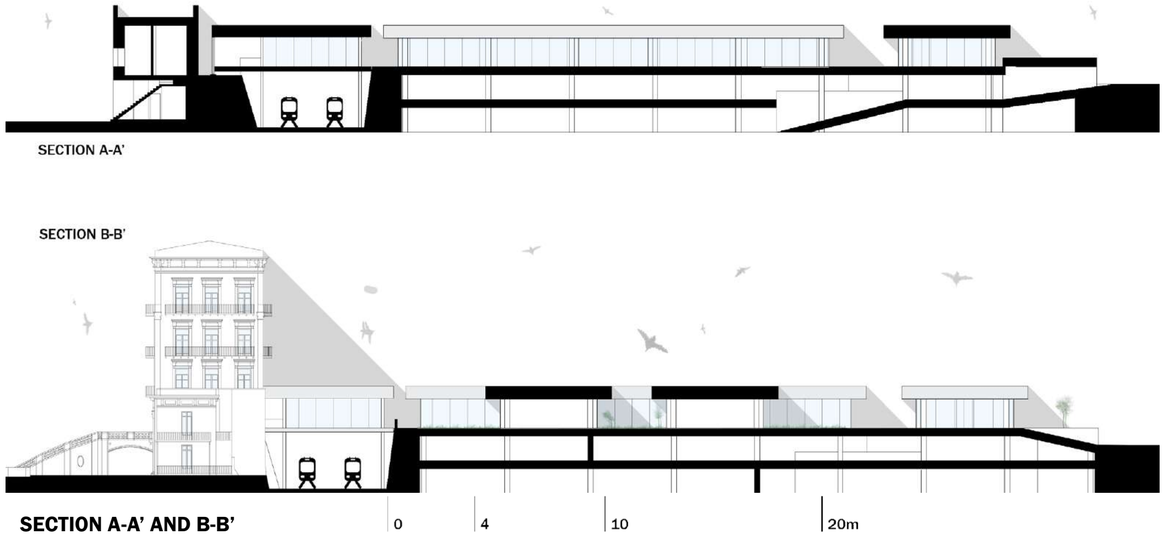
Villa d'Elboeuf ground floor. Museum of the villa itself and for cultural and arts events



Villa d'Elboeuf second floor. Museum of the itself villa and paces for cultural and arts events.



PROJECT'S (S)COMPOSITION

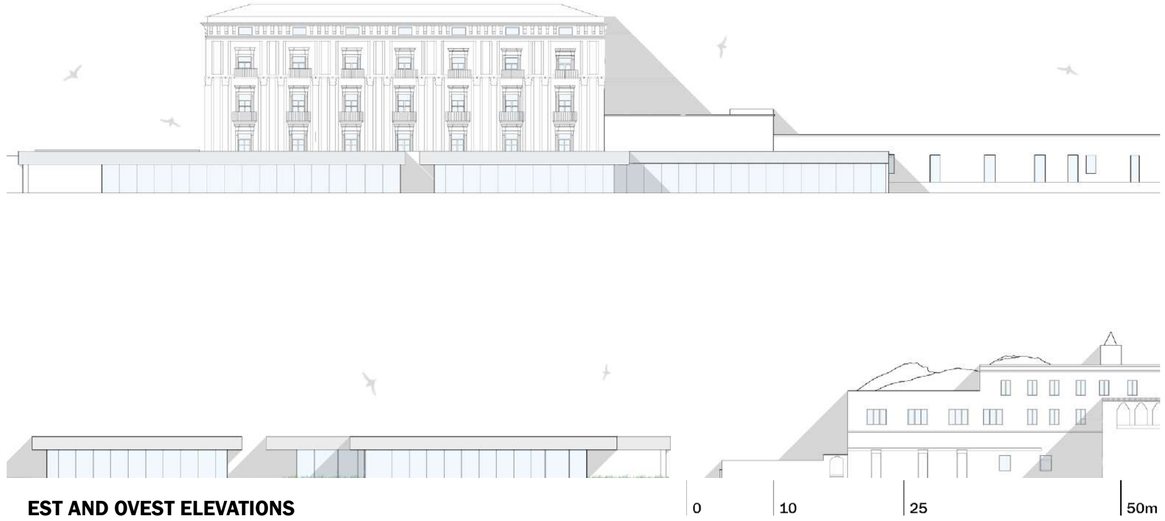


SECTION A-A' AND B-B'

1. Co-Working
2. FabLab
3. Cross-over
4. Villa d'Elboeuf
5. Green spaces
6. Reading room
7. Bookshop Cafés
8. Hobby space
9. Saint Pasquale Convent
10. Paths
11. Entrance/Exit



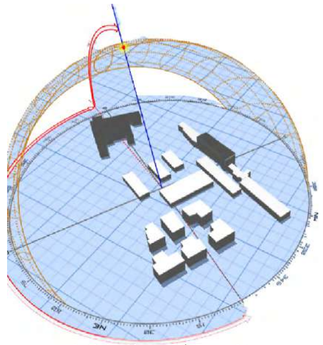
GROUND FLOOR: THE PARK + 12m



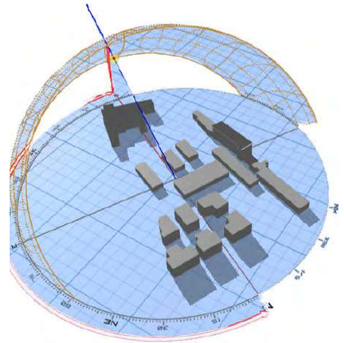
EST AND OVEST ELEVATIONS



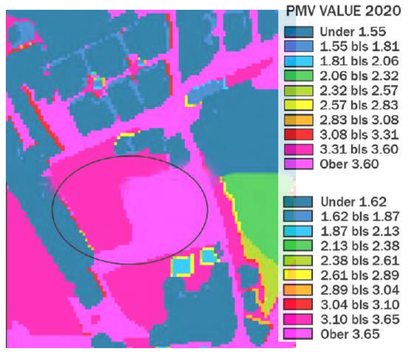
EXTERNAL VIEW

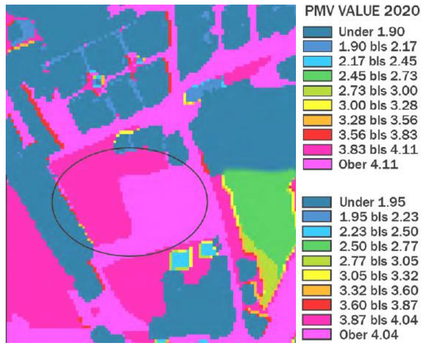


solstizio d'estate | *June 21*

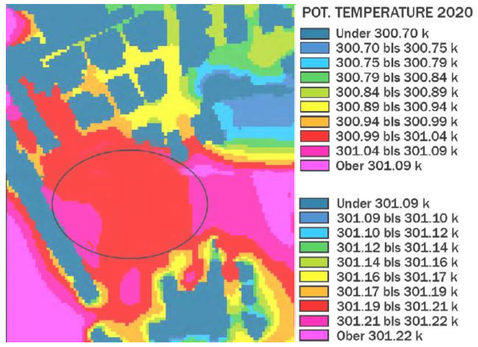


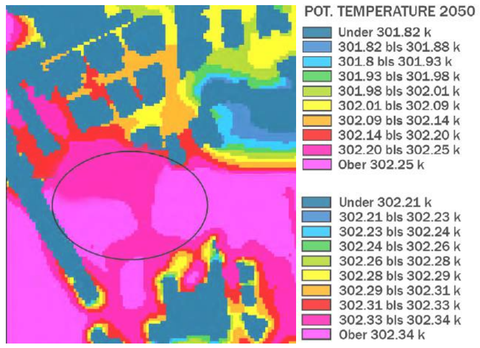
solstizio d'inverno | *December 21*



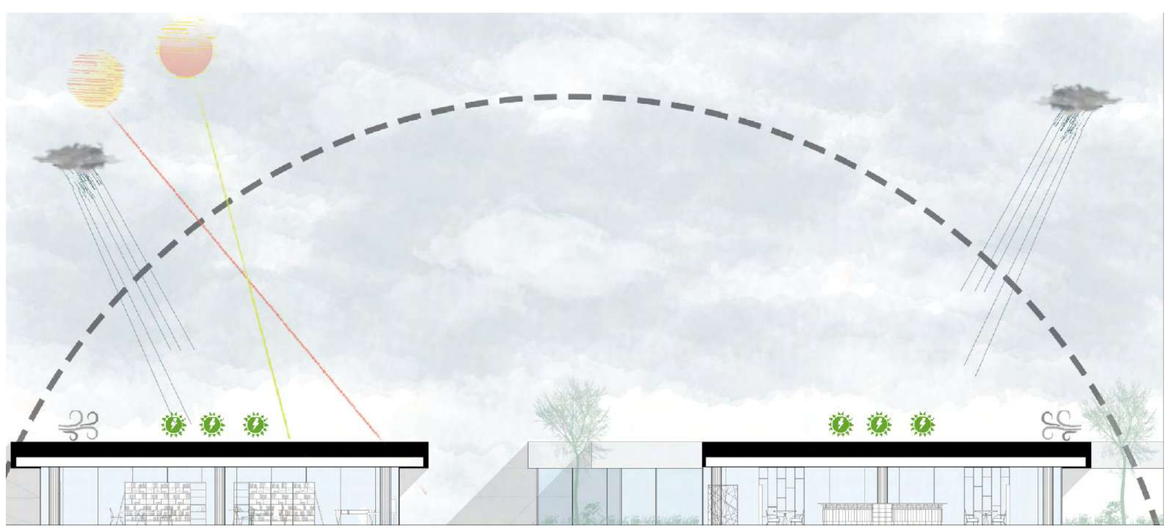


PMV | *Index of thermal sensation*



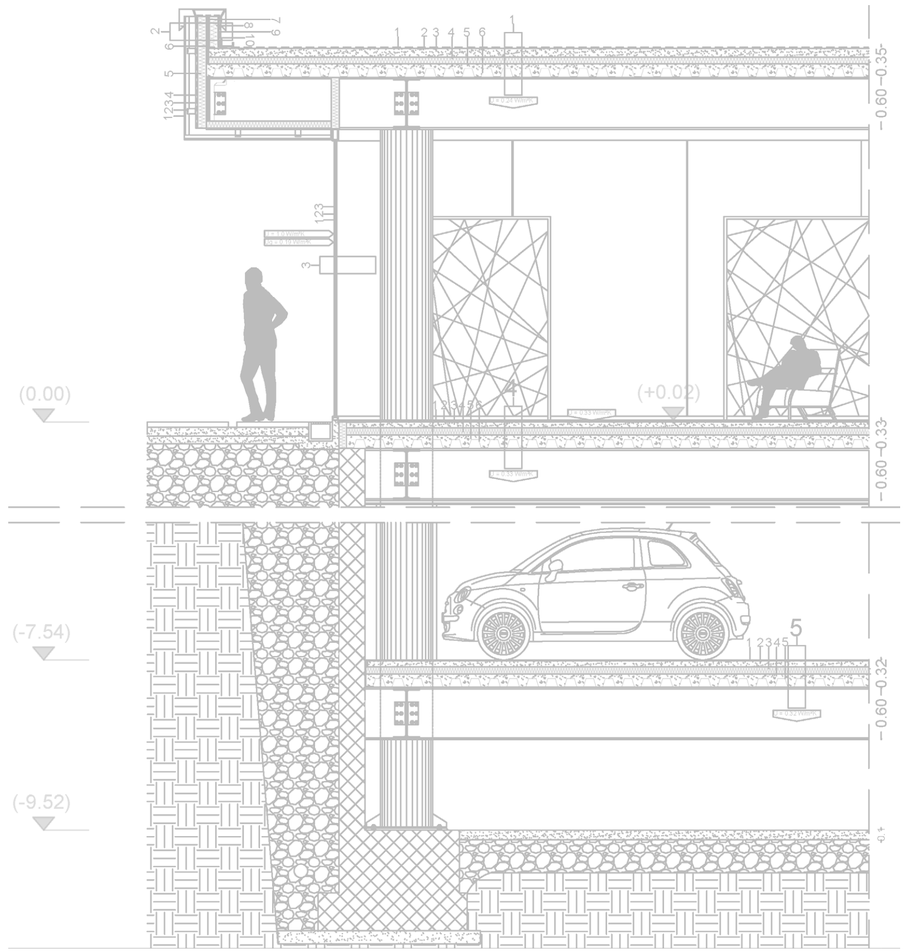


POT\ *Air temperature*



ENVIRONMENTAL SECTION

In this page project's construction details are reported, as well as the materials that compose it. In particular here are observable a plant and a section (1:50) of a specific part of the entire building complex



[1] ROOF COVERING
Total thickness: 0.35m
Thermal transmittance: 0.24 W/ m2/K

1. **Waterproof case (pure bitumen)**
2. **Primer (polyethylene)**
3. **Screed**
4. **Insulating panel (cork)**
5. **Completion casting**
6. **Corrugated sheet**

[2] VERTICAL OPAQUE WALL
Total thickness: 0.43m
Thermal transmittance: 0.16 W/ m2/K

1. **Aquapanel cement board coating.**
2. **SPIRO GROUP metal profiles ("U").**
3. **Mortar layer.**
4. **Waterproof case (pure bitumen).**
5. **Insulating panel (expanded polyurethane. Aquapanel model).**
6. **Fermacell gypsum panel.**
7. **Air gap.**
8. **Insulatin (rock wool).**
9. **Mortar layer**
10. **Waterproof case (pure bitumen)**

[3] VERTICAL TRANSPARENT CLOSURE
Total thickness: 0.026m
External glass slab thickness: 0.006m
Air gap thickness: 0.016m
Internal glass slab thickness: 0.004m
Thermal transmittance: 1.0 W/m2/K

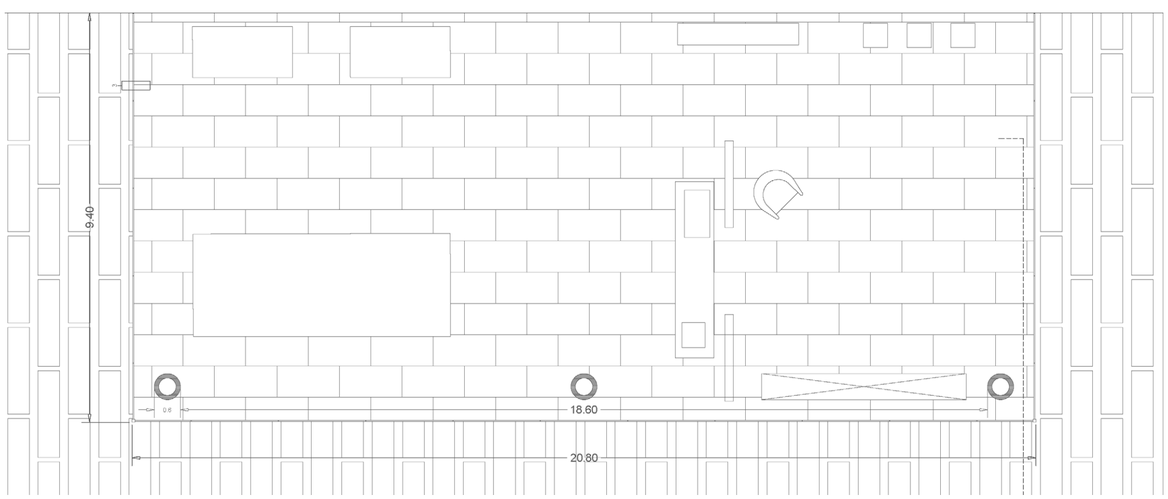
1. **SunCool glass slab**
2. **Air gap filled with argon gas**
3. **Optitherm glass slab**

[4] INTERMEDIATE HORIZONTAL SOIL
Total thickness: 0.33m
Thermal transmittance: 0.33 W/m2/K

1. **Floor in porcelain stoneware.**
2. **Mortar layer.**
3. **Screed.**
4. **Insulating (rock wool).**
5. **Completion casting.**
6. **Corrugated sheet.**

[5] INFERIOR HORIZONTAL SOIL
Total thickness: 0.32m
Thermal transmittance: 0.32 W/m2/K

1. **Resin floor**
2. **Concrete support**
3. **Insulating (rock wool).**
4. **Completion casting.**
5. **Corrugated sheet.**



PLAN AND SECTION OF THE PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

MARIAROSA SARRACCO - WELLNESS ROAD

A STRATEGY AGAINST URBAN SPRAWL
CONNESSIONE TRA IL GRANATELLO ED IL CNR

"Wellness Road" was born as a sports wellness path that involves nine abandoned areas in Portici, in the area bordering San Giorgio a Cremano. These areas are united by the presence of greenery, without any built space; areas where it is possible to carry out outdoor sports activities, areas occupied by green parkings, with equipped greenery, urban gardens, areas designed for the creation of sensory paths for people with Alzheimer's and play areas, such as the one located near the kindergarten.

These nine areas are crossed by a cycle and pedestrian path that connects the San Ciro stadium (with a sporting function) to the main project area, located near the National Railway Museum of Pietrarsa (with a sporting-cultural function).

The first topics covered are: connection and access. Connection through a crossing that from the station of Pietrarsa-San Giorgio a Cremano allows you to reach the main street (Corso Garibaldi) through an urban park, and connection with the waterfront (access to the sea).

In an attempt to connect the station to the center, a park was designed that houses an auditorium, sports fields, play areas, urban gardens and built elements such as a structure that houses a bar and two conference rooms (which can also become a mobile division) and a bicycle shelter, for bike sharing.

The building consists of a single level and also includes a patio. Its surface is 505sqm.

Program

urban park, sports fields, social center

Covered area	**536,6m²**
Uncovered area	**9.846m²**
Levels above ground	**1**
Built volume	**2.335,7m³**
Estimated cost	**€989.380,15**



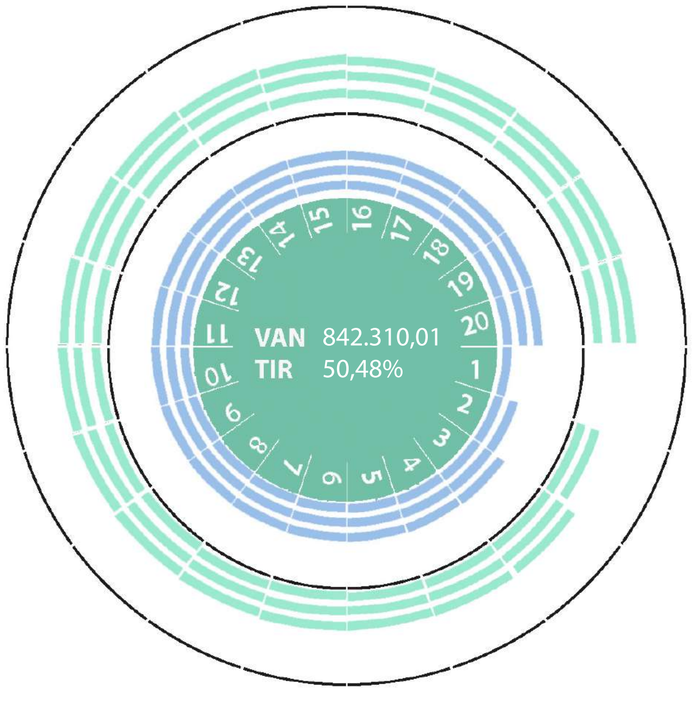
The building consists of an above-ground floor and is intended for recreational, receptive and social functions, as it houses meeting rooms and bars. These are functions designed to support the park and the nearby Pietrarsa Museum.

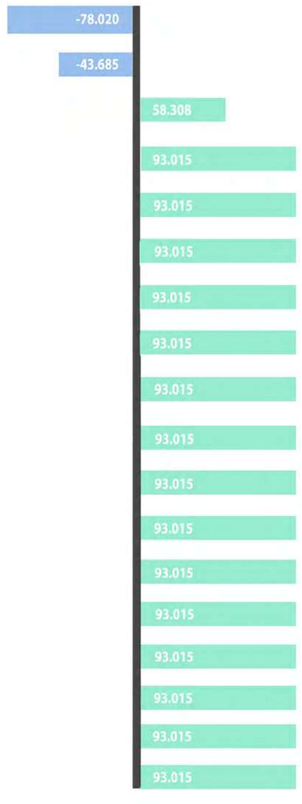


Through an analysis of similar works and a metric calculation, was made an analysis of the possible construction and management costs. These costs concern the project building (conference rooms, bar and office), but also the elements that make up the park, like: auditorium, bicycle station, urban gardens, sports fields (soccer field, beach volleyball court, beach tennis and bowls, the latter present on the dock), green parking, a cycle-pedestrian walkway (connecting the station and the park itself), green (equipped and poorly structured), ramps, street furniture and road arrangement.

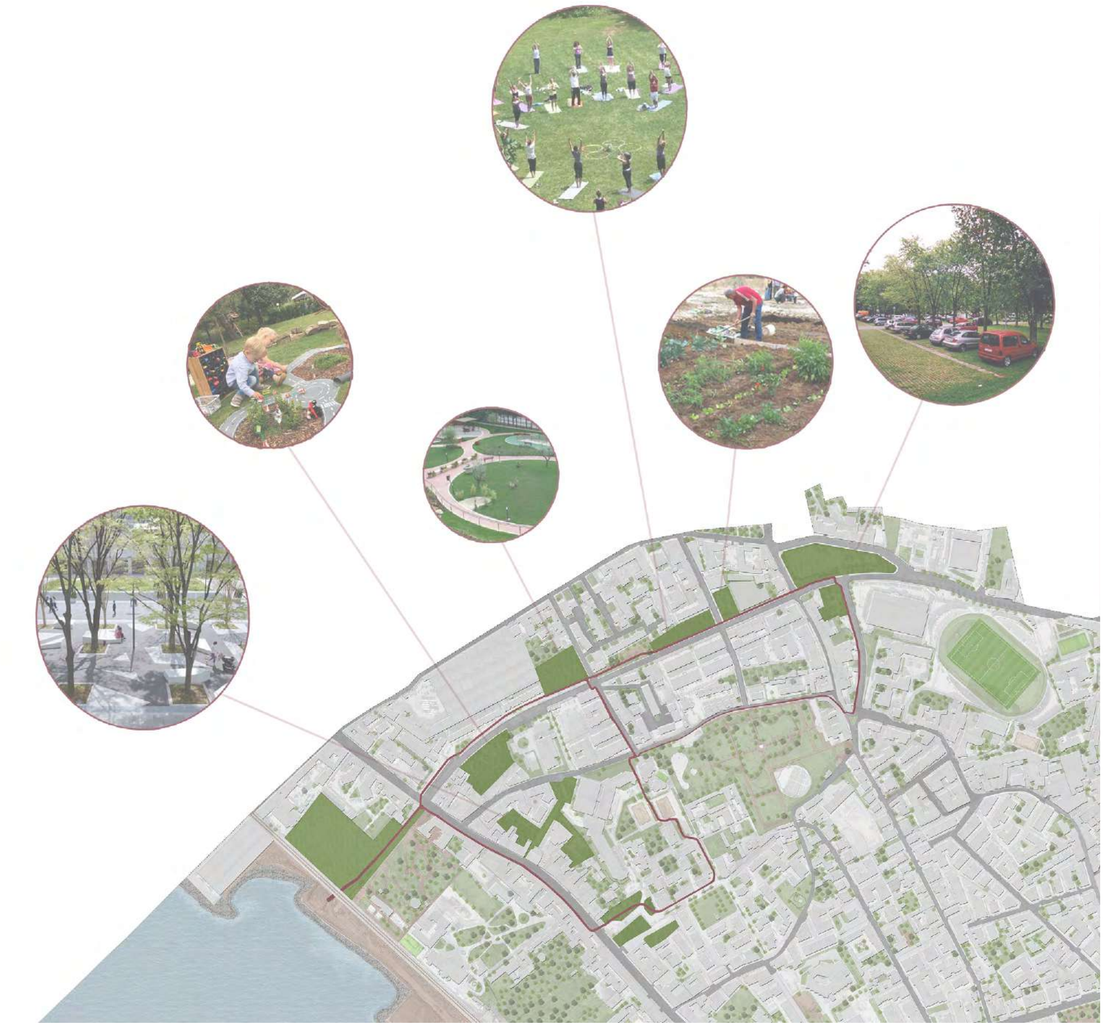
Costs and revenues were calculated on the basis of twenty years. From the analysis it can be noted that the first two years are at a loss, while the following ones in gain; revenues begin to emerge from the third year, and then reach almost one hundred thousand euros a year.

The NPV corresponds to 842,310.01 euros and the TIR to 50.48%.





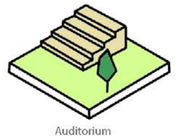
The values shown in the graphs represent revenues and costs, calculated on the basis of twenty years.
The diagram above shows the values of VAN and TIR obtained following the analysis.



PORTICI PARK THE PROJECT IN CONTEXT

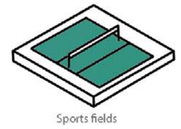
0 75 150 300m


Building


Auditorium

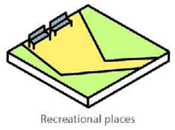

Bike sharing


Green parking

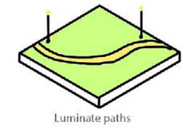

Sports fields


Green areas


Urban gardens

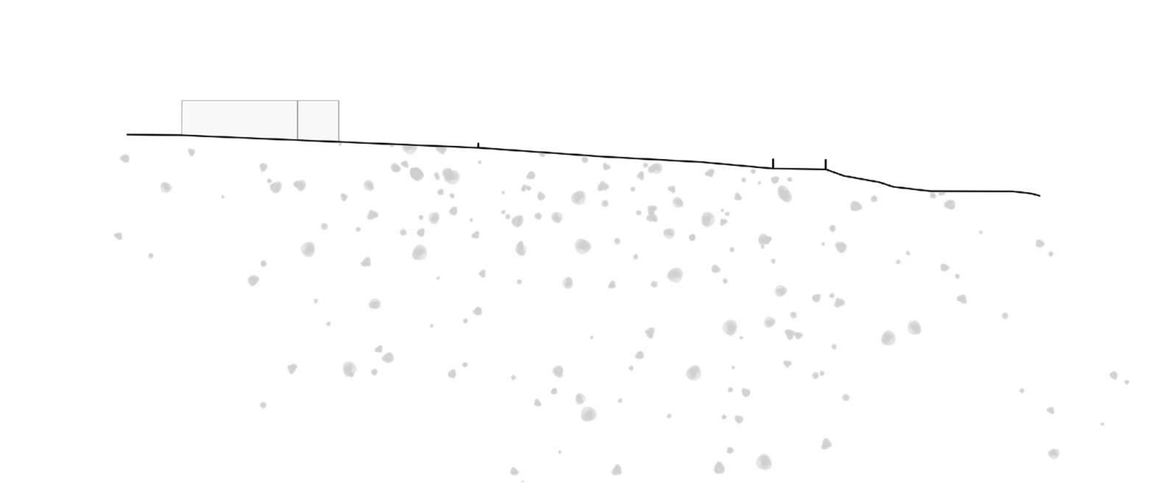

Recreational places


Sea view


Luminate paths



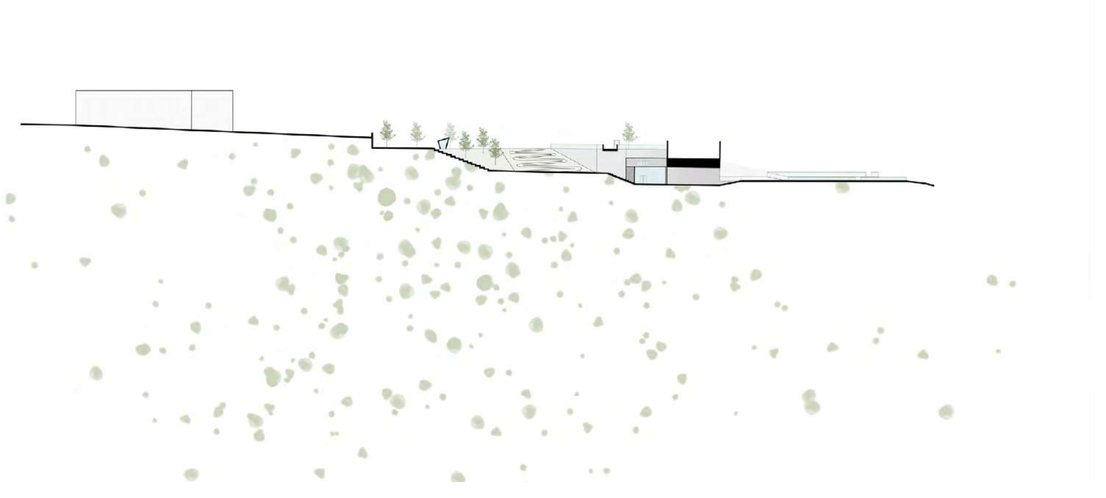
CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS



SECTION OF THE CURRENT STATE



DESIGN PROPOSAL



SECTION OF THE DESIGN PROPOSAL

The covered area corresponds to 536.6 square meters (of which 505 square meters concern the project building and 31.6 square meters that of the bicycle shelter). The uncovered area corresponds instead to 9,846 square meters (of which 933 square meters of auditorium, 450 square meters of urban gardens, 425 square meters green parking, 4,697 square meters of equipped green and 3,766 square meters of poorly structured green).

The surface of the project building corresponds to 505 square meters, of which: 46 square meters for the reception, 22 square meters administration, 95 square meters for meetings, 219 square meters bar and 61 square meters for bathrooms; the remaining square meters concern the patio, connected to the bar.

Regarding the project of the park, the images on the side depict project zooms.

1. In the first image, a ramp leads inside the park (at an altitude of +8.00m), from an altitude of +12.00m (of Corso Garibaldi). On the right a green parking containing 20 parking spaces. Proceeding there is a play area (covered with an anti-heat / dampening rubber flooring) and to its right a bicycle shelter (Edge model of "mmcitè", composed of a steel structure, roof and side walls in tempered glass, size 77740 l. x 2500 p. x 2485 h. mm, with bicycle rack in powder-coated galvanized steel equipped with bicycle protection rubber with a parking capacity of 20 bikes). There is also a soccer field of 25x42 m.

2. In the second image are represented the outdoor auditorium, to the left of which there are two green spaces (one with a walkway that from an altitude of +8.00m leads to +2.40m of the auditorium through a zig-zaged path and one on whose surface it is possible to stop - for example for picnics - under the shade of the trees; to this last space is connected one of the two direct paths to the urban gardens present within the park. Returning to an altitude of +2.40m, through the area dedicated to the auditorium you get to the structure object of the project (via steps or ramp).

3. This last space leads to a gap under the attic that holds the train tracks of the nearby station, through which there is access to the sea, on the dock, which connects to the right with Pietrarsa through a ramp that reaches its +6.00m and to the left leads to the sports fields and to an underpass (existing) where the planned cycle and pedestrian path ends.



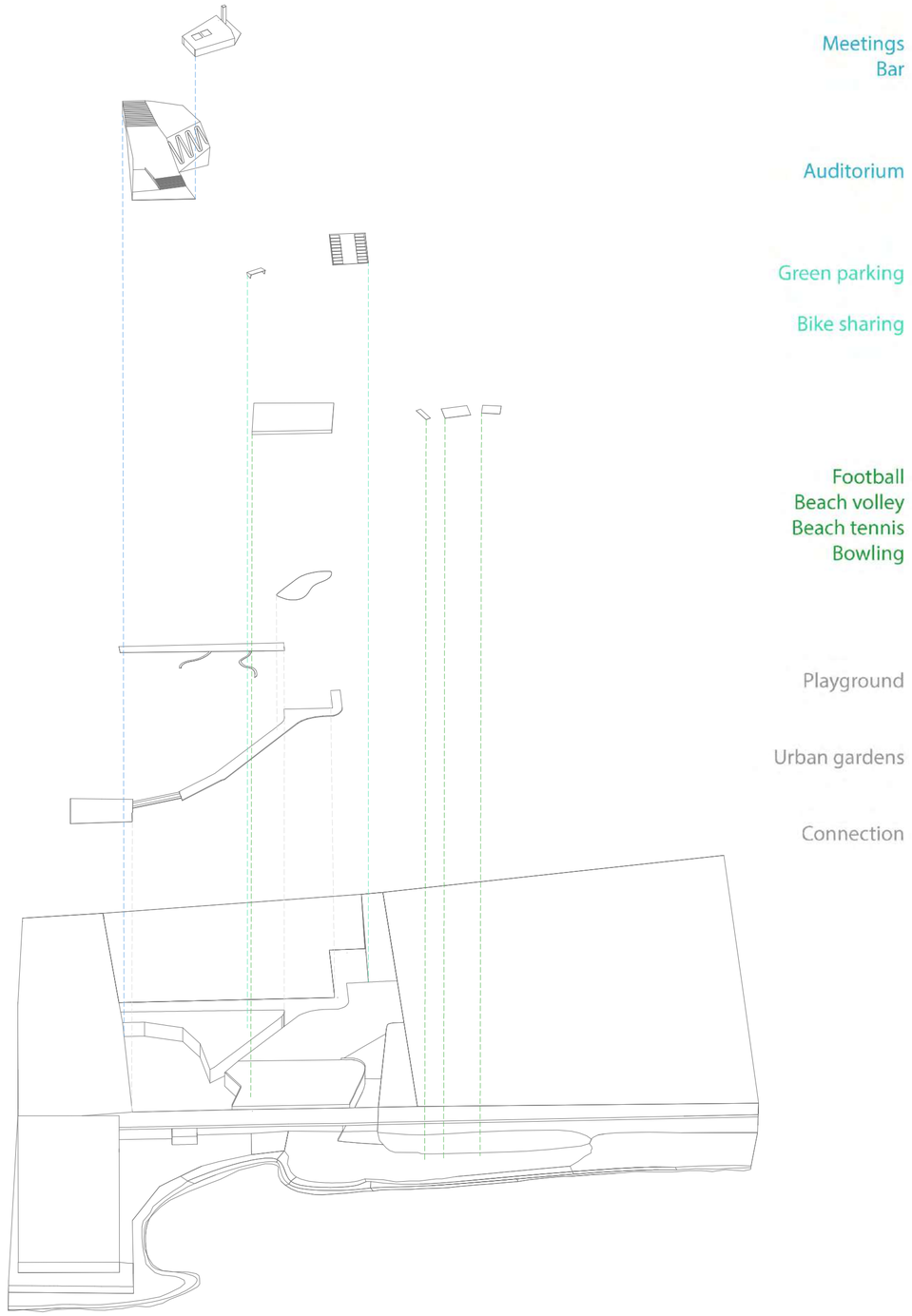
Public, social and sports facilities

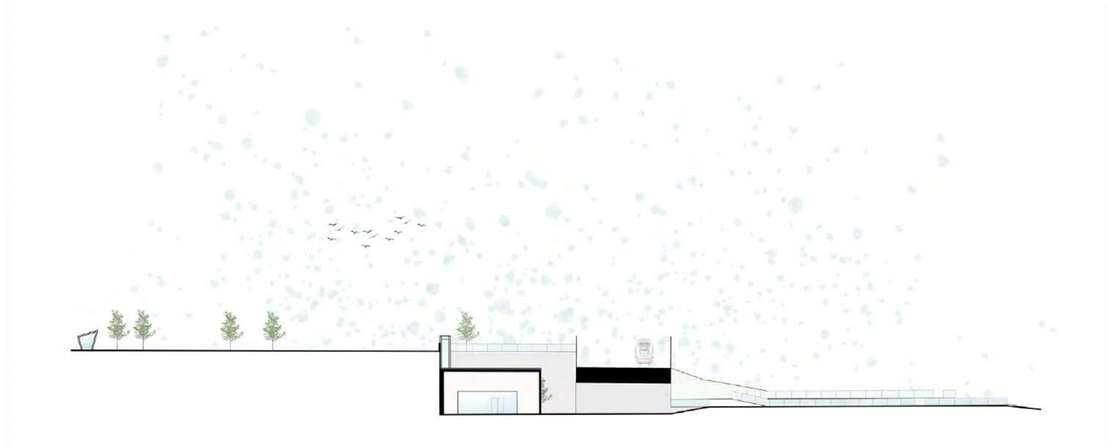


Access and pedestrian paths



Sports public fields





SECTION A

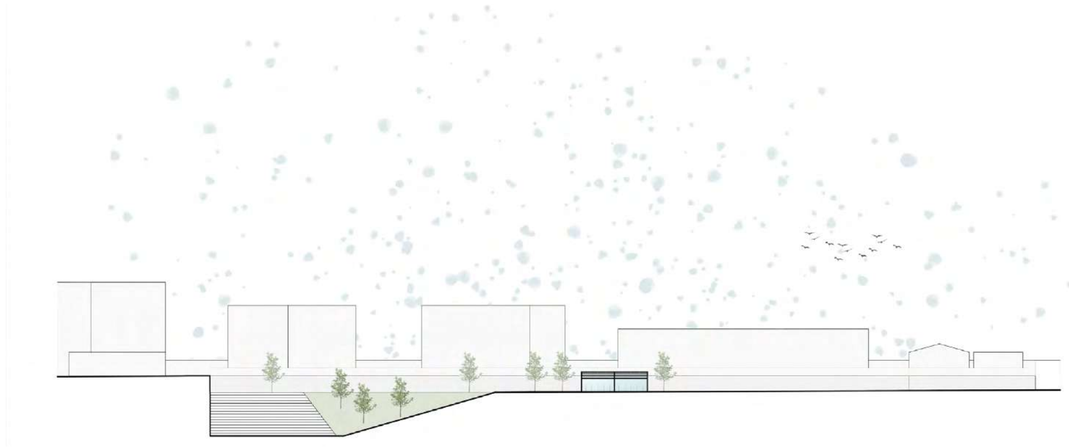
0 10 25 50m

1. Dock
2. Building
3. Auditorium
4. Picnic area
5. Urban gardens
6. Bike sharing
7. Playground
8. Football field



LEVEL 1 PLAN + 8,0m

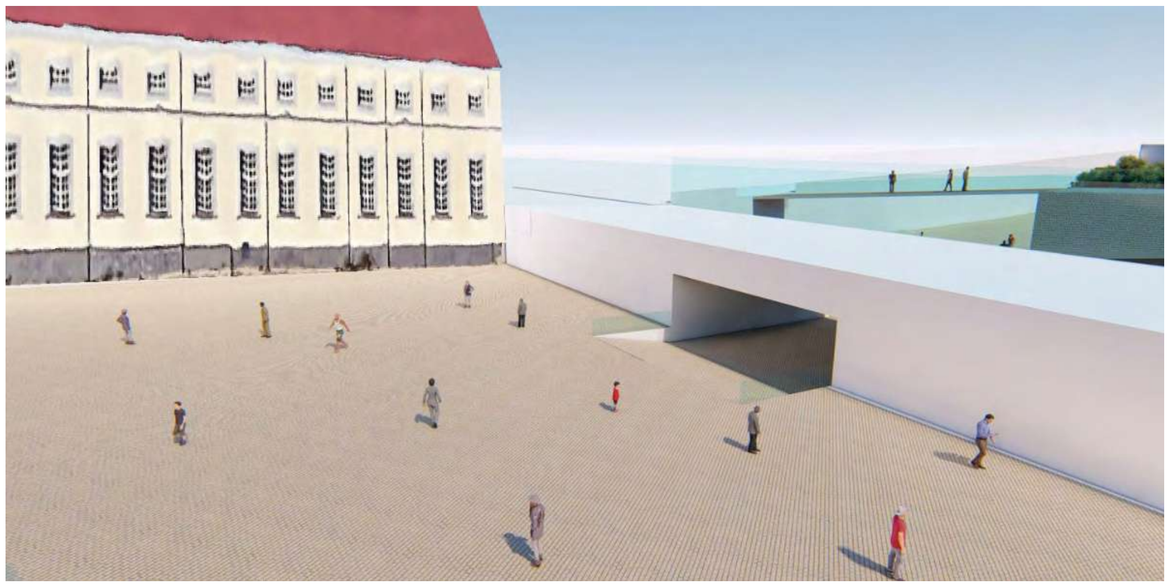
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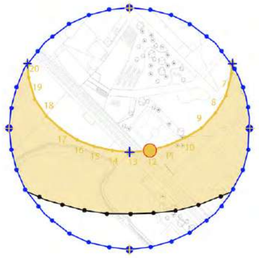


SECTION B

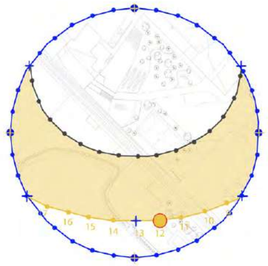
0 10 25 50m



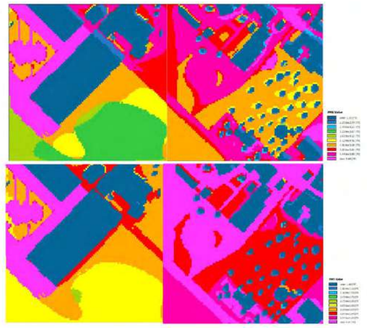


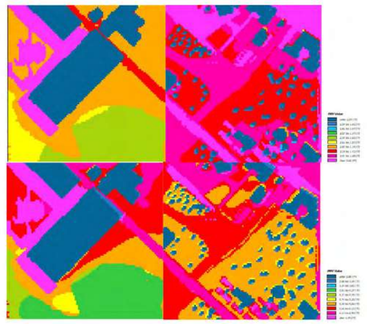


summer solstice | *21th June*

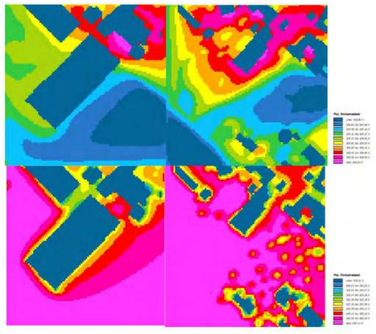


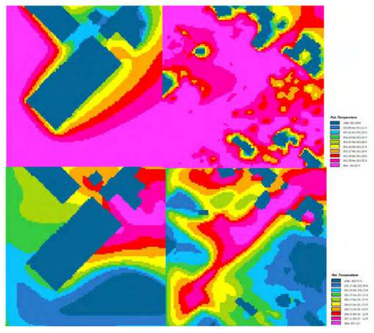
summer solstice| *21th december*



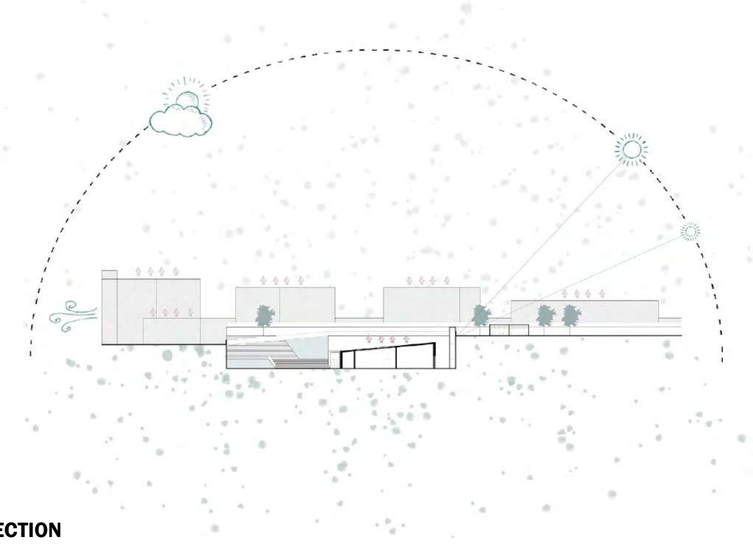


PMV | *Thermal sensation index*

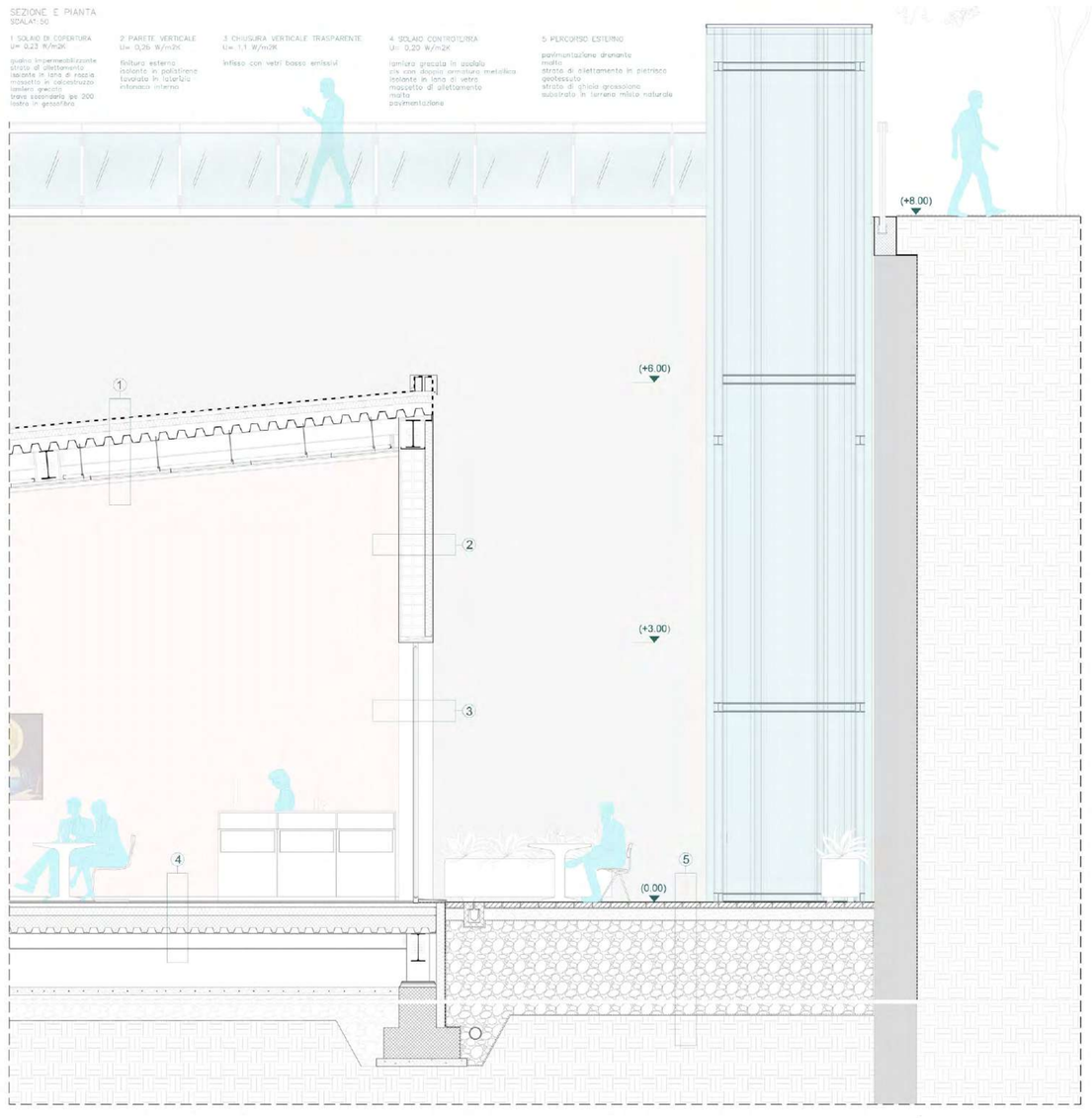




POT\ *Air temperature*



ENVIRONMENTAL SECTION





PUBLIC BUILDING PLAN AND SECTION SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

MARIALISA SCOTTO ROSATO - RETRO(WATER)FRONT

A STRATEGY AGAINST URBAN SPRAWL
CONNECTION BETWEEN CITY AND SEA

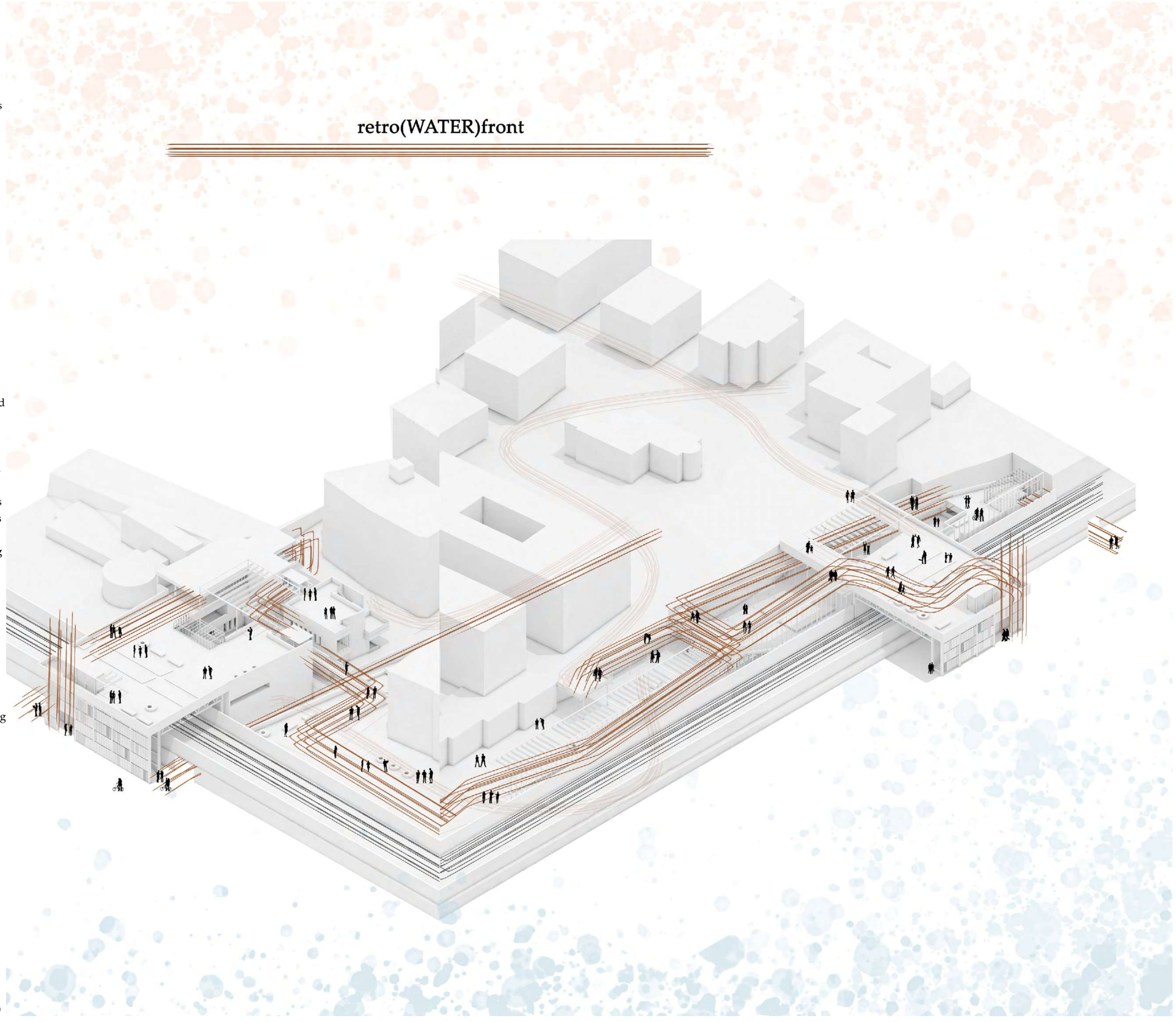
A seaside town, without the sea. Portici has an extremely dense and not very “porous” urban fabric. In other words, the city doesn’t have many green spaces. Furthermore, the view of the sea is hindered by the railway, as well as by differences in altitude. The project of the retro(water)front is born from this premise. The wordplay summarizes its goals: to give back the sea to the city and to let the citizens gain their sea again. Therefore, it arises the need to restore the direct, continuous and natural relationship of the morphological layout of seaside towns, where the potential of such a physical system can be fully exploited if its elements are in harmonious balance and its maximum functionality is guaranteed if these elements integrate and complete each other. On the one hand, the waterfront looks like a forgotten portion of third landscape with limited accesses, which therefore determine the absence of people on the coast. On the other hand, the retro-waterfront, a densely built part of the city, already laments the need for “places of staying” and suffers a further loss of freedom due to the railway that almost gives the impression of being in a cage delineated by a borderline. The study of the city is based on the meticulous investigation of all those areas, interstitial spaces and small portions of territory which can be seen as breathing points of the city. Two new crucial city-spots, connected by a dynamic park, play the role of an innovative infrastructure by solving the crossing of the railways and becoming an attractive pole.

Program

lounge bar-restaurant, toy library, bookshop, yoga room, rooftop bar

Covered area	**1100²**
Uncovered area	**4000m²**
Levels above ground	**3**
Built volume	**15874m³**
Estimated cost	**€1.283.700**

retro(WATER)front



The architecture of connection. The passage between city and sea occurs by offering multiple connections. A dynamic connection that takes into consideration not only horizontal crossings but proposes a new vertical crossing. This increases the use of space and social connections.



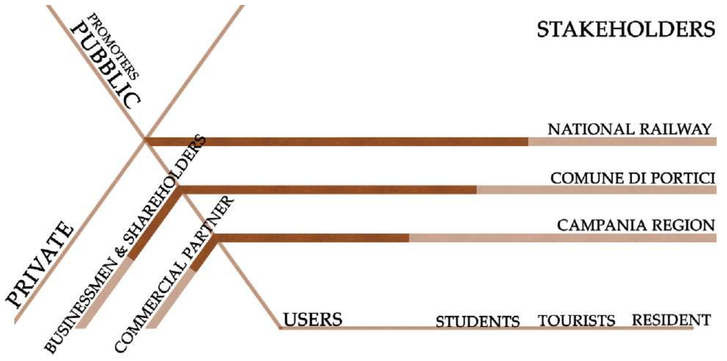
The project concerns the redevelopment of a section of the lower edge of the city. It aims to put together several potential portions of territory designing a connection network.

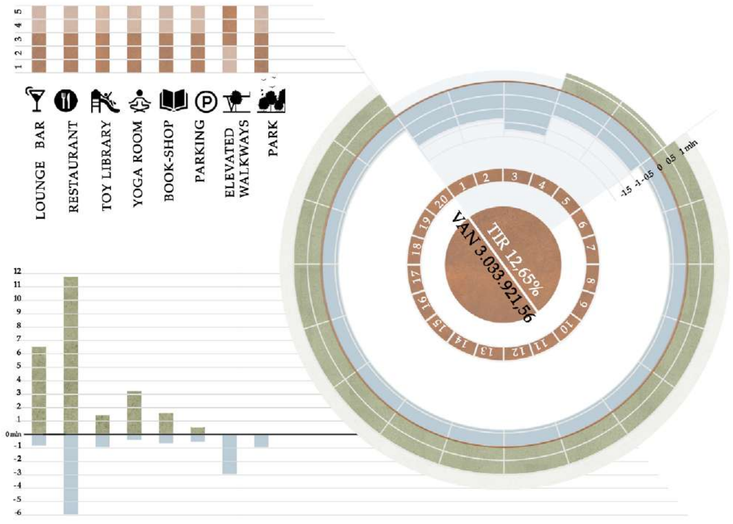
The area, which extends from Viale Camaggio I, presents an access to the sea through an underpass. This underpass looks like an architectural barrier due to a difference in altitude which has been solved only with a vertical connection. In this area there is also a small abandoned structure.

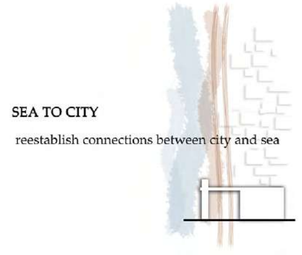
An adjacent, similarly abandoned area with spontaneous vegetation, borders partially with the frontside of a residential area.

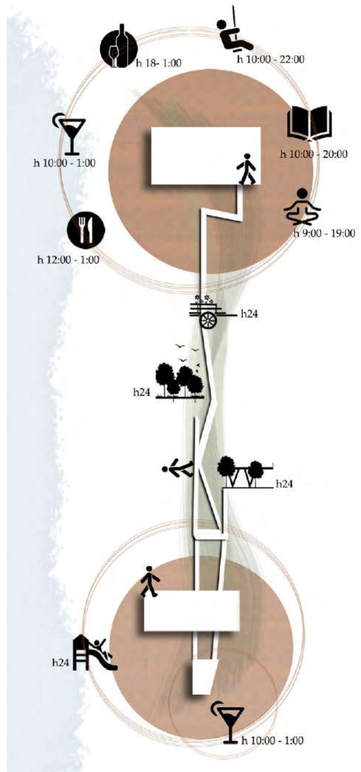
In continuità vi è un'ulteriore area con vegetazione spontanea, ugualmente abbandonata, che confina con una parte antistante un quartiere residenziale.

At the end of this system, there is a building in a state of decay, which is characterized by a suggestive base in ancient tuff and placed next to a tiny narrow street, that is currently closed from the main road; it would allow the access to the waterfront, though.





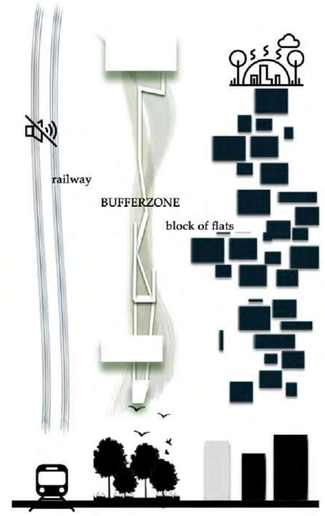




ESTIMATED EVALUATIONS RESULTS

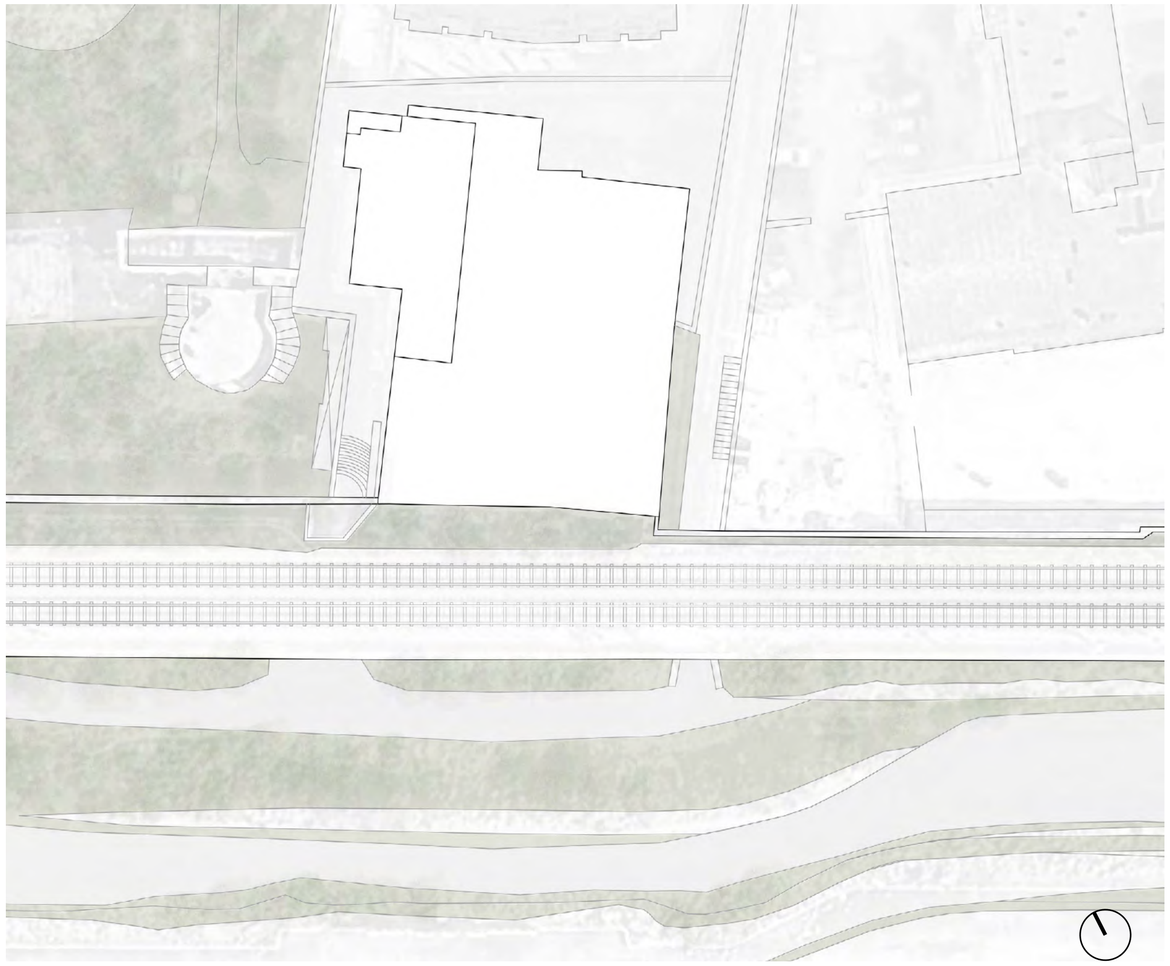
Identification of potential stakeholders. Analysis of revenues and investment costs on a twenty-years scenario, time schedule of the individual functions.





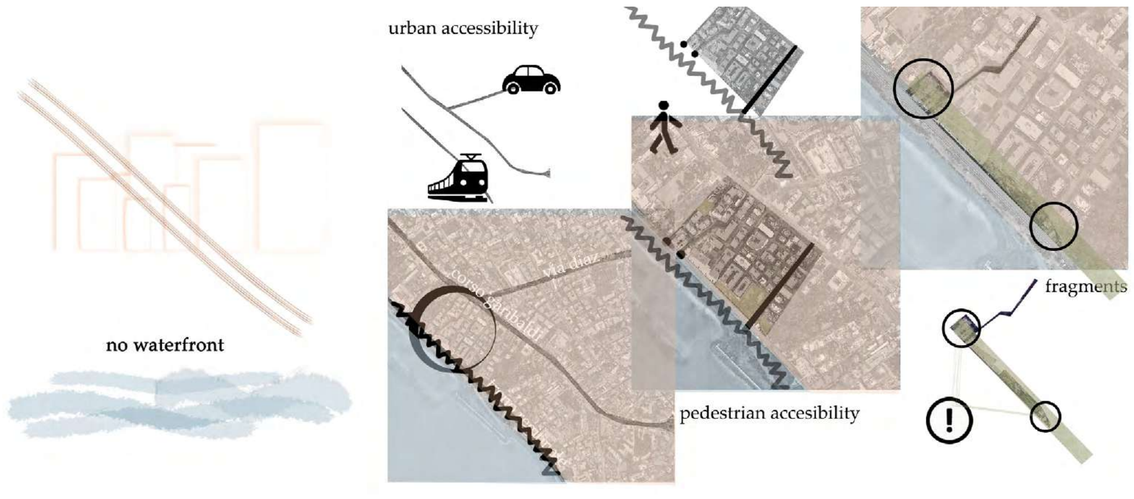




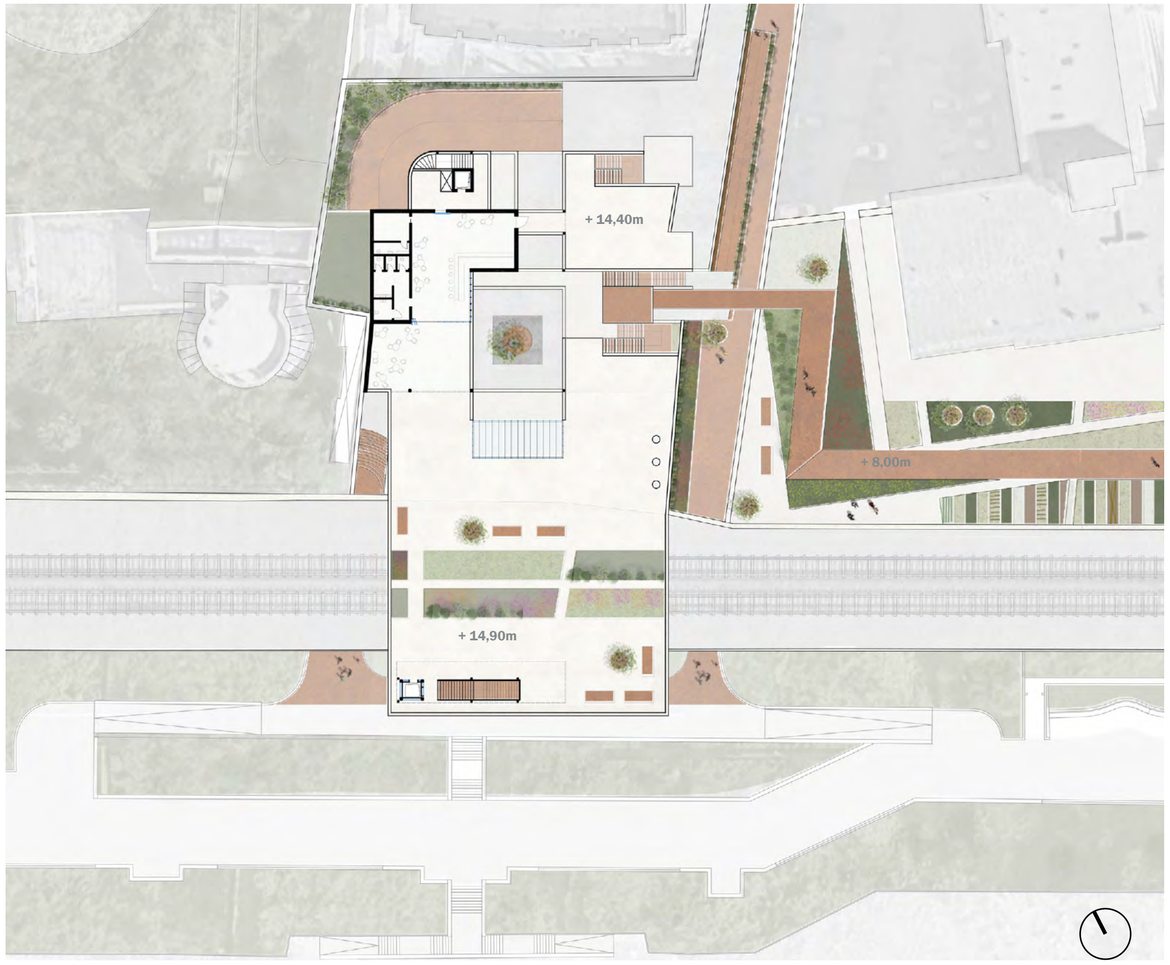


CURRENT STATE MORPHOLOGICAL READING OF URBAN ANALYSIS

0 10 25 50m

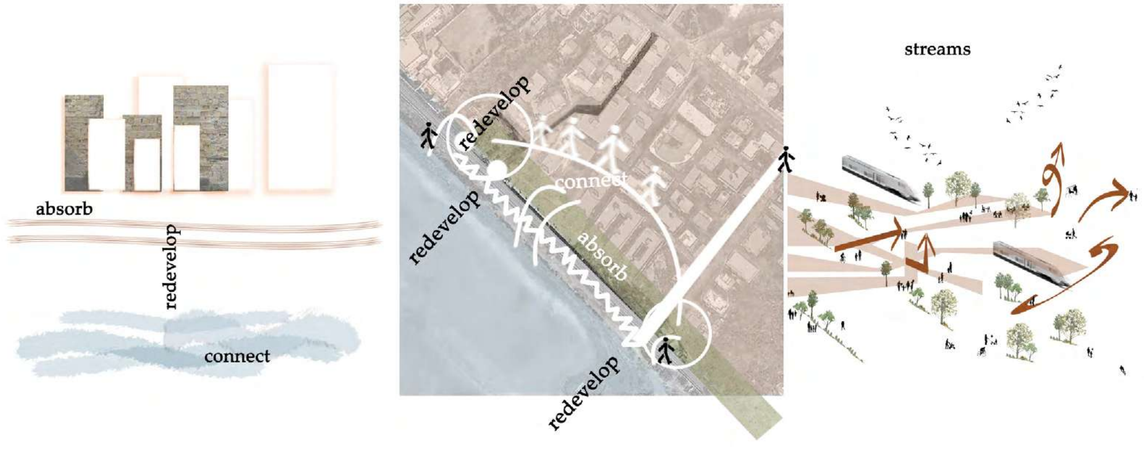


OVERVIEW OF URBAN ANALYSIS



DESIGN PROPOSAL

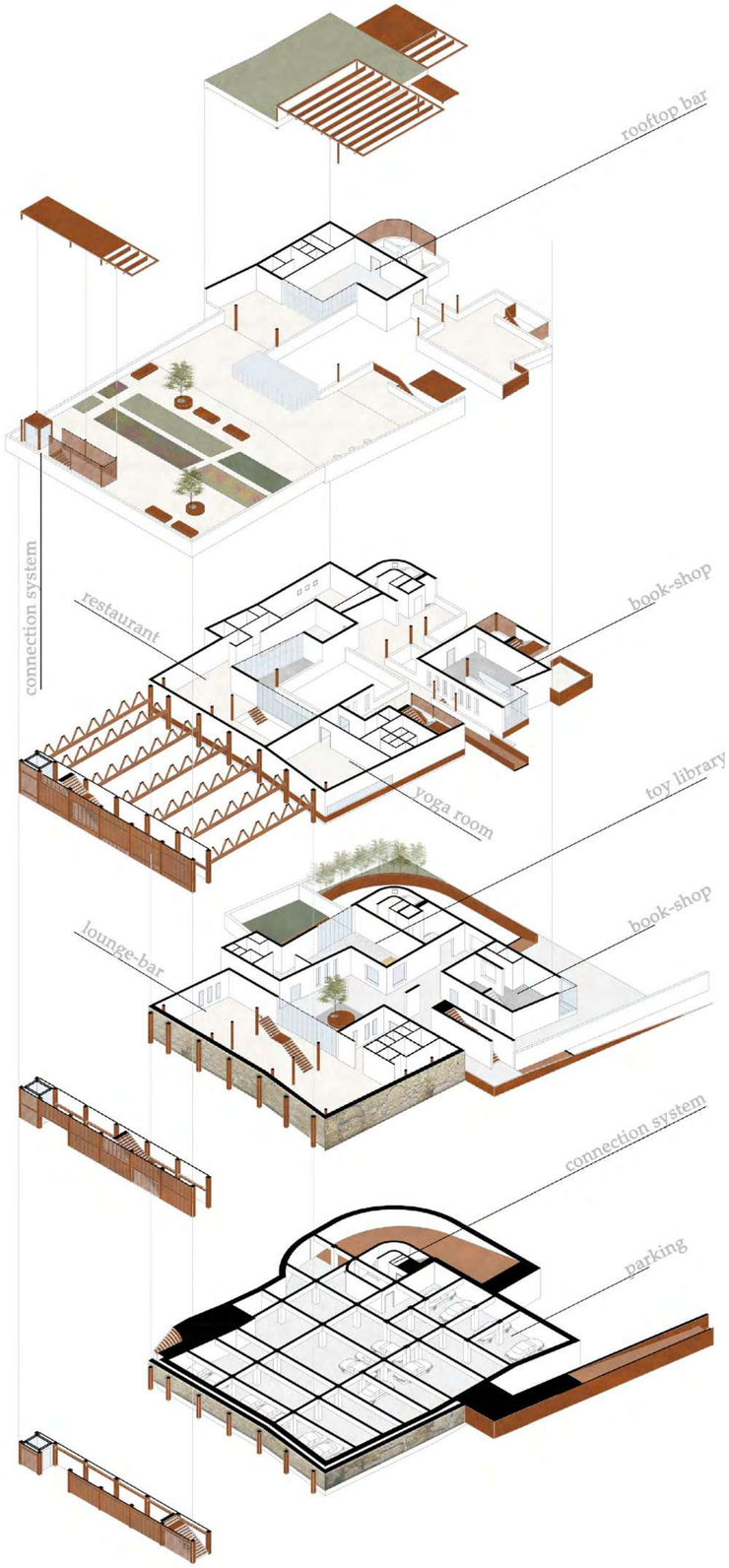
0 10 25 50m



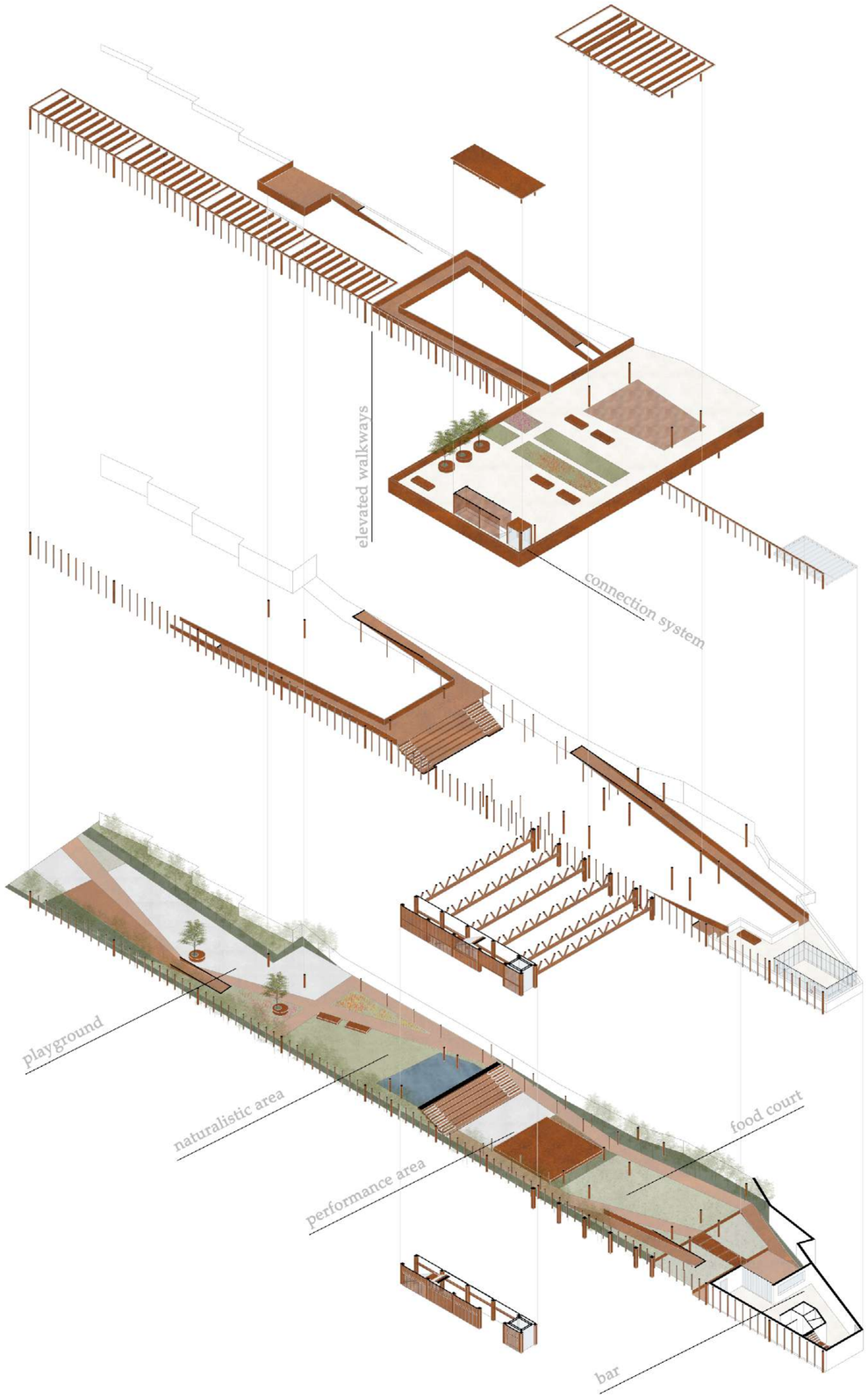
OVERVIEW OF ACTIONS ON URBAN SCALE

New urban scenarios. A new attractor that attempts to create both a visual and physical connection with the waterfront, promoting an increasingly dense social network.

The project aims to realize a multifunctional structure, whose set of functions has been designed based on their interaction for a constant use of the building. The building has got different accesses: from the waterfront, through two redeveloped underpasses and through a new vertical connection system; from the street by car, with an underground parking; from the park, on the first floor, through a suspended ramp leading into the structure. The environments, differentiated by function, have an independent entrance. On the ground floor: the floor-to-ceiling lounge bar attached to the restaurant on the 1st floor; the toy-library, that is thought to be in service both for the community during the day and for the restaurant in the evening; a bookshop to support the toy-library but also to spread culture in these public spaces. On the first floor there is also a yoga-room with the view on the park; finally, on the top floor, a large terrace with a cocktail bar accessible via many entrances. The main building almost retains the volume of the pre-existing construction. Using an independent steel structure, it is placed in the tuff base that visually incorporates it. The logic of the architectural composition is based on the emptying of the pure volume, proposing a dynamic space and, above all, giving to each function private, semi-private and public spaces that are always connected. The building is attached with the park at the 1st floor, where residents can interact and enjoy a new public space. It is characterized by a steel structure that solves the several differences in altitude with linked cycle-pedestrian lanes, both on the ground and on elevated levels. The entire structure is thought as a path articulated in many different spaces: urban gardens to promote social interaction and a recreational space; it leads to the flight of steps that can be used as bleachers. The structure is characterized by a dense vegetation, offering a naturalistic space which can also filter the noise pollution of the railway and improve the air quality as well. This path ends with a small bar and a large terrace that crosses over the railway and takes up the same character of the main building: it solves a further difference in altitude and increases the accesses to the waterfront.



EXPLODED AXONOMETRIC

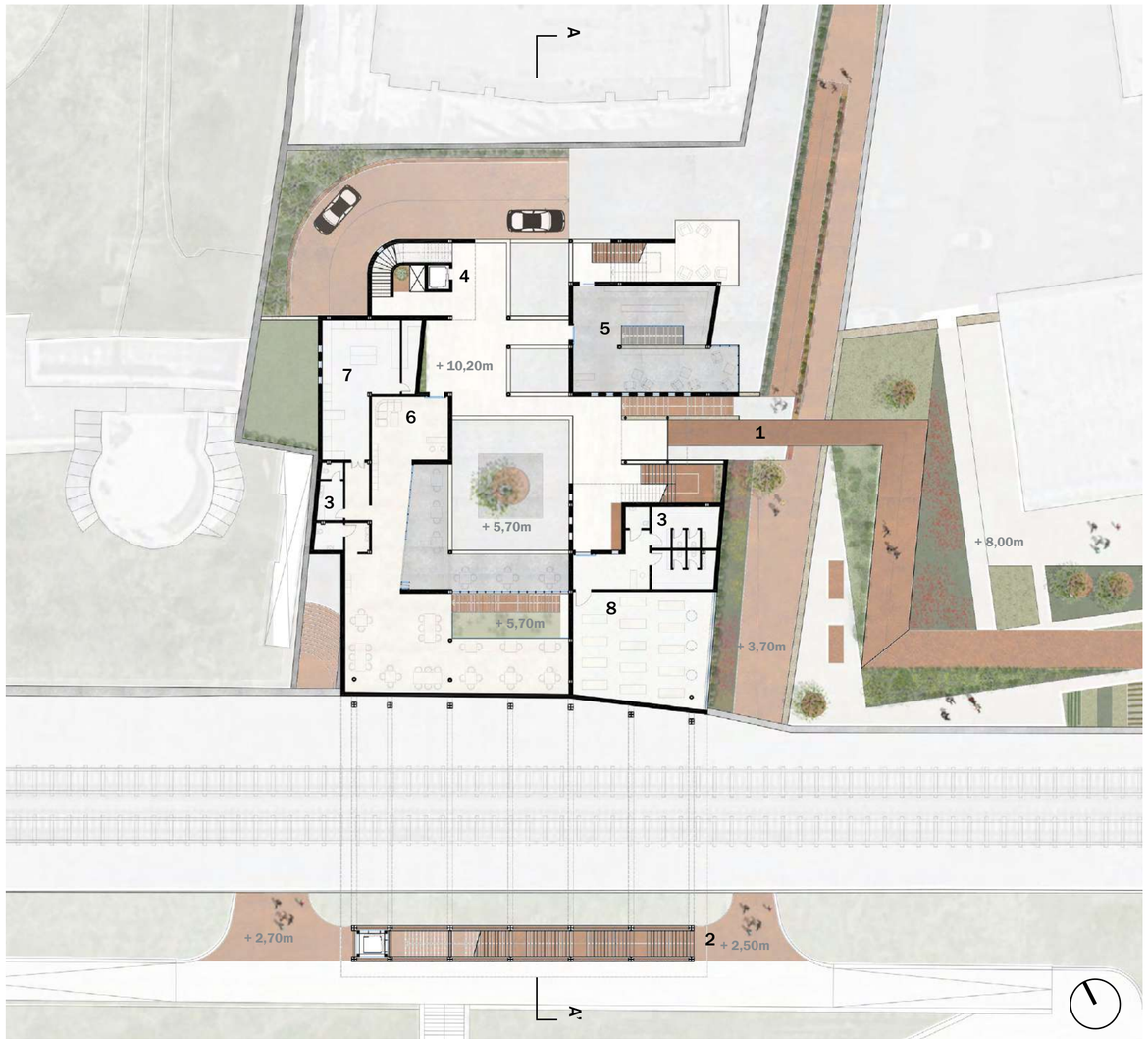




ELEVATION SOUTH-EAST

0 6 15 30m

1. Access from the park
2. Access from the waterfront
3. Restroom
4. Connection system
5. Bookshop
6. Restaurant
7. Kitchen
8. Yoga room



FIRST FLOOR + 10,20m

0 6 15 30m



SECTION A

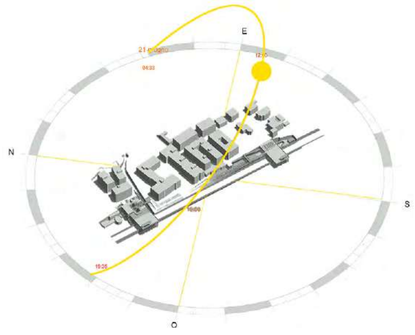
0 6 15 30m



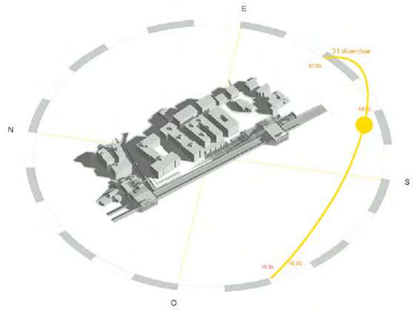
INNER COURTYARD



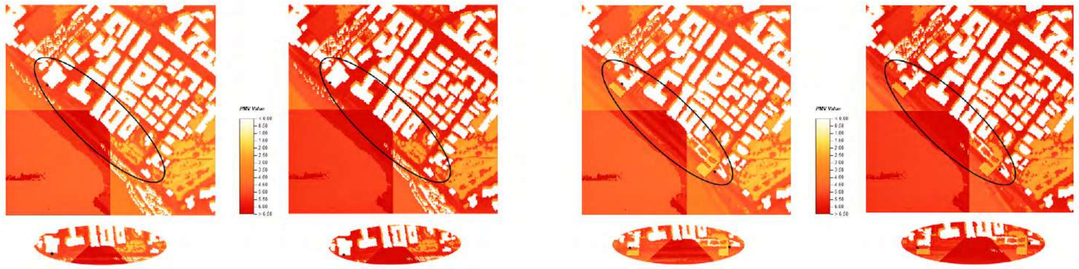
ACCESS FROM THE PARK



summer solstice | *21 june*

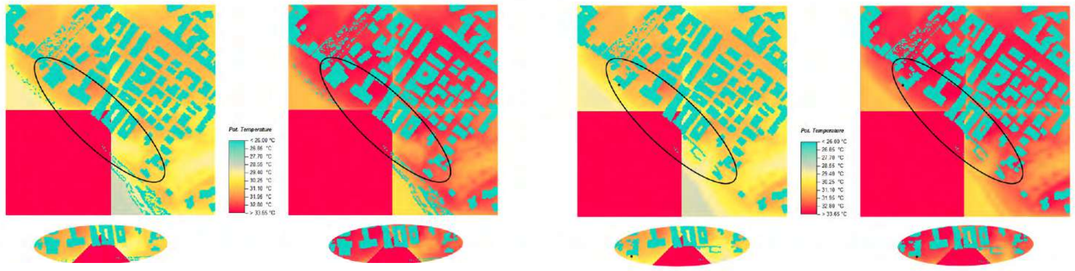


winter solstice | *21 december*



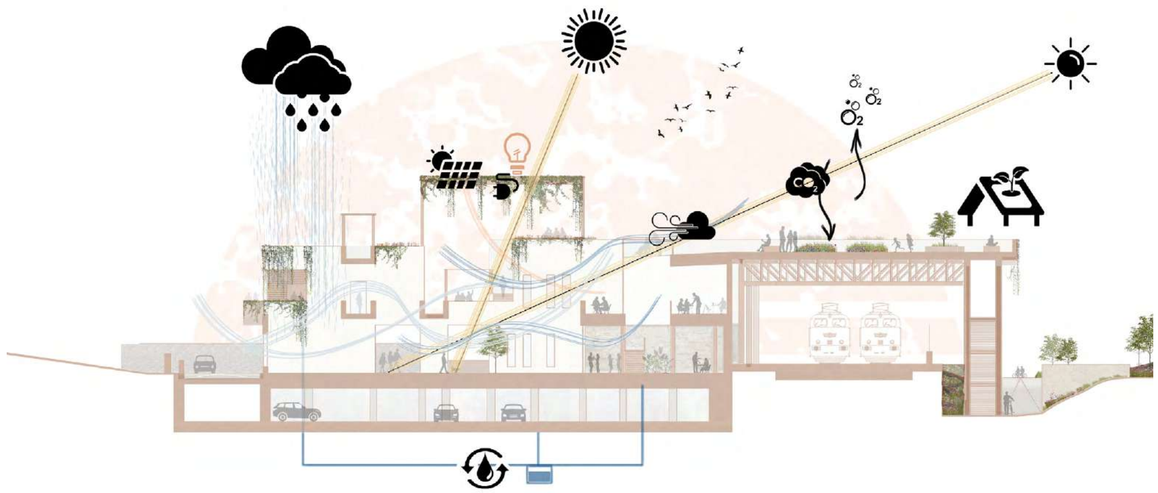
2019 - 4.75 *2050 - 5.60* *2019 - 4.60* *2050 - 5.40*

PMV | Thermal sensation scale



2019 - 31,20 °C *2050 - 32°C* *2019 - 31°C* *2050 - 31,9°C*

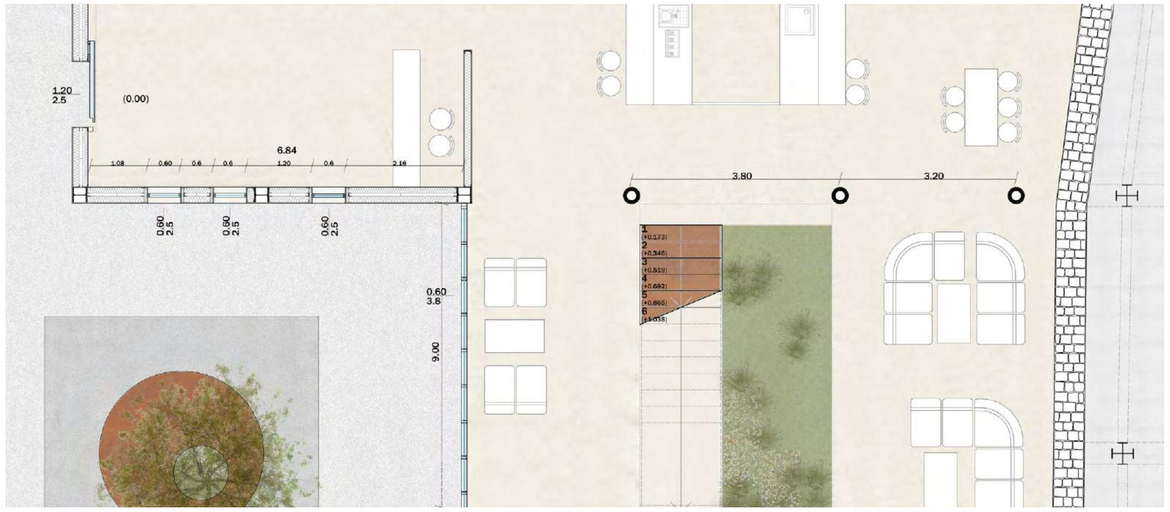
POT| Temperature



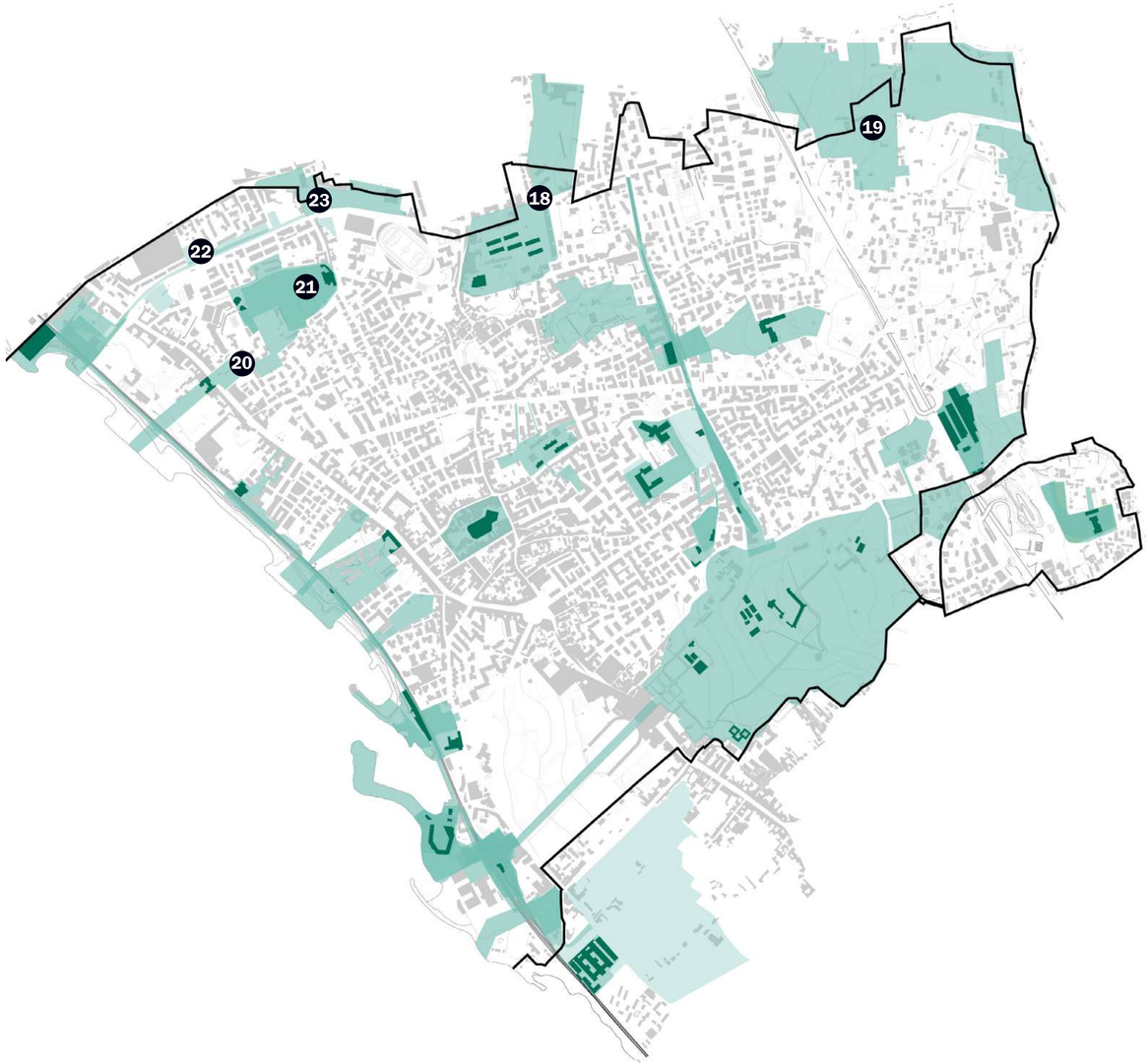
ENVIRONMENTAL SECTION



1. Gres flooring, screed board, insulation sheath, insulation with rockwool between betonwood panels, corrugated steel sheet, termoacustic insulation, drywall, plaster
2. Gres raised flooring, screed board between sheath-layer, corrugated sheet
3. Vegetation layer, mix soil, tnt, screed board, corrugated sheet
4. Thermal break windows with double glazing
5. Plaster, drywall, glass wool insulation, air gap, rockwool insoulation, plaster
6. Microtopping, crawl space, sheat, rockwool insulation between betonwood panels, corrugated sheet, thermoacoustic insulation, drywall, plaster
7. Microtoping, thermoacoustic insulation between betonwood panels, corrugated sheet
8. Industrial floor, screed board, crawl space, screed board
9. Microtopping, thermoacoustic insulation between betonwood panels, corrugated sheet, thermoacoustic insulation, drywall, plaster



PLAN AND SECTION OF THE CONSTRUCTION AND PUBLIC SPACE SCALE 1:50



WESTERN BORDER
IL BORDO OCCIDENTALE

18. Reiventing suburbs Cristina Acquaviva
19. Cross Urban Park Antonietta Ametrano
20. The park gate Davide Andrea Cutolo
21. SCC - Sport Community Connection Alessio Pazzanese
22. Reconnection Federica Zanniello
23. Border Line Center Clara Vitiello

PORTICI ADVANCED DESIGN STUDIO

CRISTINA ACQUAVIVA-REIVENTING SUBURBS

URBAN RECOVERY PROGRAM

PERIPHERY IN TRANSFORMATION-ACTION

"Reinventig suburb" aims to implement three main actions: reconnection, regeneration and reactivation. Reconnection understood as an overall action to improve accessibility. Regeneration understood as an intervention on environmental degradation and the recovery of present potential. Reactivation understood as an intervention to transform spaces into new centralities and new social attractors.

Characteristic is the promotion of the multifunctionality necessary to introduce greater differentiation and vitality into the urban fabric while respecting today's need to stop land consumption. All the project actions, in fact, focus on existing and degraded structures or areas in order to make them more creatively innovative and promptly responsive to the needs of tomorrow, less erosive of the environment, more inclusive from a social point of view, and more performing from the point of view of energetic view.

In addition, the area of via Dalbono, the project area, also acts as a vehicle for connection between parts of cities closed in their high densification; the area is in fact delimited by a series of resources that are poorly connected to each other but which, through the reactivation of this area, can lead the "periphery to the center" of the city.

Hence, from urban criticalities, the suburbs thus evolve into significant components for the transformation of the city.

The periphery is a resource of resilience for the city and it is from here that Portici can start again to reactivate its social, territorial and cultural capitals.



Program

school, recreation center for the elderly, bar-restaurant, cinema-theater, shopping center, public space

Covered surface	18476m²
Uncovered surface	15245m²
Levels above ground	3
Built volume	50708m³
Estimated cost	3.683.688 €

REINVENTIG SUBURBS

Cristina Acquaviva

The project is part of the redevelopment and redesign of the western edge of the city in contact with the Municipality of S. Giorgio a Cremano, characterized by the juxtaposition of fabrics and building fragments without quality and poorly equipped with open spaces and facilities. These indeed are proposed to be transformed by networking new destinations of use related to leisure time, sport and social aggregation.

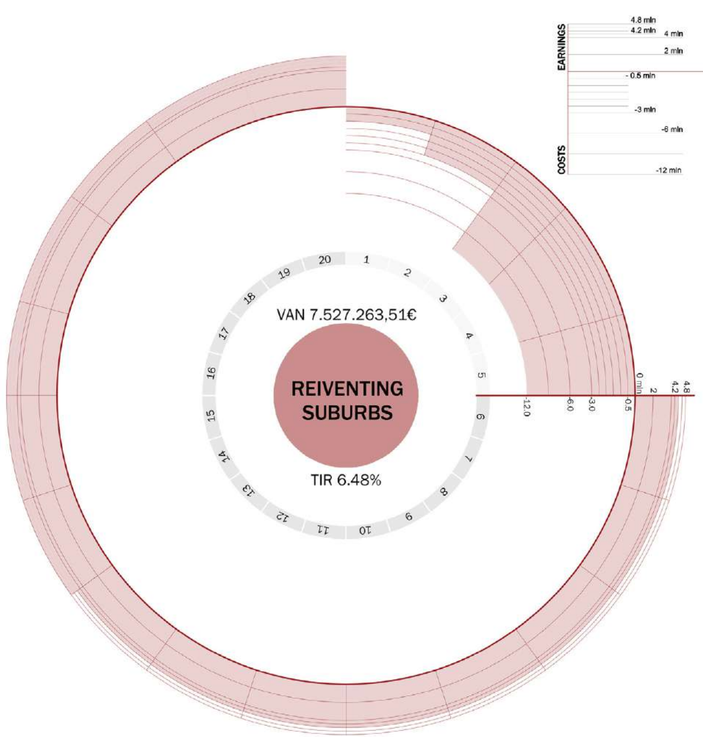


In particular, the recovery program includes the redevelopment of an existing metal structure into a secondary school; a subsequent study room and coworking space; a retrofit intervention on the existing public housing buildings; and the creation of collective spaces, to replace two public residential buildings which are completely dislocated from the context (the area of the two ERPs is distributed over the other existing buildings).

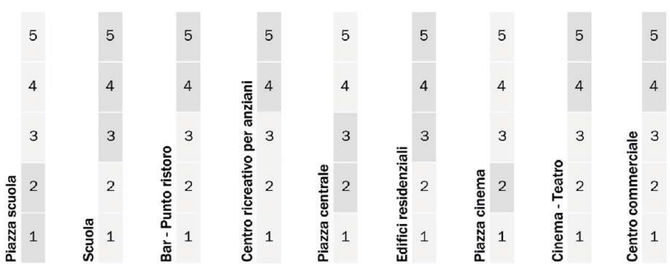
The goal is to build a unit, which has always been absent, within via Dalbono, through a system of open spaces that are consistent with the built fabric and which also have the aim of redeveloping completely abandoned and degraded areas.

Furthermore, within an overall redesign program and a desire for transversal connection of the area, a new longitudinal connection is inserted in order to favor the interconnection of the adjacent areas and break the typical closure of the city.

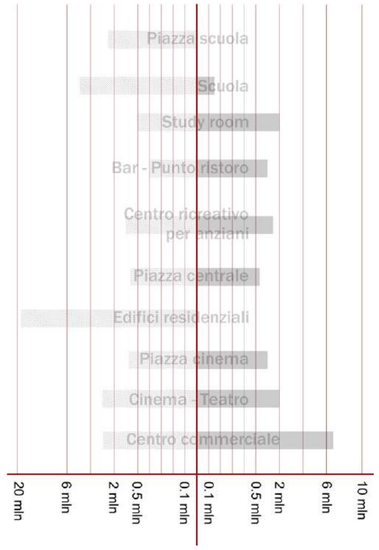
The strategy is not only the reactivation and enhancement of existing resources but also that of reintegrating a part of the suburbs into city life.



CASHFLOW

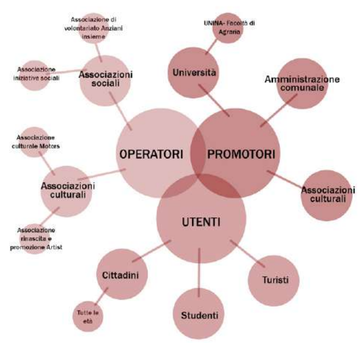


PROJECT TIMETABLE

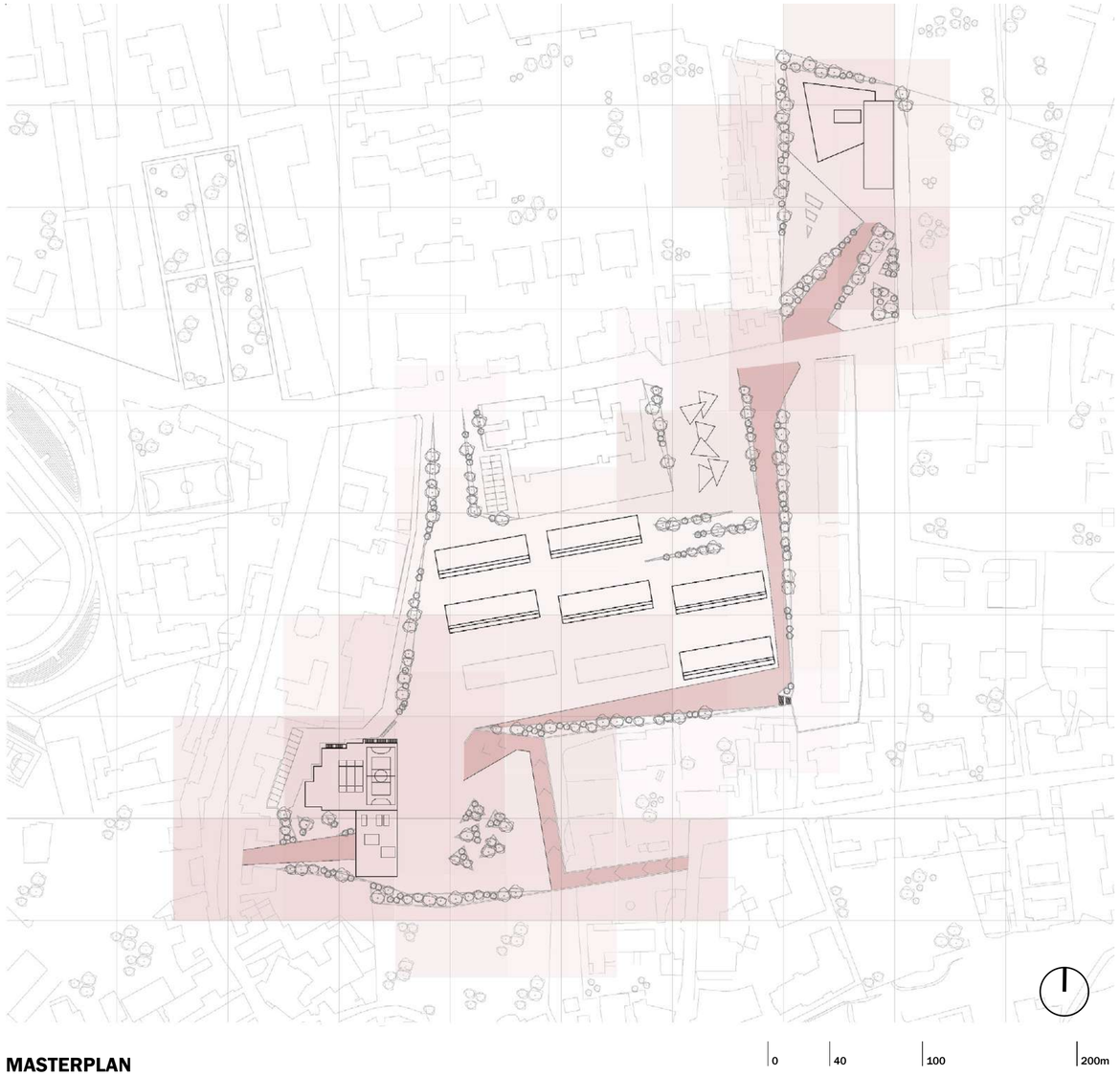


SCHOOL RENOVATION COST

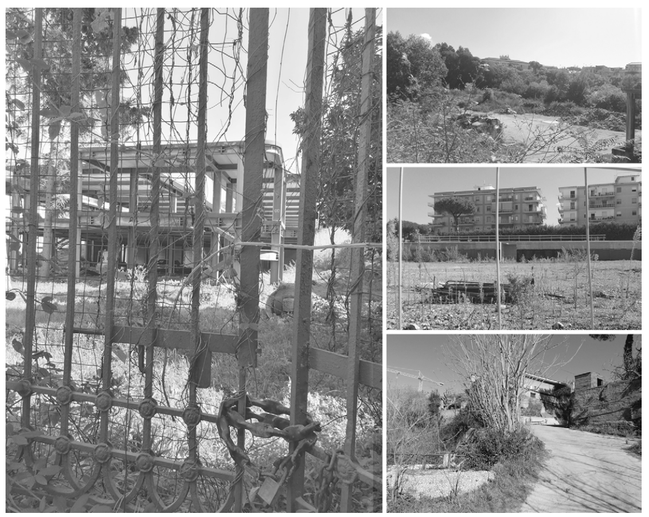




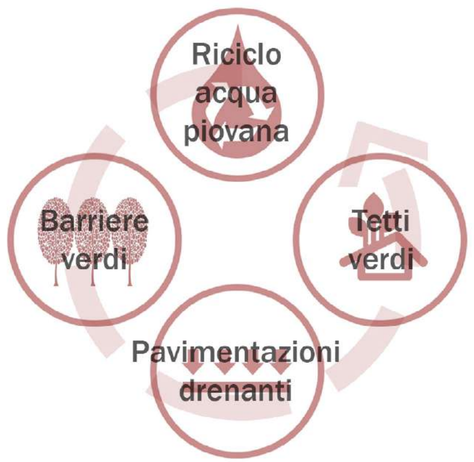
STAKEHOLDERS MAP



MASTERPLAN



SITE SURVEY

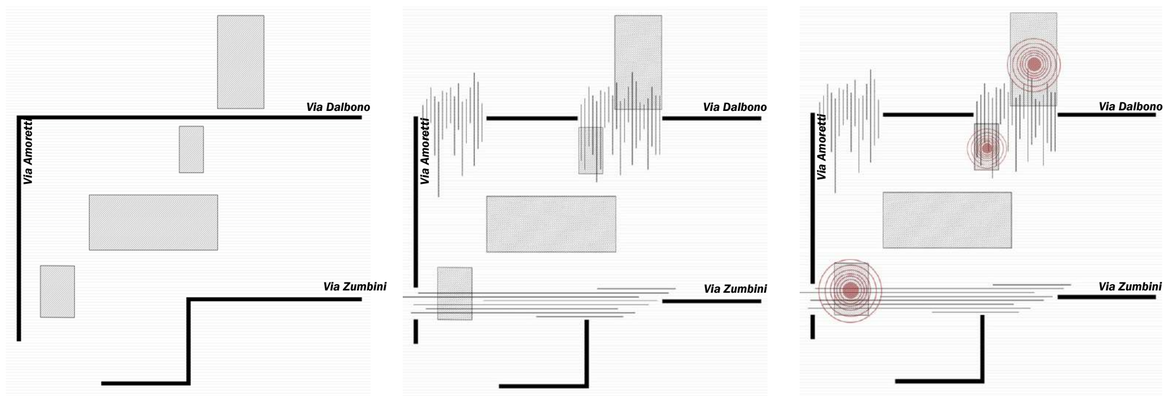


URBAN STRATEGIES



CURRENT STATE

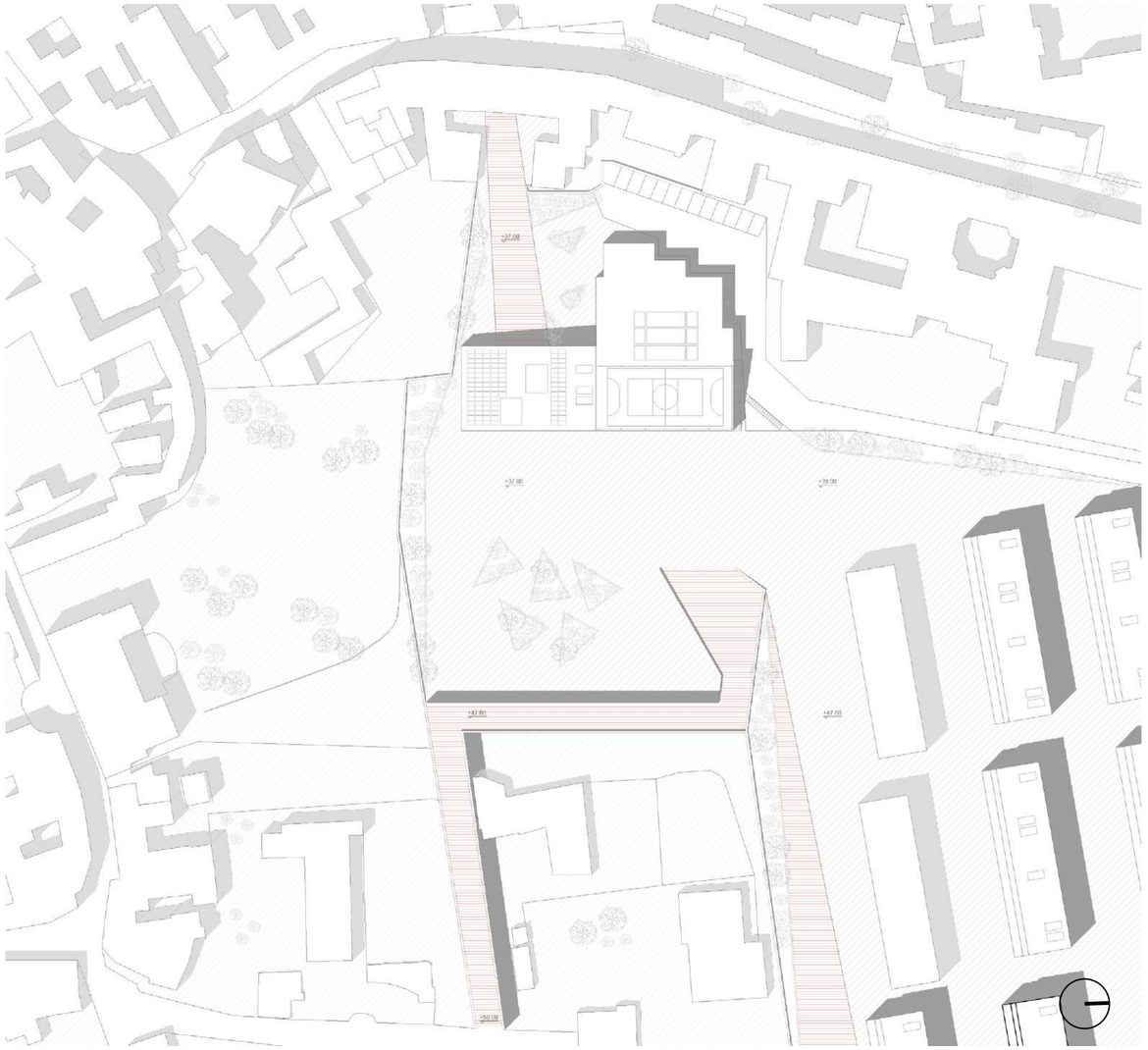
0 20 50 100m



The various project areas are completely disconnected from each other. Furthermore the metal structure is completely inaccessible and all buildings and open spaces are in a state of neglect.

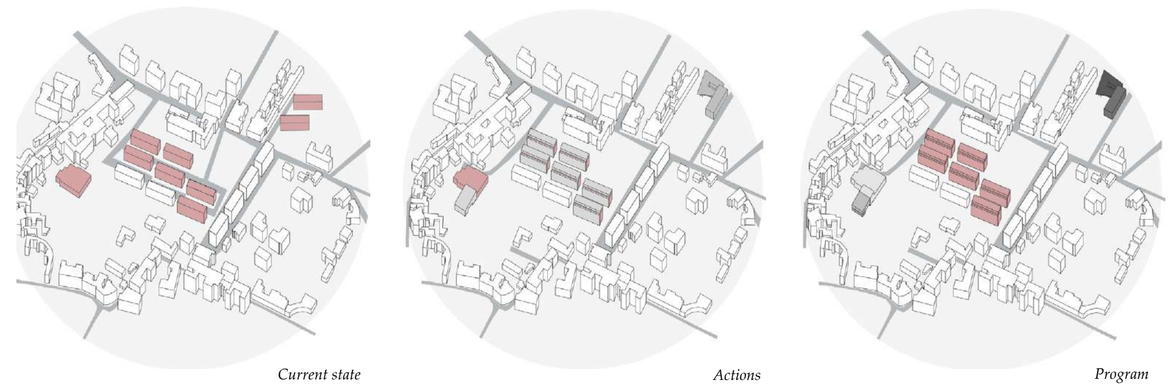
The project area thus becomes permeable and the metal structure is transformed into a fundamental hub for the connection of the two streets in the historic center of Via Amoretti and Via Zumbini

The buildings, through the redevelopment and the addition of new functions, become points of attraction and meeting for citizens. A part of the periphery is reinvented and reactivated.



DESIGN PROPOSAL

0 20 50 100m



Current state

Existing

Actions

Existing

Grafts

New elements

Program

Residential buildings

School

Recreation center

Café

Cinema-Theatre

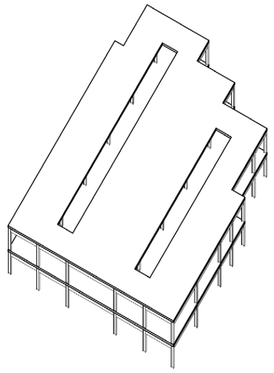
Commercial spaces

The project focuses on redeveloping the existing metal structure and adding a new volume that aims to reconfigure its open space. The facility becomes the setting for a new center of creativity and community that goes beyond the school function and therefore seeks to create meeting spaces open to the needs of the city and of all age groups.

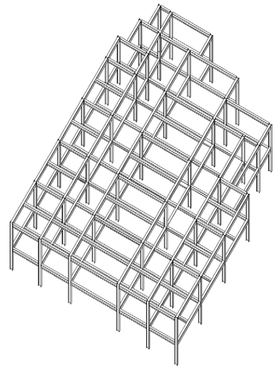
The old configuration is revitalized through the insertion of functional boxes, differentiated from the material point of view, which delimit the perimeter of the building and which give rise to a large central space that becomes the fulcrum of the thematic areas. The entire space is designed in such a way as to encourage innovative teaching and benefit group work, workshops and exchanges of ideas and creativity among students. Most of the spaces are separated by movable walls and the inclusion of traditional school functions has been reduced to the minimum necessary, the furniture itself allows you to form different learning methods. At the basis of the design is the desire to create spaces that are as flexible and adaptable as possible to various needs.

The school system is designed to become a real civic center open to the city and liveable even outside school hours; especially the spaces of the cultural hub, the technological island and the sports area on the roof have been designed in such a way as to be always usable.

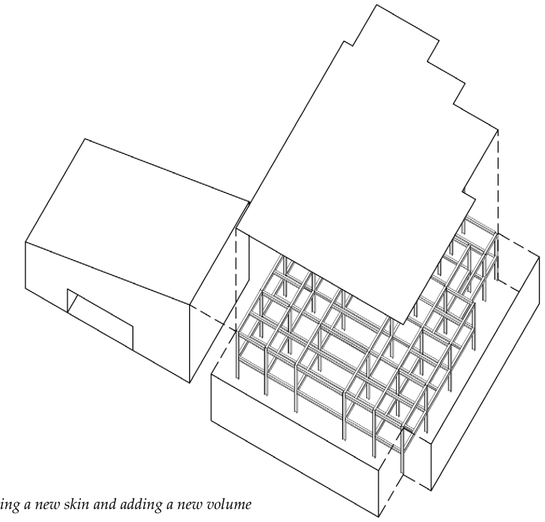
The new volume is morphologically and materially distinguished from the existing part but above all it differs from the compositional point of view. The goal, in fact, was to graft a compact and massive volume with a strong and precise material identity where the only action was that of subtraction; the large central void becomes the means of connection between two parts of the city. The only element of the metal structure that we wanted to bring back is the modularity; in fact the sign of the concrete casting resumes the scan given by the steel pillars.



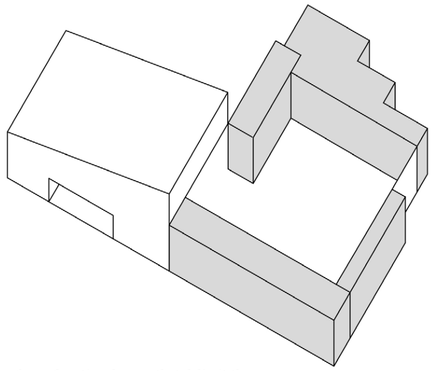
Existing structure



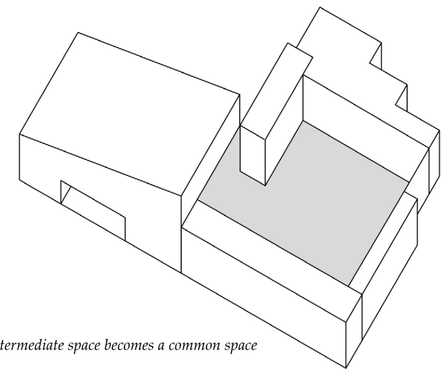
The existing beams and pillars are part of a new system



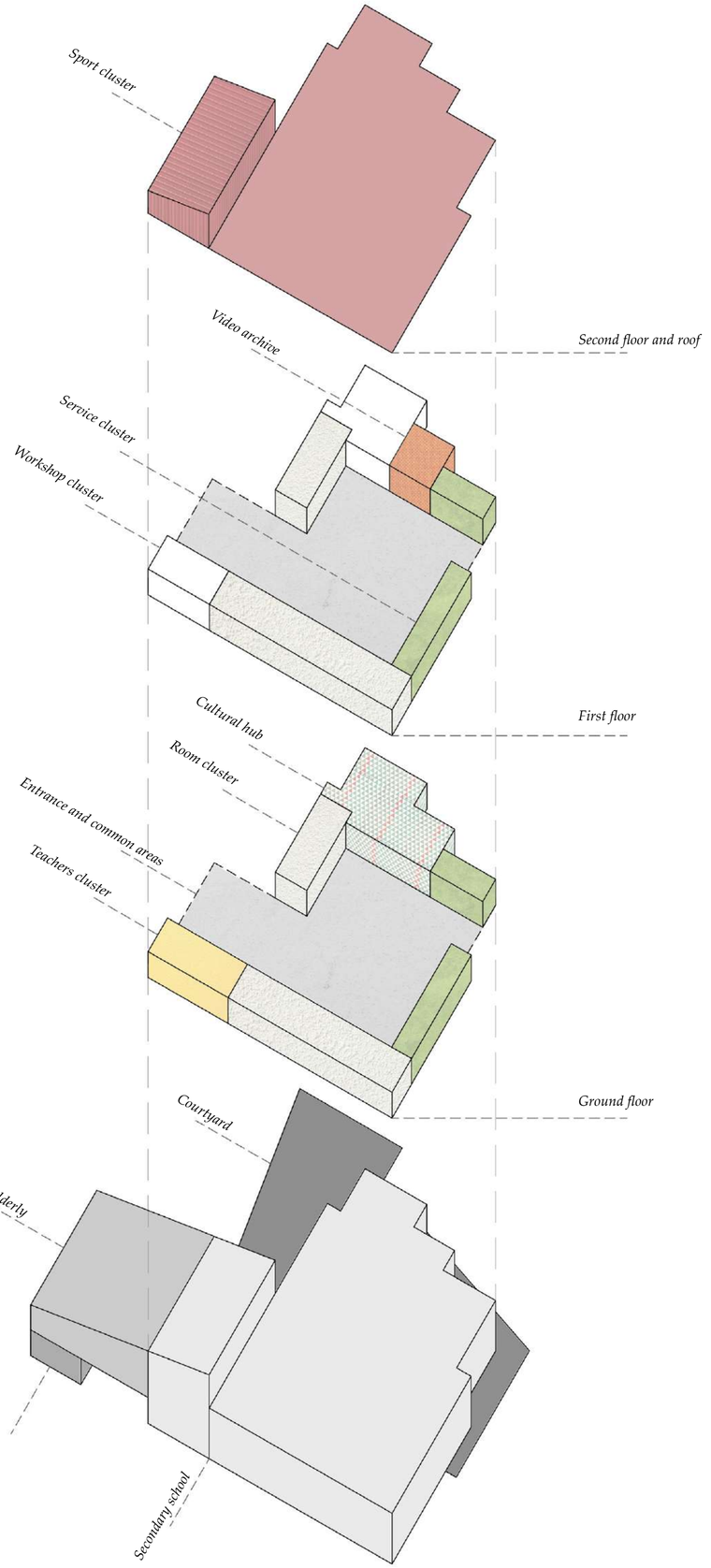
Creating a new skin and adding a new volume



Insertion of new functional areas that delimit the space



The intermediate space becomes a common space

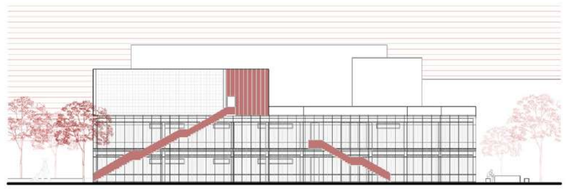




WEST FRONT

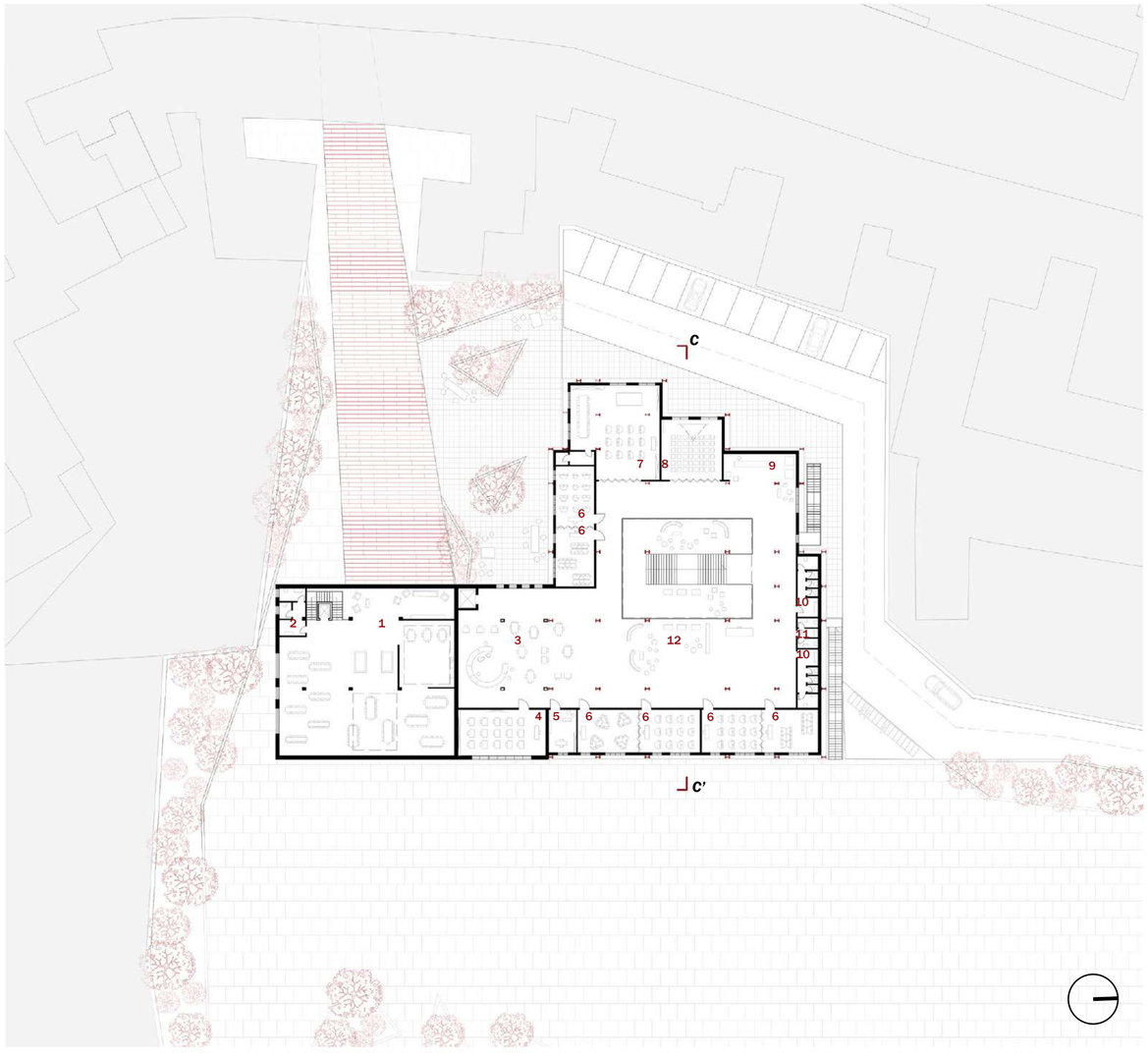


SOUTH FRONT



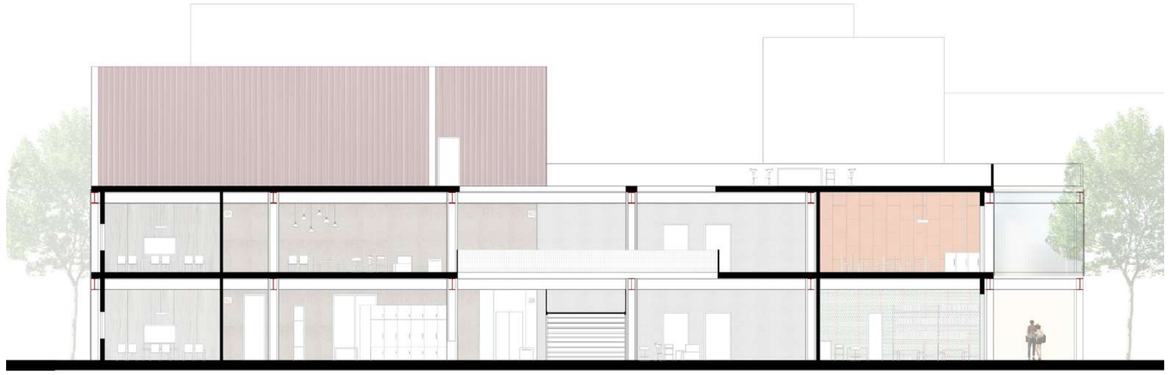
NORTH FRONT

0 10 25 50m



FIRST FLOOR + 5,5m

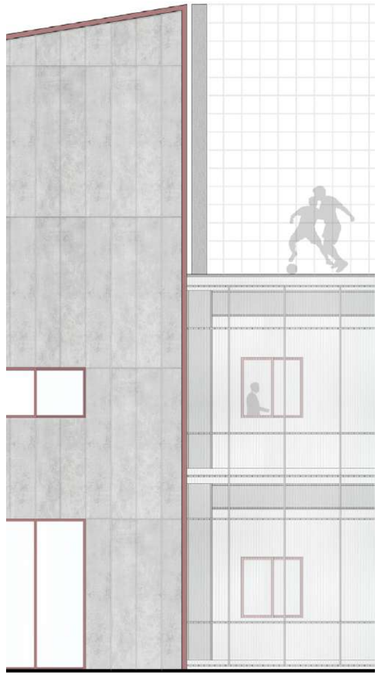
0 10 25 50m



SECTION CC'

0 4 10 20m

1. Recreation center
2. Services
3. Technological island
4. Technique laboratory
5. Individual teaching
6. Classrooms
7. Scientific laboratory
8. Video archive
9. Café
10. Services
11. Teachers services
12. Copies and common area



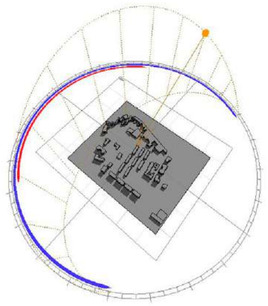
FRONT DETAIL



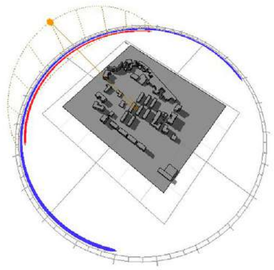
CULTURAL HUB



CENTRAL AREA



Summer solstice | *21 june*

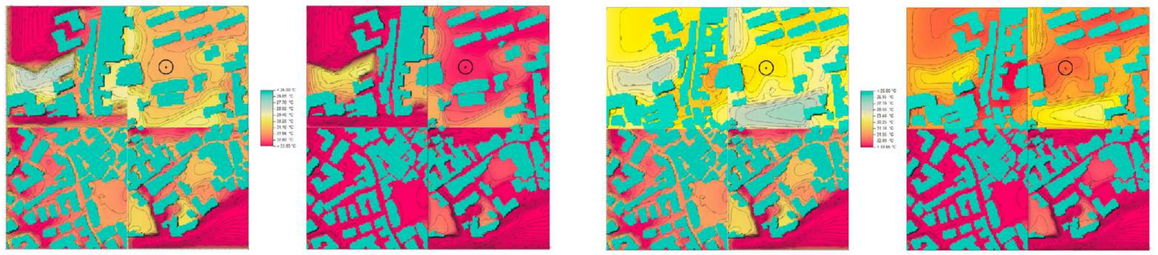


Winter solstice | *21 december*



SDF_2020 *PMV : + 31.47* *SDF_2050* *PMV : + 33.42* *SDP_2020* *PMV : + 30.40* *SDP_2050* *PMV : + 31.94*

Thermal sensation index



SDF_2020 *POT : + 31.47* *SDF_2050* *POT : + 33.42* *SDP_2020* *POT : + 30.40* *SDP_2050* *POT : + 31.94*

Air temperature

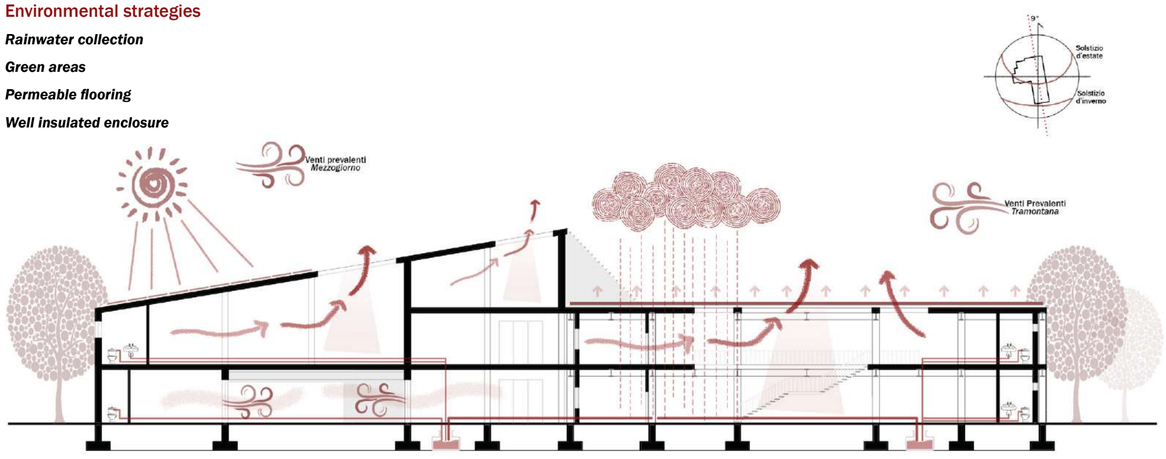
Environmental strategies

Rainwater collection

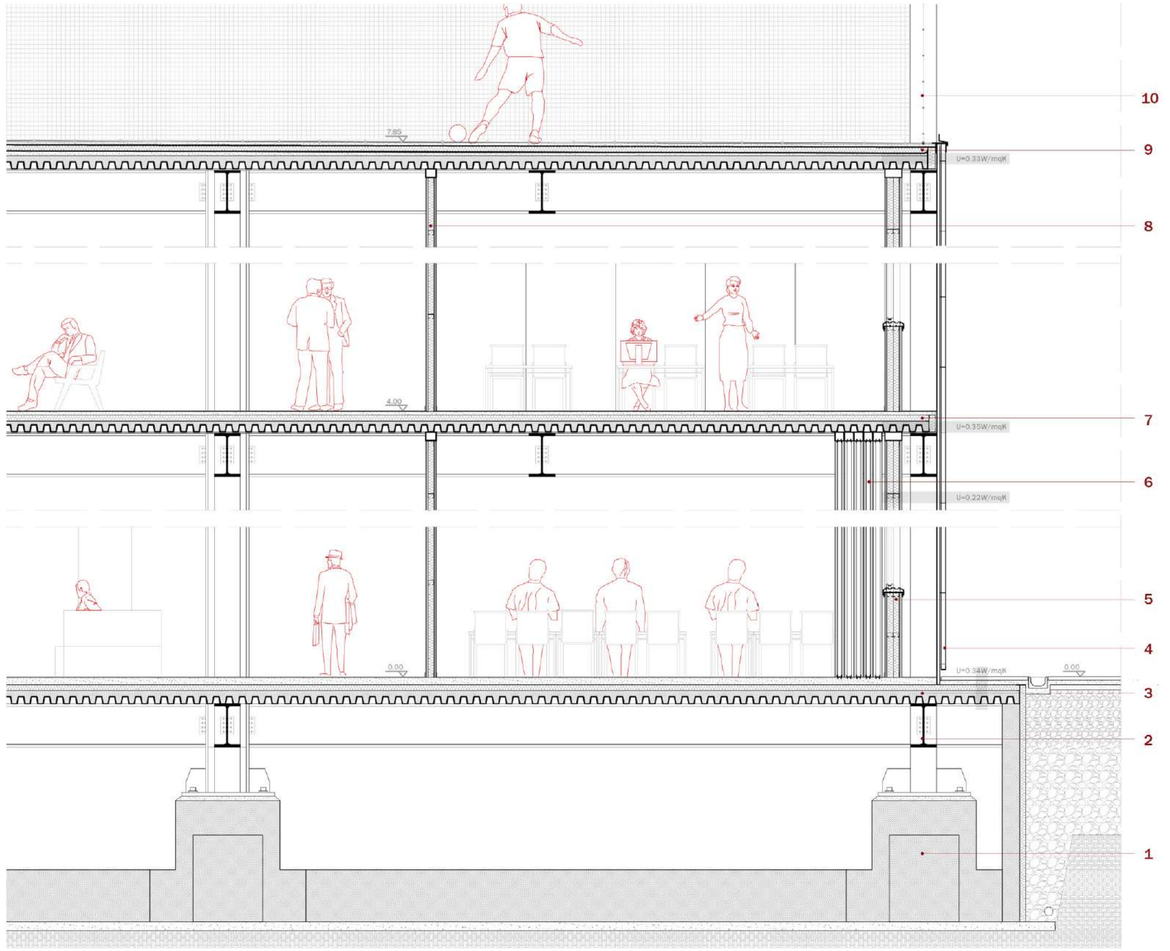
Green areas

Permeable flooring

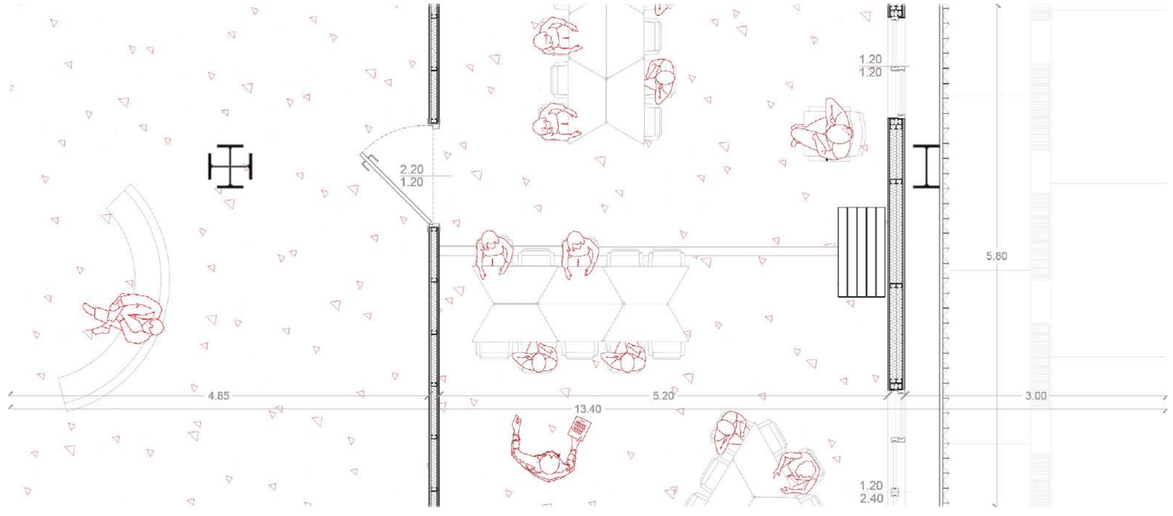
Well insulated enclosure



ENVIRONMENTAL SECTION



1. **Inverted beam foundation 1.80x1.40m**
2. **Main structure HEA500**
3. **Foundation floor (h: 0.27m)**
4. **External polycarbonate coating (h: 0.10m)**
5. **Dry padding (h: 0.20m)**
6. **Soundproof movable wall (1 module=1m)**
7. **Intermediate floor (h: 0.26m)**
8. **Dry partition (h: 0.12m)**
9. **Roof covering (h: 0.27m)**
10. **Sports field fence structure**



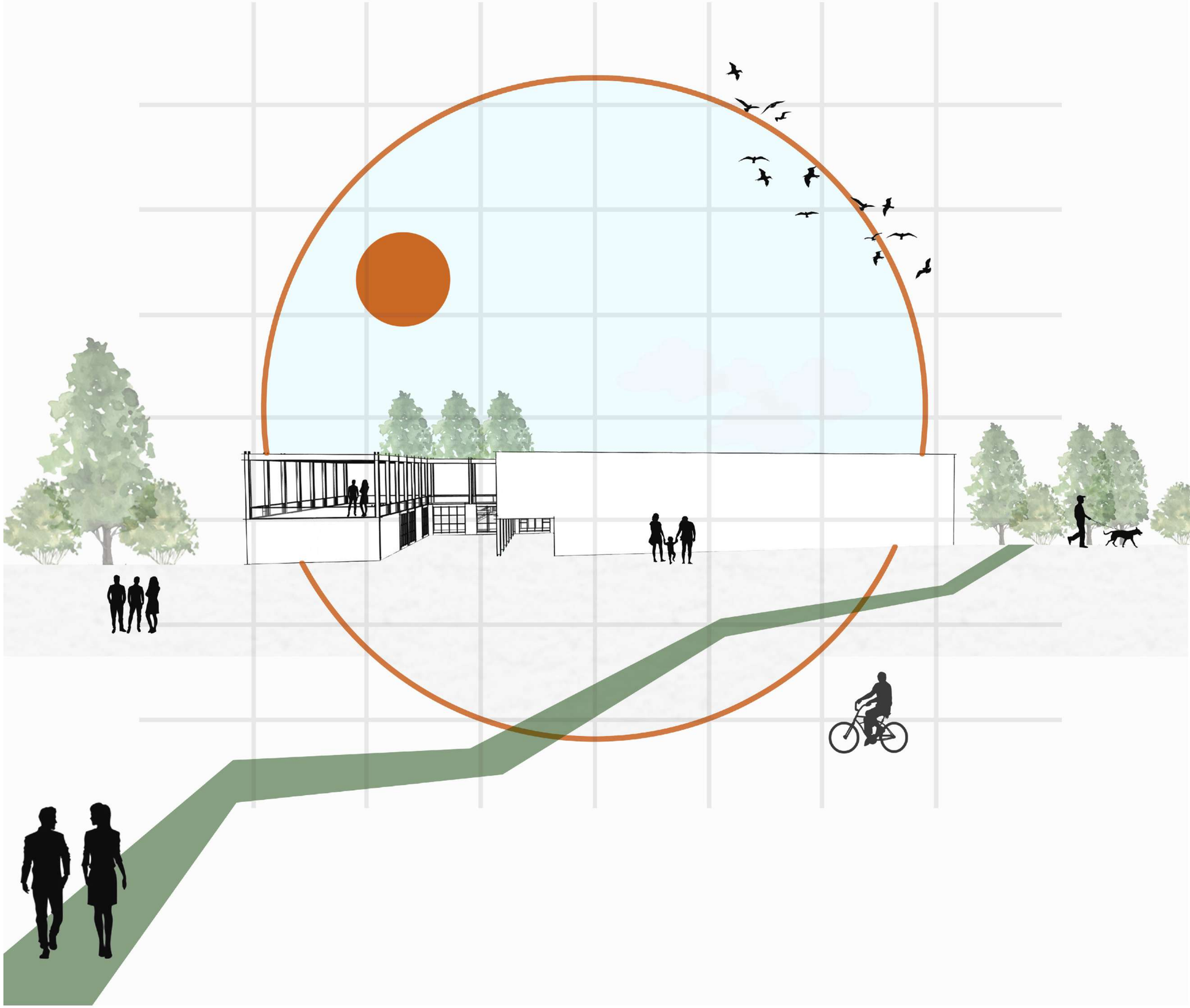
DETAILED PLAN AND SECTION SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

ANTONIETTA AMETRANO - CROSS URBAN PARK

A NEW IDEA OF PARK

The project is designed to create a new idea of park that brings together functions that are difficult to imagine held together in a single space and by a single route. The creation of a public space, which combines various functions that the city of Portici needs, will not only improve an area on the outskirts of the city that has always been little used, since its only function is to provide access to the cemetery, but will also implement the network of green parks and equipped spaces that are already present in the municipality. Various functions have been included in the park to improve the social, economic and architectural aspect of the area. The multifunctional park, located in an area along the municipal boundary and beyond an infrastructural barrier, the highway, which isolates it from the rest of the city, limiting connections and flows, becomes the pole of attraction for a part of the city that has always been marginalised and little used.

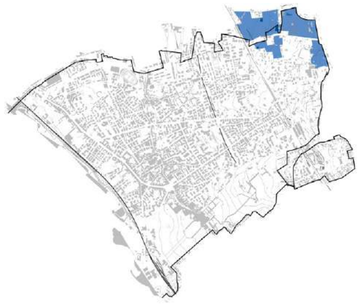


Program

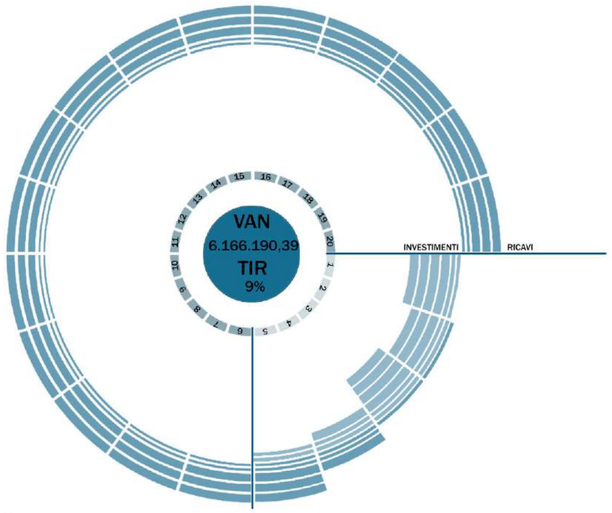
Urban Park, restaurant, bar, sports arena, urban gardens,indoor market, cemetery, underground multilevel carpark,sports equipment, playground.

Covered surface	8.585m²
Uncovered surface	76000m²
Levels above ground	2
Built volume	51.510m³
Estimated cost	10.470.578 €

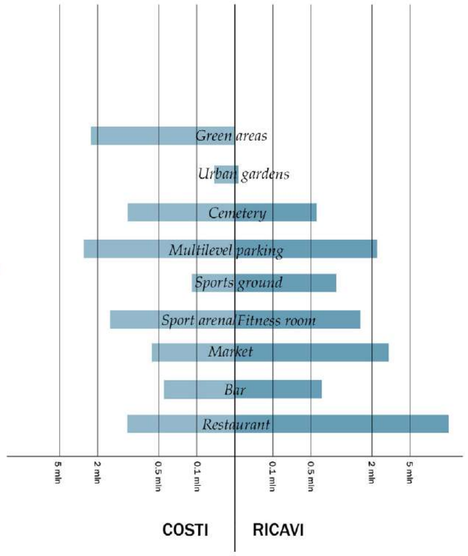
The multifunctional park not only unites different functions that are rarely held together by a single space, but also creates a link to parts of the city that are already consolidated. It is designed to return a public park to the city so as to have a low impact on Portici's high built density.

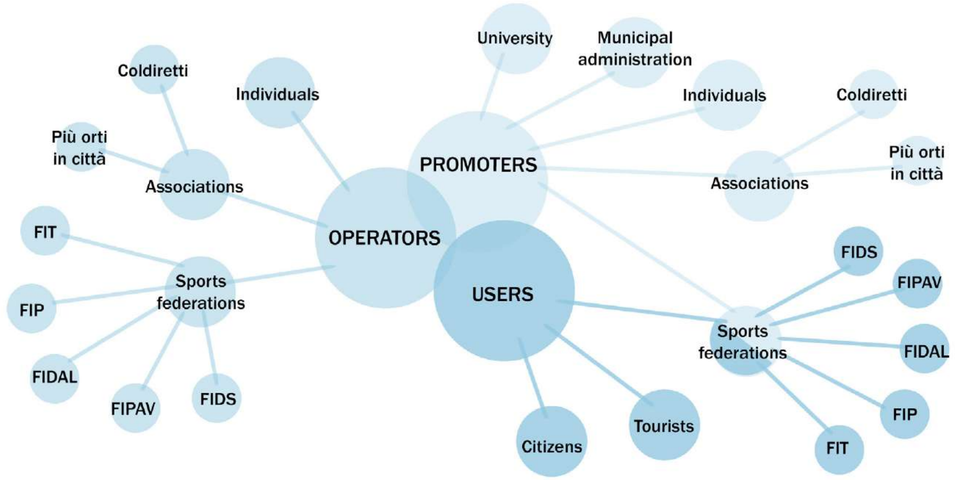


An analysis of the territory revealed the failings and problems that the city of Portici possesses. Among these, it is clear that there are few equipped green spaces in relation to the built-up area and that some infrastructures, such as the highway, have become a real shear within the municipal territory, creating contrasting landscapes even if they are adjacent. The aim was to regenerate the northern suburbs of the municipality by creating public spaces that give a function to areas that were previously little used, thus increasing the network of green spaces within the city of Portici. The project functions emerging from a careful analysis of the whole municipality were designed to improve the quality of spaces and to increase those already existing. In order for the project to be realised, a stakeholder network was identified consisting of different figures: the promoters, the operators and finally the users.



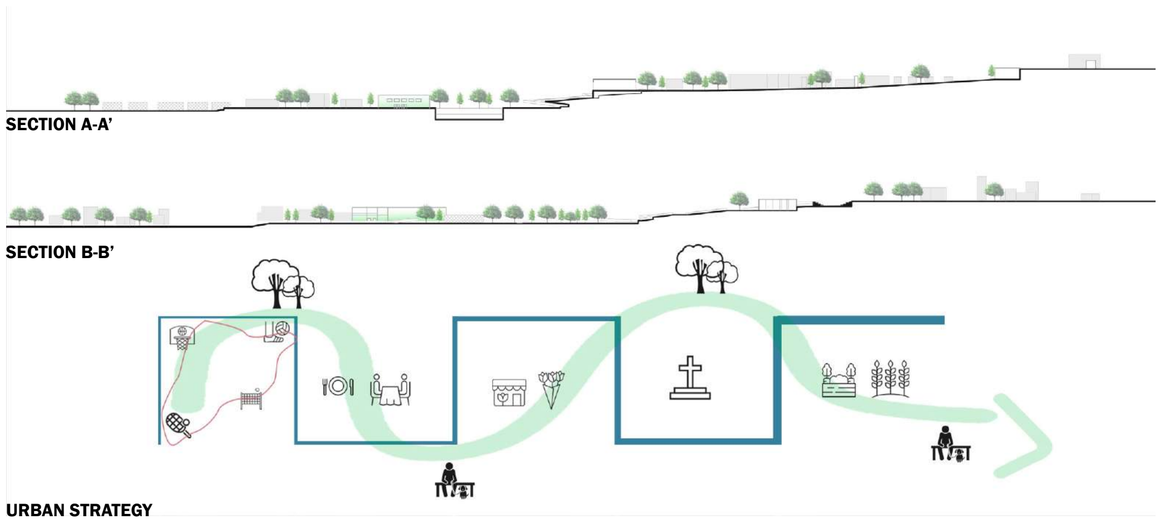
CASHFLOW







PORTICI PARK PROJECT IN CONTEXT

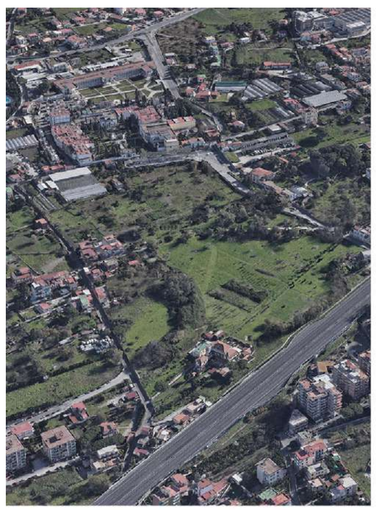


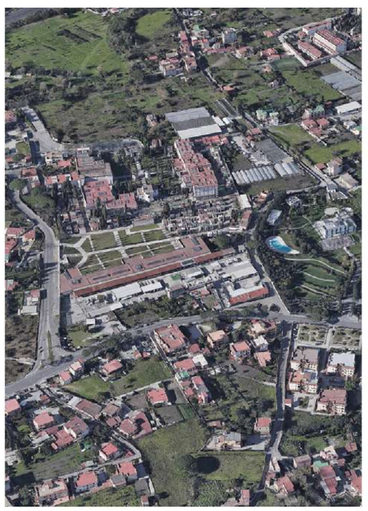
URBAN STRATEGY

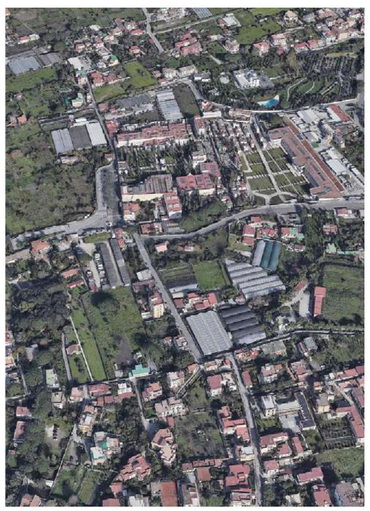


CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 30 75 150m







PHOTOS OF CURRENT STATE



DESIGN PROPOSAL

0 30 75 150m



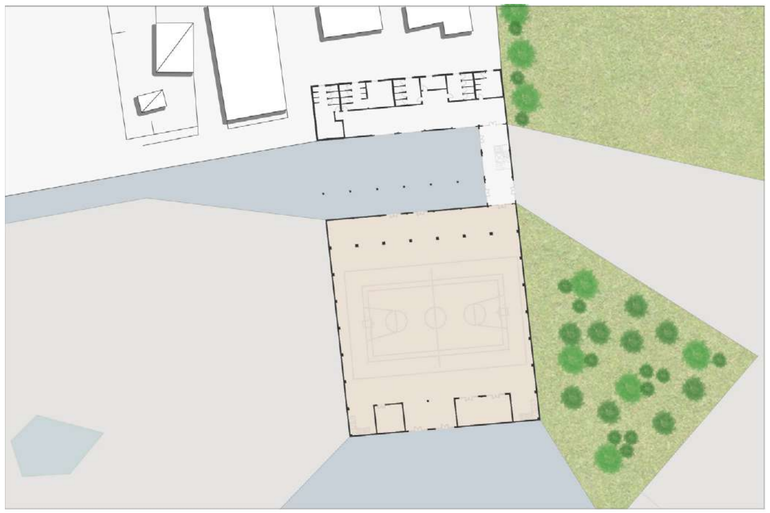
SUMMARY OF ACTIONS AT URBAN SCALE

The functional diagram shows the division of the interior spaces with separate entrances for the different functions to create a square in front.

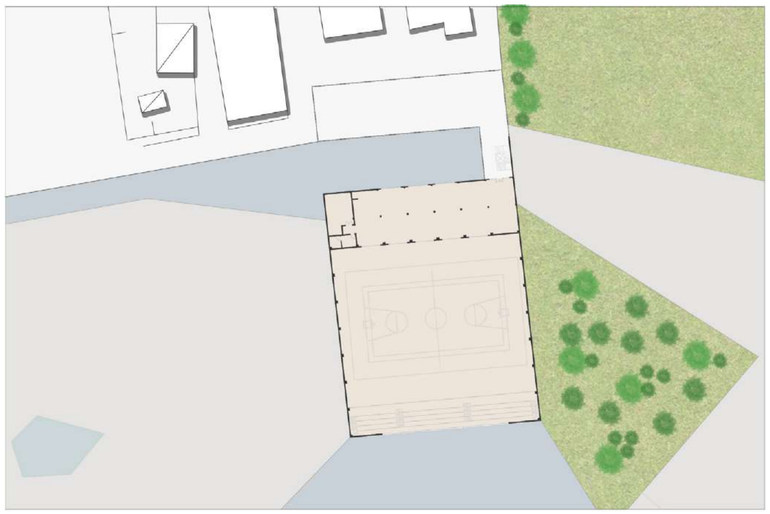
As can be seen from the plans, the entrances to the playground, the fitness room and the service block are all located at the same height. The square created is both a place to stay and a space that does not interrupt the continuity of the park's paths. The southern entrance to the playing field also provides access, via two staircase blocks, to the stands, which are located at a higher level than the field in order to allow spectators to have a better view. The service block and the playing field area are connected by a space that allows one to cross the park and access the upper level.

The entrance to the second floor, which is via the connecting space between the service block and the playing field area, gives us access to the bar and a covered outdoor area. The bar has a double view, one towards the inside of the sports hall and the other towards the square on the lower floor. In addition, the covered outdoor area, which is located on the roof of the service block, is directly connected to the bar so that it can also be considered as an extension of the latter. The separate access to the bar and the covered square allow their use also not necessarily in connection with the use of the sports arena.

Finally, the roof plan is flat and not practicable. The roof of the square, with its alternating solids and voids, is made of steel.



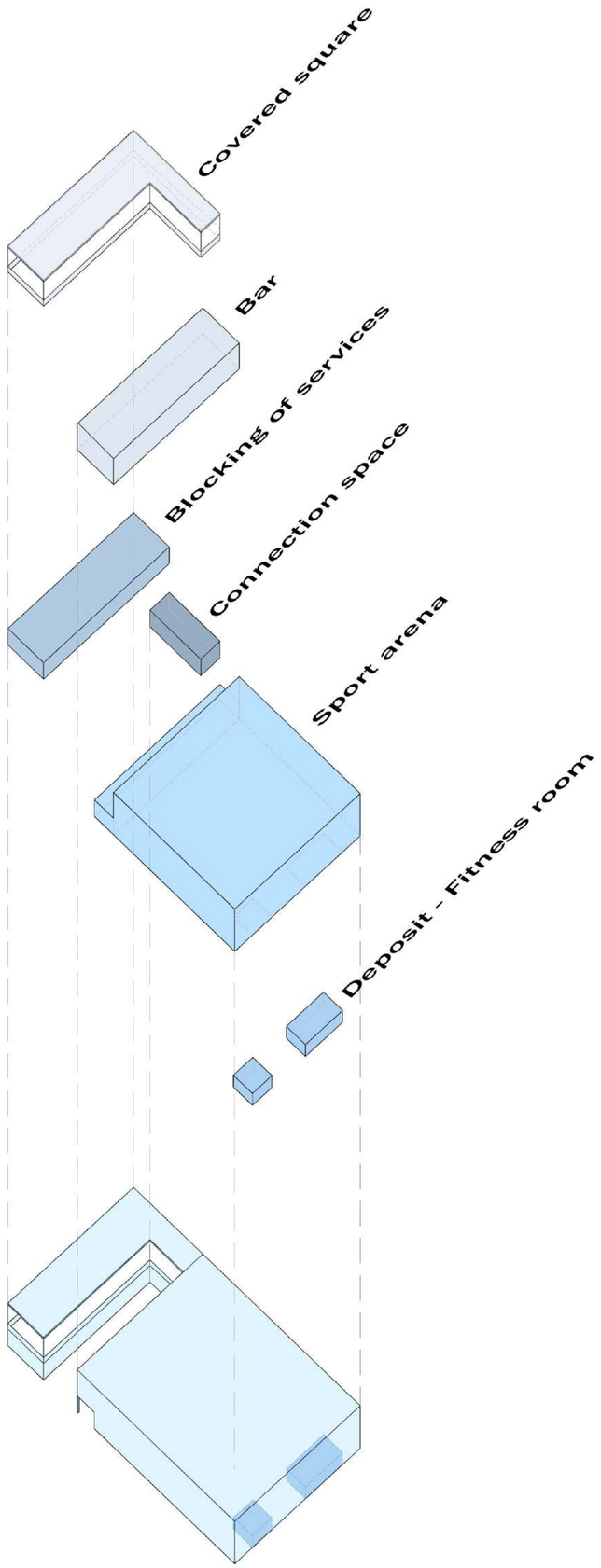
Ground floor plan (0.00)



First floor plan (+3.50)



Roof plan (+9.20)





1. Entrance
2. Playground
3. Storage
4. Fitness room
5. Links
6. Services

SECTION A-A'

0 4 10 20m

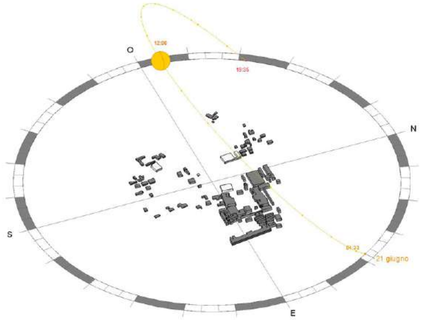


GROUND FLOOR (0.00)m

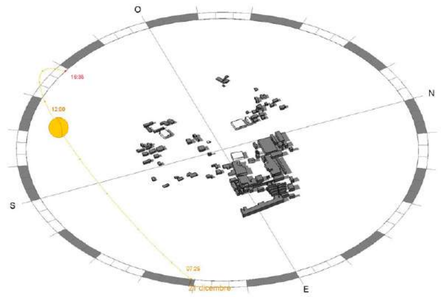
0 8 20 40m



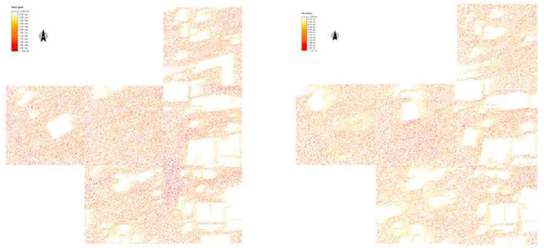
OUTSIDE RENDER



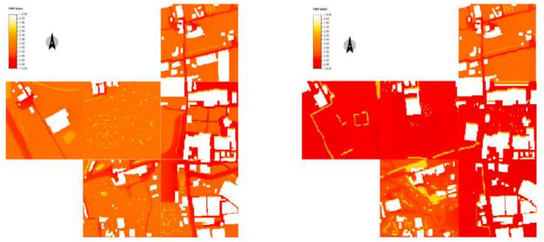
Summer solstice | *21 june*



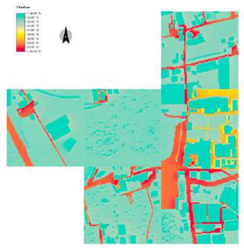
Winter solstice | *21 december*

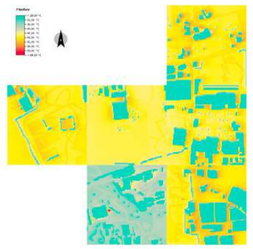


WIND FLOW
2020

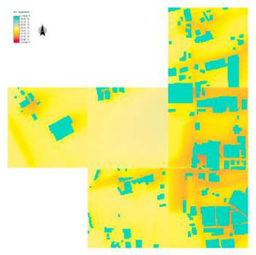


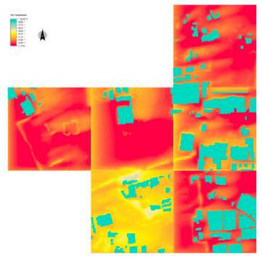
PMV
2020



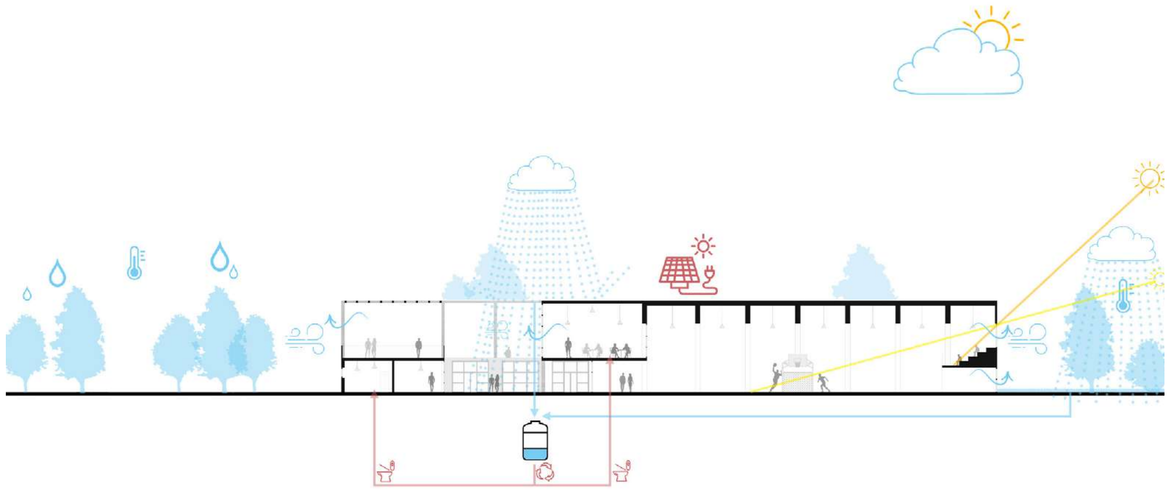


SURFACE TEMPERATURE
2020

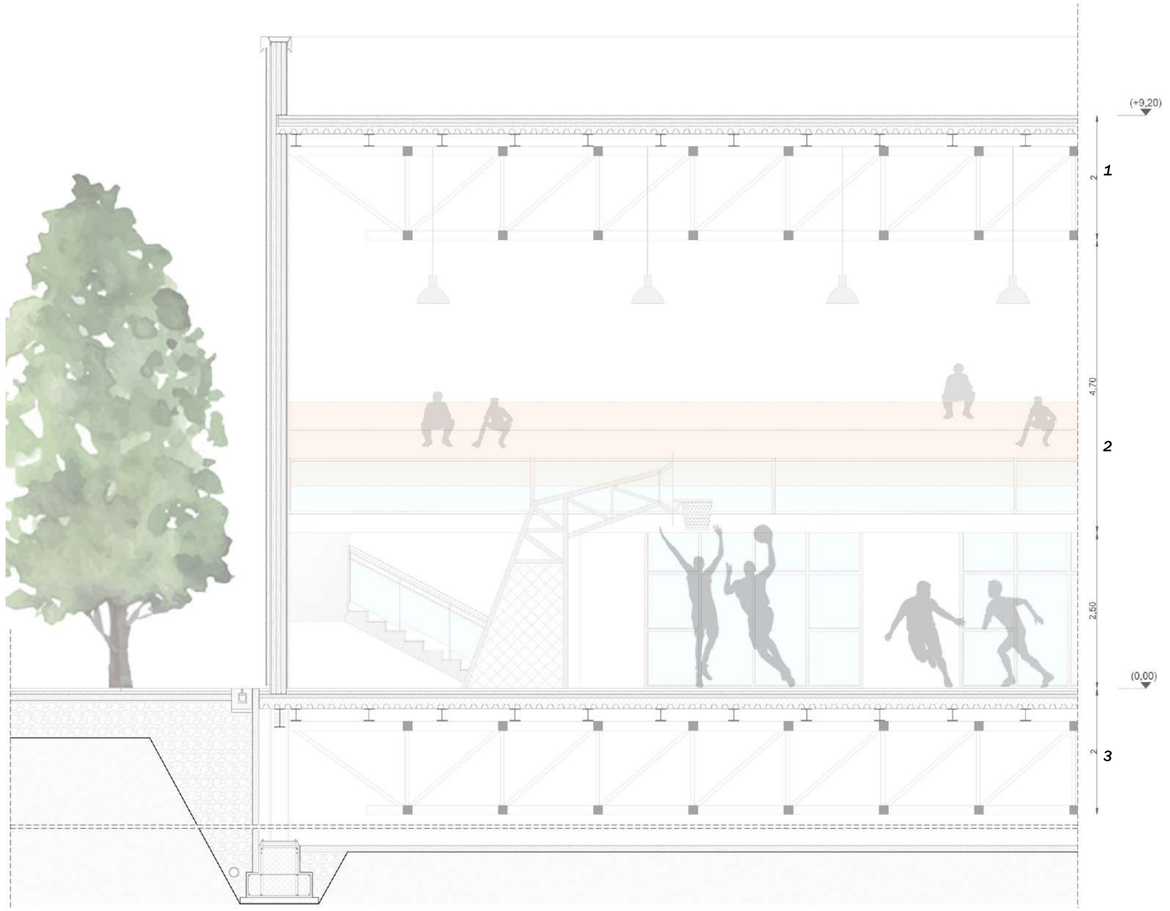




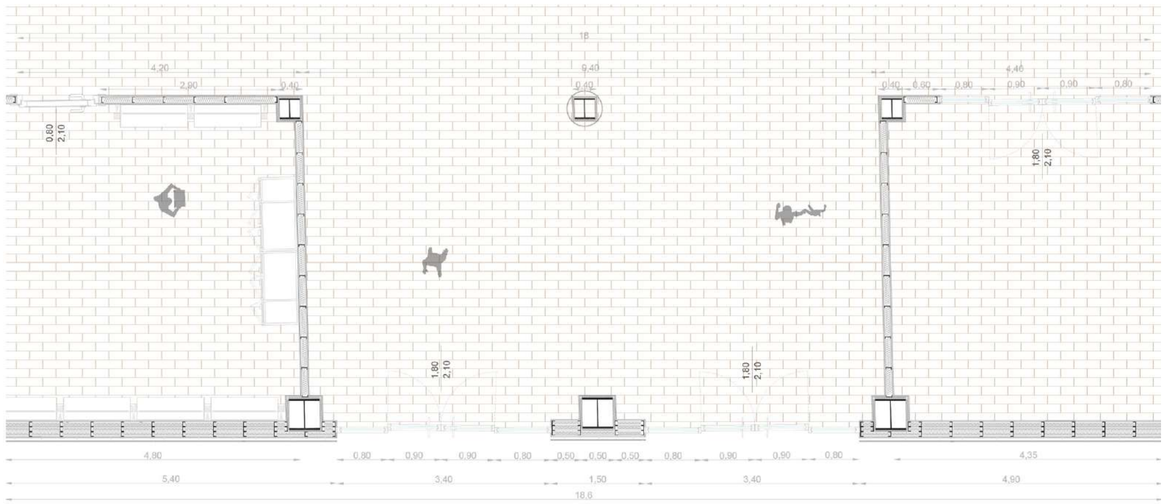
AIR TEMPERATURE
2020



ENVIRONMENTALE SECTION



1. Roofing floor
2. Interlevel
3. Floor against the ground



PLAN AND SECTION SPORT ARENA SCALE 1:70

PORTICI ADVANCED DESIGN STUDIO

DAVIDE ANDREA CUTOLO - THE GATE OF THE PARK

STRATEGIES FOR RELAUNCHING THE URBAN FABRIC THROUGH NATURAL HERITAGE

The project is grafted into the dense and rooted context of the city of Portici, in an area not far from the hidden panorama of the Campania gulf and in close relationship with the neighboring municipality of San Giorgio a Cremano.

At the western edge of the municipality, there is a scenario in which a series of critical issues strongly emerge. The spaces that make up the city do not appear as configured on a human scale. Corso Garibaldi, receptor of incoming and outgoing flows, leaves no room for pedestrian traffic and the edges, the margins in which the pedestrian viability is bound, almost seem to risk being attacked by the arrogance of the driveway dimension.

Walking through the streets of the district, there is always a strong perception of a city that is too narrow for the pedestrian, a city that, at times, almost seems to forget that it is made up of people, who form relationships, seek contacts, weave bonds. These are all aspects that require a field in which to develop, a fertile ground that can accommodate these and other stimuli.

The area on which it was decided to deepen the focus of the project concerns, specifically, the large area of the private park “San Ciro”, up to the borders with the park of Villa Mascolo. The impression is that of an element that denotes itself as a detached part of the city, a foreign body, which closes itself within its limits, within its borders, and denies the city to come into contact with a part of itself. The walls rise, gates and barriers stand in the way.

And, crossing those gates, observing those barriers, the desire develops to mold them into something new.

Program

University campus, library, underground parking, bike sharing center, cycle and pedestrian paths

Covered surface	**4.140m²**
Uncovered surface	**37.500m²**
Levels above ground	**3**
Built volume	**32.760m³**
Estimated cost	**€1.138.053,26**



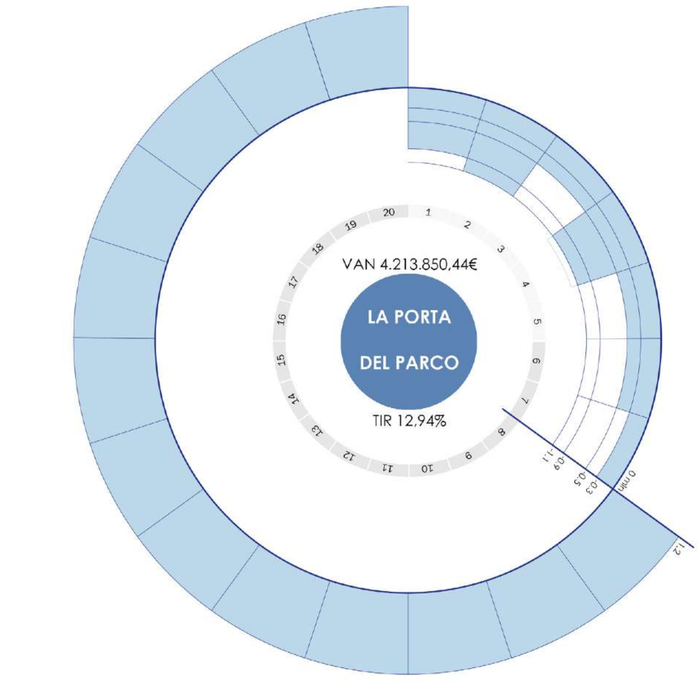
The large-scale project aims to mend the two edges of the city: the city that overlooks the sea and the city that looks inside. These, partly fragmented by the railway, partly removed from political and design choices, need to be once again placed in close correlation, to make the city and its areas a spatial continuum, which favors relationships, mobility and the well-being of the citizen.

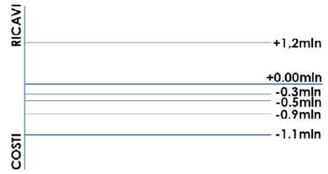


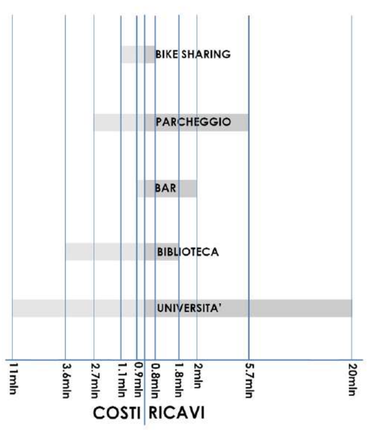
As can be seen from the masterplan on an urban scale, the main design action is grafted into the "San Ciro" park, with its spaces that are returned to the city, together with the large green area of the park of Villa Mascolo, in a state of degraded and far from being a city space.

By intervening on the pre-existence, the area bordering the southern part of the park is freed up and at that point the new university center is inserted, conceived as a building strongly integrated with the natural environment that surrounds it and almost as a cornerstone of a new a configuration that places it almost as a new access point and, conceptually, a new gateway to the park.

The path leading to the park is marked by the presence of other attractive elements, such as the detached library, a redesigned bike sharing service, a refreshment point, new and implemented green areas and a cycle path which, starting from the coast line, leads takes care of keeping all the elements together in a single design. Finally, the suggestion includes an intervention on the Lauro Lancellotti villa, which ideally becomes the gateway to the sea and the second pole is placed in dialogue with that of the university.

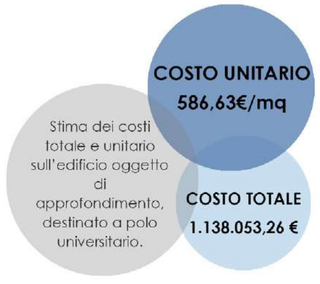






PROMOTORI	UTENTI	OPERATORI
Amministrazioni provinciali	Residenti dell'area	Amministrazione università
Amministrazioni comunali	Studenti (14 - 25+)	Corpo docenti
Università "Federico II"		Personale tecnico

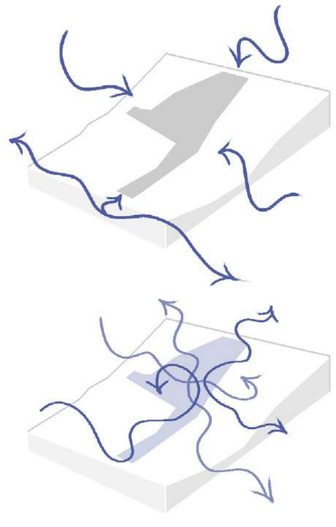
These diagrams show the results of the financial analysis conducted on the entire project area. The data show a forecast of the costs and revenues of the individual functions, the estimated values of VAN and TIR and a cash flow based on a period of time of 20 years from the start of construction work.



COMPUTO METRICO ESTIMATIVO

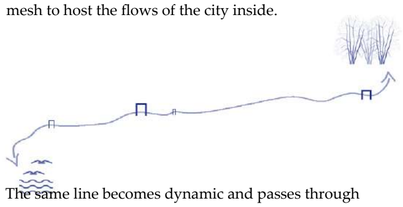


DESIGN PROPOSAL IN THE CONTEXT





The line of the ground fragments, and obstacles arise along its path. Differences in levels, limits, barriers, which do not allow the fabric to transform itself into a unitary mesh to host the flows of the city inside.



The same line becomes dynamic and passes through the doors that bind the city together with the landscape and the sea. The fabric becomes permeable and the connections develop.



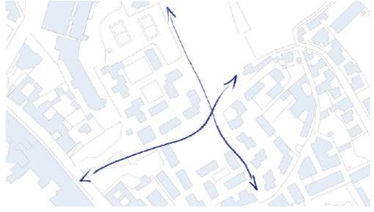


CURRENT STATE

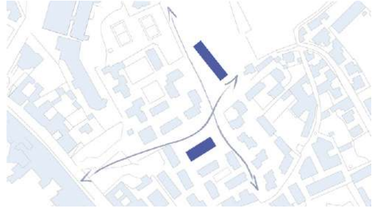




DESIGN PROPOSAL



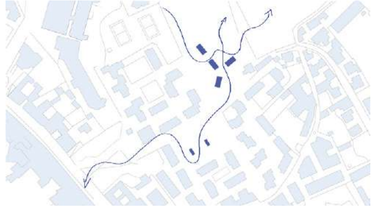
MAIN AXES OF CONNECTION



GRAFTING INTO PRE-EXISTING TISSUE



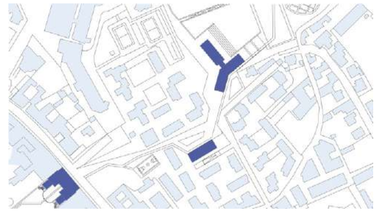
SUGGESTED DIRECTIONALITY



PERMEABILITY: THE DOOR TO THE PARK



PERMEABILITY OF SUMMER AIR FLOWS



FINAL CONFIGURATION

SUMMARY OF ACTIONS ON AN URBAN SCALE

The project area, studied in greater detail, includes the library building, with the university and the underground car park, together with the the cycle path around which the main functions are concentrated, up to the graft in the park of Villa Mascolo .

The project will focus on an in-depth study of the architectural scale of the university building, for which it was decided to investigate its characteristics down to the most specific details.

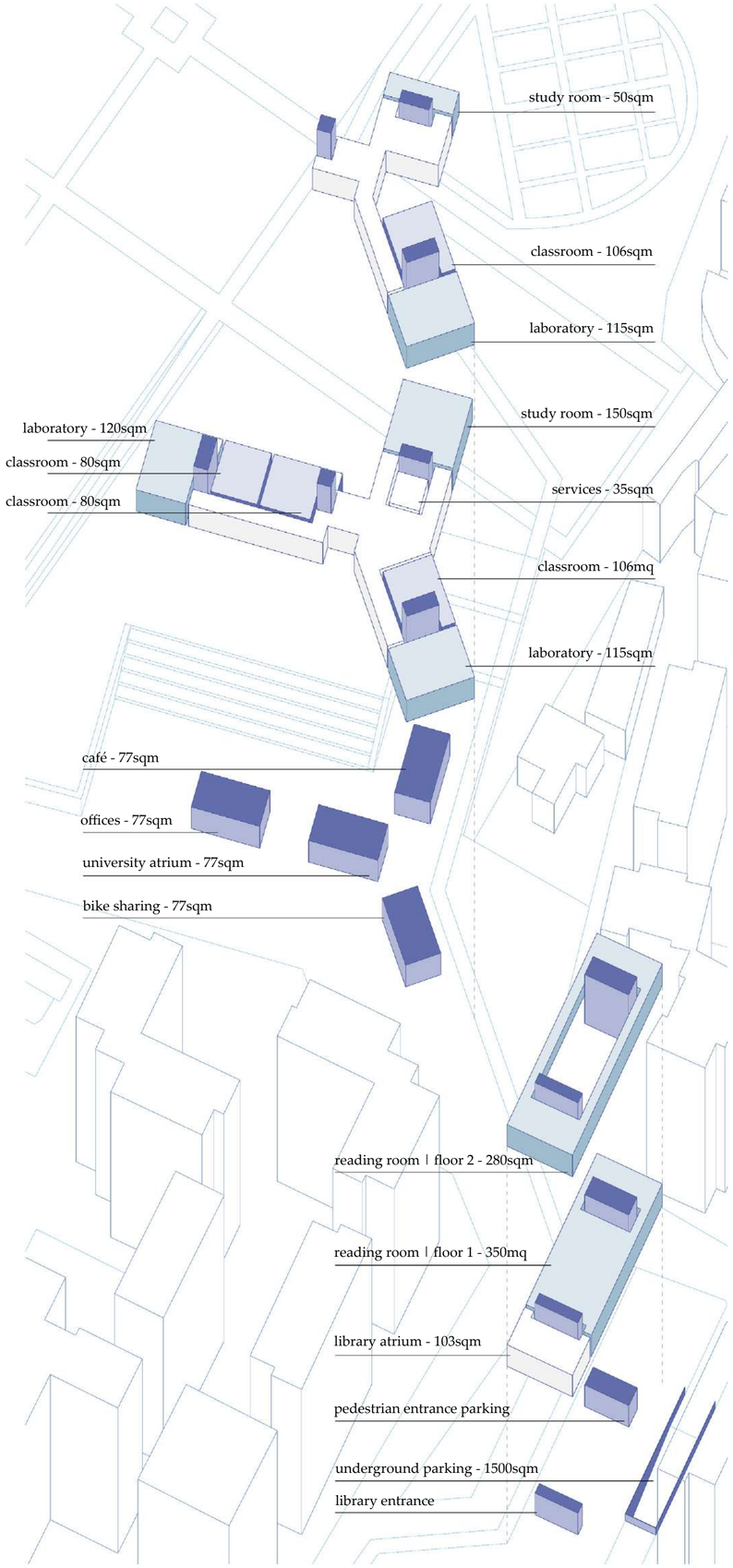
In these images, the distribution system of the project area close to the park is analyzed with the help of three-dimensionality. The first graph shows a functional organization chart of the project, which shows, albeit schematically, the volumes of the project, indicating the intended use and surface area.

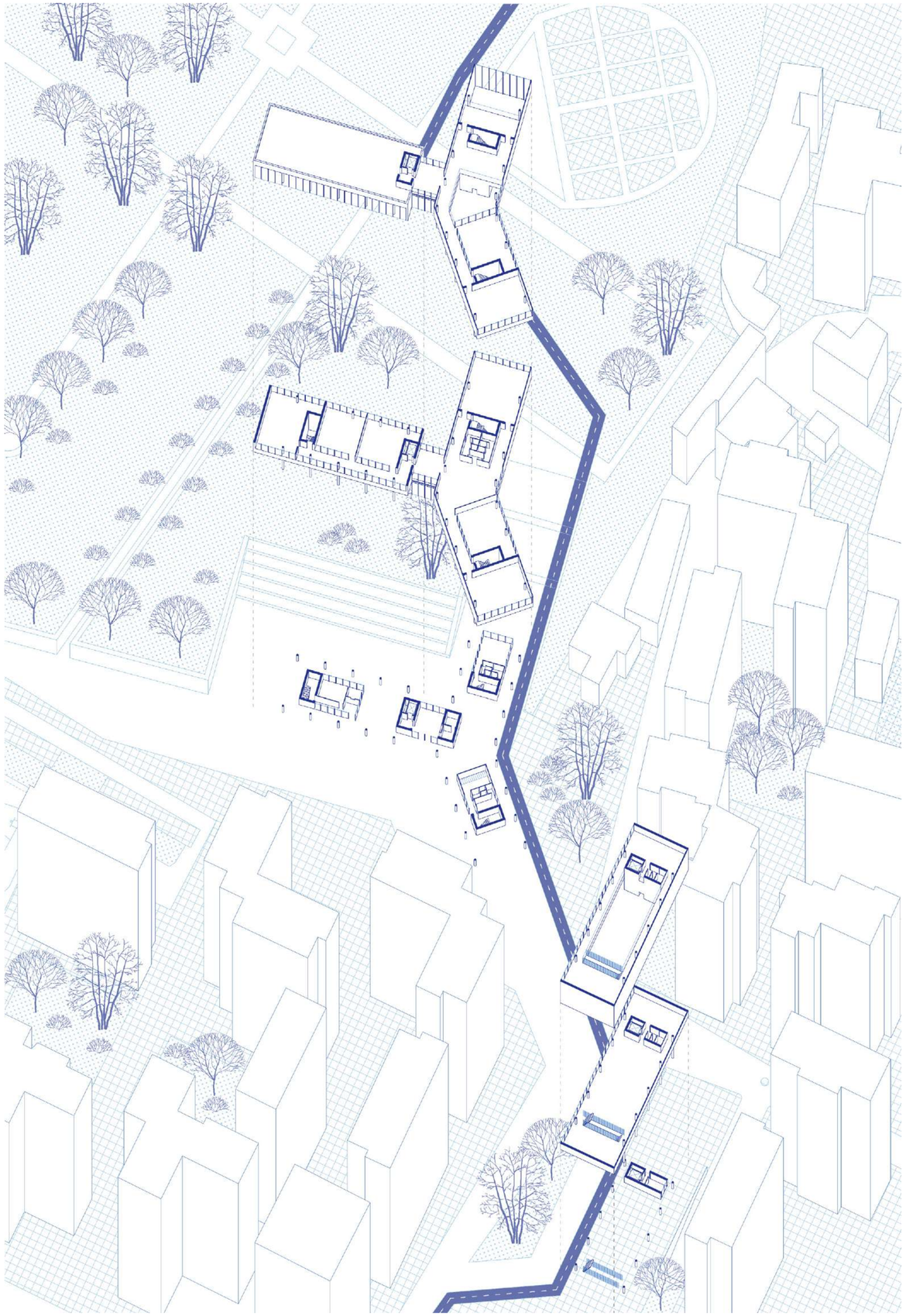
The area is assumed to be pedestrian, leaving only the section leading to the underground park accessible to cars, and providing, at the entrance to the area, some other parking lots. The aim of the project is to develop a sustainable area for the city, a renewed green lung that can offer citizens a resource at no cost.

With an axonometric exploded view, the internal spatial articulation of both the library and the university campus is revealed. You can see the compositional choice that aimed to keep the two projects together which, in fact, are intended as a single product.

An attempt is then made to return information relating to external spatiality, indicating, albeit schematically, the new green points inserted in the context, which contribute to an improvement in the quality of the air and spaces, also slowing down an excessive increase in temperatures.

The following pages show more detailed drawings, which will further clarify the choices and the project objectives.



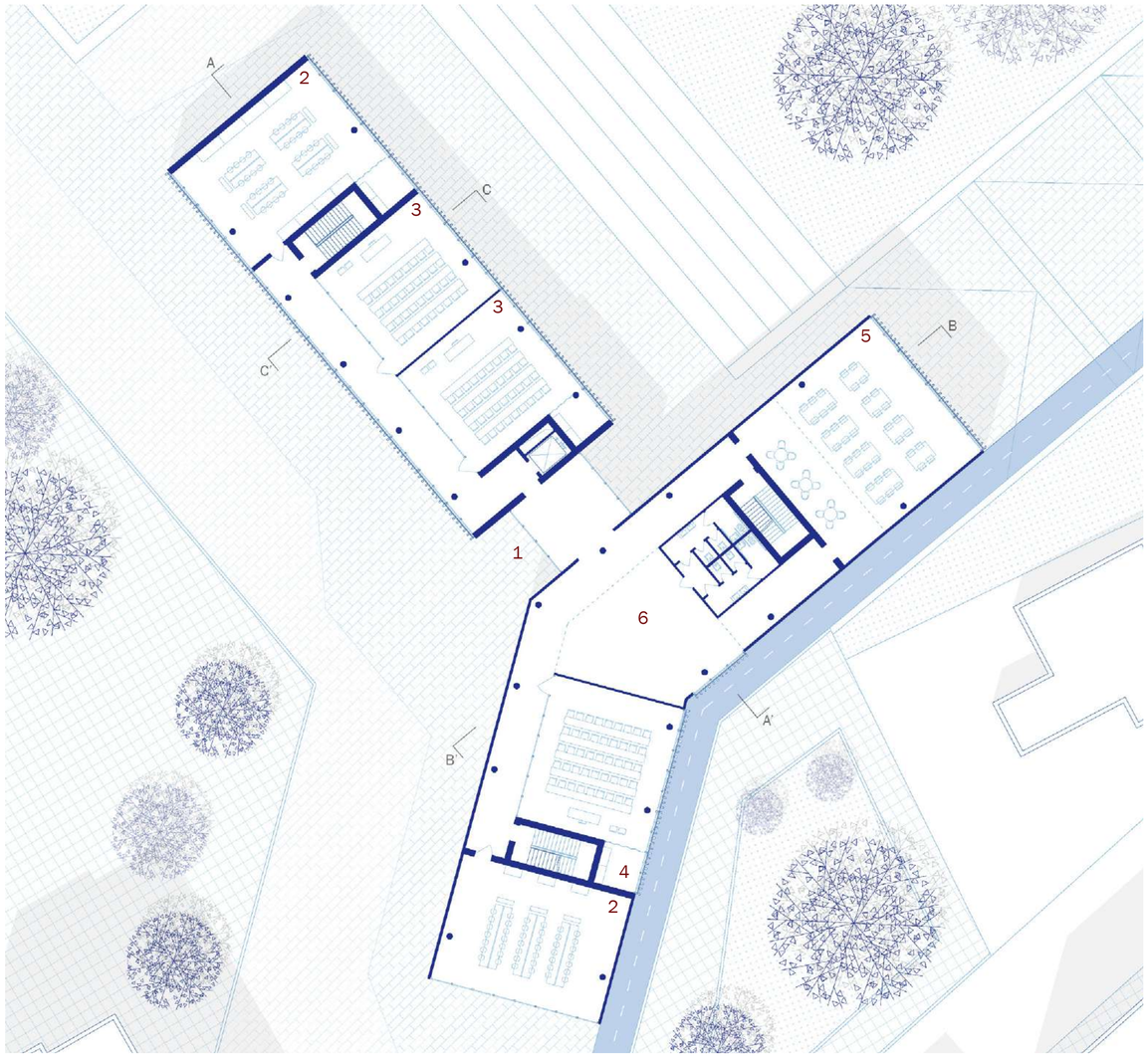




SECTION AA’

0 4 10 20m

1. Ground floor entrance
2. Educational workshop
3. Classroom
4. Classroom closet
5. Study room
6. Lobby



FIRST FLOOR PLAN + 4,5m

0 4 10 20m



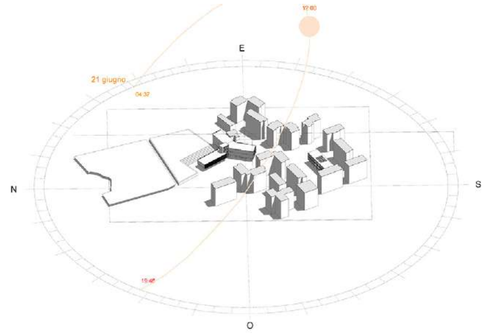
SECTION BB’

0 4 10 20m

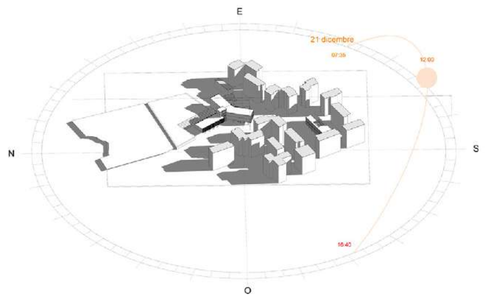




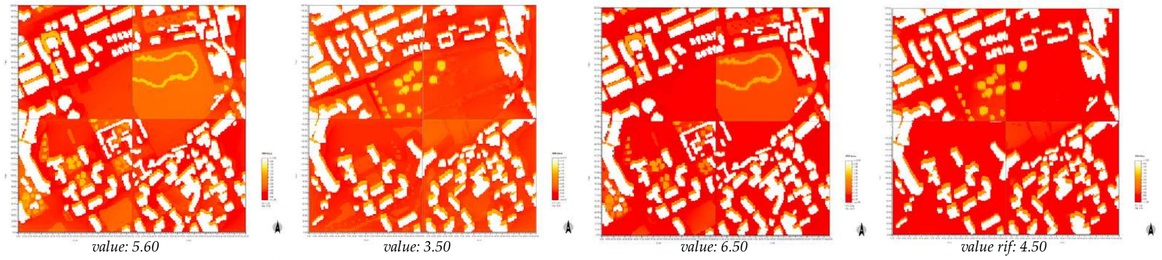
THE RELATIONSHIP WITH THE OUTSIDE



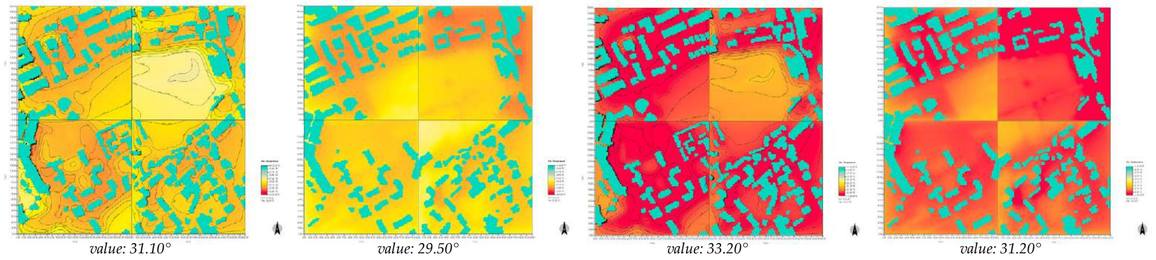
Summer solstice | *21 june*



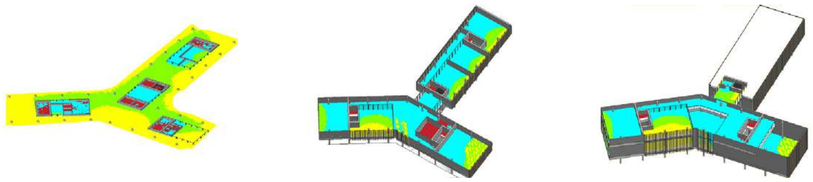
Winter solstice | *21 december*



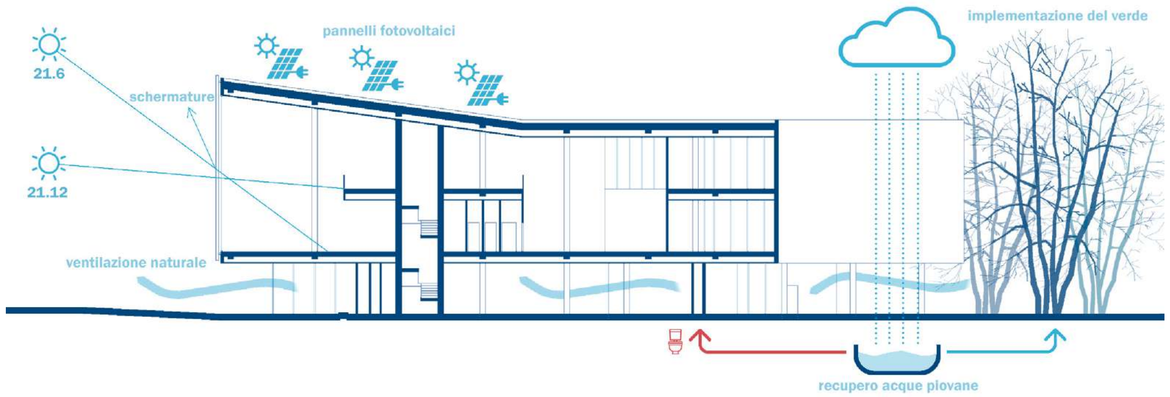
2020 *Thermal sensation index* *2050*



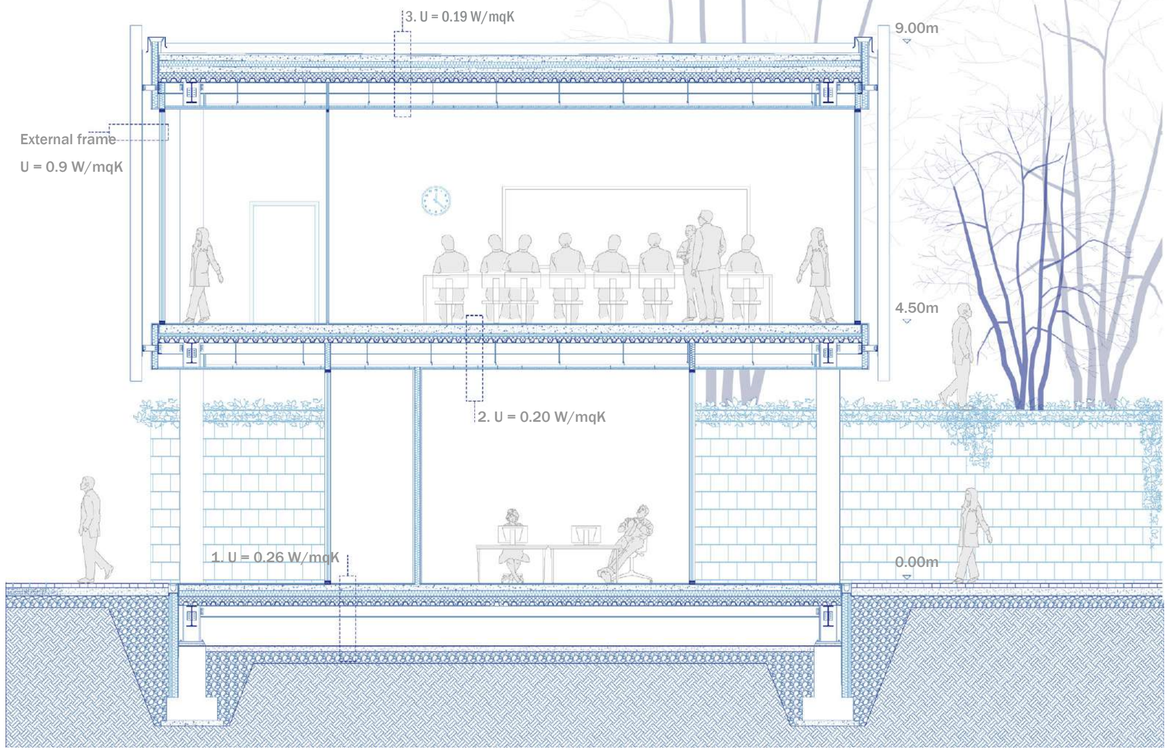
2020 *Air temperature* *2050*



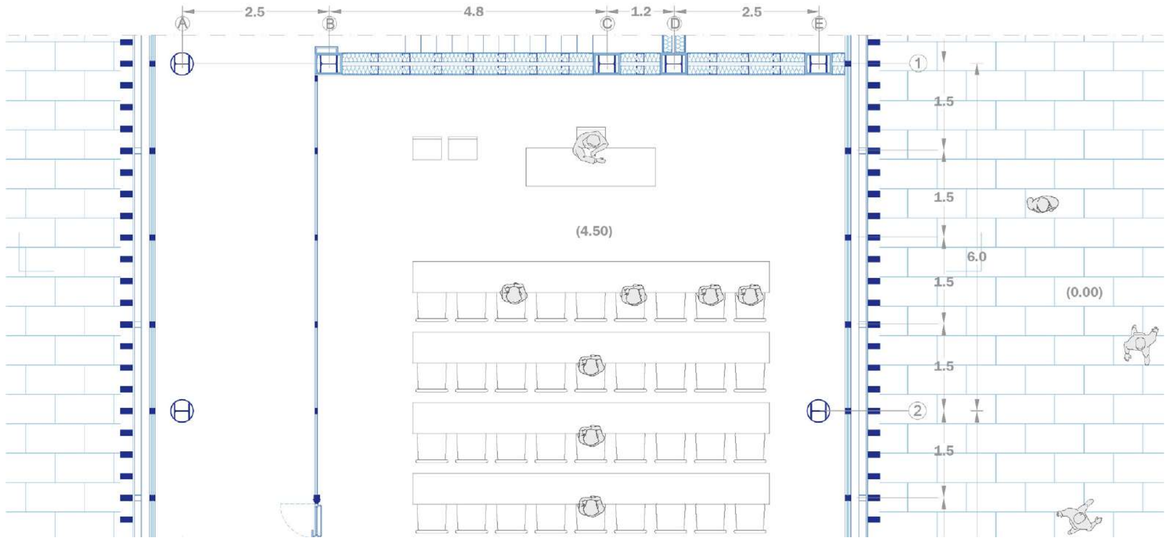
The studies on illumination conducted on the project building are reported, which contributed, together with the analysis of the amount of sunshine, to design a more suitable system of shading for the most irradiated elevations.



ENVIRONMENTAL SECTION



1. **Ground floor attic slab**
   H: 1.00m
   Transmittance: U = 0.26 W/mqK
2. **First floor slab**
   H: 0.80m
   Transmittance: U = 0.20 W/mqK
3. **Roof slab**
   H: 1.00m
   Transmittance: U = 0.19 W/mqK



DETAILED PLAN AND SECTION SCALA 1:50

PORTICI ADVANCED DESIGN STUDIO

ALESSIO PAZZANESE - SCC

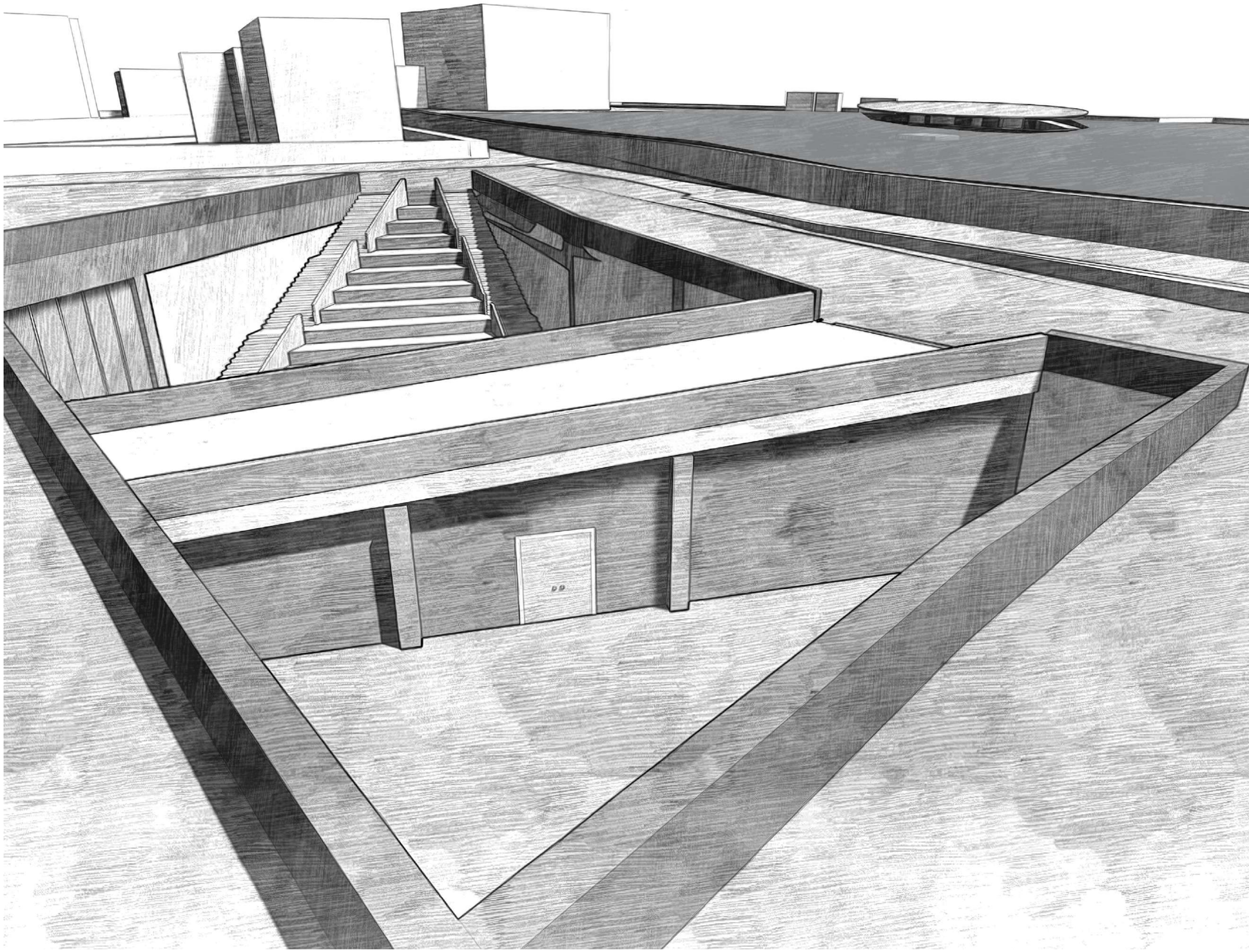
SPORT COMMUNITY CONNECTION FOR A URBBAN REGENERATION

The project area is located along the western edge of the city of Portici, on the border with San Giorgio a Cremano. The project stems from the desire to redevelop an area in a severe state of decay highlighted by the presence of abandoned spaces, with the aim of recovering and returning them to citizens.
The identified site is located along via Scalea, a road overlooked by various buildings of historical and cultural interest, such as Villa Mascolo, a historic Vesuvian villa, with its park attached, and the church of the Holy Redentore, a modern concrete church built by Aldo Loris Rossi. The aim of the project is to restore and reuse the aforementioned structures, redevelop the park relating to villa Mascolo, create a new sports center and make Via Scalea, which connects all these areas, completely pedestrian, implementing the presence of green areas along the it.
The sports center will occupy an area that currently hosts temporary housing created after the earthquake for families left without a home and for which the removal and relative replacement with buildings housing public functions is planned, from here, also supported by the analyzes carried out on site. and from the responses to interviews with citizens, the decision was to create a sports center to support the community.

Program

sports center, co-working offices, conference room, guesthouse

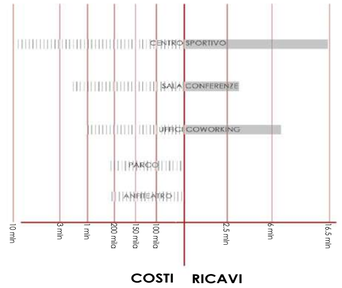
Covered area	**7.251 m²**
Uncovered area	**40.131 m²**
Built volume	**58.000 m³**
Estimated cost	**5.534.525,50 €**



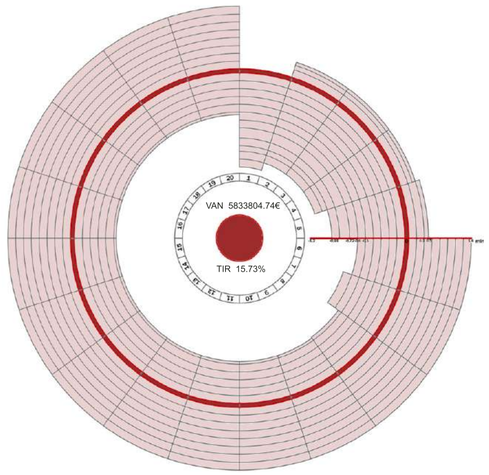
As far as Villa Mascolo is concerned, its reuse is foreseen with two main functions, on the ground floor and on the first floor there are museum spaces, to reintegrate the building in the path of the Vesuvian villas of the city of Portici, also given its singular peculiarity due to the internal position, while as regards the subsequent levels, the inclusion of co-working offices is envisaged.

For the park attached to the villa, the reopening of the park is planned, now completely closed, with an implementation of its size to the detriment of an area now occupied by illegal buildings for which demolition is planned. The extension of the pre-existing paths is envisaged with the addition of wooden structures and a small area to house an urban garden. Inside the park there is a modern open amphitheater for which it is expected to be transformed into a covered environment thanks to the construction of a steel roof, in order to position a sheltered space within the park. Regarding the sports center, the only newly built intervention, it will be totally underground to have minimal impact both on the area and on the surrounding houses, but also to act as an integration of the aforementioned park and in fact on the roof it appears to be mainly green, with the presence of a small sports field that is available to citizens. On the church of the SS Redentore, consisting of two buildings, restoration works are planned given the situation of decay in which it pours and then reuse operations with the insertion of two different functions, a conference room in the central body that housed the real church and own and then a guesthouse in the body that was aimed at housing for the parish priest of the church. Finally, there are areas identified along Via Scalea that will be transformed into green areas to support the road in order to donate parking areas to the road that will undergo replacement works as regards the pavement, seeing the asphalt replaced with a paving stone.





OPERE	COSTI UNITARI	COSTO TOT.	RICAVO TOT.
Centro sportivo	614,00 €	3.978.106,00 €	494.342,81 €
riutilizzo villa mascolo Coworking	146,67 €	14.667,00 €	72.200,00 €
Restauro chiesa e riutilizzo in sala conferenza	1.041,00 €	1.145.100,00 €	165.000,00 €
Completamento Parco	14,00 €	65.800,00 €	
Basolato strada	30,00 €	99.000,00 €	
Realizzazione copertura per anfiteatro	52,25 €	77.852,50 €	
Aree verdi a supporto della strada	14,00 €	14.000,00 €	
riutilizzo villa mascolo museale	140,00 €	140.000,00 €	

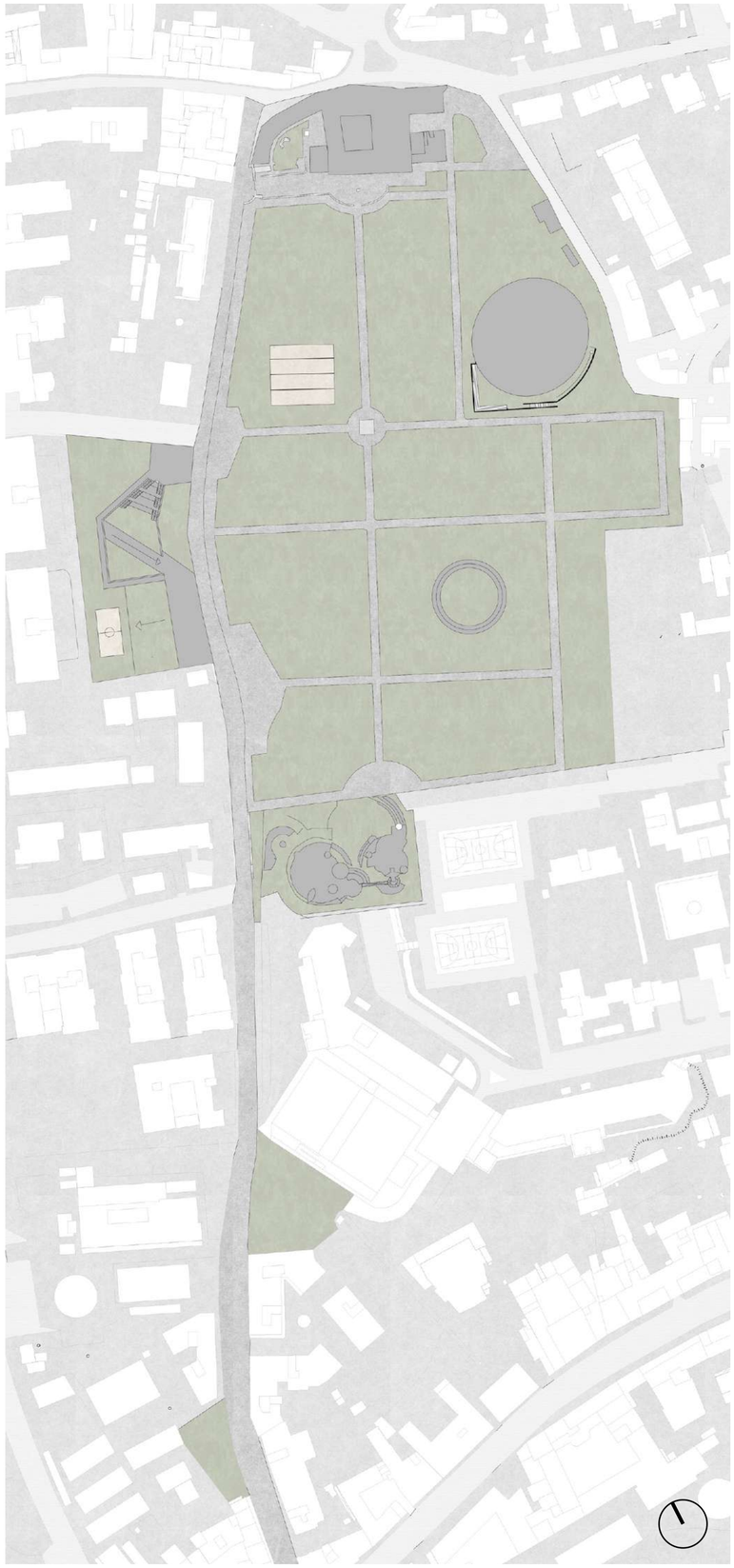


CASH FLOW





1_Centro sportivo_ 6500 mq
2_Spazio museale (piano terra)_ 1200mq
3_Uffici coworking (primo/secondo piano)_ 2000 mq
4_Parco villa Mascolo_ 3500 mq
5_Spazio coperto_ 1800 mq
6_Via Scalea_ 4100 mq
7_Aree verdi_ 1300 mq
8_Sala conferenze_ 1000 mq
9_Foresteria_ 600 mq



MASTERPLAN

0 20 50 100m



CONCEPT



I STUDY DRIVING DIRECTIONS

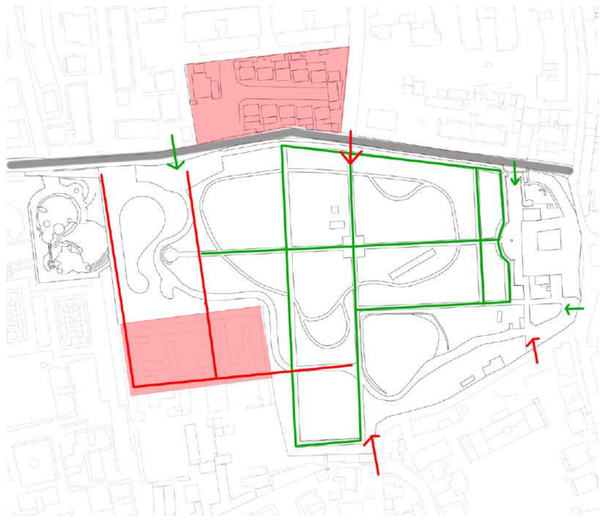


NEW LOGINS

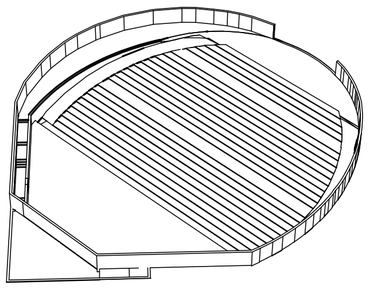


STATE OF FACT MORPHOLOGICAL READING URBAN ANALYSIS

0 25m 100 200m



ACCESS TO THE PARK OF VILLA MASCOLO



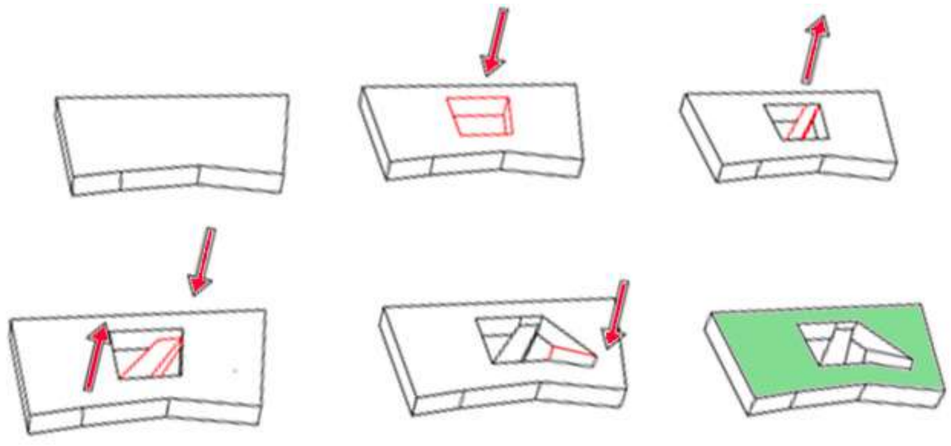
AMPHITHEATER VILLA MASCOLO PARK

Small modern amphitheater of about 200 seats built during the restoration work carried out on the Villa



PROJECT STATUS PROJECT ACTIONS

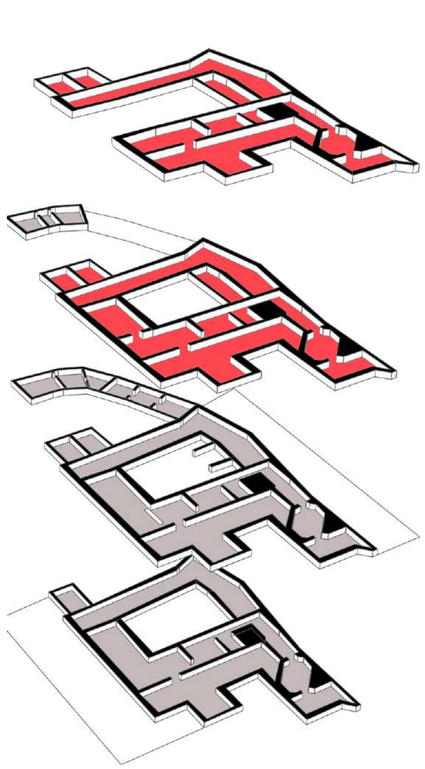
0 25m 100 200m



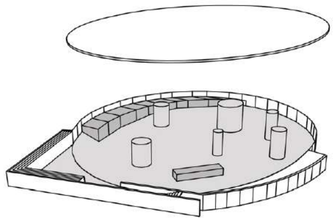
COMPOSITION DIAGRAM OF THE SPORTS CENTER

“Good architecture looks at ethical, social, environmental and economic values, at the micro of the details and at the macro of the city and of the people who pass, work and live there. Because a well thought-out building can act as a trigger for beauty and quality, and manages to drag it around in a positive dynamic.”

The fully underground sports center will occupy an area of 3,900 m2, with a 15 m deep excavation.
spread over four levels:
- the first houses a large gym
- the second houses two large classrooms for collective activities such as boxing and dance as well as a large running track, which overlooks the multi-sports field
- the third level, the main floor, is where the multi-sports field, the skate rink, a large area for bodyweight activities, two squash courts and lastly a climbing area are inserted.
- the roof, above which there are small structures for staying, surrounded by greenery, and a small outdoor sports field.
The roof follows the course of the road, which is sloping, a difference of about 2m from the lowest to the highest point, for this reason the first level will not have an extended size for the whole area of the area but only for half. of it, so as to be able to have an interior height that is appropriate to the habitability standards.
The choices to allow natural light to enter the building were to insert a large courtyard, which extends up to the second level, and to exploit the risers of the entrance staircase, creating them with glass, in order to in the light to filter deep.
The entrance to architecture is given by two elements that played a main role in the design phase:
-a “ramp” body, which leads to the first level
- a large staircase, which leads to the floor of the court and therefore to the second level



Exploded view showing the new functions of Villa mascolo



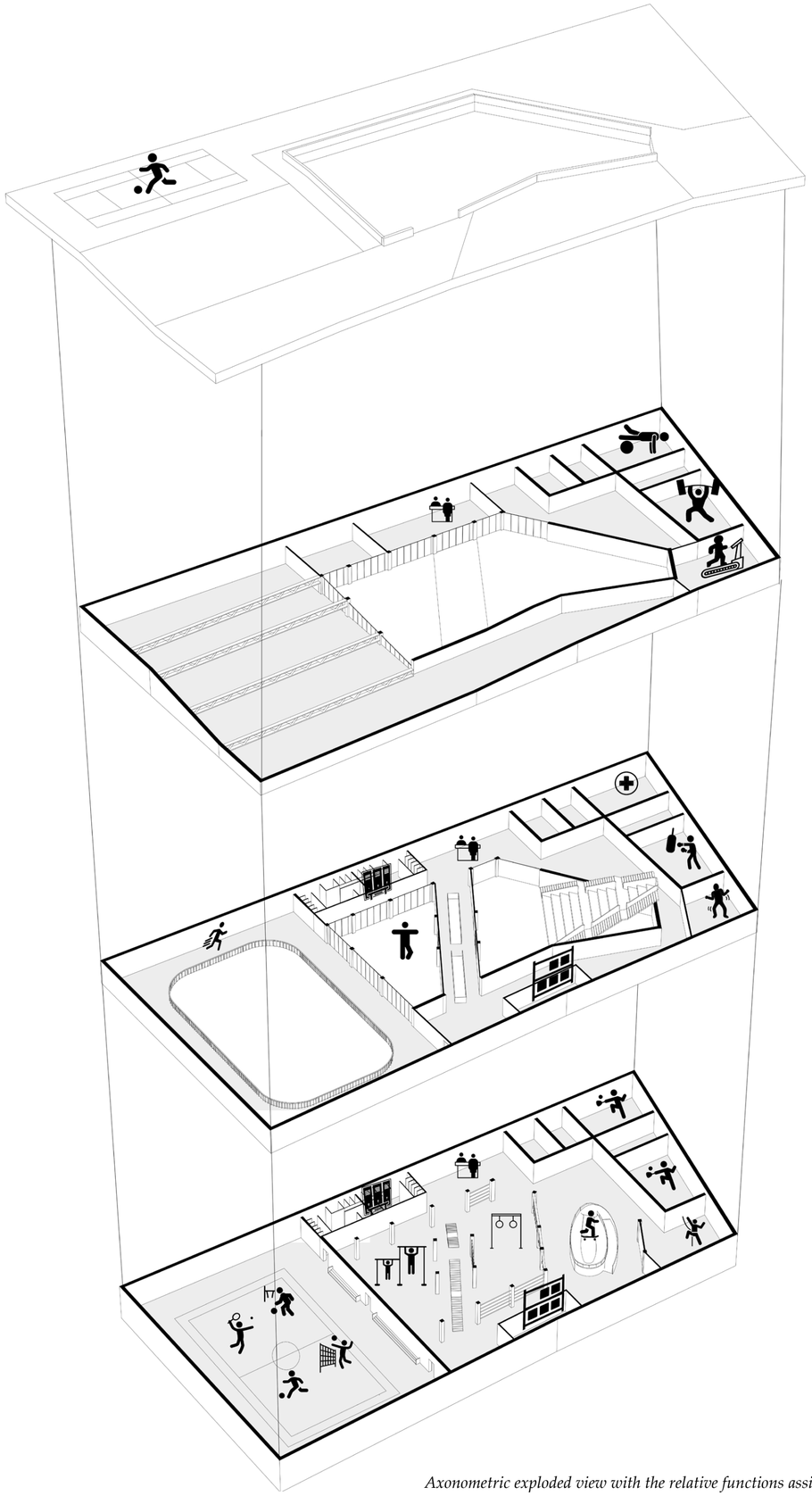
Redevelopment of the annexed amphitheater to the park of Villa Mascolo



New green areas to support the road



Redevelopment and completion of the park of Villa Mascolo

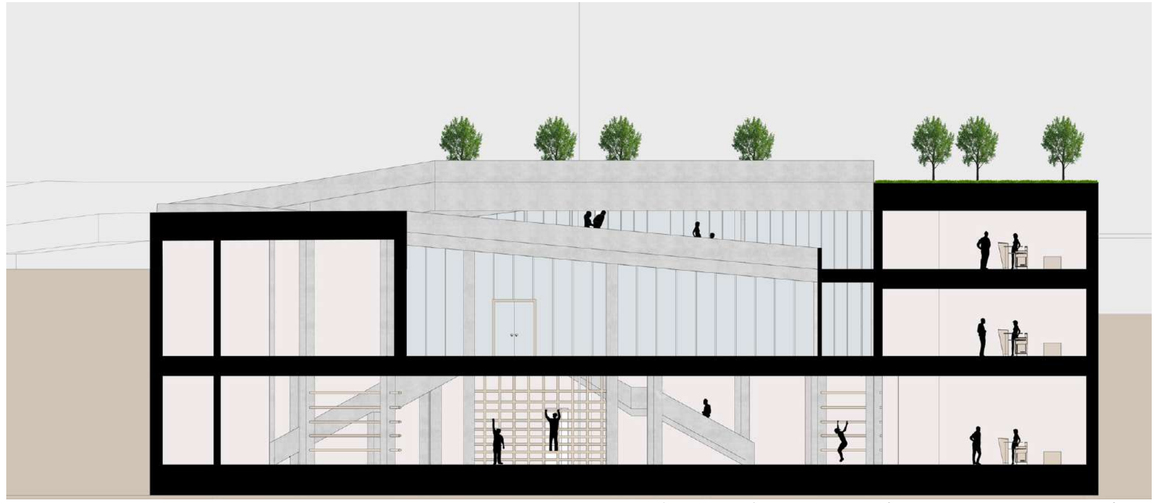


Axonometric exploded view with the relative functions assigned to each area



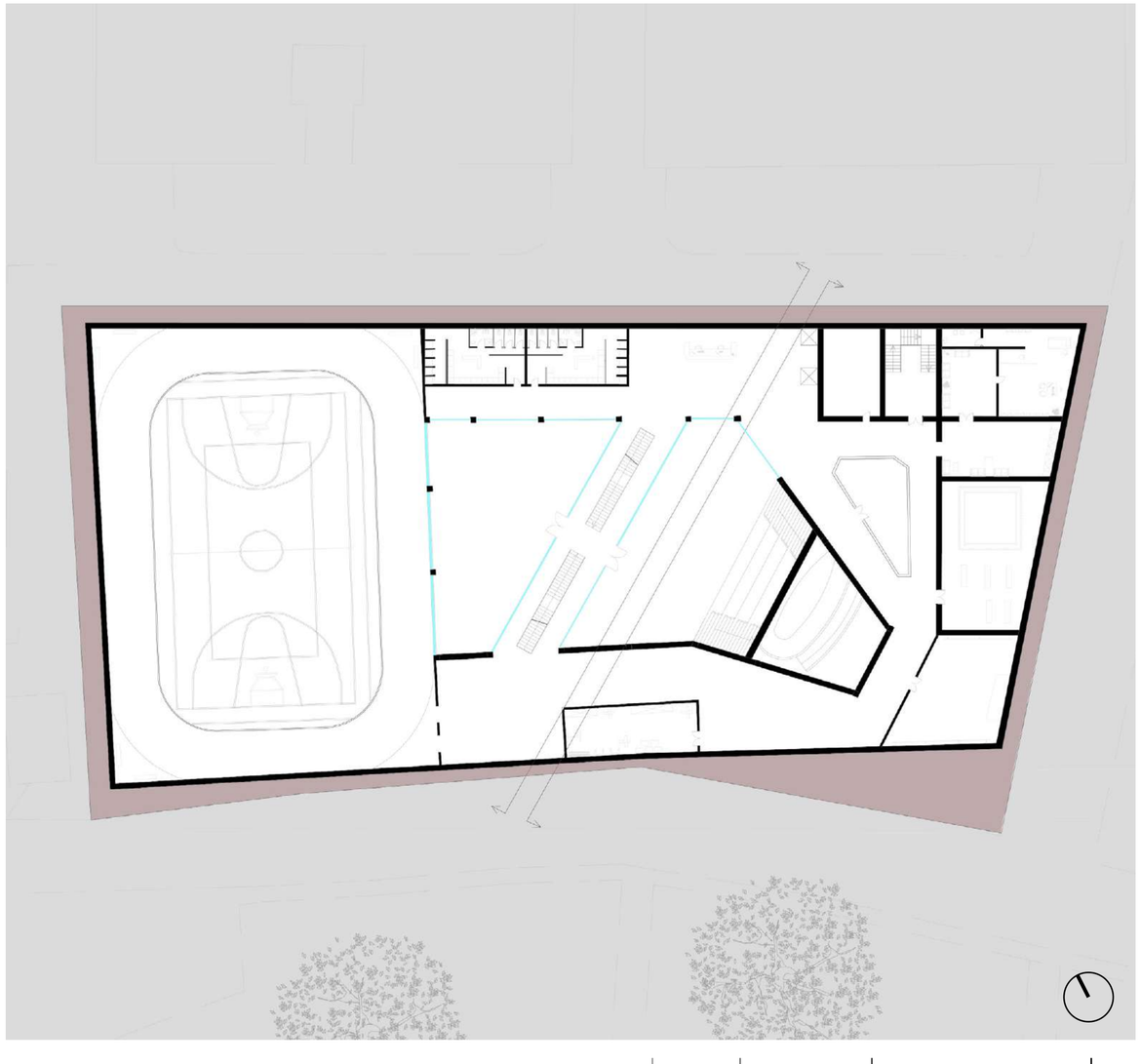
SECTION AA’

0 10 25 50m



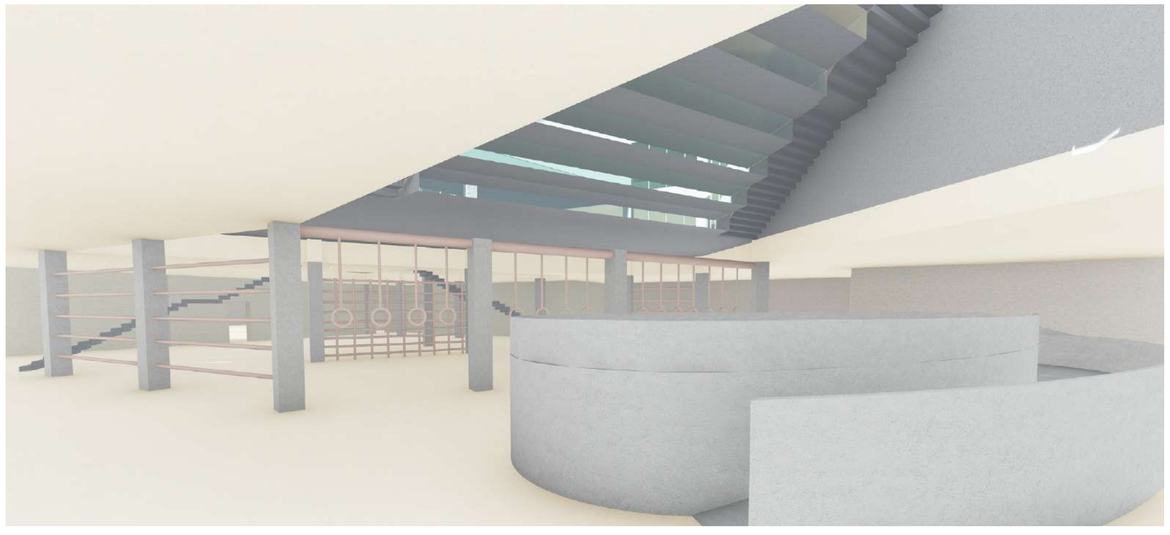
SECTION BB’

0 10 25 50m



SECOND LEVEL PLANT - 8,0M

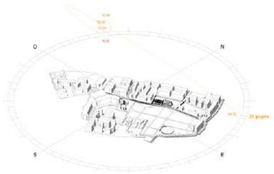
0 8 20 40m

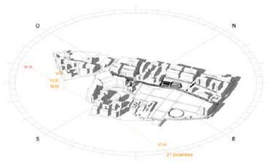


INTERNAL VIEW _THIRD FLOOR



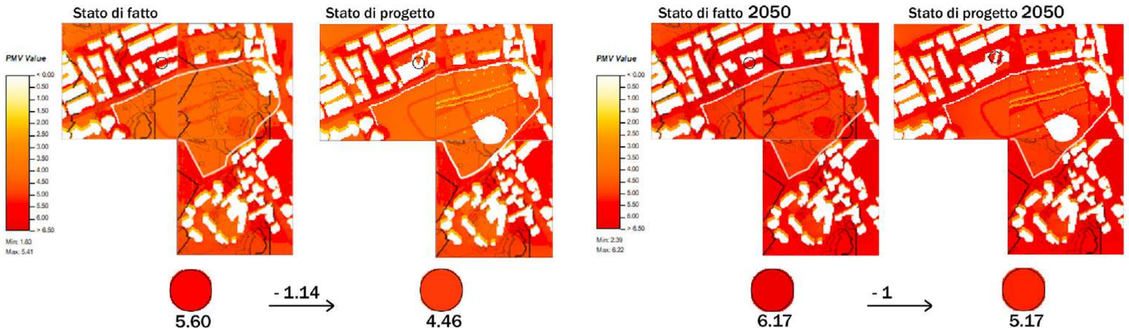
EXTERNAL VIEW



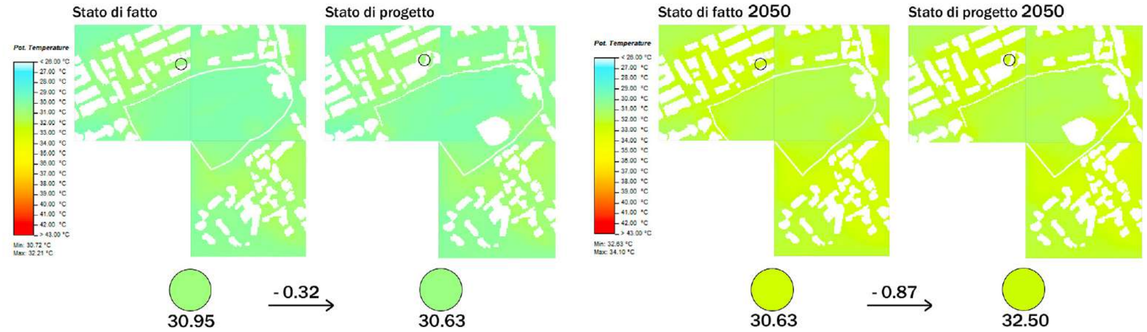


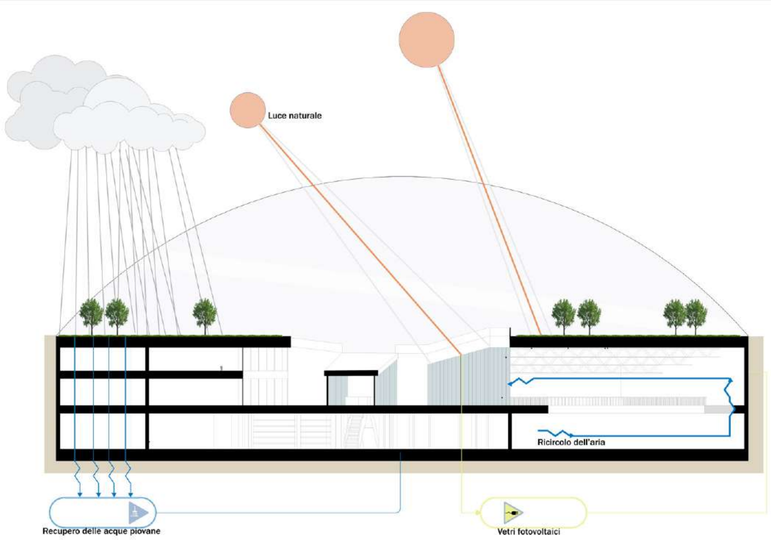
summer solstice | *21 june*

winter solstice | *21 december*

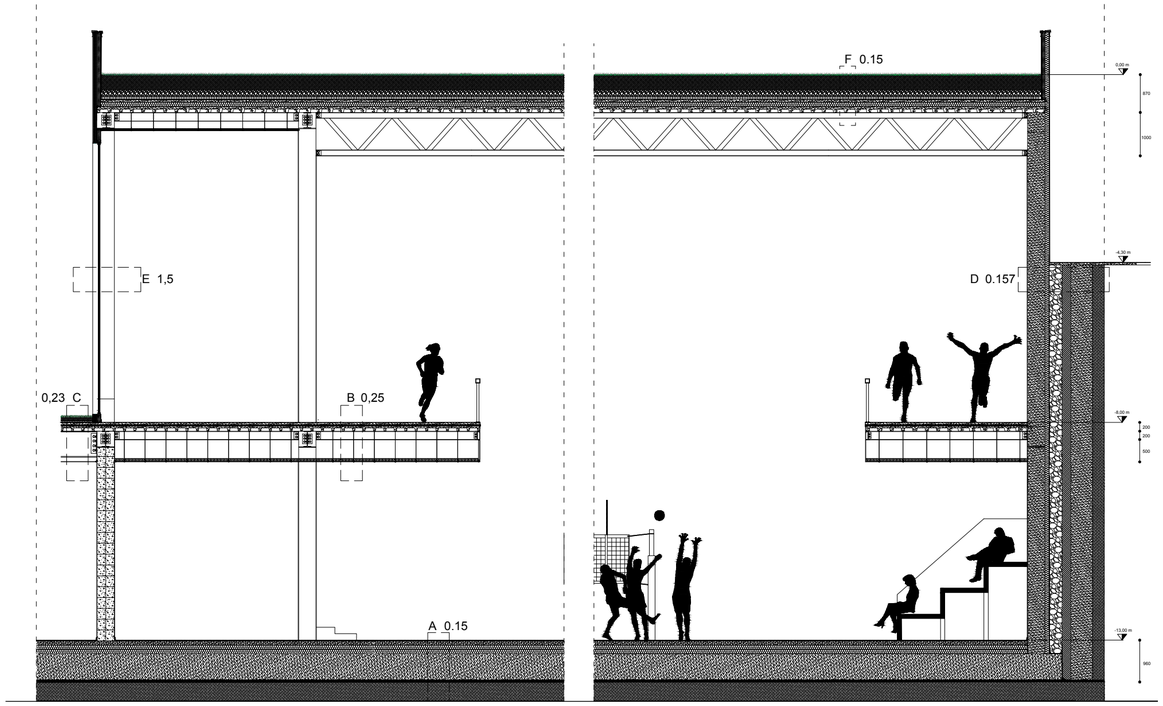


PMV | Thermal sensation index





ENVIRONMENTAL SECTION



A - FLOOR AGAINST GROUND:
- Concrete slat, Sheath, Concrete base, EPS insulation, EPS insulation, Concrete screed, Linoleum

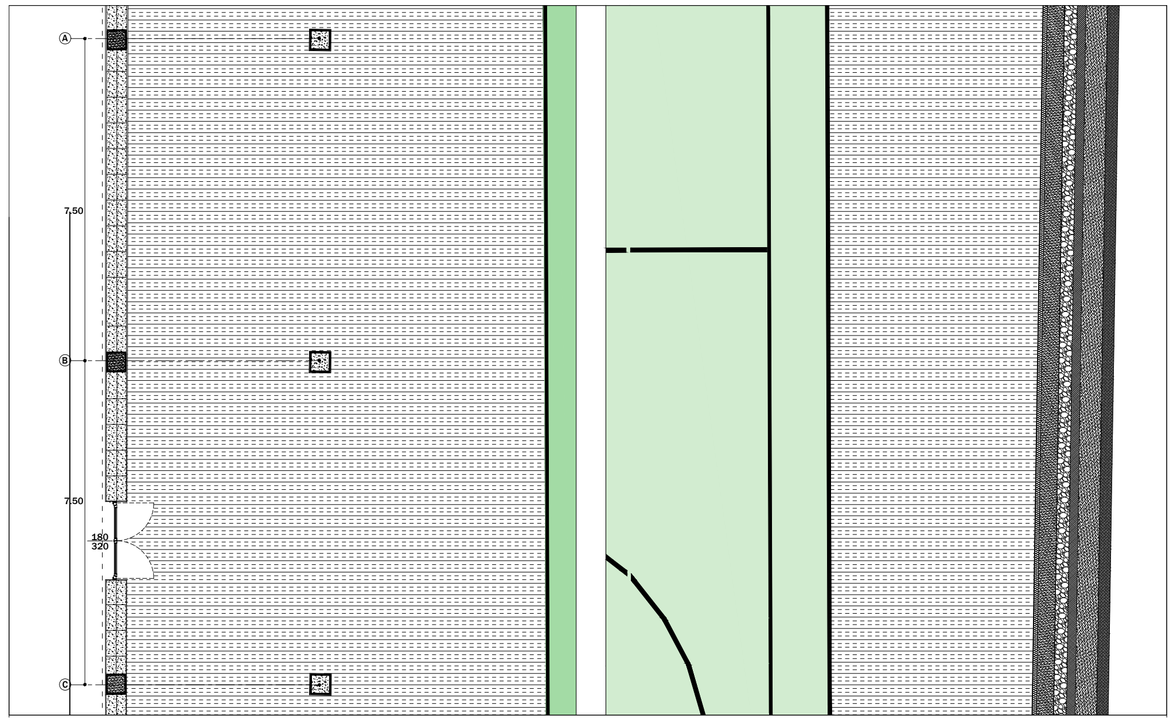
B - INTERMEDIATE FLOOR:
IPE 200 beam, Corrugated sheet, Concrete cast, Insulated EPS, Concrete screed, Linoleum

C - External floor
IPE 600 beam, Corrugated sheet, Concrete casting, EPS insulation, Concrete screed, Sheath, Draining layer, Protective sheet, Ground

D - Wall in contact with the ground
Bulkhead, Concrete casting, Stones, EPS insulation, Concrete wall, Plaster

E - External frame
Glass plate, Air chamber, Clear glass, PVB, Photovoltaic cells, Extra-clear glass

F - Roof slab
Truss beam, Corrugated sheet, Concrete casting, EPS insulation, Self-leveling screed, Draining state, Protective sheet, Ground



PLAN AND BUILDING SECTION AND PUBLIC SPACE SCALA 1:50

PORTICI ADVANCED DESIGN STUDIO

FEDERICA ZANNIELLO - RECONNECTION

REDEVELOPMENT OF THE BORDER STRIP

The theme of “Reconnection” ries from the desire to redevelop the entire area that is on the border with the Municipality of San Giorgio a Cremano. Being a part of the city divided between two municipalities, it is almost completely abandoned even if it has numerous elements that can be exploited.

The first element is the nineteenth-century villa ‘Villa Mascolo’ which once included a much larger area, in fact it reached the coast line. For this reason I felt the necessity to “ break down” the walls that enclose it in itself, now totally abandoned. Observing the entire area up to the coast, I found other abandoned or inaccessible areas that today are completely devoid of identity.

Thus the design idea is based on the recovery of all the identified areas that can act as attractors and allow us to bring the villa and the entire surrounding area ‘in light’ .

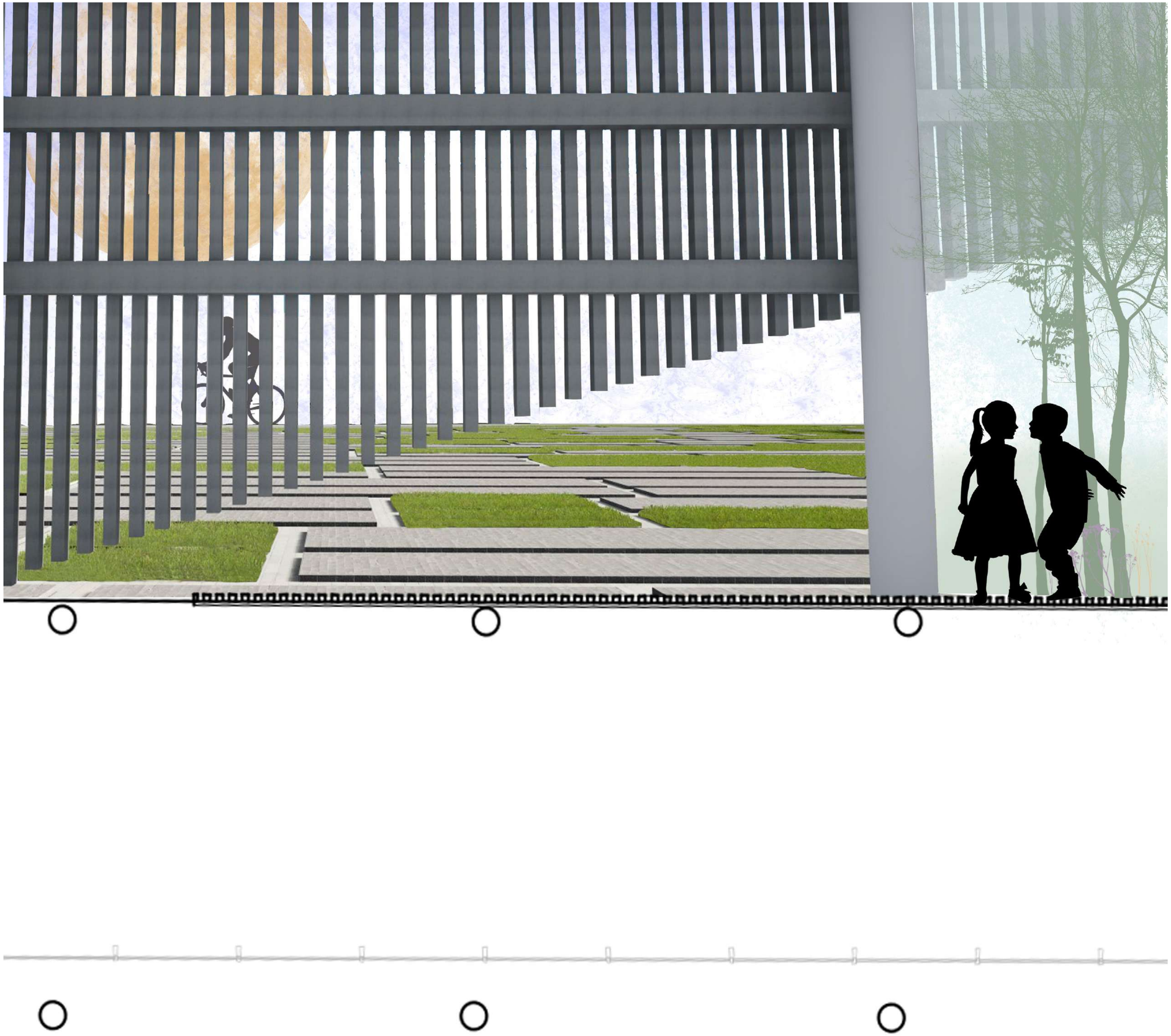
The idea behind it is the construction of new multifunctional buildings, usable both by young people as libraries and study rooms, both by the elderly with the introduction of literary cafes.

Green areas develop around these buildings, new areas for sports or relax areas. But let’s talk about “connection” thanks to the bike and pedestrian path that allows us to start from the sea coast and arrive, through a bike path, to the ancient villa.

Program

green spaces ; literary coffee bar; multifunctional structure; bike and pedestrian path

Superficie coperta	163.570m²
Superficie scoperta	5.100m²
Piani fuori terra	2
Volume costruito	654.280m³
Costo stimato	1.699.559,7 €

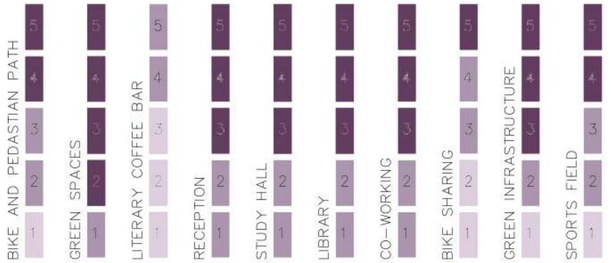


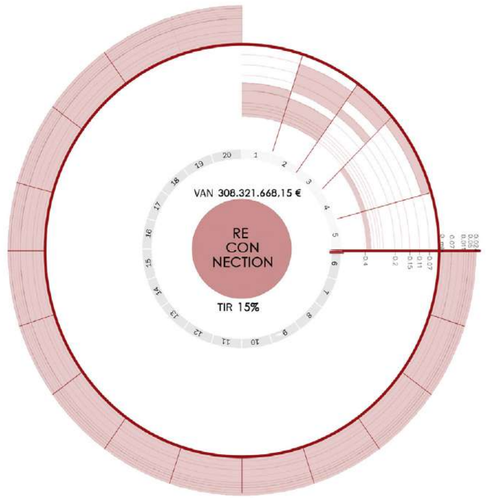
The first thing we usually do in the development of a project is the analysis of the socio-economic side of the work. We then analyze the characteristics of what we intend to produce and what we will be able to gain from it. A good realization of the work is given precisely by the relationship of these two components.

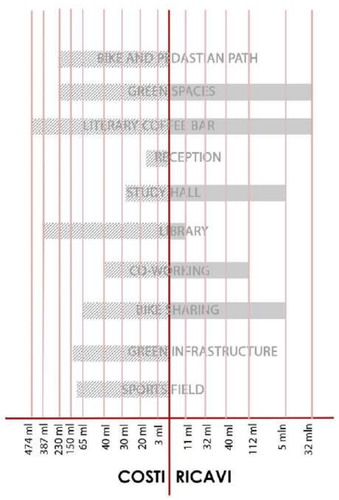
The graph on the right contains all the project actions, divided by years of construction, represented in light purple, and management costs in dark purple.

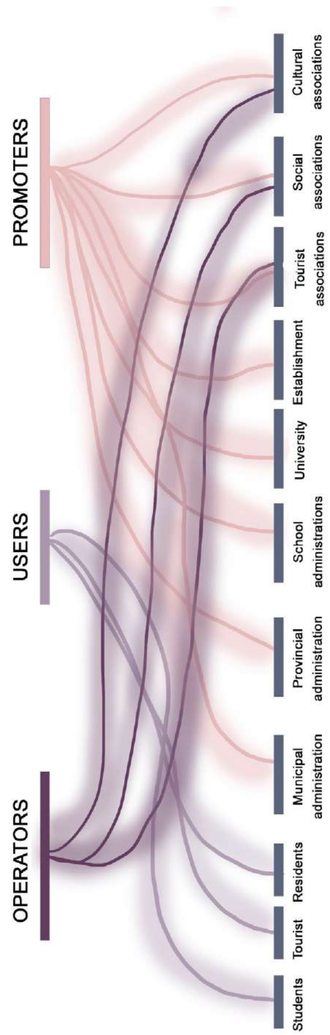
Below is the Cash Flow chart, within wich there are also the values of Van and TIR that make us understand the probability of realization of the work.

On the right we find the promoters, users and operators.







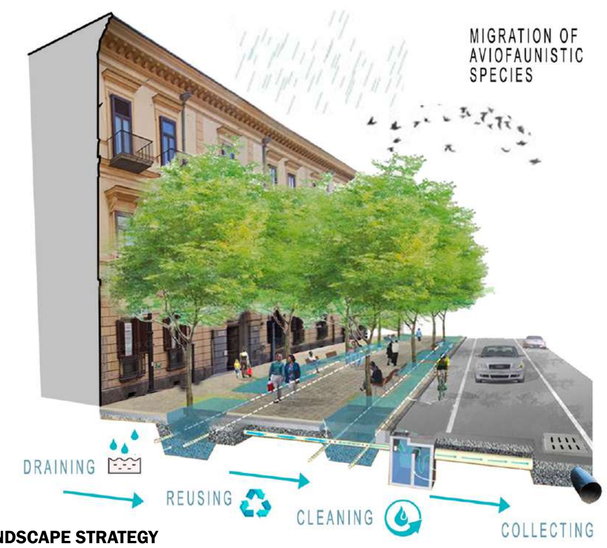


The last chart, on the other hand, allows us to understand the construction cost of each single work and the respective gain.

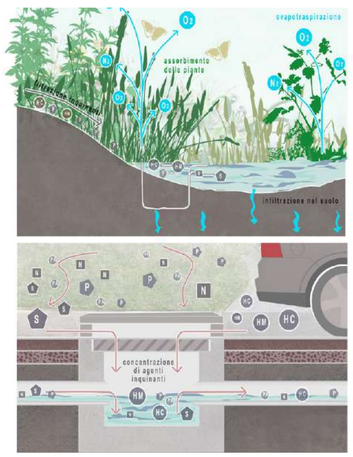


PORTICI PARCO THE PROJECT IN CONTEXT

0 4 10 20m



LANDSCAPE STRATEGY



NEW SOIL / WATER CONNECTION

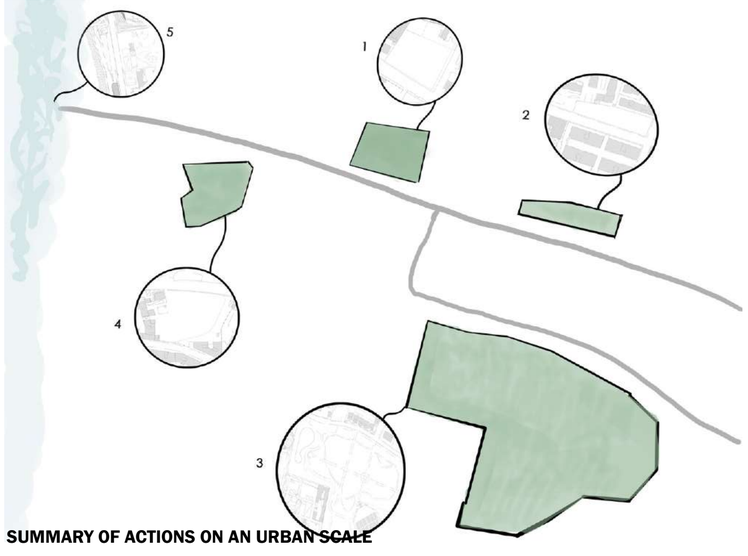
Increase of road impermeability with better management of rainwater.

The project area is located in Via Martiri di Via Fani, an almost completely abandoned road. Most of the 'green areas' are inaccessible and destroyed (point three), completely abandoned (point one and four) or closed by a 'barrier', a wall or a grate (point two and five).

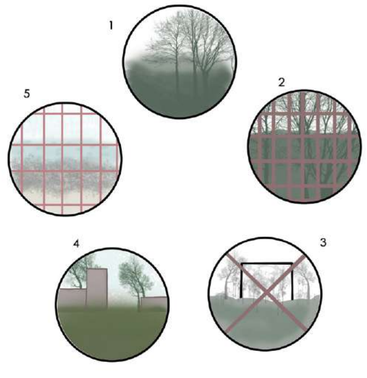


CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 4 10 20m



SUMMARY OF ACTIONS ON AN URBAN SCALE



THREE DIFFERENT THEMES

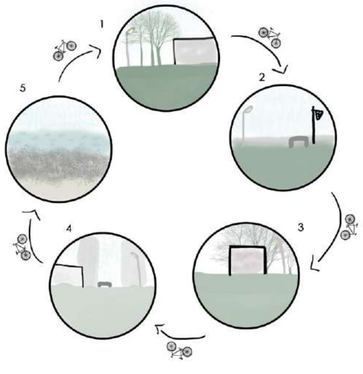
- NOT ACCESSIBILE ; -ABANDONMENT- DESTRUCTION

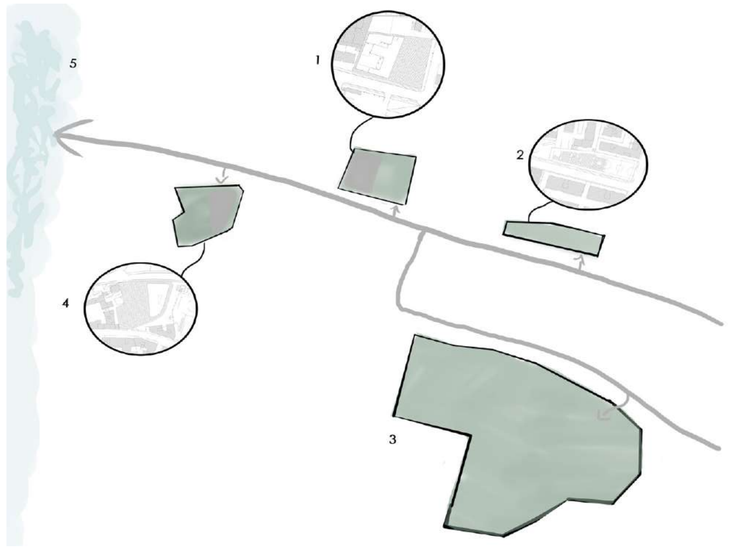
For this reason , my design action is based on the desire to unify the areas through a bike and pedestrian path. In each area there is also a bike sharing.



DESIGN PROPOSAL

0 4 10 20m





SUMMARY OF ACTIONS ON AN URBAN SCALE

After identifying the areas to be redeveloped, the problem is the introduction of new functions. Portici is the third largest municipality in Europe in terms of population, and is also located under the Vesuvius, hence the Red Zone.

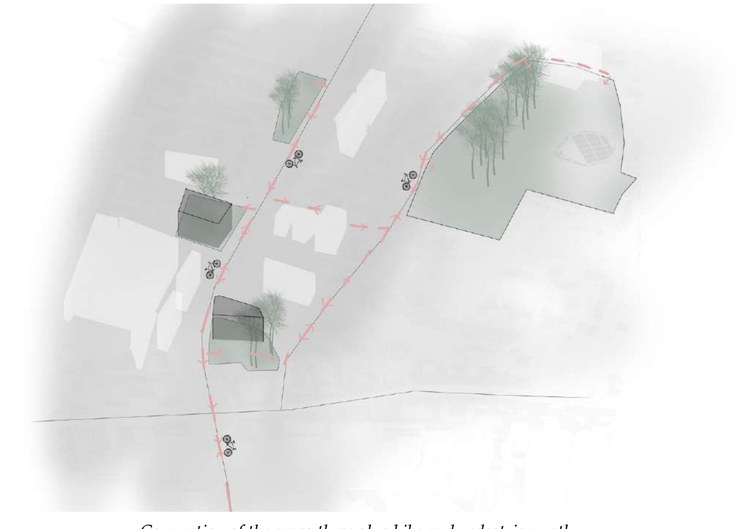
For this reason the buildings I propose are low environmental impact buildings, surrounded by large green areas. I hypothesize an initial volume and inside it I create 'holes' that allow me to create the "inside / outside" contrast. As for the roof, instead I propose in part a garden roof divided from the rest of the building through a barrier of steel elements. Both constructions are mainly made of structural glass but are covered with steel elements, which have a real function of a sunshade. They reflect sunlight during the day and absorb heat but at the same time also allow light to enter during the winter. They include a large green area externally with permeable flooring. As for the other abandoned area, now fenced, I propose a recovery of the greenery and the introduction of a basketball court, outdoor sports areas and rest areas. The Villa, on the other hand, today is totally abandoned and partly destroyed. The new complex was inaugurated ten years ago and was open for a couple of weeks, until it was completely destroyed by vandalism. From that moment it was closed and never reopened. Having a large green area, after the recovery of the building I propose new outdoor exhibition spaces and the inauguration of the open theater. As for the architectural instead, divided into four levels, I propose various laboratory functions for the nearby nursery school, and exhibition areas for the cultural and artistic associations of Portici. All areas are connected through a bike and pedestrian path and each of them provides for "bike sharing".



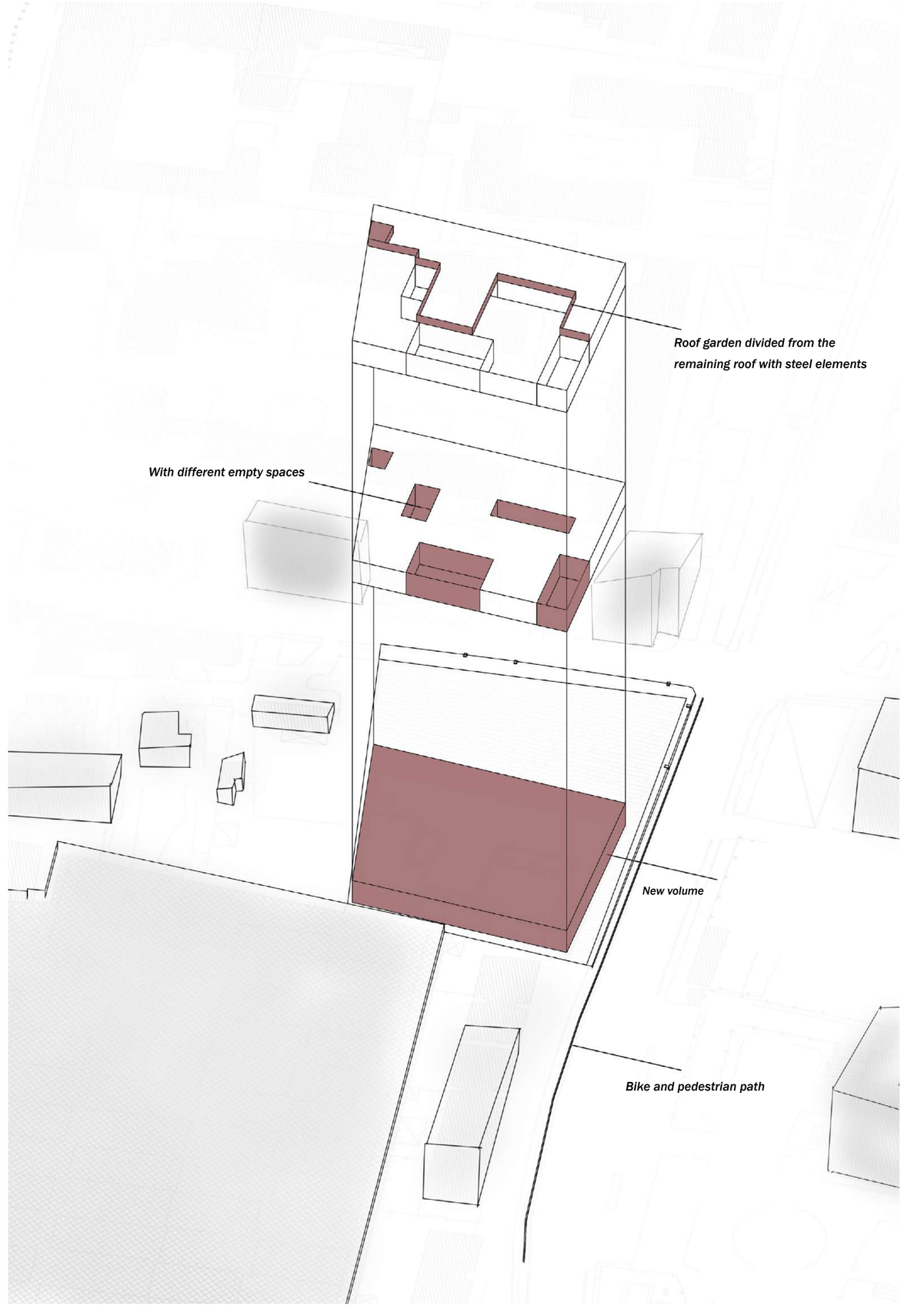
Identification of areas to be recovered



Introduction of new volumes and public green areas



Connection of the areas through a bike and pedestrian path

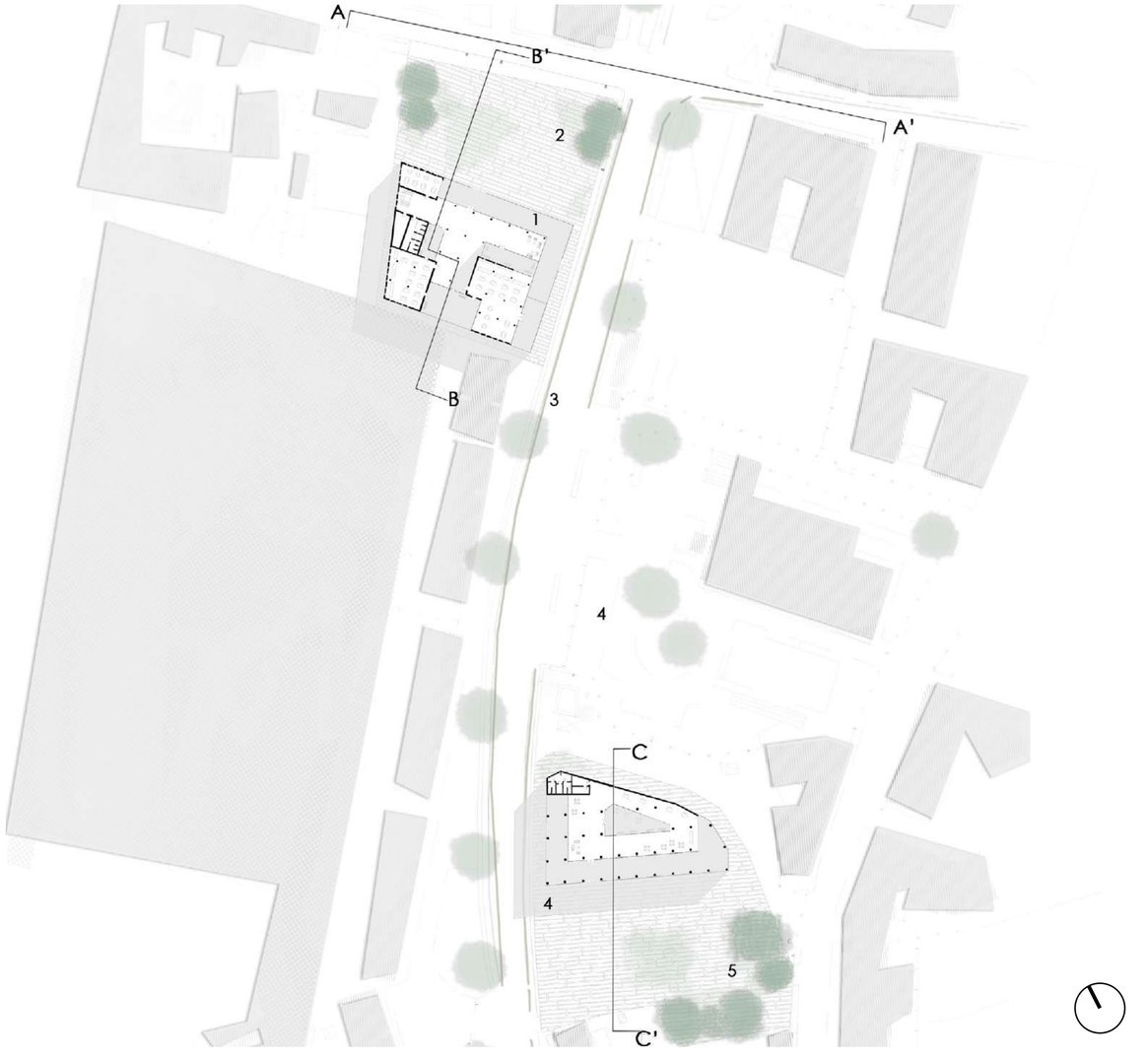




SECTION A-A'

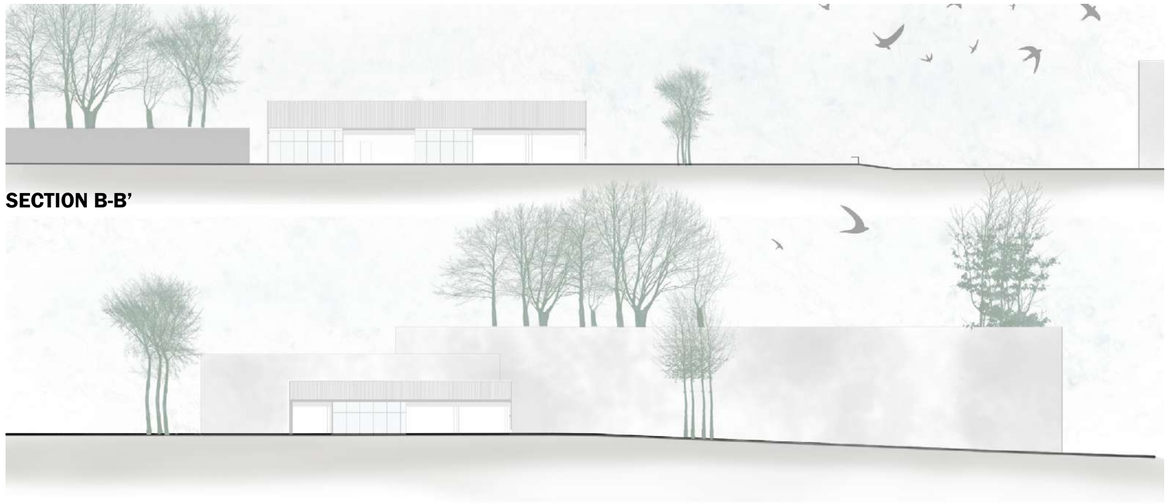
0 1 2.5 5m

1. Multifunctional building
2. Equipped green area
3. Pediastan cycle track
4. Literary cafè and bookshop
5. Equipped green area



0 10 25 50m

FIRST FLOOR (wide scale)

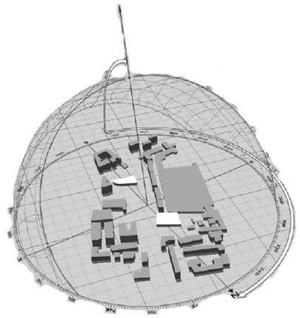


SECTION B-B'

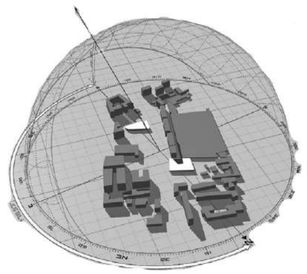
SECTION D-D'

0 1 2.5 5m

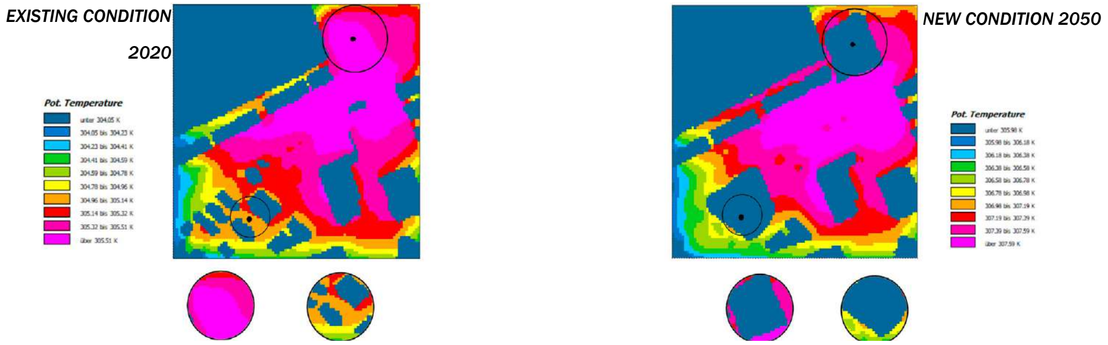




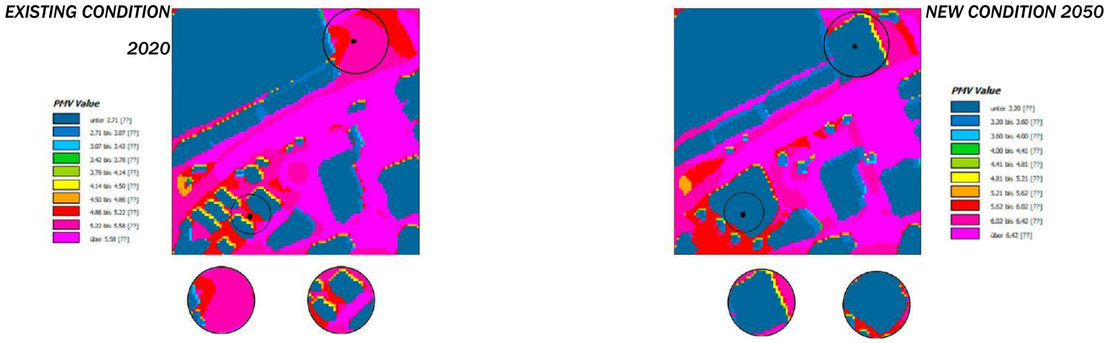
Summer solstice | 21 June



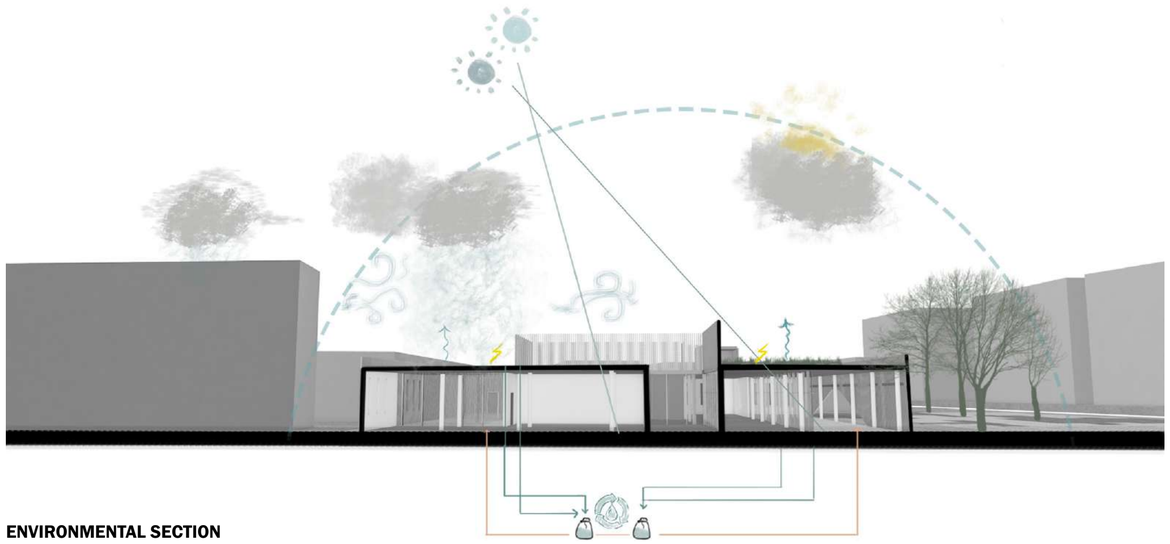
Winter solstice| 21 December



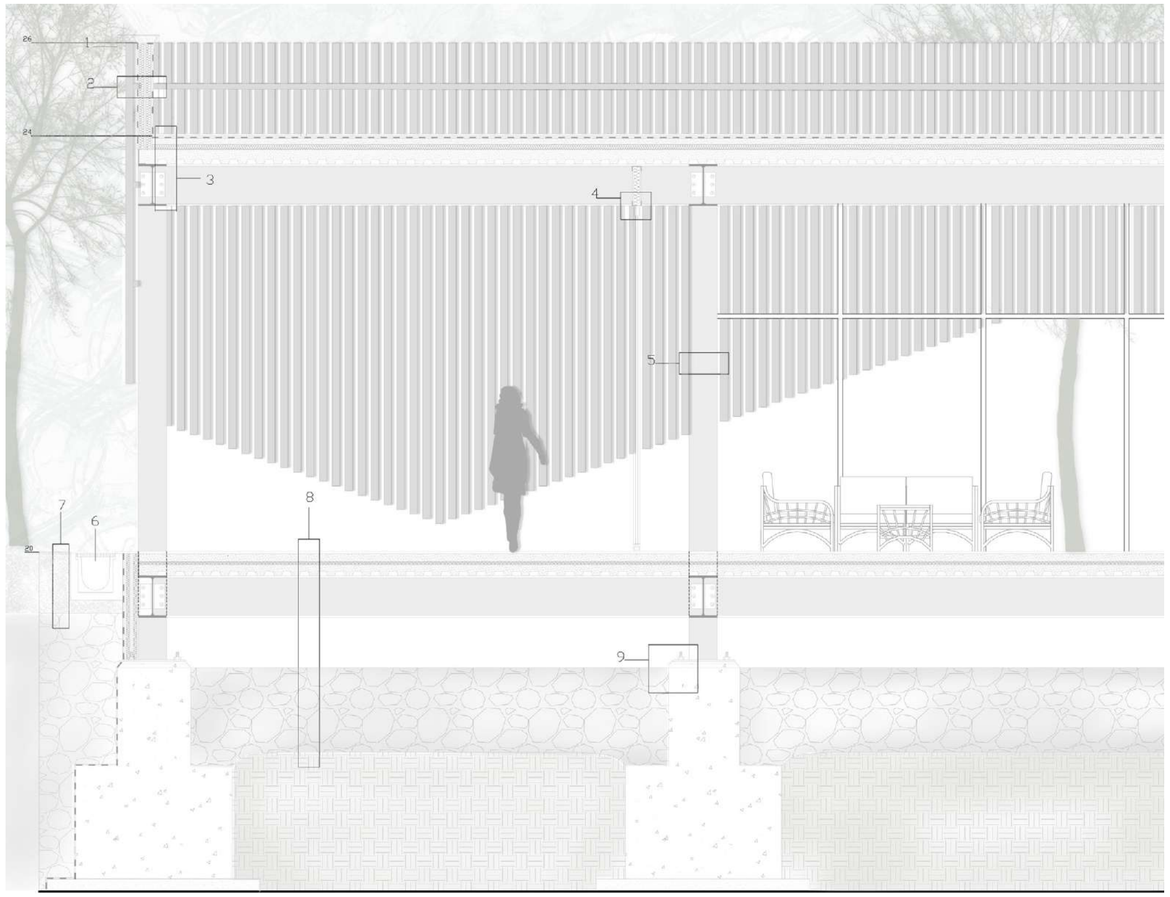
PMV | Thermal sensation index



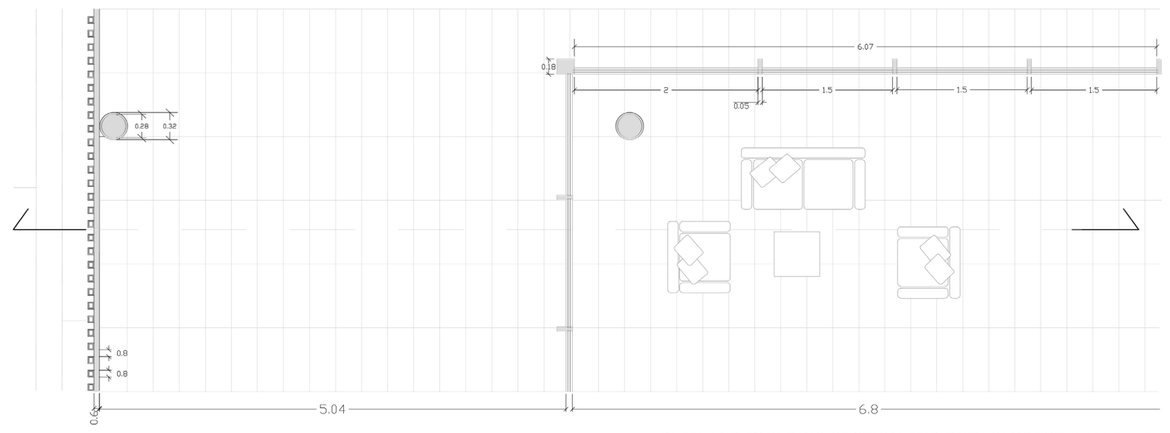
POT| Air temperature



ENVIRONMENTAL SECTION



1. Covering flashing in sheet metal /
2. External wall covered with steel panels made of flame-retardant aluminum, 0.5 cm steel connection elements, 0.1 cm waterproofing layer, 0.1 cm vapor barrier, 0.6 cm rock wool insulation, thin 0.1 cm mortar layer, 0.1 cm waterproofing layer.
3. Roof slab made with 0.2 cm external flooring, 0.1 cm cement mortar, 0.15 cm sheath layer, 0.7 cm screed, 0.8 cm rock wool panel, 0.15 concrete casting cm, corrugated sheet 0.1 cm. Exposed beam HEB 45 with connecting bracket.
4. Containment profiles in steel with a thin layer of insulation of 0.3 cm for the low-emissivity Wictec glass facade with thermal transmittance equal to 1 and thickness of 0.6 cm
5. Pillar 0.32 cm
6. Water collection channel
7. 0.1 cm external flooring, thin layer of mortar or, 1 cm, screed, gravel filling
8. Foundation floor consisting of 0.2 cm porcelain stoneware internal flooring, a 0.1 cm thin mortar layer and 0.7 cm screed, 0.8 cm mineral wool insulation layer, 0 concrete casting, 15 cm and corrugated sheet with a thickness of 0.1 cm. HEB 45 beam and 0.32 cm pillar. Below we have a lean layer and a gravel fill.
9. Foundation plinth with screws, steel plate and beam reinforcement elements



PLAN AND BUILDING SECTION AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

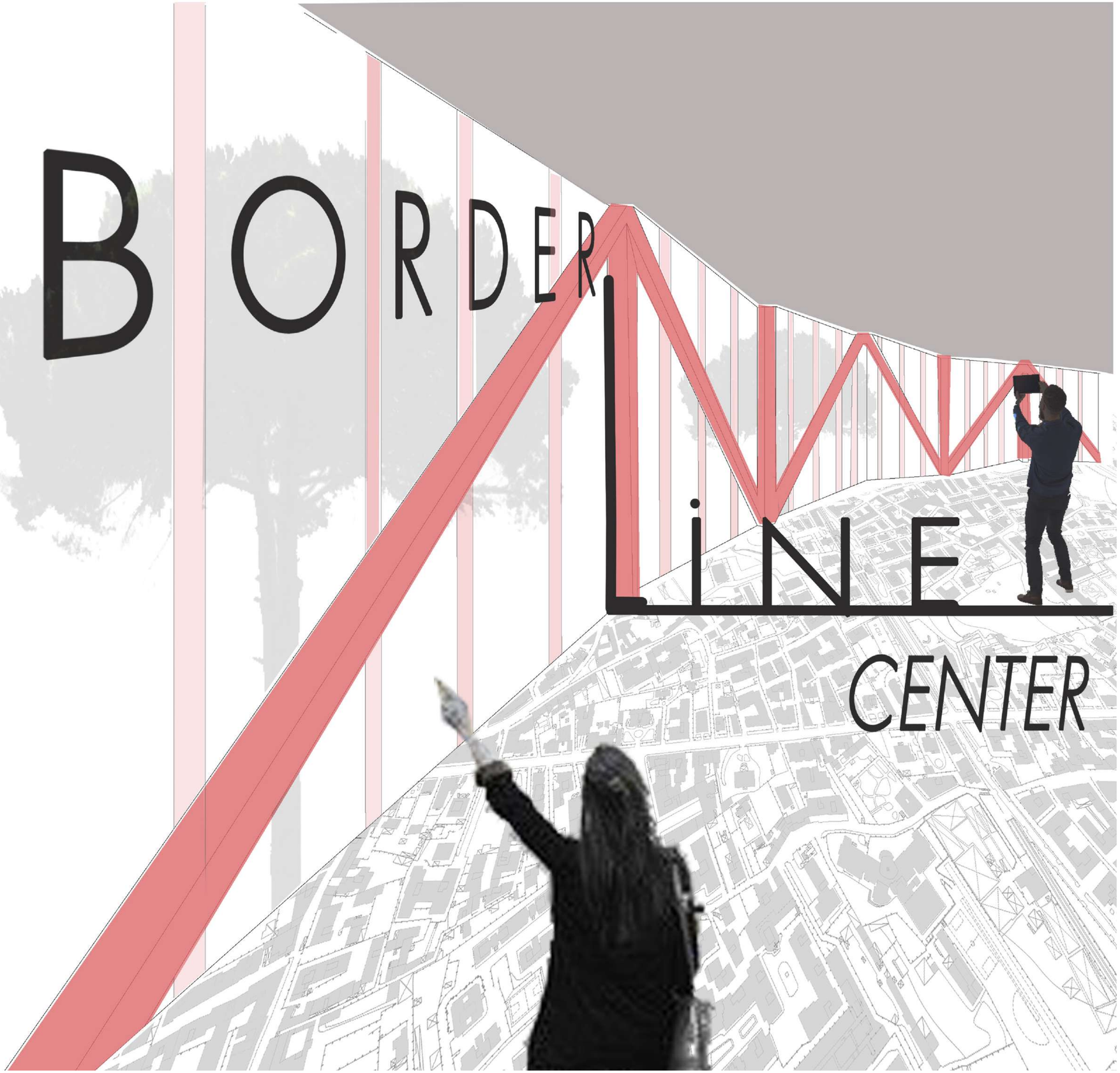
CLARA VITIELLO - BORDER LINE CENTER

PROJECT OF A SOCIAL CENTER
REGENERATION OF THE WESTERN MARGIN

The Border-Line-Center project proposes to give a new perception of the western edge of the Municipality of Portici.

This border in contact with San Giorgio a Cremano, unlike the other borders, does not enjoy a strong identity. The margin, towards Herculaneum, is characterized by the presence of the Royal Palace of Portici and the adjoining upper and lower park, which, in addition to being the seat of the university, contains a historical and tourist value. The edge of the waterfront lives on the presence of the sea and the port of Granatello. Finally, the center of Portici, consisting of its squares and the presence of Vesuvian Villas.

What the western edge lacks is an identity. It is often defined as a periphery, in an improper way, given the scarcity of meeting places, squares and parks.
The inclusion of a Social Center, with the generation of three squares and pleasant spaces, within an area currently used as a parking lot and as a market on Saturday morning, would allow a social reconnection also towards this margin; it could also give an identity and allow local users to take advantage of an area currently unused.



Program

cultural and Social Center, market square, studyroom , bar, public space

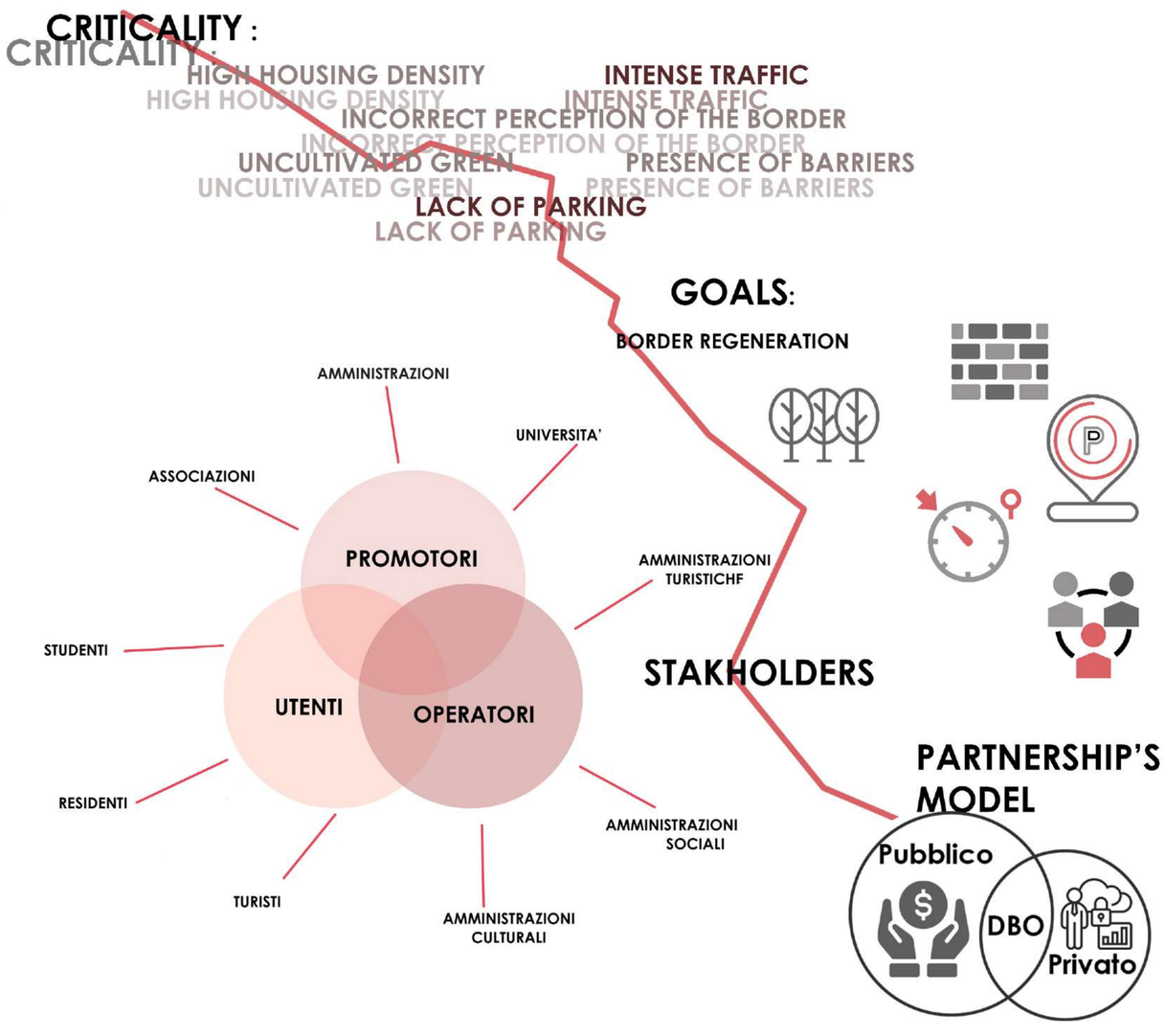
Covered area	**5200m²**
Surface uncovereda	**2000m²**
Above ground floors	**2**
Built volume	**8500m³**
Estimated cost	**€4.830.187.00**

Regeneration of the urban transversal - western margin - criticality - objectives - stakholders - partnership model

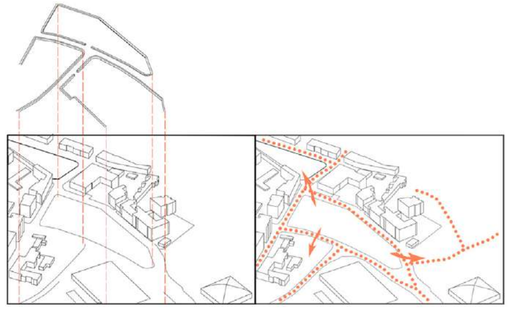


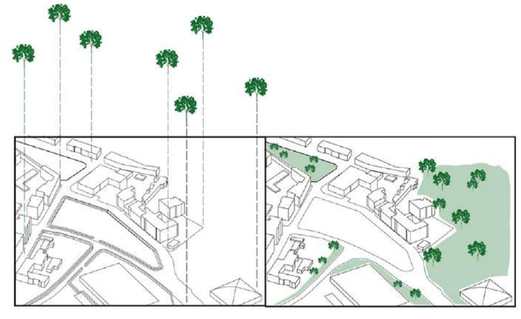
From the territorial analyzes conducted with interviews and researches, it is clear that the most evident criticalities developed within the western margin are: the wrong perception of the area seen as a mere road of passage and without potential, the high population density that it creates an overpopulation, the presence of barriers even in public places that add degradation and block connections with the center and with neighboring municipalities.

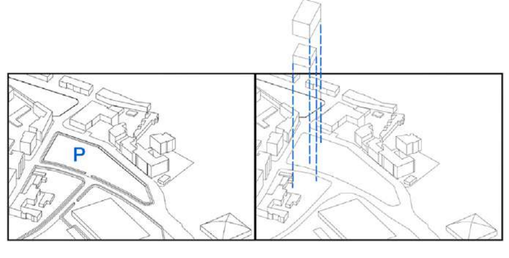
The goal is the regeneration of the border through small socio-ecological interventions, the removal of barriers, the possibility of connections, the inclusion and maintenance of the greenery of an eco-sustainable mobility line. These actions field a series of stakeholders such as: associations, foundations, schools and universities, which could provide for the maintenance and management of the interventions. The partnership model proposed is the PPP one, or public-private participation

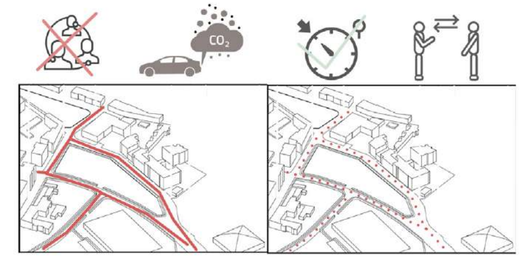














CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 10 25 50m



1- Garage/Market 2- Largo Arso 3- Uncultivated green 4- Collection center 5- Private garage



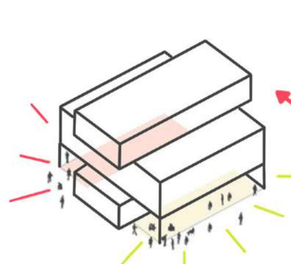
DESIGN PROPOSAL

0 10 25 50m

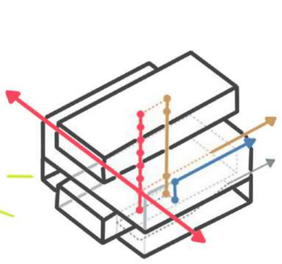




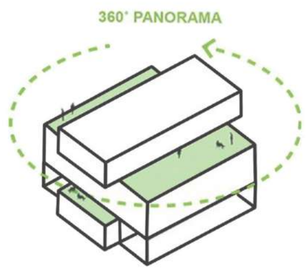




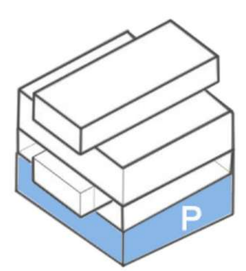
OPEN SPACE



CONNECTIONS



CONTEXT

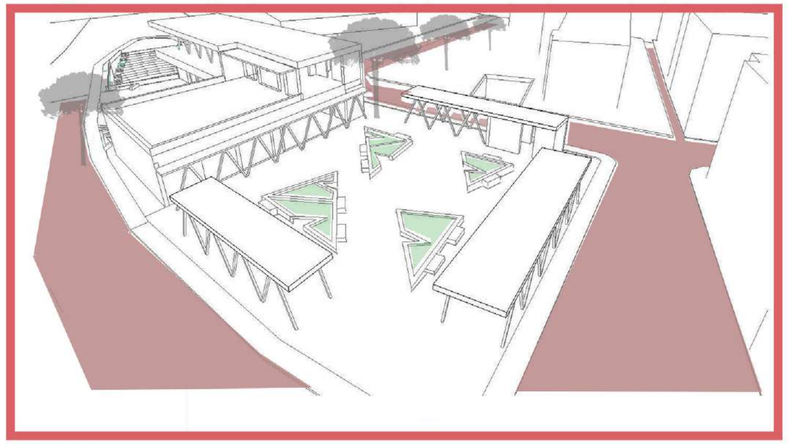


PARKING

The Masterplan strategy, at an architectural level, translates into the construction of a social center, located in Via Dalbono, near Largo Arso and the Sports Center. This area is partially experienced during the day, given the presence of the sports center and the market which takes place on Saturday morning. In addition, there is the presence of numerous schools.

Despite these functions, unfortunately the area is not lived in due to the lack of public spaces and meeting places. With the Border-line-center project, we propose the construction of a building consisting of three volumes and a basement that holds them together as a base. The first volume allows the formation of the first square, or the first public space, the market. It consists of steel porches that serve as stalls for sale and provide shade during the passage. The second volume houses a bar with also outdoor spaces. This function would allow the turnout even in the evening; so that the area can be experienced at all hours of the day. Then the great staircase, a place to be, made up of stairs and seats; this allows access to the lower basement. This last square is configured as a covered but open place, the heart of the social center within which functions and equipment that can also be adapted for an exterior are proposed again. For example, a large collective wooden seat with cushions, green furniture, playground, and spaces for the community, from the most concentrated to the largest. Through movable and adjustable walls it is possible to guarantee the "creation" of one's own personal space, equipped with tables, chairs and bookcases to allow meetings, workshops, theater schools. A kind of space to get togetherThe top floor is configured externally as a luminous body; its glass armor allows you to see its presence even from a distance. Internally it is experienced as an exhibition space, with perspective and view of the Vesuvius that imposes itself magnificently. From this floor it is also possible to go out onto an external terrace overlooking the external squares.

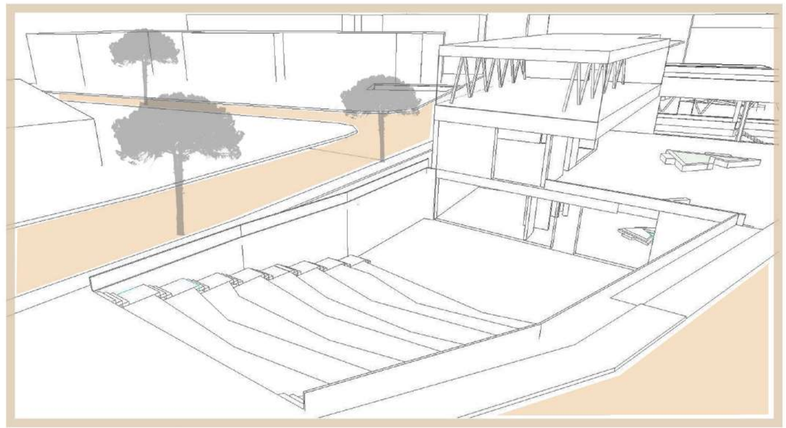
MARKET SQUARE



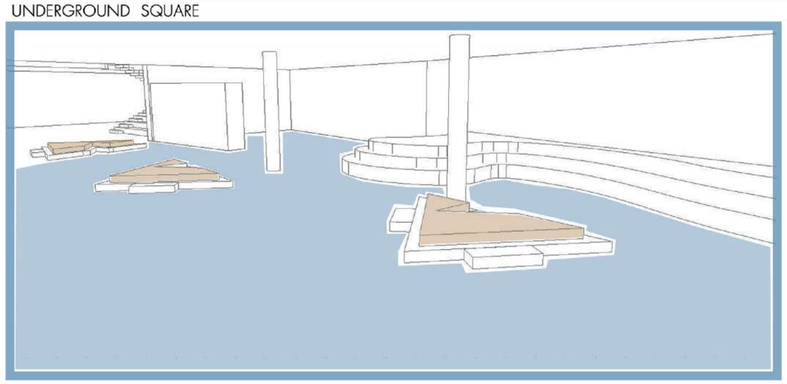
BAR SQUARE

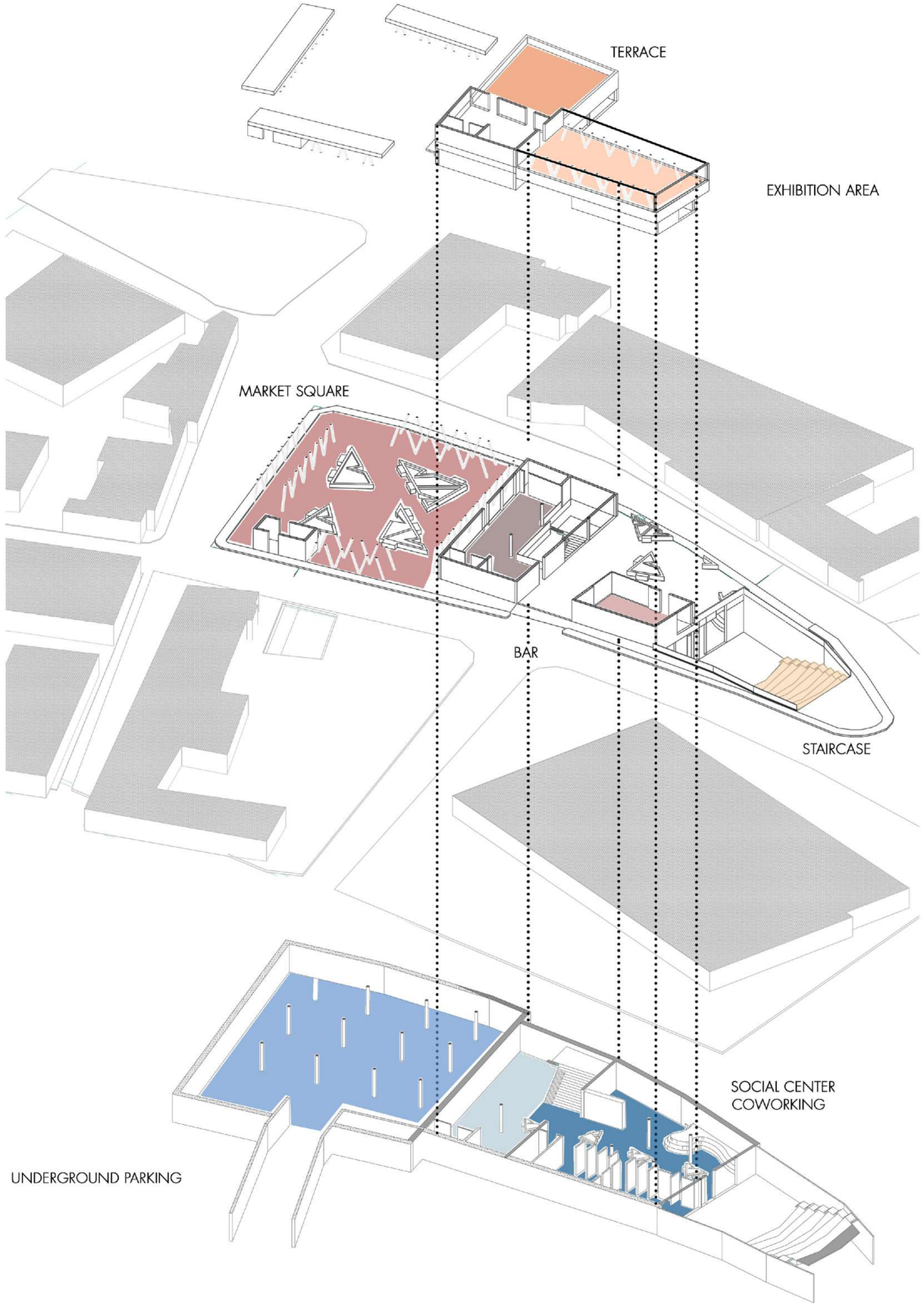


STAIRCASE SQUARE



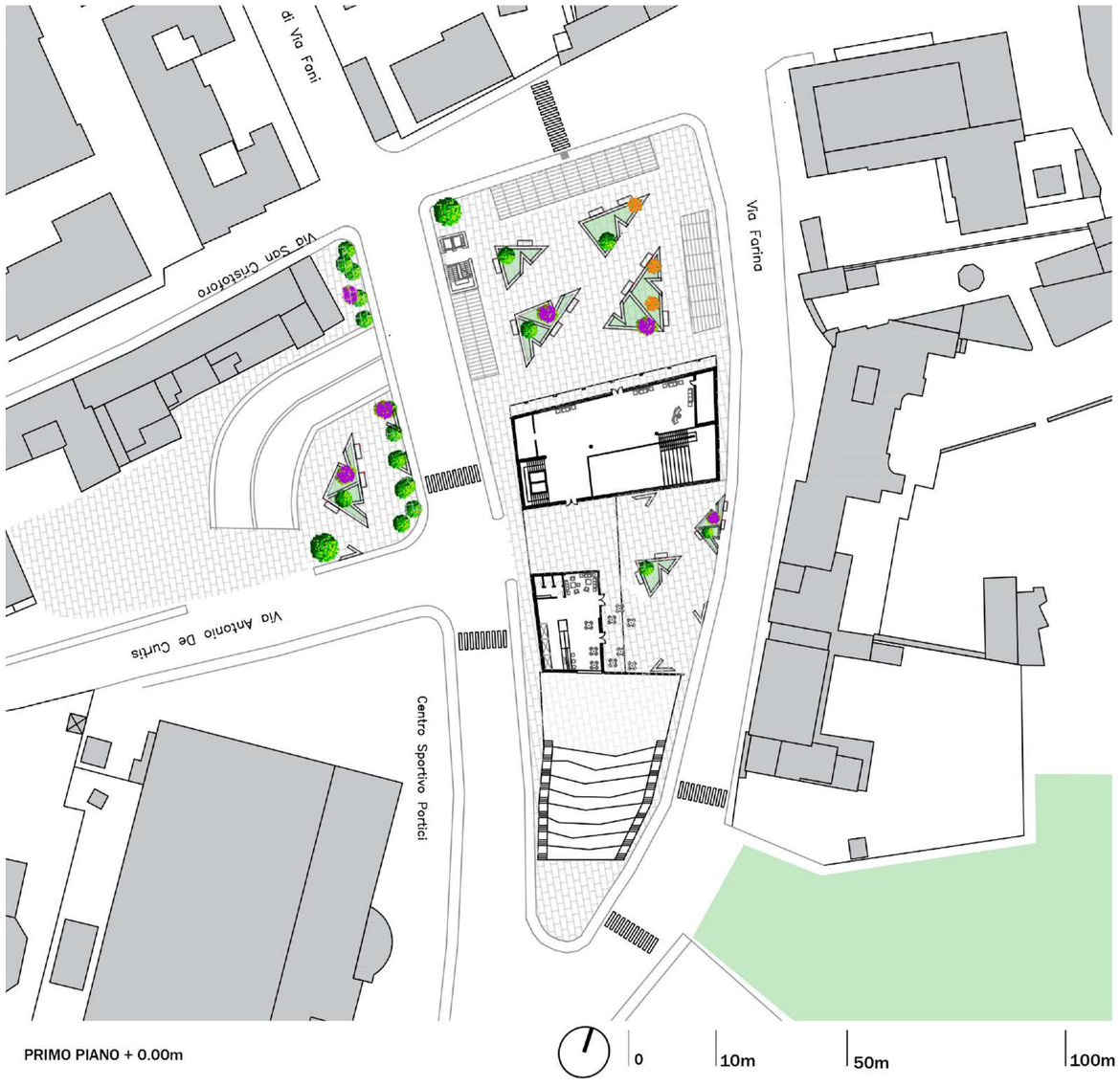
UNDERGROUND SQUARE



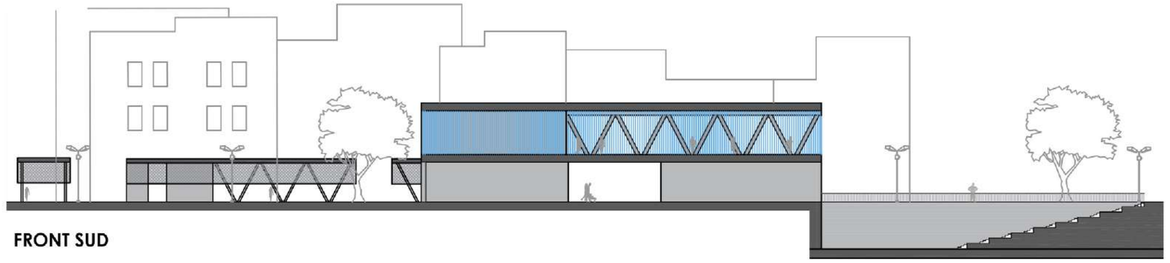




SECTION B-B'

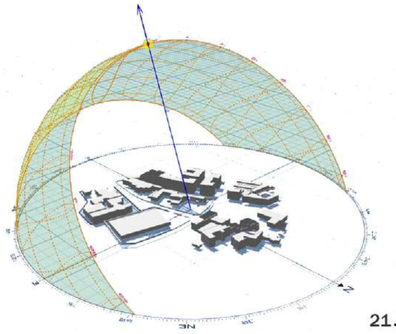


PRIMO PIANO + 0.00m

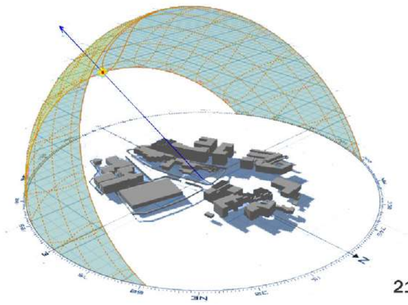


FRONT SUD

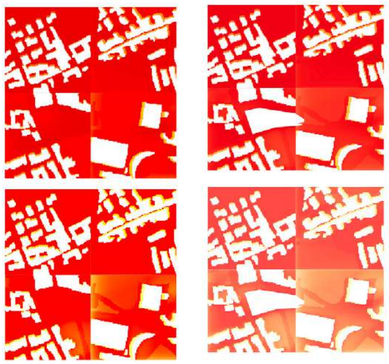
INTERNAL VIEW



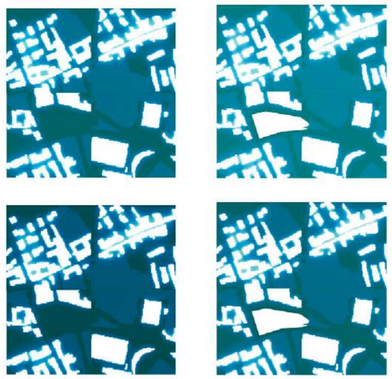
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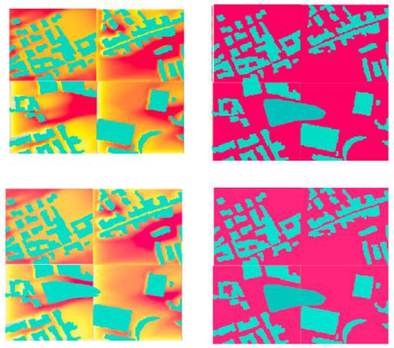
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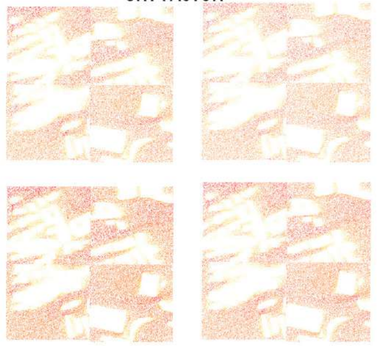
P TOT



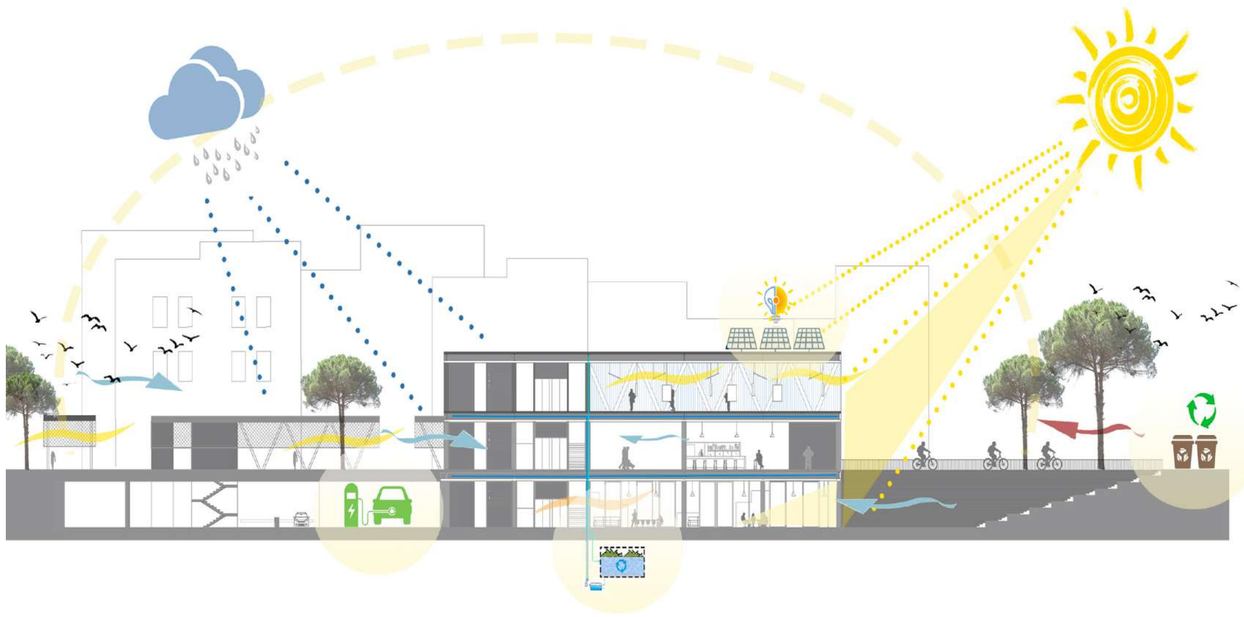
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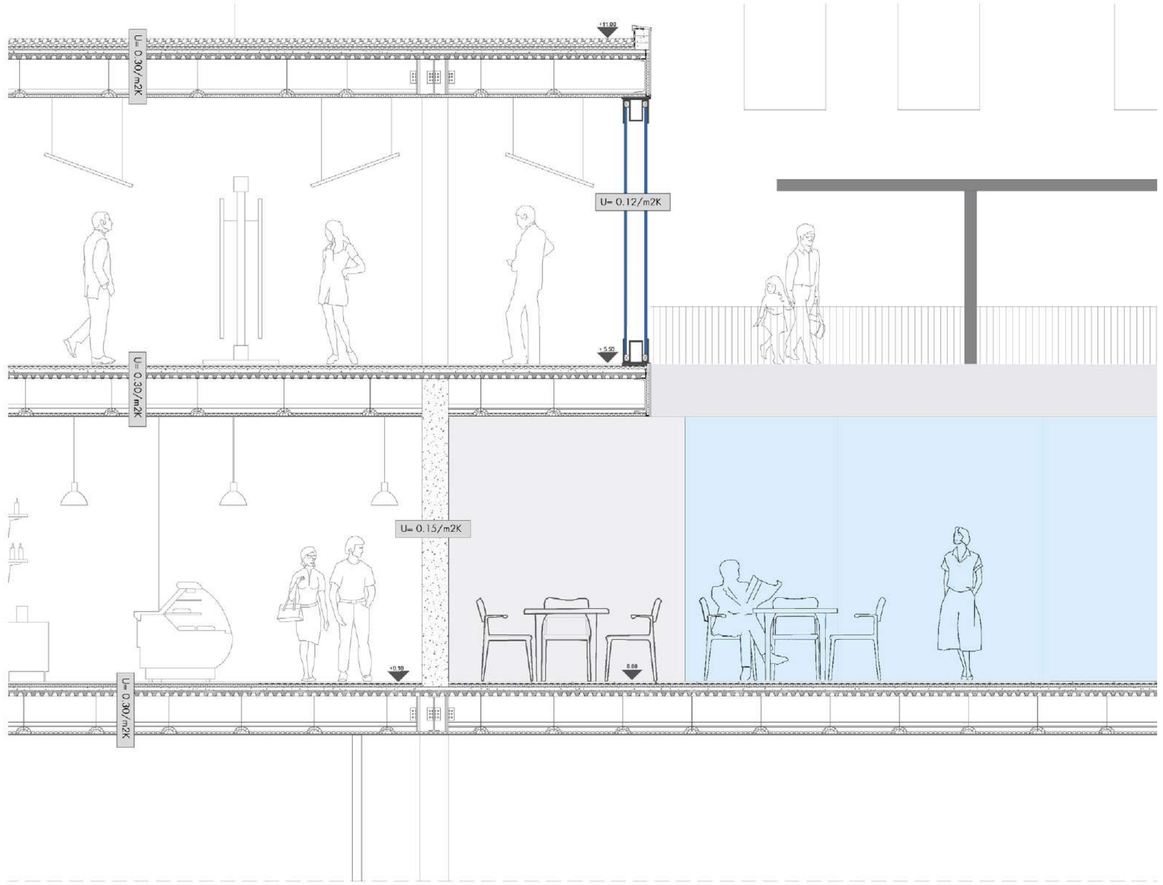


PMV



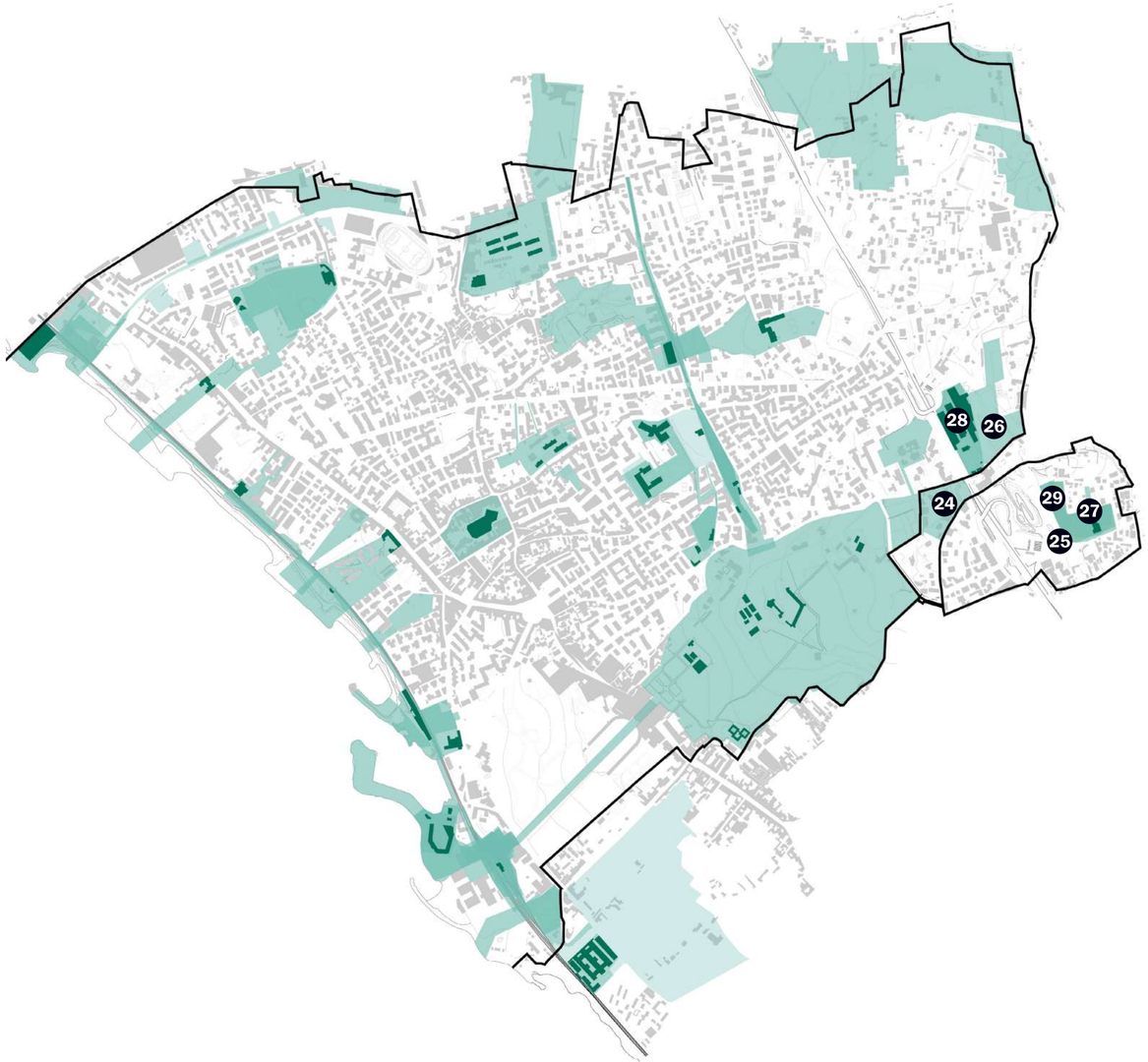
WIND





1- NON-WALKABLE ROOF FLOOR, GRAVEL, BITUMINOUS SHEATH, POLYMER INSULATION, CONCRETE CASTING, SHEET
2- GLASS FACADE WITH U-GLASS SYSTEM
3- INTERMEDIATE FLOOR, STEEL STRUCTURE, CORRUGATED SHEET, ELECTRO-WELDED MESH, CASTING, INSULATION, SHEATH, LINOLEUM TYPE FLOORING
4- CONCRETE FOUNDATION SYSTEM WITH METALLIC BOLTS





NORTHERN INDUSTRIAL AREAS
L'AREA INDUSTRIALE A NORD

24. Green line urban park Pasquale Biancardi
25. Portici birdport Davide Bianco
26. Kerasav reconnection Benzo Ciullo
27. The green bridge Paola Ferraioli
28. Planning a new growth Luca Ruocchio
29. Social regeneration farm Angela Tufano

PORTICI ADVANCED DESIGN STUDIO

PASQUALE BIANCARDI - GREEN LINE URBAN PARK

URBAN RECONNECTION AND REDEVELOPMENT NORTH OF THE UPPER PARK OF THE REGGIA

In Campania, the city of Portici rises on the slopes of the west side of Vesuvius and occupies a small portion of the territory along the coast of the Gulf of Naples. An Italian municipality of 53,801 inhabitants in the metropolitan city of Naples, it is the second largest national municipality in terms of population density with about 12,000 inhabitants / km2. This data is reflected on the urban characteristics of the city which emerges as a dense expanse of concrete with the exception of the park of the Royal Palace of Portici, the only large green lung. Other characterizing aspects are the great imbalance of the urban areas, in fact the built city and the public green area almost never share the same spaces within the urban fabric, and the great fragmentation of the fabric itself, torn apart over the years by three large infrastructures that run through it. parallel to the coast.

Having taken note of what has been described, the will that moves this project is that of wanting to work in the interstitial spaces of the urban fabric of Portici in order to create public places for citizens, with the strength of being places of being and not just places passing through, with a view to reconnection and “Green Actions” in the north of the upper park of the Royal Palace.

Sustainability, the mending of the urban fabric, the creation of cycle-pedestrian paths, integration with public parks, the careful study of environmental and social problems, placing citizens at the center of urban issues, are the actions aimed at restoring Take us to the people who live it.

Program

bike sharing, urban park, cultural and commercial activities, bar, bookshoop, exhibition hall, multipurpose halls

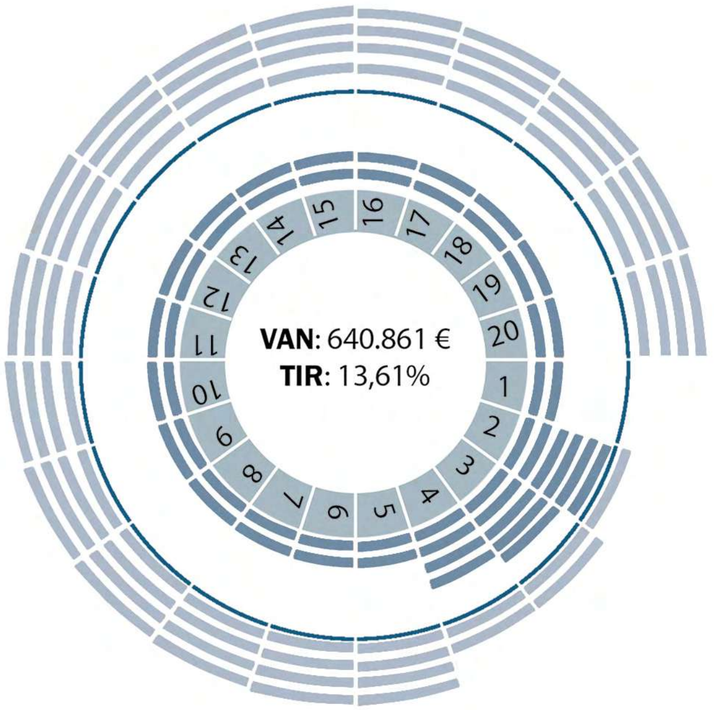
Covered area	**2.328m²**
Uncovered area	**13.459m²**
Levels above ground	**2**
Built volume	**17.460m³**
Estimated cost	**7.297.423€**

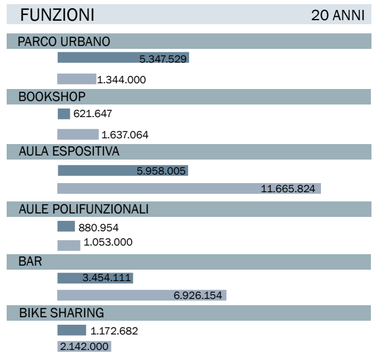


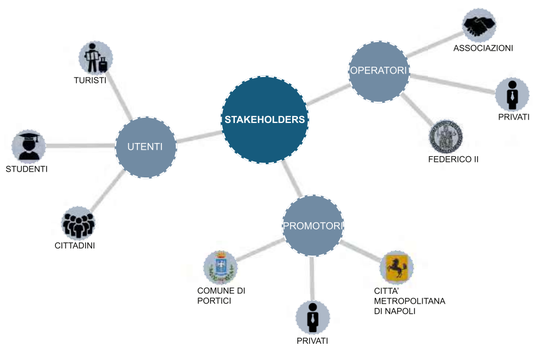
The project is inserted between the motorway underpass north of Portici and the upper park of the Reggia. The area identified to host the project is heavily degraded, abandoned to wild and unmanaged tree species, fragmented, closed and totally detached from the surrounding context.

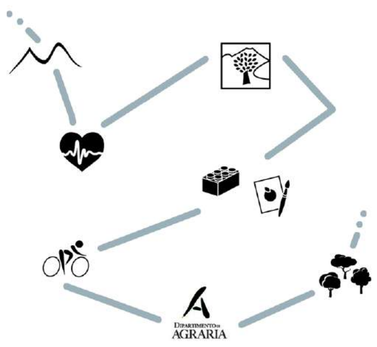


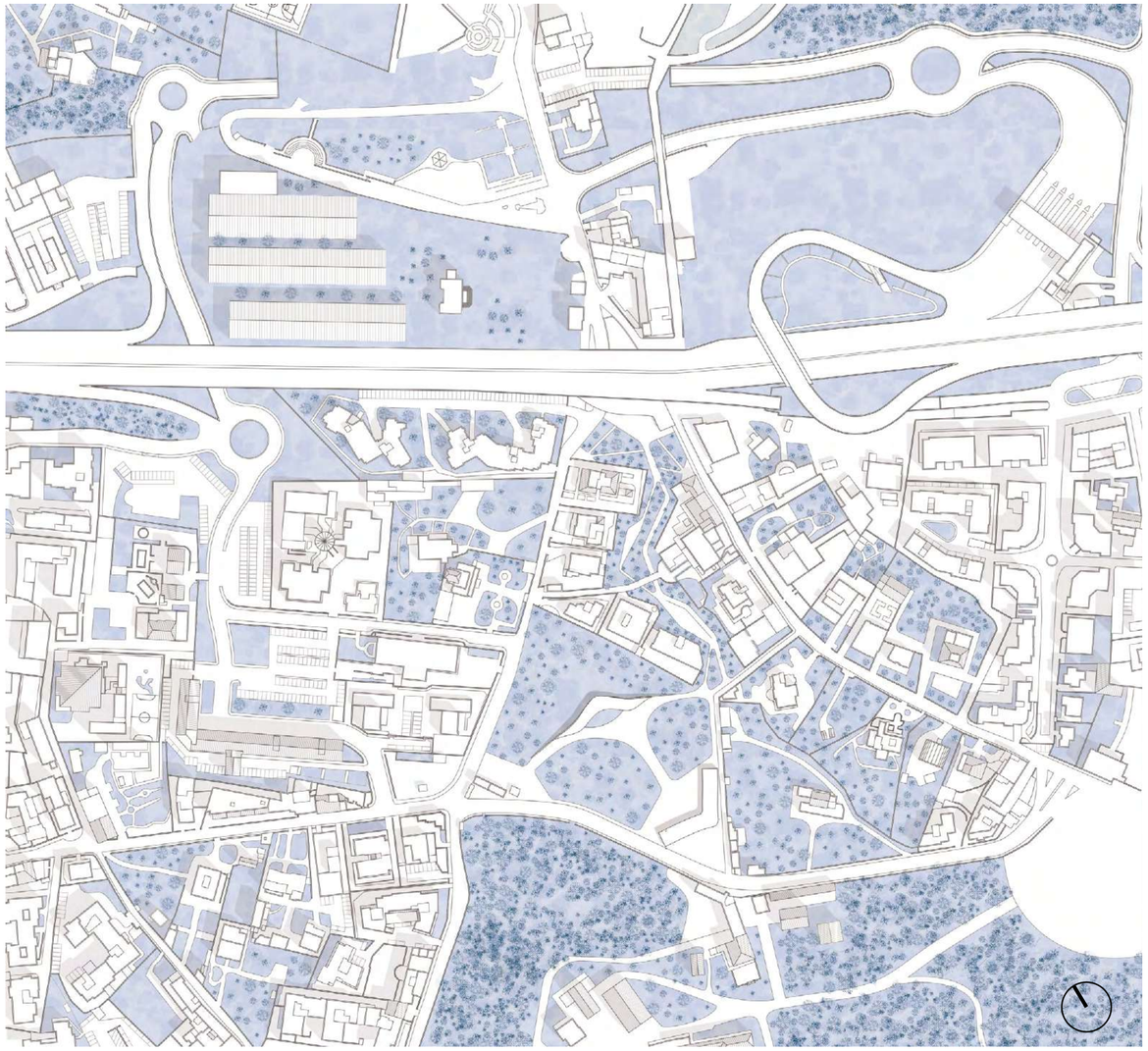
The idea of the project is to transform this area into a large urban park within which there are three structures ready to accommodate a variety of functions. One of the main actions is the reopening of the project area by eliminating all the architectural barriers that isolate it and close it with respect to the surrounding context. The area is fragmented into three different morphological parts, the first is located near the motorway underpass, the first large urban gate to the city of Portici, the second at the upper park of the Reggia and the last one juggles inside the fabric to join the first two. The entire area, from a strategic point of view for the dynamics of the city of Portici, lends itself to the function of an urban park by starting a logic of reconnection and mending between the upper park of the Reggia and the part of the city to the north, beyond the highway. The reconfiguration will focus on the citizens and the natural element that will predominate on the three buildings that will be grafted in consistency with the problem of building density present in Portici.







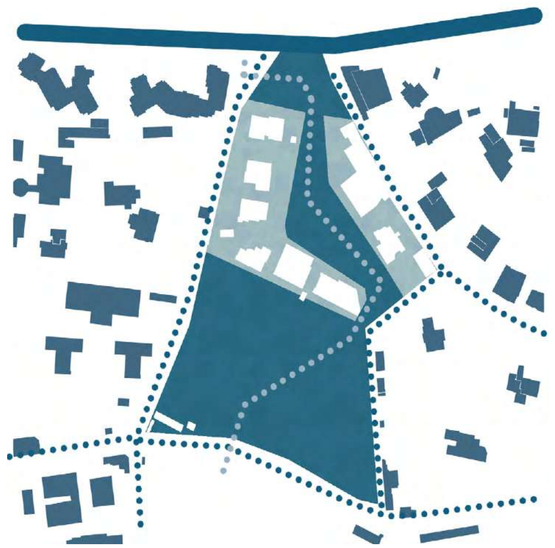


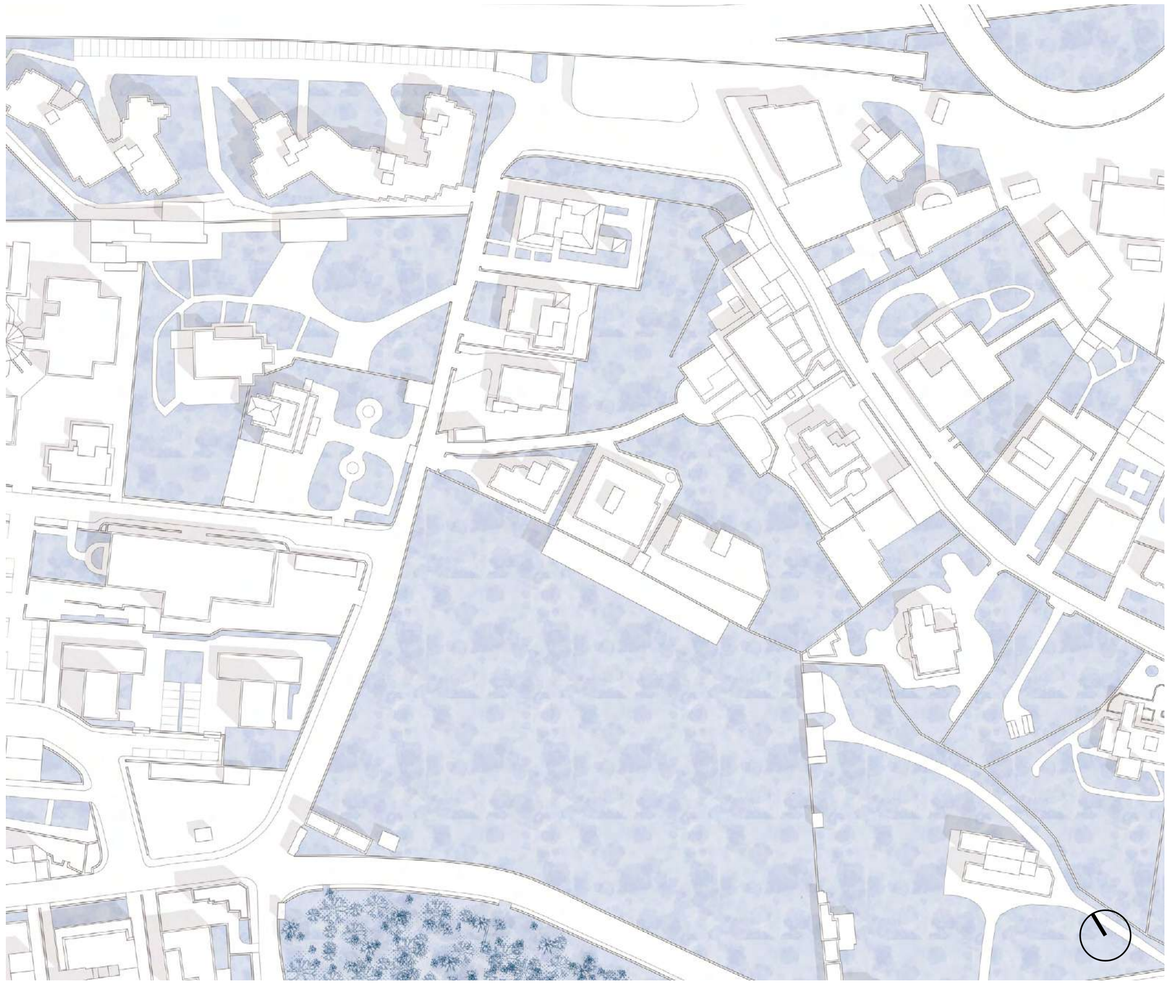


PORTICI PARK THE PROJECT IN THE CONTEXT

0 62.5 125 250m

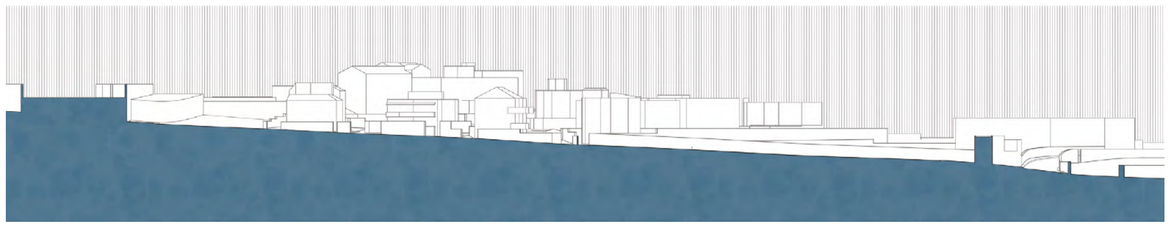


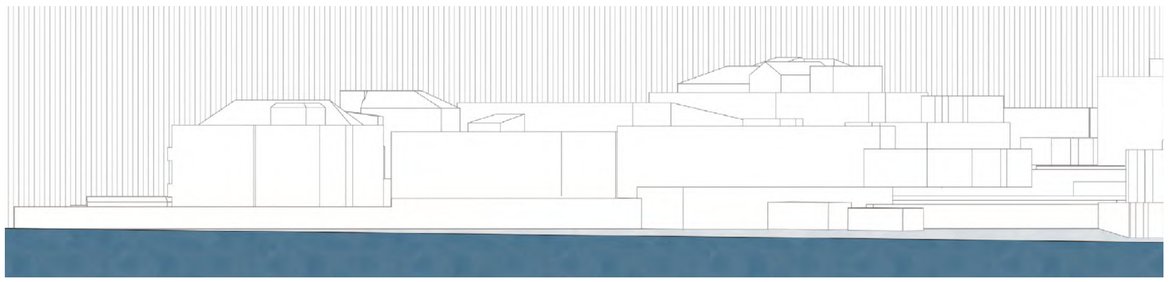




CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 32.5 65 130m





TERRITORIAL SECTIONS



DESIGN PROPOSAL PROJECT ACTIONS

0 32.5 65 130m



PROJECT VIEW - THE PARK

In line with the logic expressed above, it was decided to reduce the covered area to a minimum in order to give space to green areas and open paths, building only 12% of the available surface. The three conceptualized structures alongside, in the logic of natural forms, are arranged, as per the scheme, two near the upper park of the Reggia, and one near the motorway underpass.

The three designed structures blend perfectly with the morphology of the park. The park will develop mainly in the west area where it dominates the buildings while finding a balance with the buildings in the center and east areas. There are cycle paths - pedestrian paths and street furniture to better accommodate the people who walk along it. The tree species included will be those typical of the Vesuvius National Park.

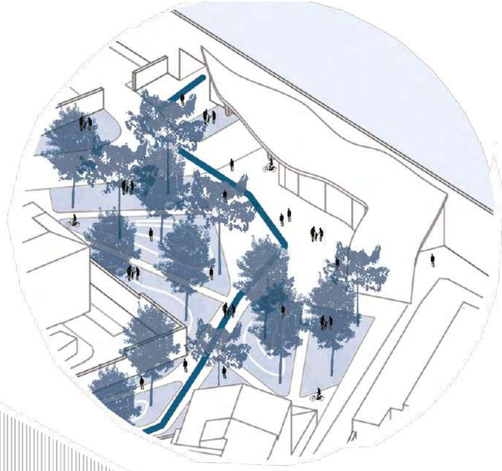
Scheme A depicts the structure that houses the exhibition function. The building is part of an artificial hill in the park, which can be walked on by foot, becoming a terrace on the upper floor, overlooking the square and the structure described in diagram C. An architectural element is grafted in front of it which, with its forms, intends to be prospect but also cover for those who walk above it.

Scheme B depicts the structure near the highway and which houses the function of a refreshment point, info-point and logistic seat for bike sharing. The building is spread over two levels and is characterized by this architectural element which simultaneously identifies covered areas in the square, roofing of the structure and characterizing element of the motorway underpass.

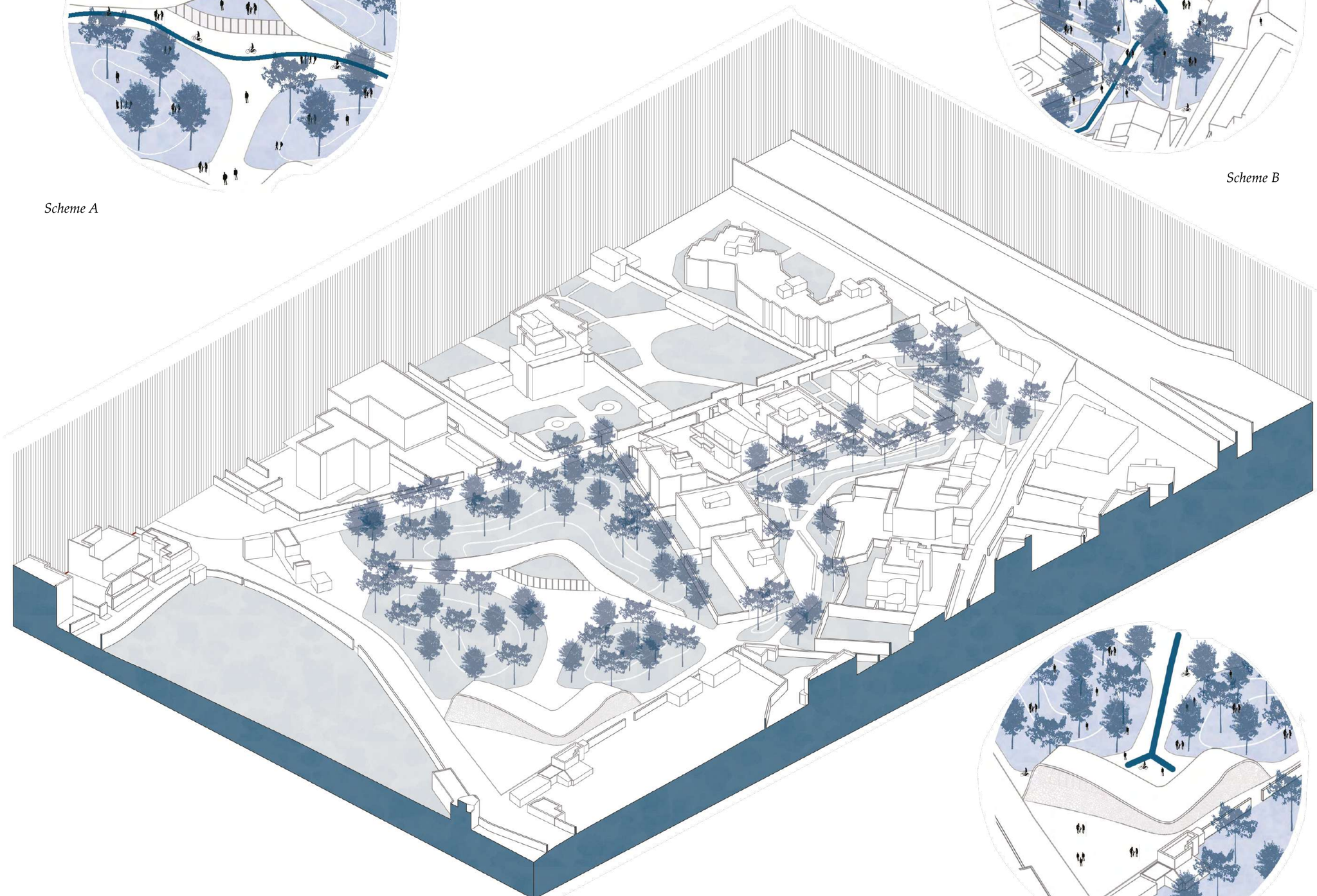
Scheme C depicts the structure which, together with that of Scheme A, shares the location near the Park of the Palace. The building is spread over two levels and houses the functions of a bar, bookshop and multipurpose classrooms. Also in this case the structure is identified by a single architectural element which at the same time wants to be ground, roof and side walls.

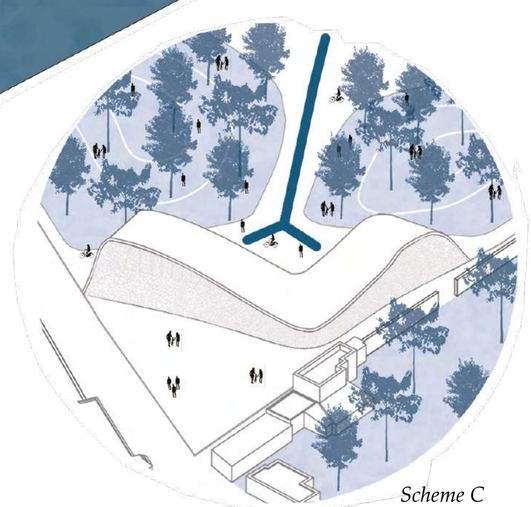


Scheme A

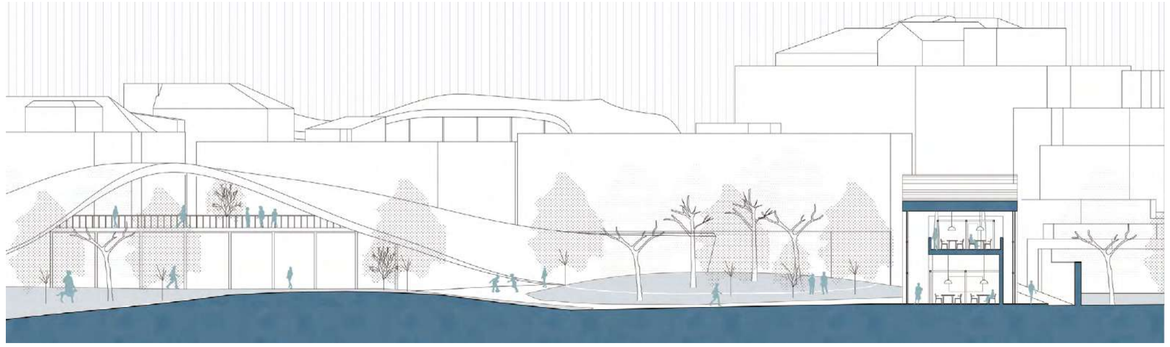


Scheme B



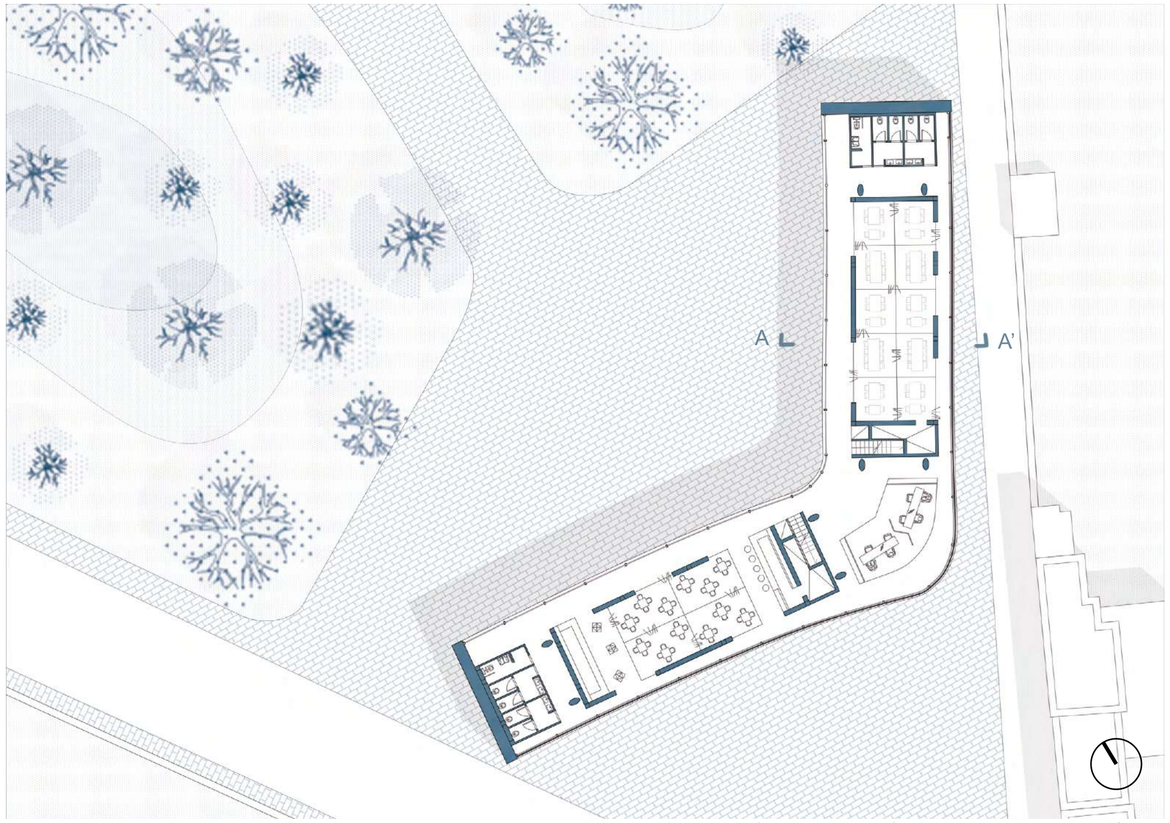


Scheme C



SECTION A-A’

0 10 20 40m

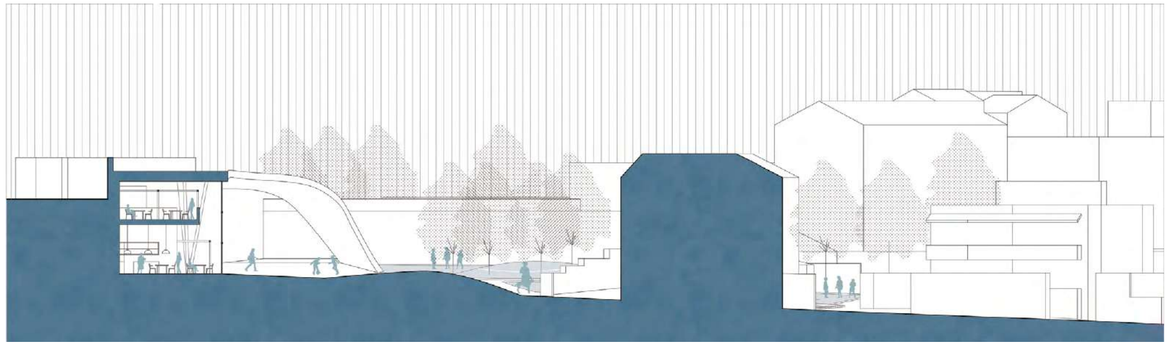


GROUND FLOOR PLAN

0 7.5 15 30m

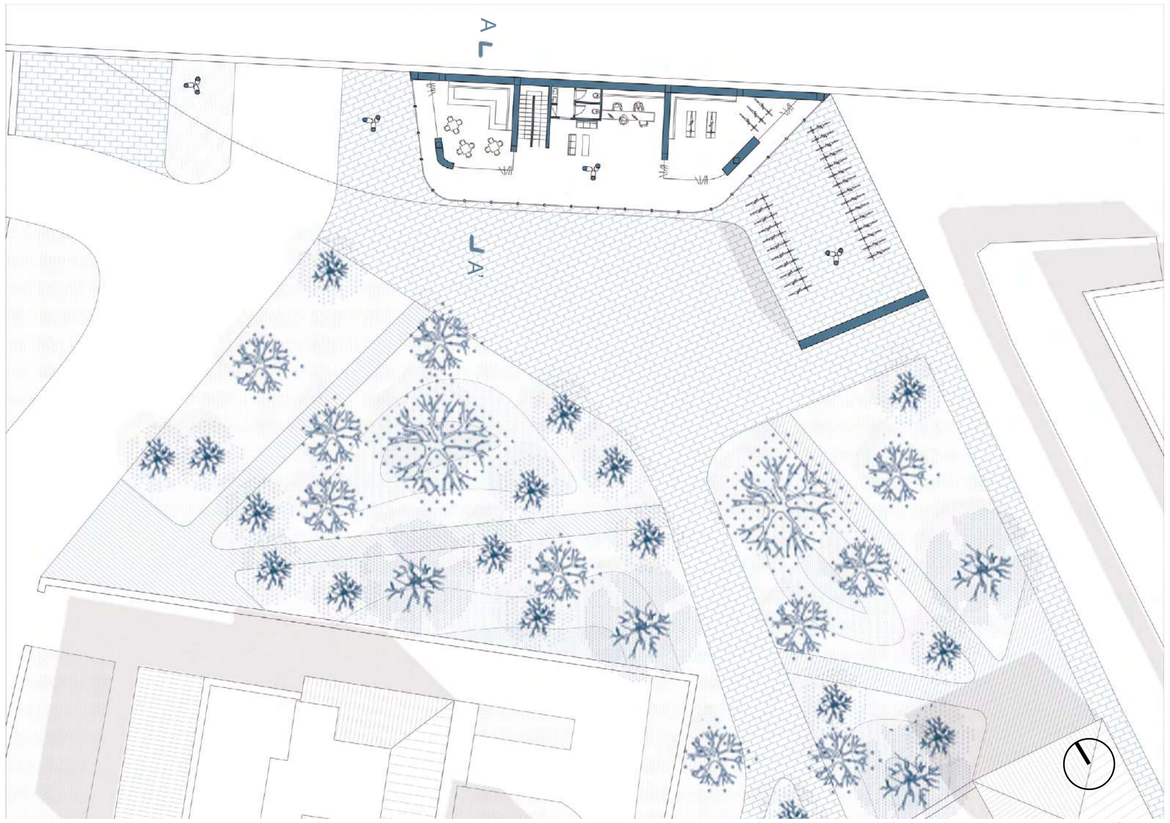


EXTERNAL VIEW



SECTION A-A’

0 10 20 40m

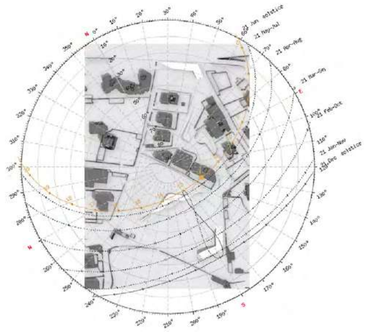


GROUND FLOOR PLAN

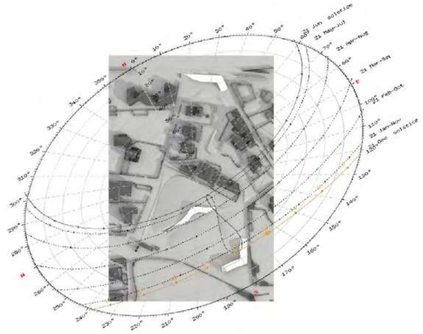
0 7.5 15 30m



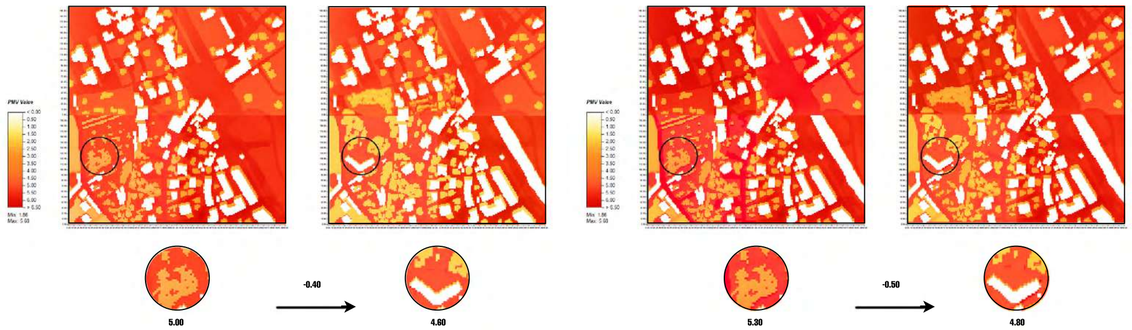
EXTERNAL VIEW



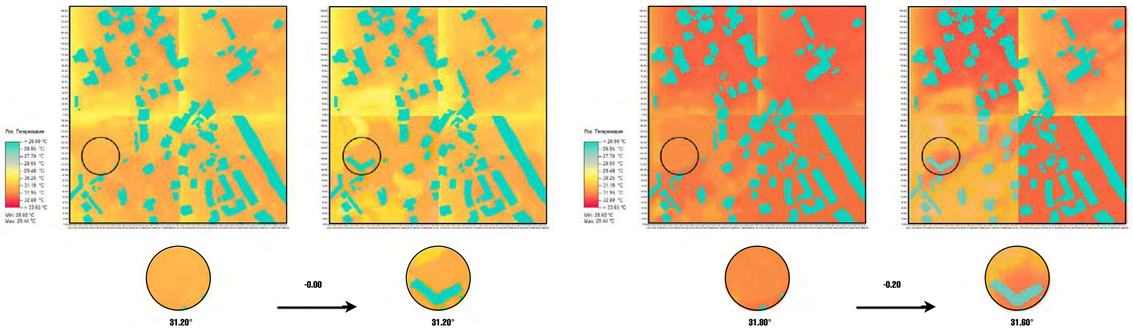
solstizio d'estate | *21 giugno*



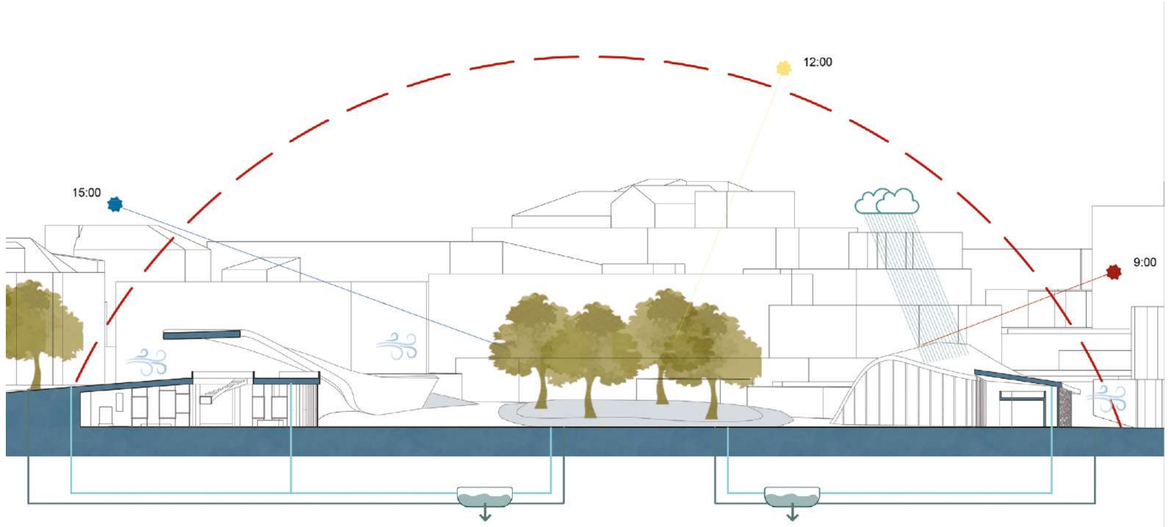
solstizio d'inverno | *21 dicembre*



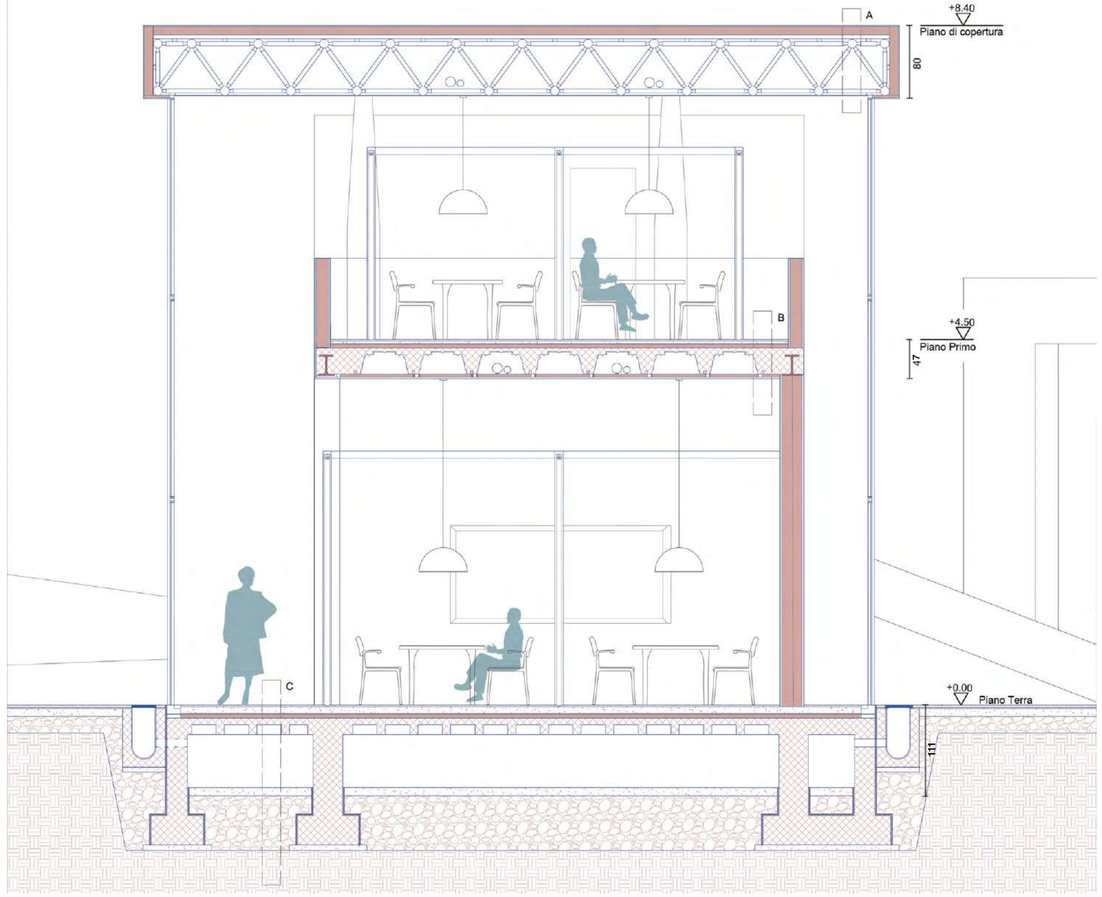
PMV | Indice di sensazione termica



POT | Temperatura dell'aria



ENVIRONMENTAL SECTION



A. Roof stratification:

Internal finish, double layer spatial reticular structure, thermal insulation layer, external finish.

U: 0.212 W/m²K

B. Intermediate floor stratification:

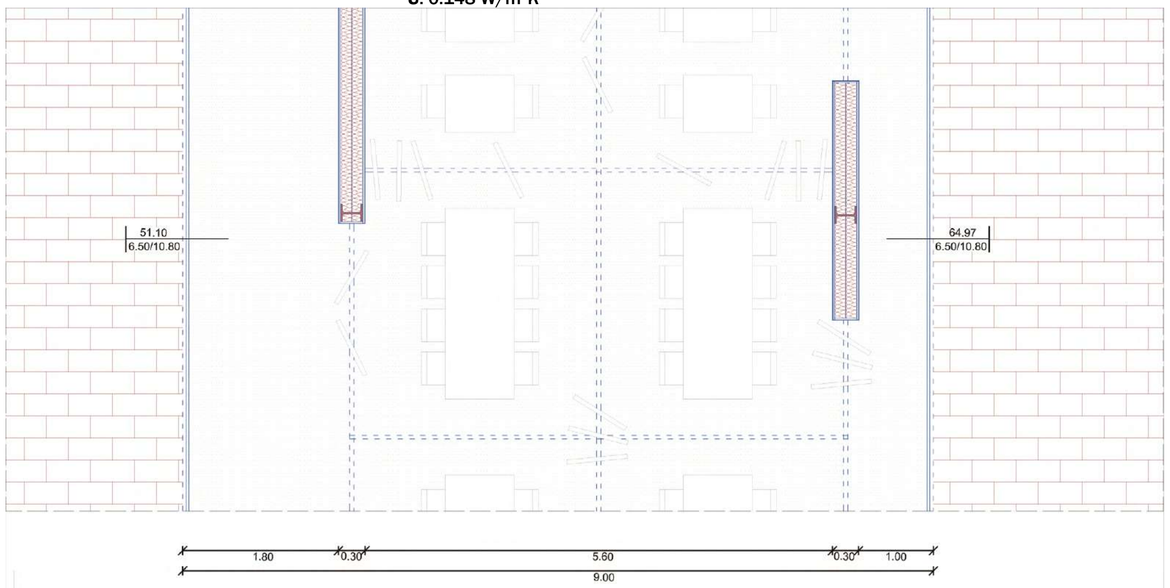
Plasterboard panel, acoustic insulation, corrugated sheet metal, reinforced concrete layer, thermal-acoustic insulation, TNT, screed, layer of mortar for laying floors, flooring.

U: 0.148 W/m²K

C. Foundation stratification:

Ground, pebbles, lean concrete, air chamber, brick-concrete floor, thermal insulation, TNT, screed, layer of mortar for laying the floors, flooring.

U: 0.236 W/m²K



PLAN AND BUILDING SECTION AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

DAVIDE BIANCO - PORTICI BIRDPORT

"REAL" CONNECTION OF URBAN FABRICS

The project fits into an area located on the eastern edge, on the border with Herculaneum, and is very different from the dense and chaotic context of Portici.

The area corresponds to the ancient *Real Fagianeria borbonica,* strongly desired by Carlo Borbone so much so that around 1750 he tore the territory from the property of Resina, now Herculaneum, with the intention of extending his own Palace for the hunting of pheasants and hares. To date, unfortunately, no memory of the past remains except the ancient route of Via delle Madonnelle.

The highway and the subsequent junction separate the area from the rest of Portici, making it impervious to the dynamics and processes that develop in the city. The context is characterized by uncontrolled post-World War II construction but nevertheless still retains many small private greenery.

The result is a space that proliferates with unresolved critical issues that have overlapped over the years. An indefinite space, devoid of a soul, stuck between technical-infrastructural needs and personal selfishness.

As if it were still part of the Resina territory.



Program

urban park, ornithological museum, research lab, transprotation hub, underground parking

Covered area	3.344m²
Uncovered area	23.682m²
Levels above ground	2
Built volume	8.211m³
Estimated cost	€6.085.260,30

At the territorial scale, the project is not limited to bypassing the highway barrier but has the goal, through an axis passing through the Reggia, to connect the Portici maritime city with the (almost) Vesuvian one, continuing with a climb up to Vesuvius.

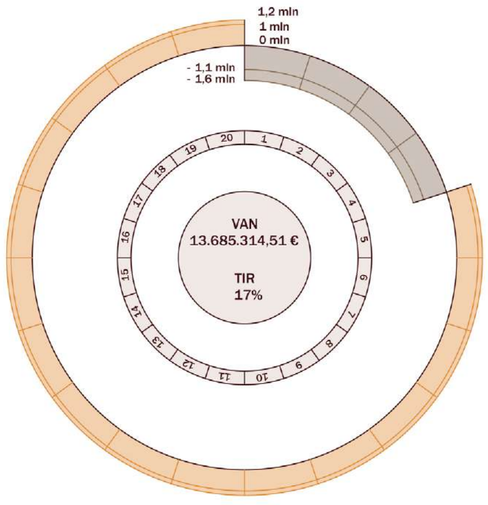


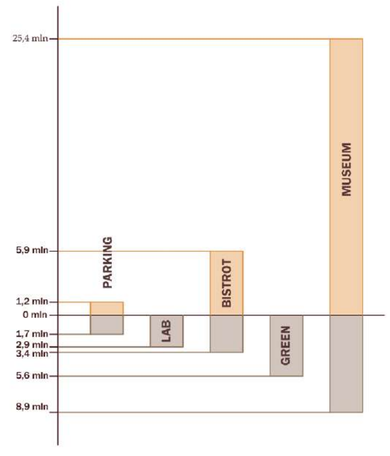
On the urban scale, the priority is to restore dignity to the ex *Real Fagianeria* by connecting it again to the city but above all to the Park of the *Reggia*, a fundamental element for the reconstruction of the urban fabric.

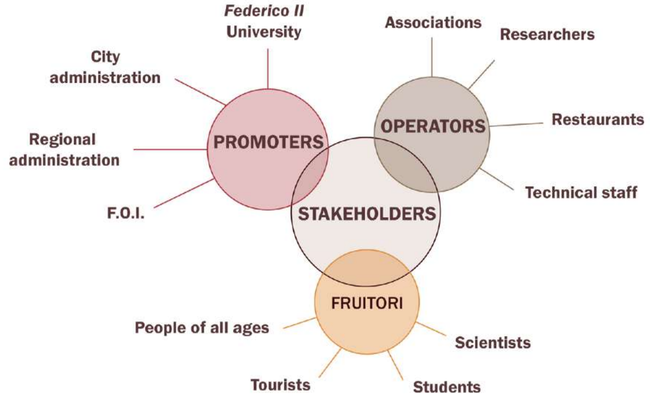
The suggestion is to bring the Park outside the Park, so that it acts as a catalyst for an urban regeneration process that aims to resolve the fragmented nature of the city.

Just starting from *Reggia*'s upper park an equipped green totally pedestrian (exception for a short stretch along Via della Salute) new route is grafted, crossing the Antoniano Institute and skirts the area of the highway junction and then reaches the new urban park located in the project area.

This urban park is a real hub for the city, a multifunctional center of provincial importance with the presence of attractions such as an ornithological museum with a research lab, a bistrot, an underground car park and a hub for public transport.







The data shown in these diagrams, resulting from the financial analysis conducted on the entire project, show a forecast of the costs and revenues of the individual functions, the estimated values of VAN and TIR and a cash flow based on a period of 20 years. Finally, there is an analysis on the stakeholders.

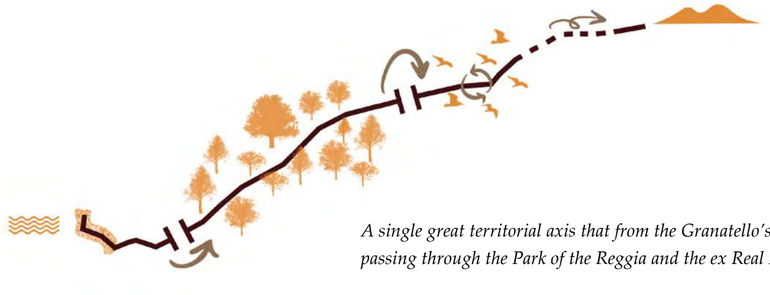


PORTICI PARK THE PROJECT IN ITS CONTEXT

0 40 100 200m

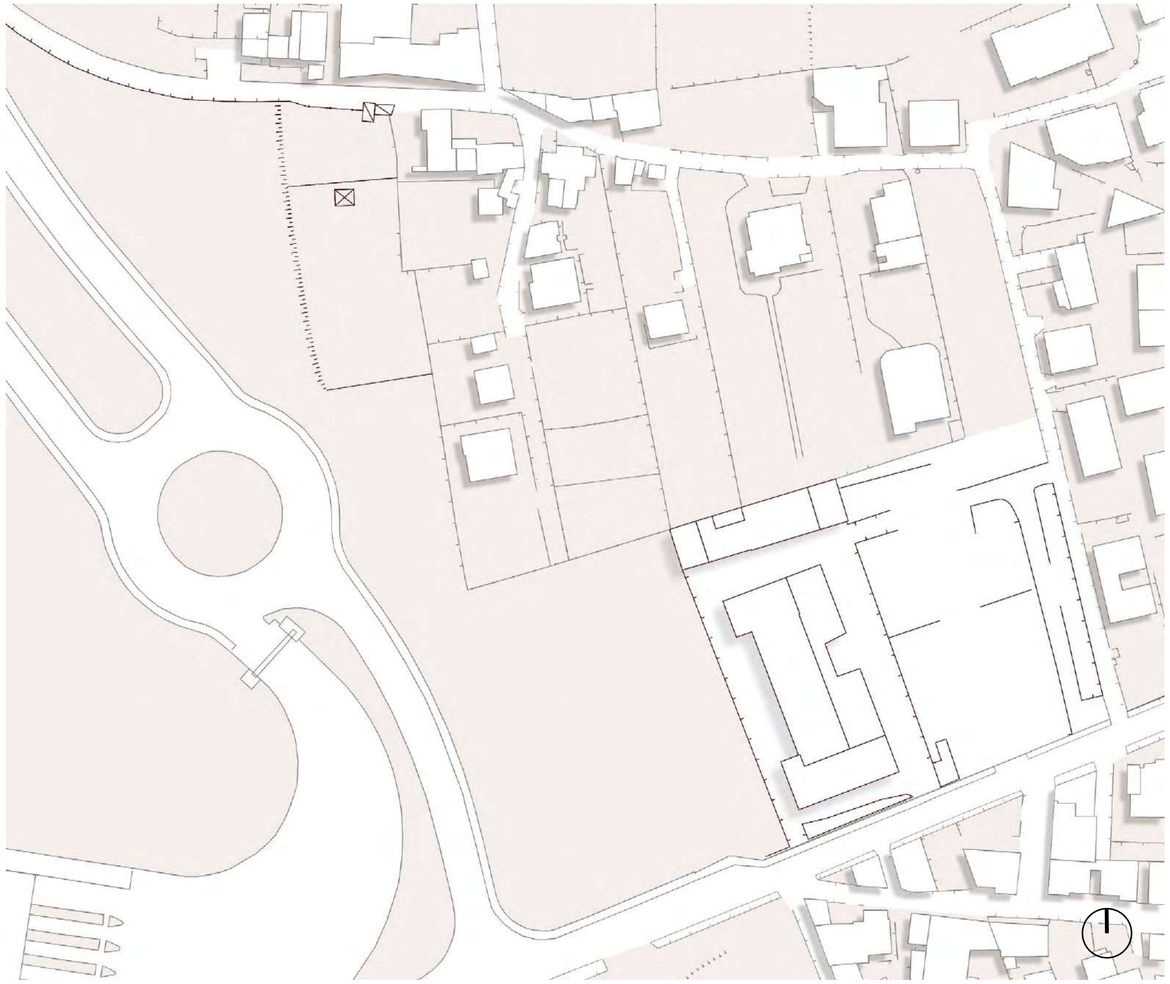


ORNITHOLOGICAL MIGRATORY FLOWS



TERRITORIAL STRATEGY

A single great territorial axis that from the Granatello's area leads to Vesuvius, passing through the Park of the Reggia and the ex Real Fagianeria borbonica

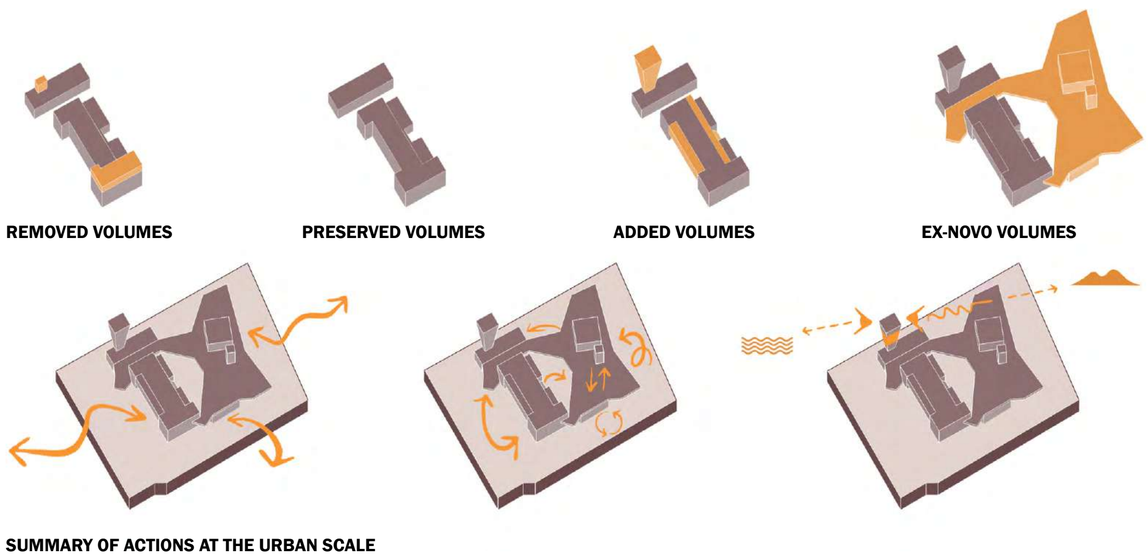


CURRENT STATE MORPHOLOGICAL AND URBAN ANALYSIS





DESIGN PROPOSAL DESIGN ACTIONS



The design focus concerns the construction of the multipurpose center through the partial recovery of the former Alisud building and ex-novo interventions.

Despite being in very degraded conditions, it was decided to redevelop the building of the former *Alisud*, preserving its structure: as regards the largest block, only the third level was demolished, partly covered with metal sheets, and the rest was transformed into an ornithological museum adding some volume but preserving the central double height environment. The second block, on the other hand, is left almost the same and is used as an ornithological research laboratory.

The pre-existing building is flanked by the other functions of the multipurpose center, so the birdwatching tower above the laboratory, the bistro developed on two levels with the services on the lower floor and a hub for public transport are built. The element that acts as a trait d'union of the whole project is a raised platform, which can be walked on, which creates a multiplicity of spaces and connects all the others, thanks also to a block for vertical connections;

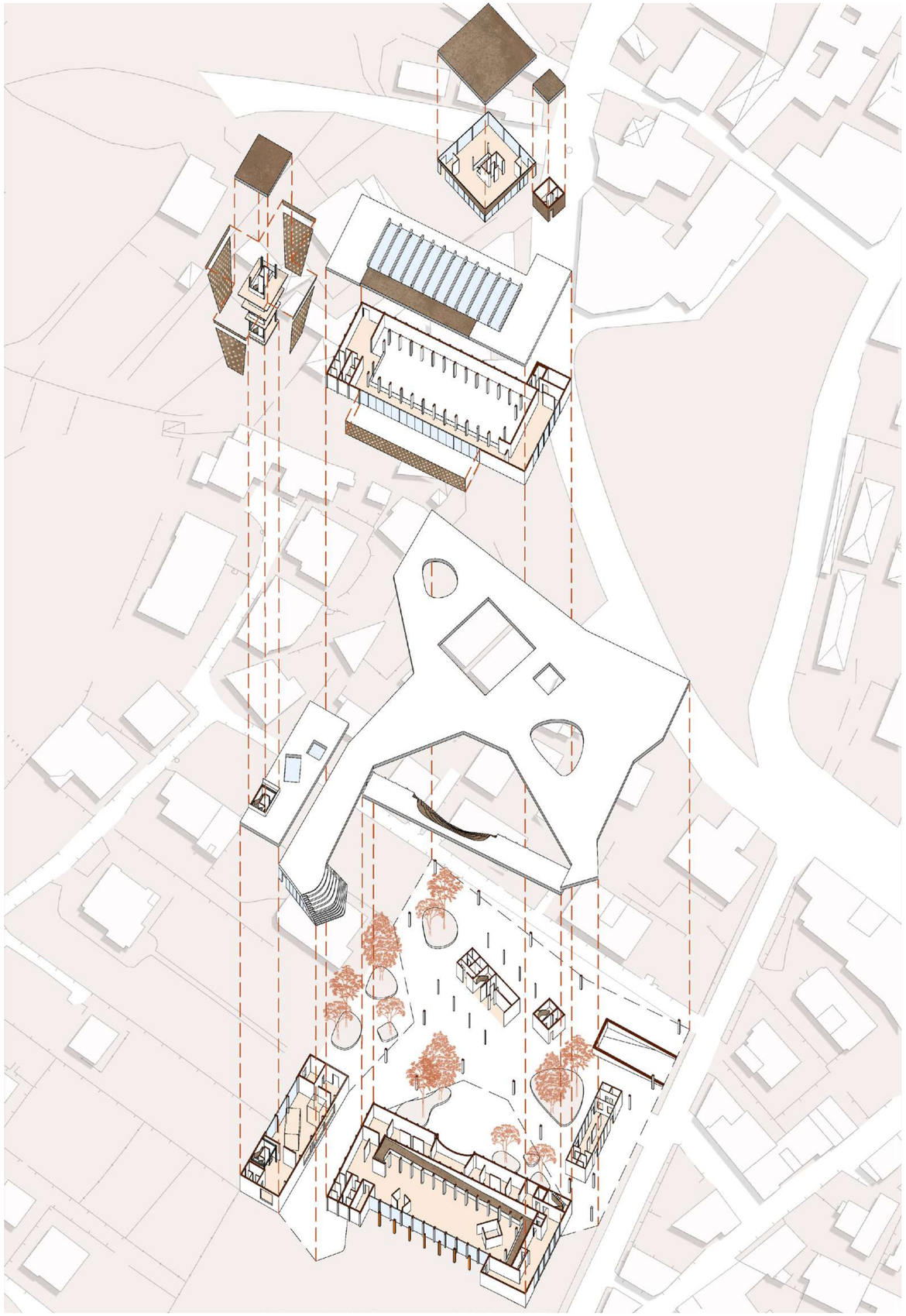
The vegetation plays an important role within the project: is integrated into the built system and intersects with the raised platform. Thus a contrast arises between the angular forms of the buildings and of the platform with the curved and morble forms of the vegetation, even on the ground.

Below, the isometric exploded view in schematic form, allows you to view a detailed organization chart of all the functions within the multipurpose center and to better see the relationship between all the built elements;

The second axonometric exploded view is much more detailed and reveals the internal spatial articulation of each environment, thus allows you also to recognize some elements that act as a leitmotif, such as the use of corten steel.

In the following pages the project will be more in-depth and detailed.



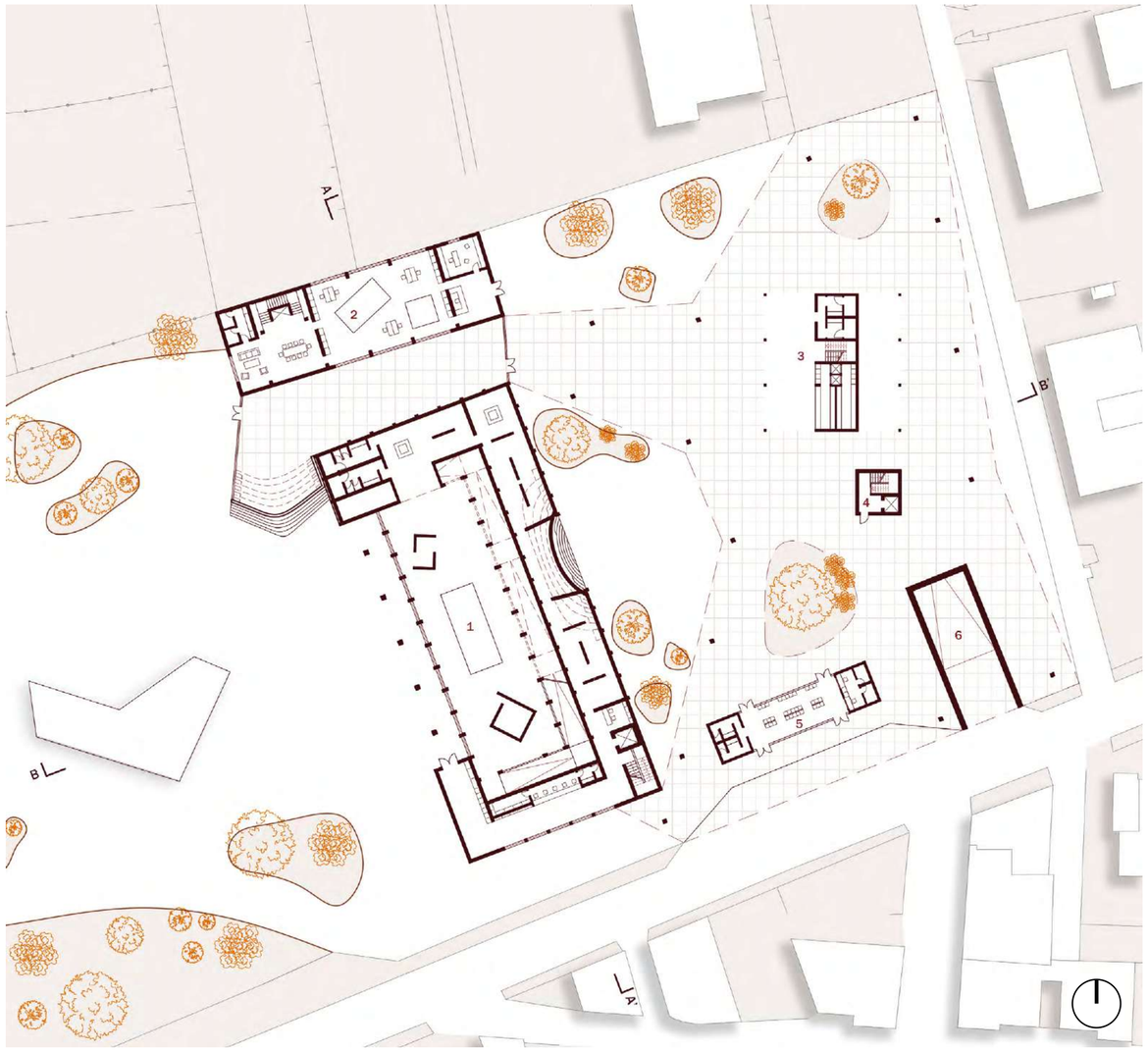




AA' SECTION

0 10 25 50m

1. Ornithological museum
2. Research lab
3. Bistrot
4. Connections block
5. Transportation hub
6. Underground parking



GROUND FLOOR PLAN + 0,0m

0 10 25 50m



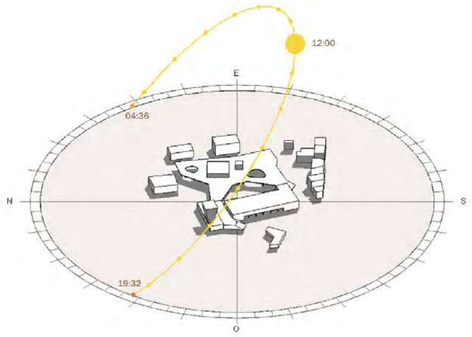
SUD-OVEST FRONT

0 10 25 50m

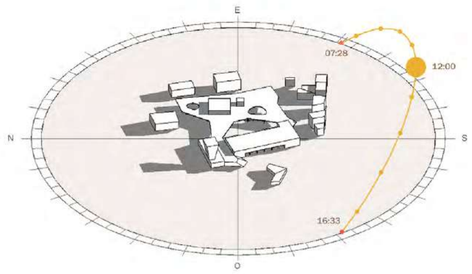




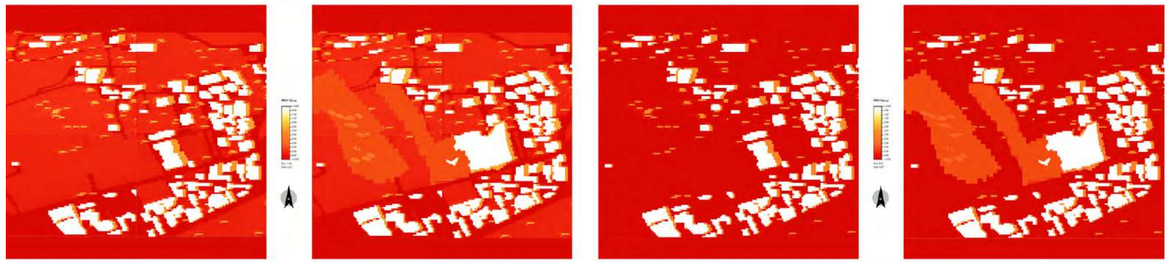
NORTH-WEST EXTERIOR: NORTH-EAST EXTERIOR



summer solstice | *June, 21*

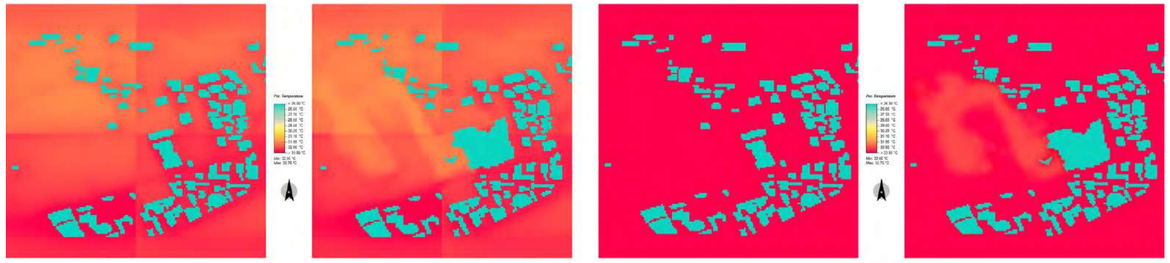


winter solstice | *December, 21*



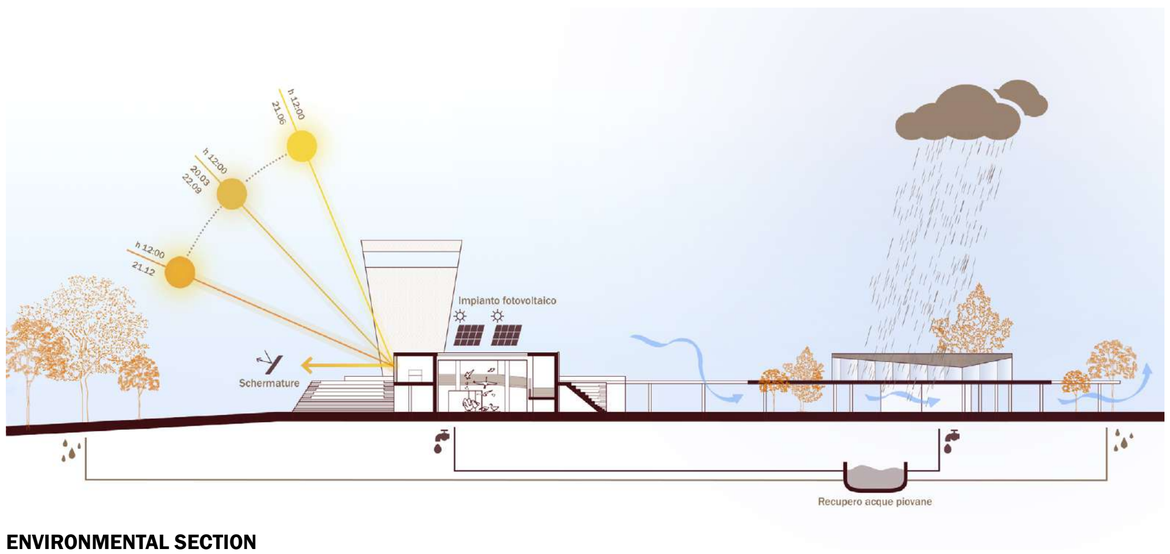
ref. value 5.60 | *ref. value 3.80* | *ref. value6.50* | *ref. value 4.8*

2020 | *PMV | Thermal sensation index* | *2050*

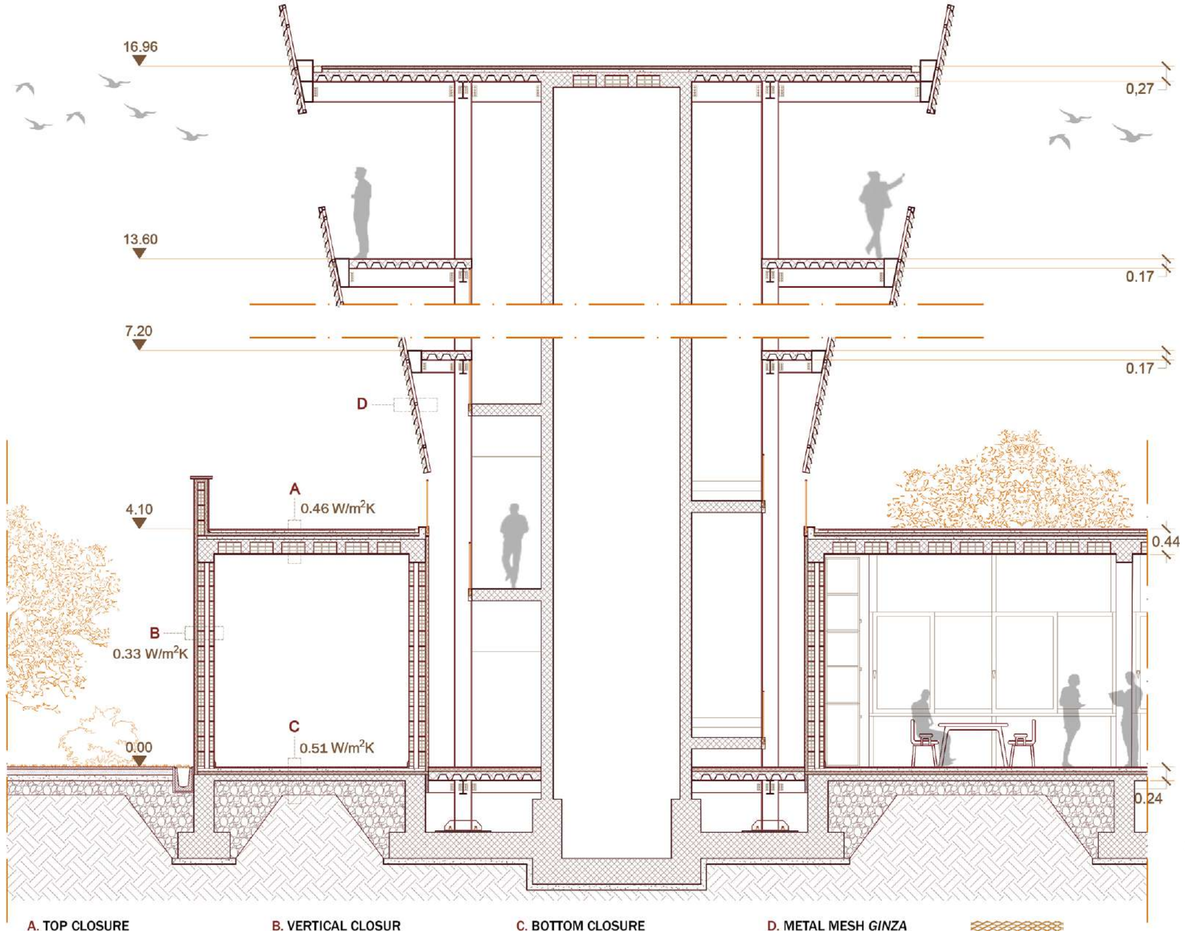


ref. value 32.30° | *ref. value 31.20* | *ref. value 32.6* *valore rif. 5.60* | *ref. value 31.9°* *valore rif. 5.60*

2020 | *POT| Air temperature* | *2050*



ENVIRONMENTAL SECTION

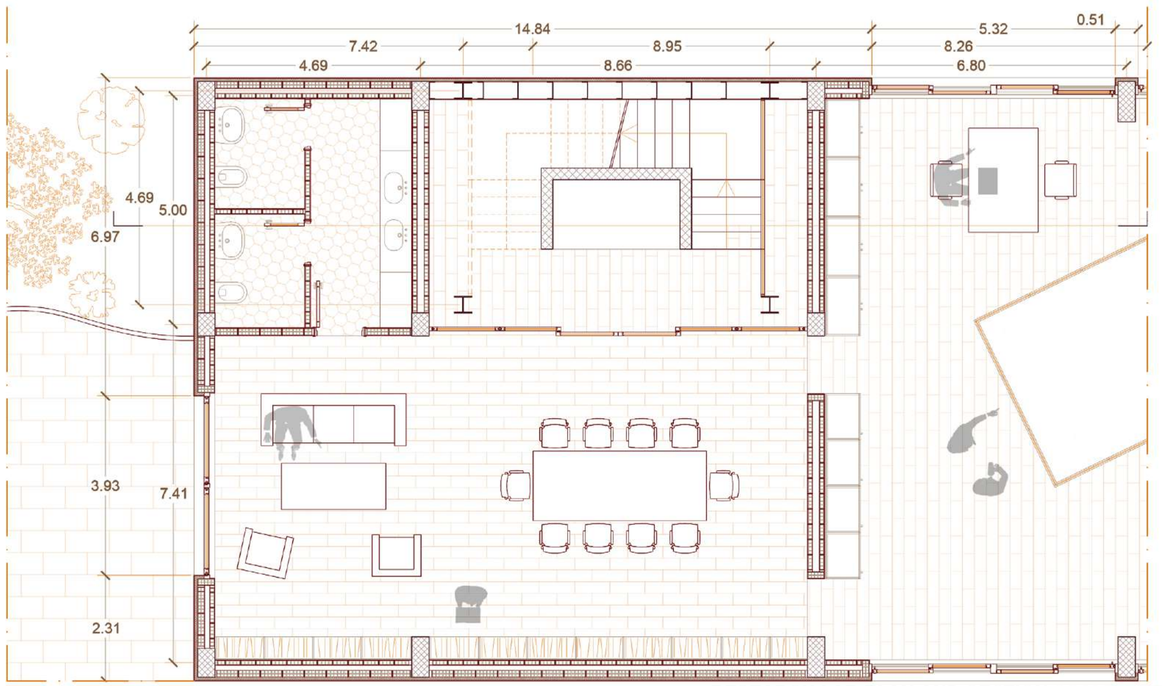


A. TOP CLOSURE
Thickness: 0.410m
Transmittance U: 0.46 W/m²K

B. VERTICAL CLOSUR
Thickness: 0.355m
Transmittance U: 0.33 W/m²K

C. BOTTOM CLOSURE
Thickness: 0.490m
Transmittance U: 0.51 W/m²K

D. METAL MESH *GINZA*
Manifacturer: F.lli Mariani
Material: corten steel
Thickness: 1mm; tot: 2.5mm



RESEARCH LAB PLAN AND SECTION SCALE 1:75

PORTICI ADVANCED DESIGN STUDIO

BENZO CIULLO - KERASAV RECONNECT

A STRATEGY AGAINST URBAN SPRAWL
KERASAV-UNA NUOVA CENTRALITÀ URBANA

«Pur nella diversità delle opinioni e delle sensibilità, ciò che appare ormai indiscutibile è che il nuovo fenomeno urbano, a partire dalle periferie delle grandi città, è sfuggito di mano e procede secondo inutili criteri di autoriproduzione. Sembra che nulla possa essere cambiato e nulla possa essere guidato o programmato. Il lavoro di ricerca si inserisce proprio in questo punto, cercando di costruire un quadro omogeneo di riferimenti operativi entro cui collocare il progetto di architettura nella città contemporanea».

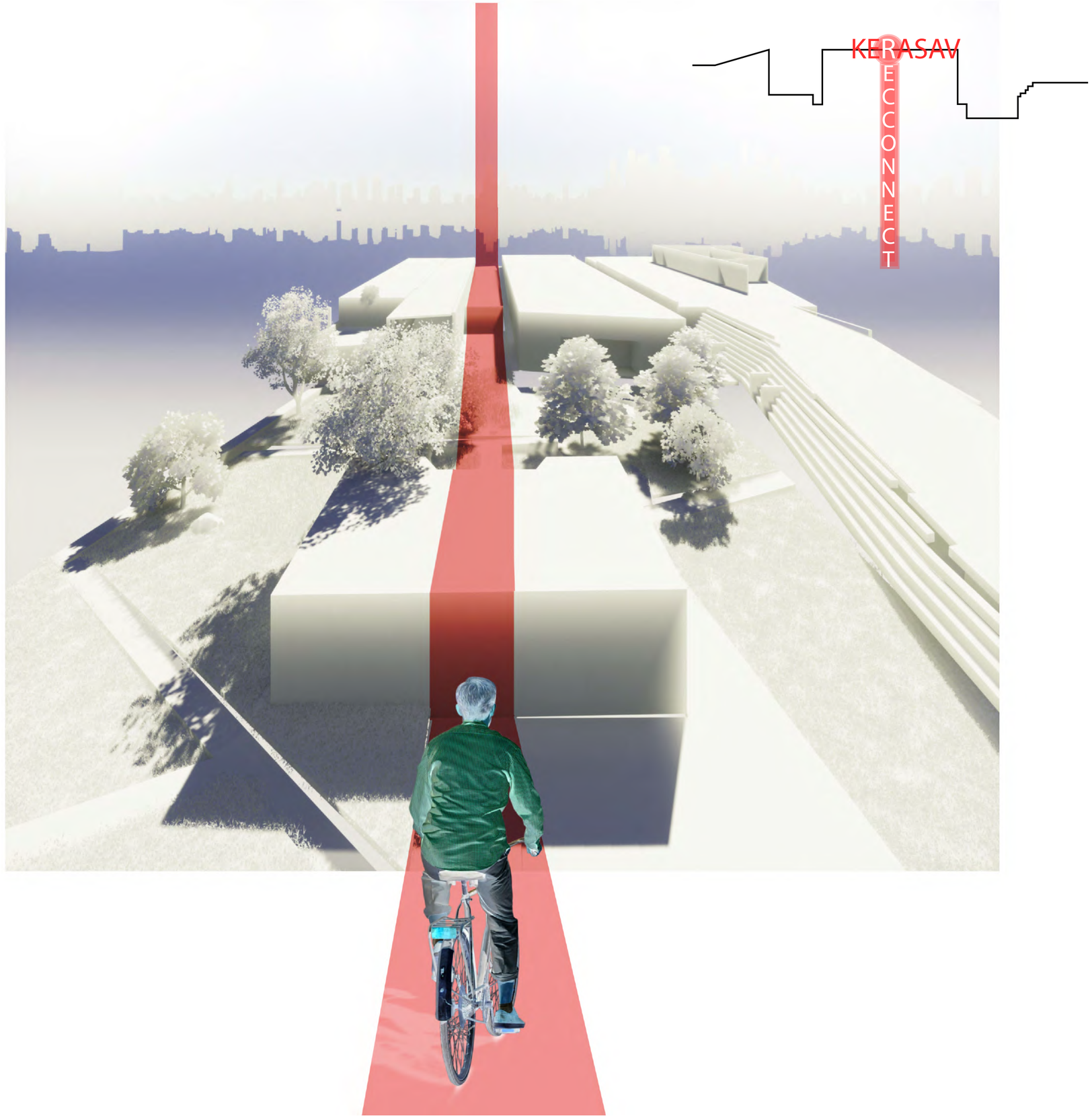
Giacomo De Amicis

«Viaggiando ci s'accorge che le differenze si perdono: ogni città va somigliando a tutte le città, i luoghi si scambiano forma ordine distanze, un pulviscolo informe invade i continenti.»

Italo Calvino

«Le città sono qualcosa di più della somma delle loro infrastrutture. Esse trascendono i mattoni e la malta, il cemento e l'acciaio. Sono i vasi in cui viene riversata la conoscenza umana».

Rick Yancey



Program

sport fafcilities, urban park, commercial center

Covered area	7922m²
Uncovered area	9499m²
Levels above ground	5
Built volume	39610m³
Estimated cost	€ 43.061.408,18

«**Una città non è disegnata, semplicemente si fa da sola. Basta ascoltarla, perchè la città è il riflesso di tante storie**» . **Renzo Piano**



The subject of this study is the redevelopment and design of the area hosting the former Kerasav plant. Kerasav was planted in 1952, in the upper area of the city of Portici, occupying an area on the border with Herculaneum of approximately 4800 square meters. The General Urban Program drawn up in 2018 provides for the construction of a new intermodal hub for this area in order to establish new road connections for the city. The project proposal starts from these considerations and extends the concept to a new urban centrality capable of making known an area currently unknown to most of the community of the city.

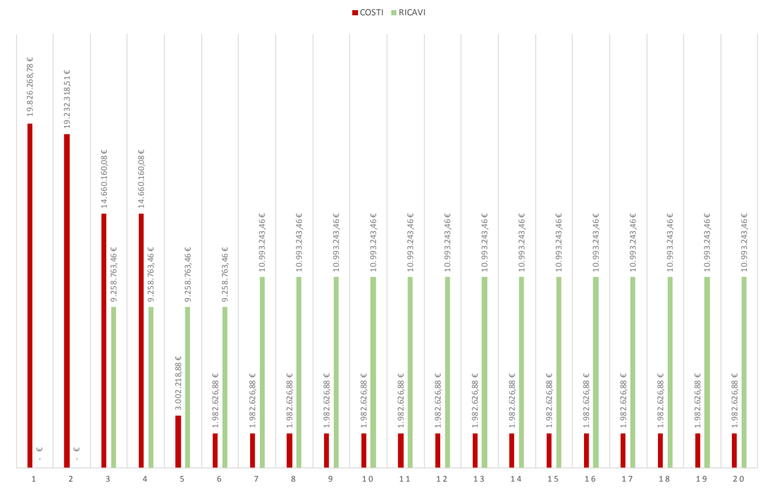




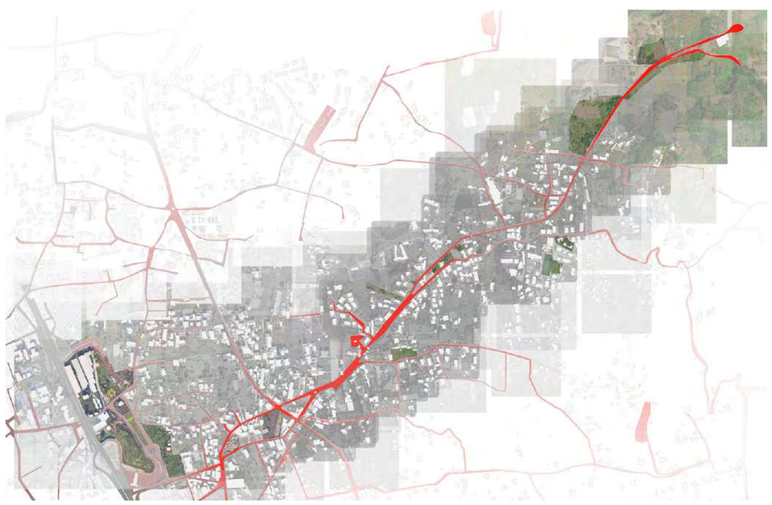


PORTICI PARK THE PROJECT IN ITS CONTEXT

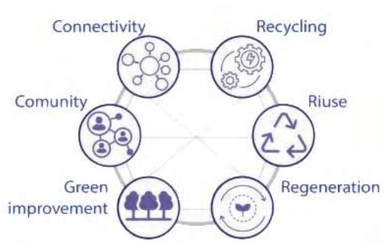
0 60 150 300m

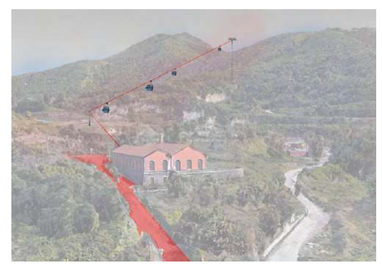




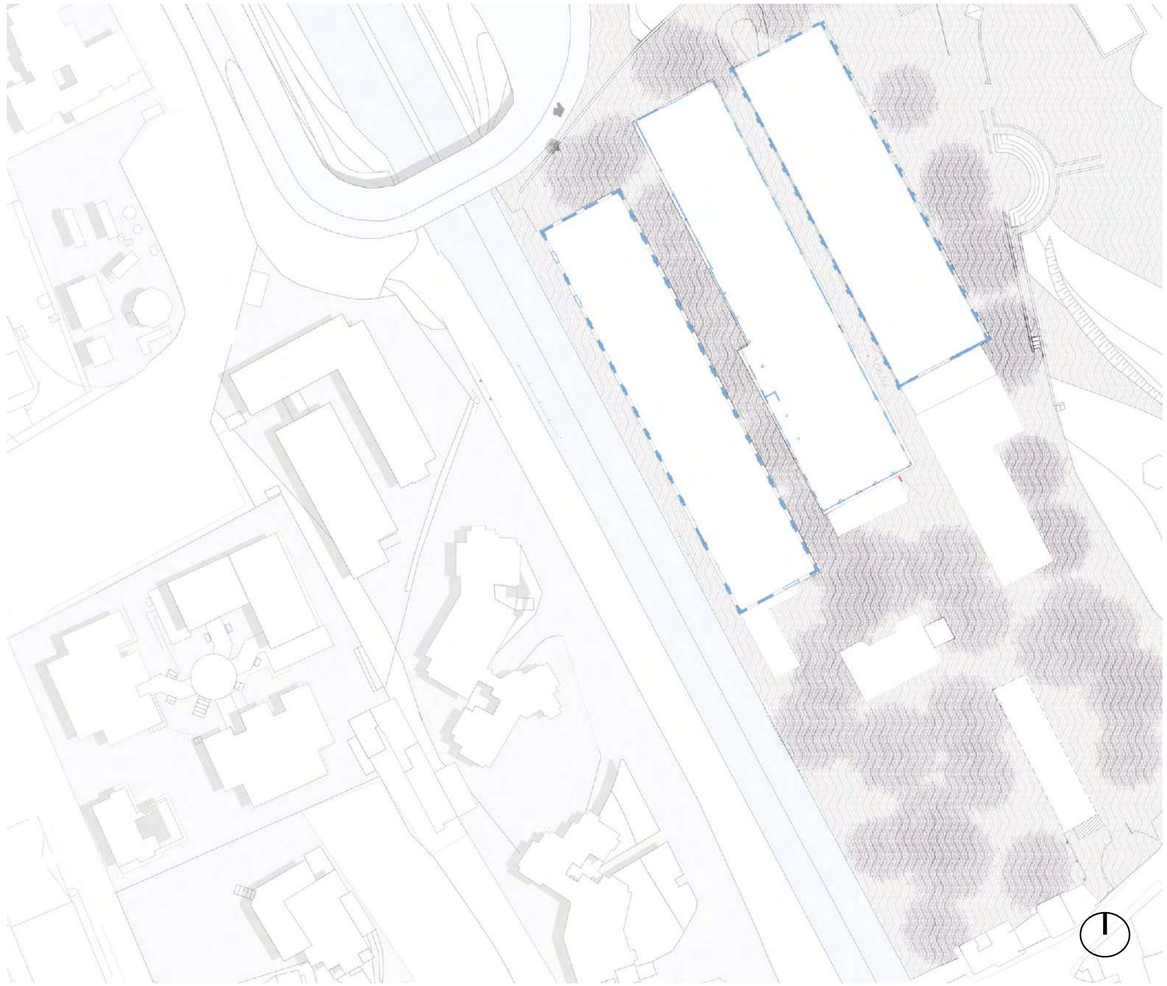


GREEN NETWORK



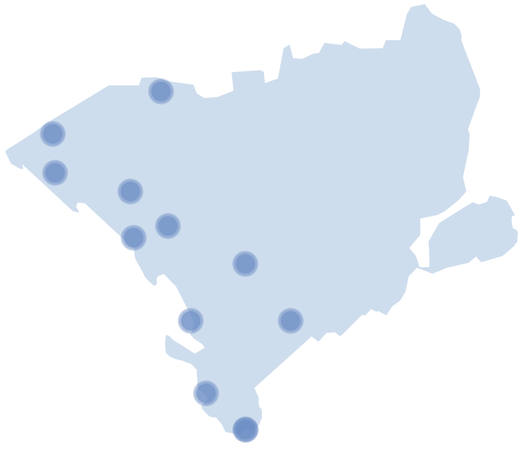


PORTICI-VESUVIO LINK

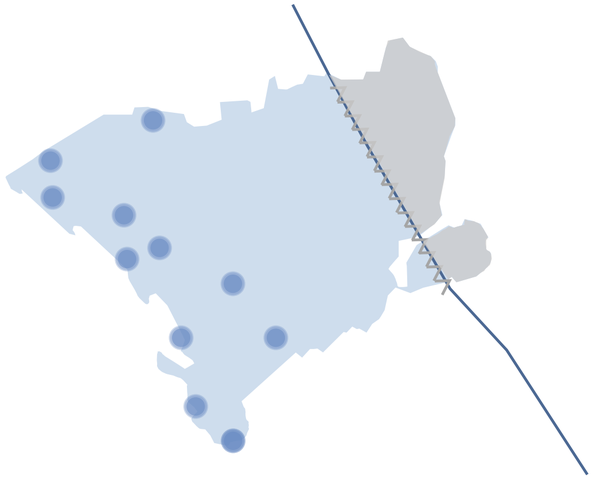


CURRENT STATE MORPHOLOGICAL AND URBAN ANALYSIS

0 20 50 100m



POLARITY SYSTEM

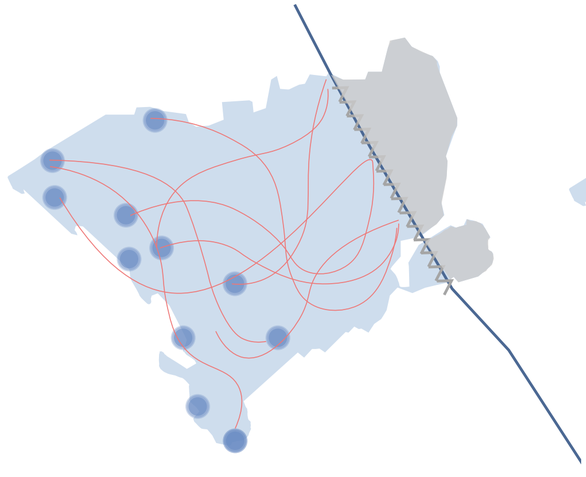


PARTIALISATION PROCESS

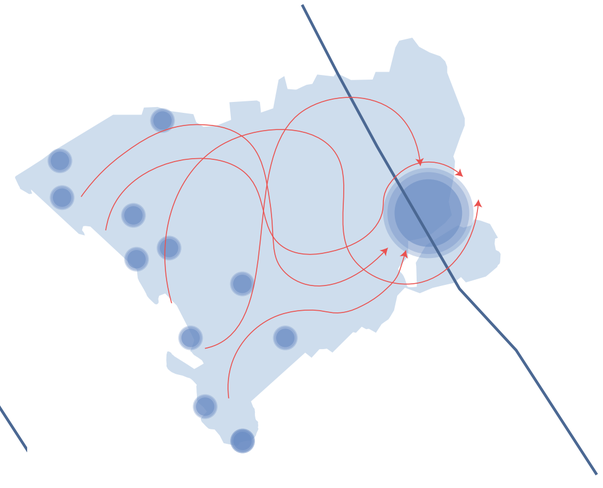


DESIGN PROPOSAL

0 20 50 100m



FLOW SYSTEM



STRATEGY PROJECT- NEW URBAN CENTRALITY

From the morphological reading of the area it was necessary to design a connection capable of uniting the area, now abandoned to itself, to the city and at the same time internal passages capable of mitigating the steep slopes that characterize the area.

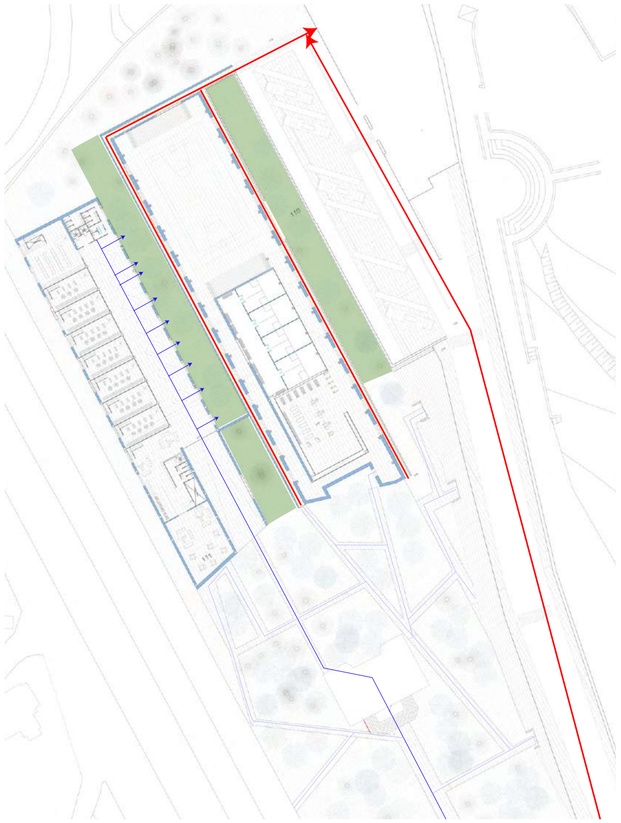
Therefore, we started by identifying an internal connecting element that would relate the various buildings to each other and to the city itself. An element consisting of a ramp that runs along the entire central building relating to the area hosting the intermodal node, connected by a new architecture that brings this space to the park.

In the second design phase, the object of study was that residual space between the warehouses, which through ground movements and purely architectural actions, becomes living elements of the park, such as terraces and paths characterized by slight slopes.

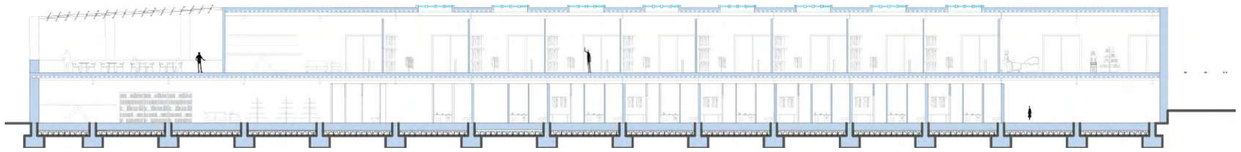
The last theme is that of improving the internal practicability of the lot with the identification of paths that mitigate the internal slopes by generating regular-shaped green elements.



Phase 1-external connections

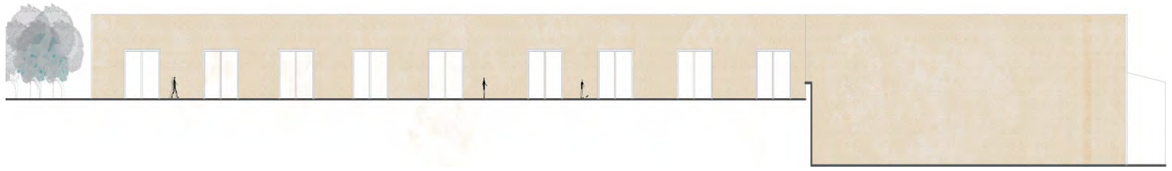


Phase 2-Internal connections



SECTION B-B'

0 10 25 50m



FRONT D-D'

0 10 25 50m

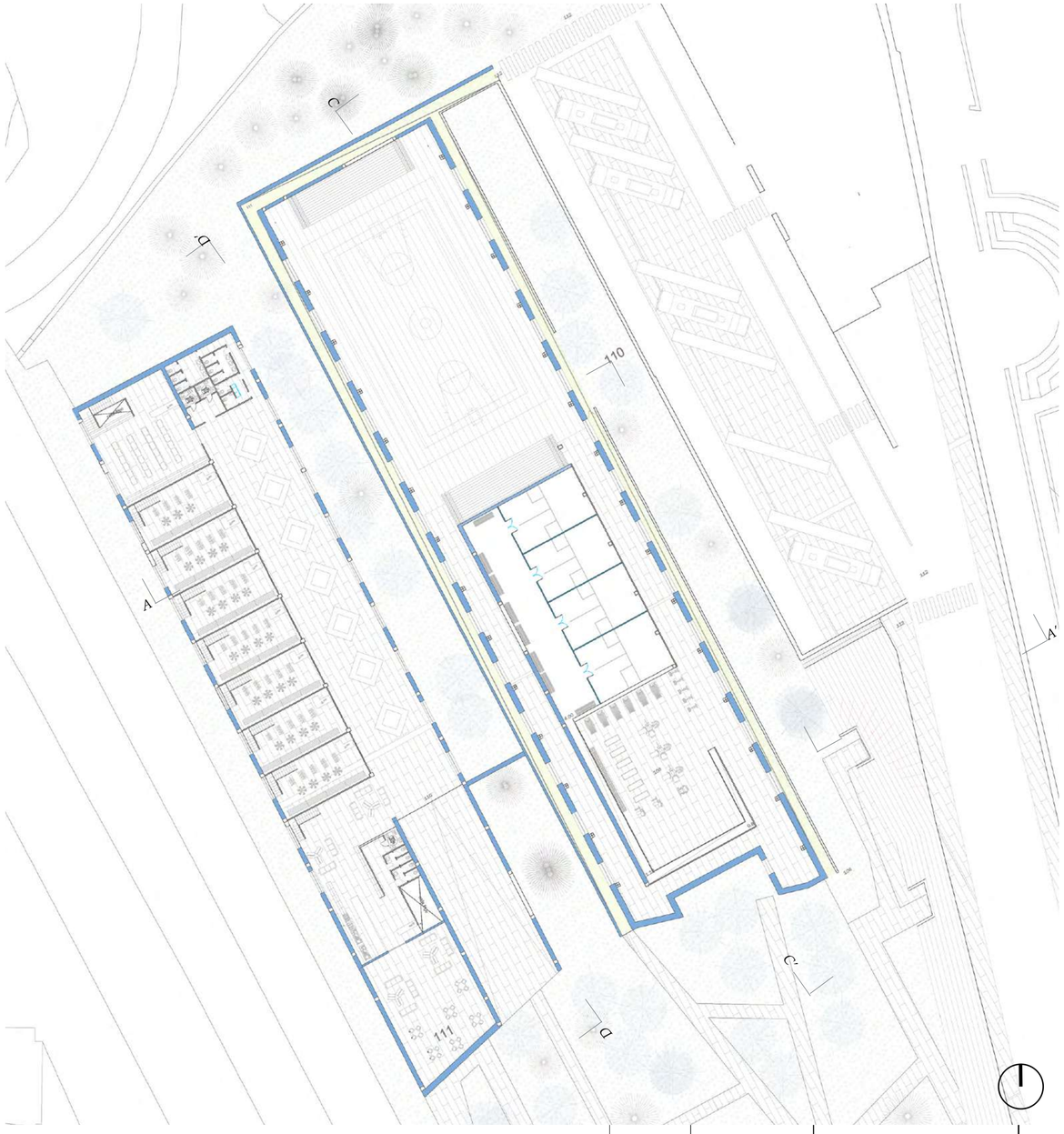




COMMERCIAL SPACE VIEWS



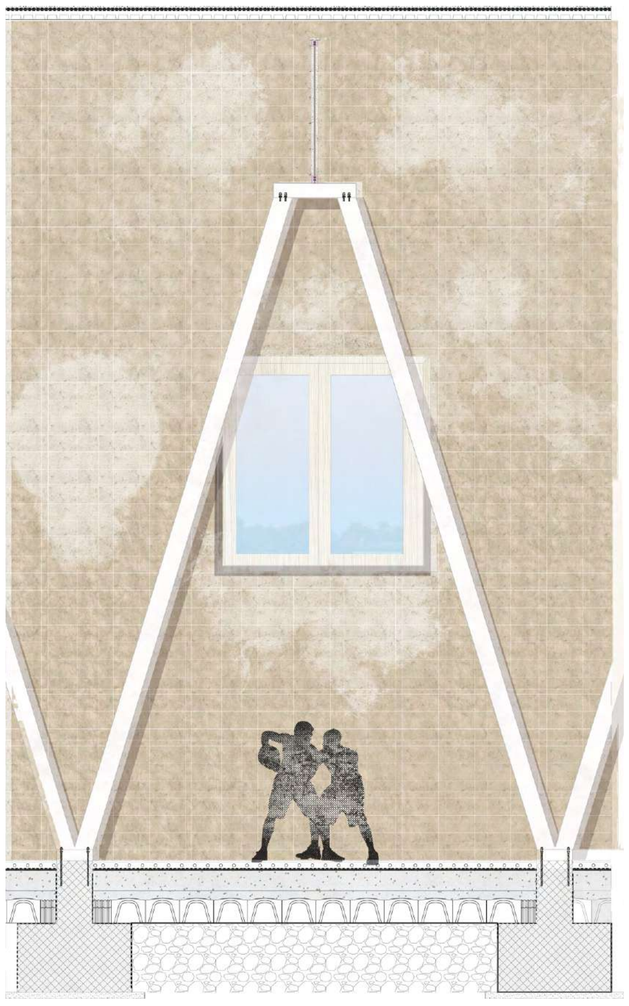
EXTERIOR VIEW



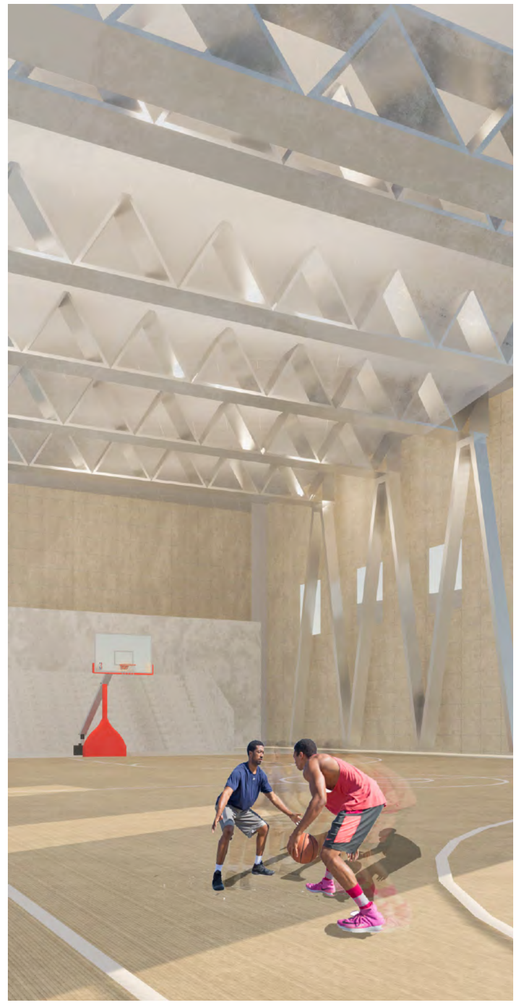
FIRST FLOOR +4.00m



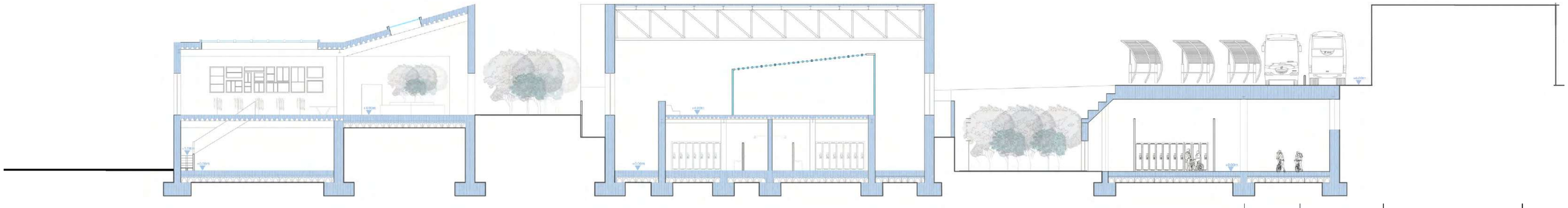
SECTIONC-C'



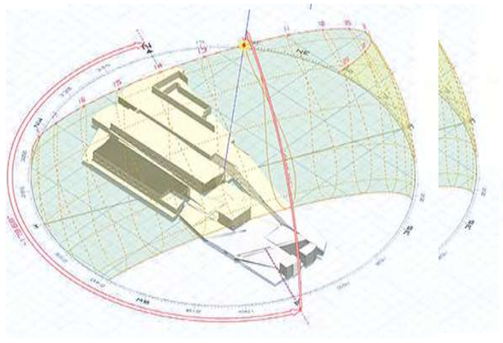
SECTION C-C' "1"



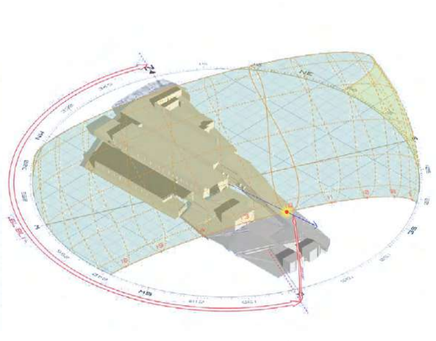
VIEW FROM THE BASKETBALL FIELD



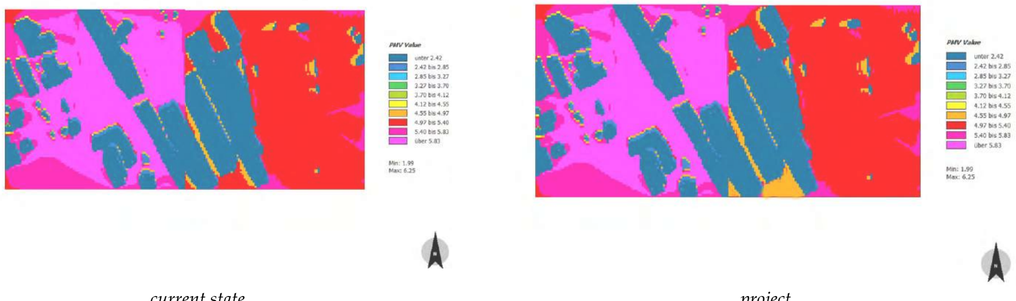
SECTION A-A'



summer solstice | *June, 21*



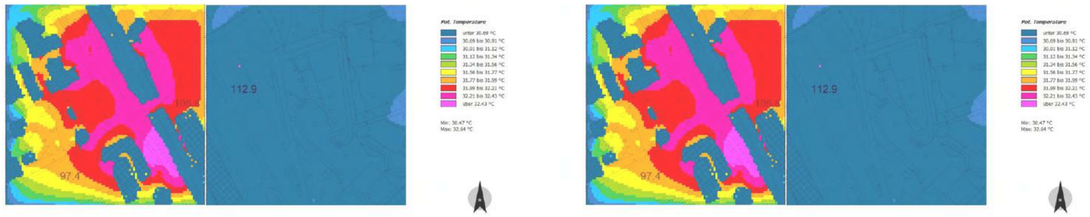
winter solstice | *December, 21*



current state

project

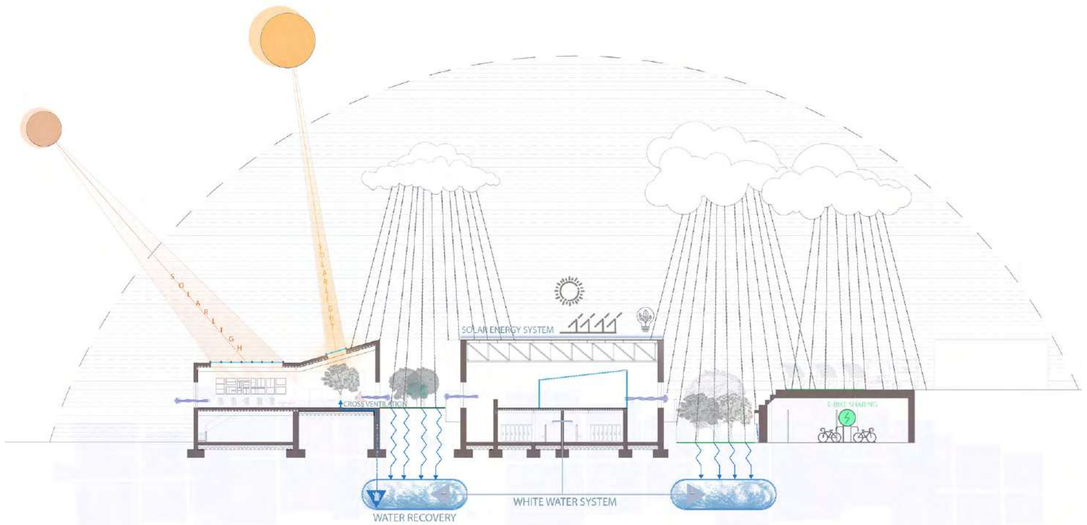
PMV | Thermal sensation index



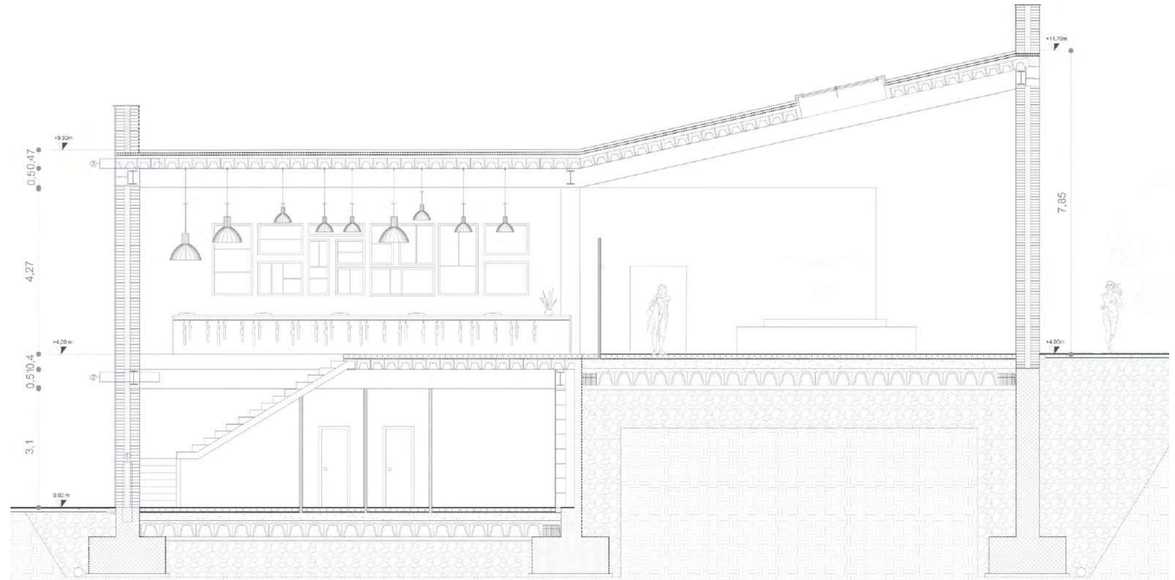
current state

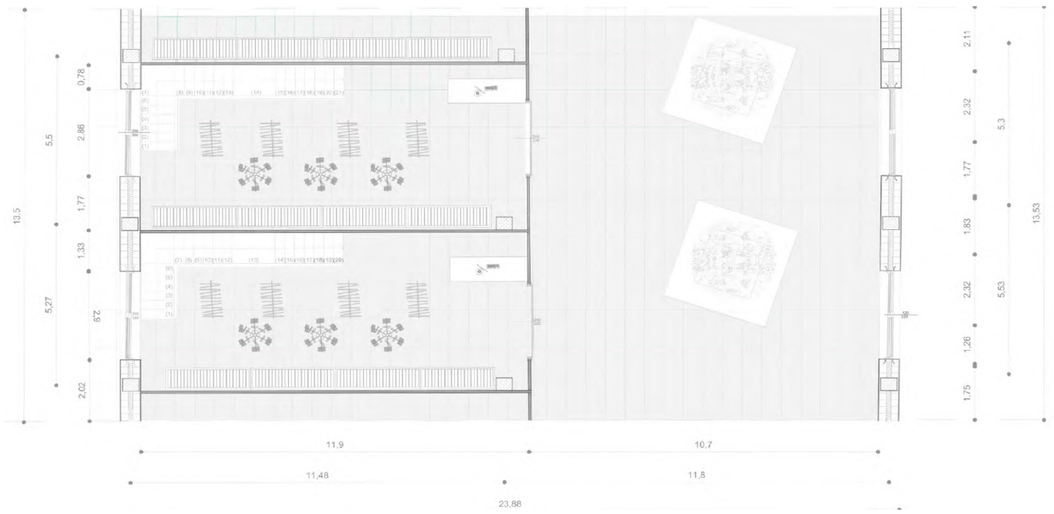
project

POT| Air Temperature



ENVIRONMENTAL SECTION





RETAIL AREA PLAN AND SECTION SCALE 1:100

PORTICI ADVANCED DESIGN STUDIO

PAOLA FERRAIOLI - THE GREEN BRIDGE

The green bridge is part of a larger project of regeneration which encompasses the entire peri-urban area of Portici.

The project was born with the aim of connecting isolated and unequipped areas that foster physical and social distances alike. As a matter of fact, in the current state, the area suffers from the absence of not only of equipment and transportation, but also of real points of convergence that would favor the aggregation between the people who live there.

Precisely because of these premises, the green garden is presented as a large cultural park, aimed at connecting places and people both.

Hence its name.

Program

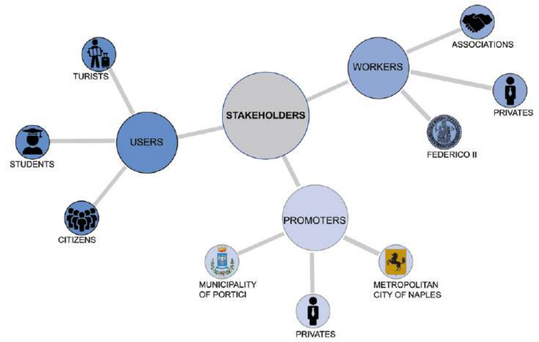
urban park, culture and leisure

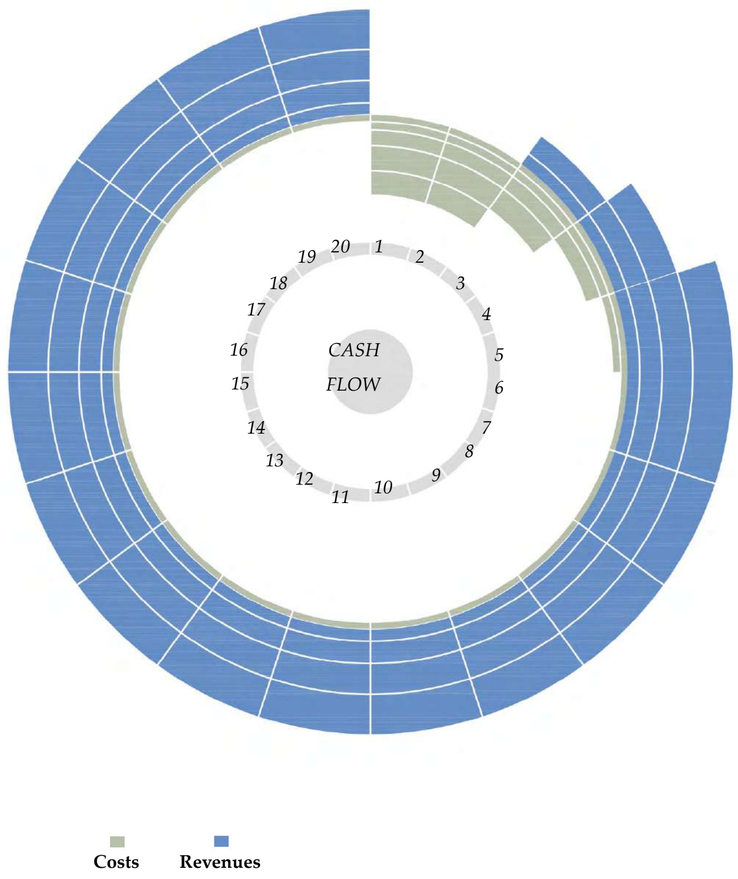
Covered area	2758.5m²
Uncovered area	19135m²
Levels above ground	2



The project consists of three parts: the arrangement of urban green, the renovation of the ex- Alisud building, which is currently abandoned and in which a library, some workshop rooms and a restaurant will be created, and lastly a brend new building, which will host a cinema and a bar.





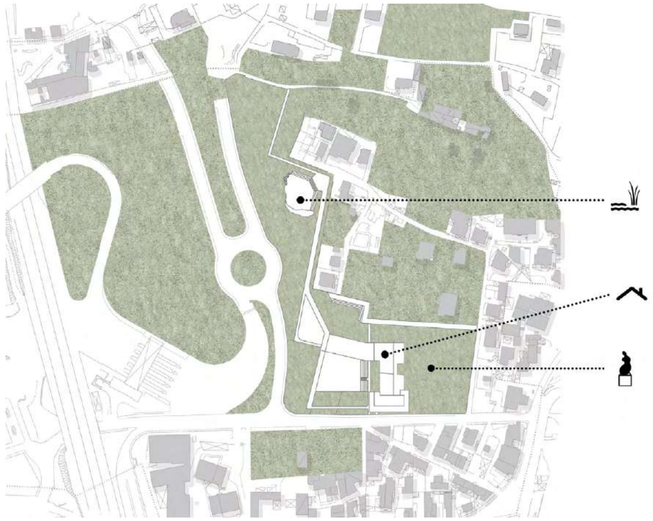


The graphs show the 20-year trend in costs and revenues for the following functions: library, laboratories, cinema, bar, restaurant, city green.



PORTICI PARK THE PROJECT IN CONTEXT

0 20 50 100m



URBAN STRATEGIES



ECONOMIC STRATEGIES

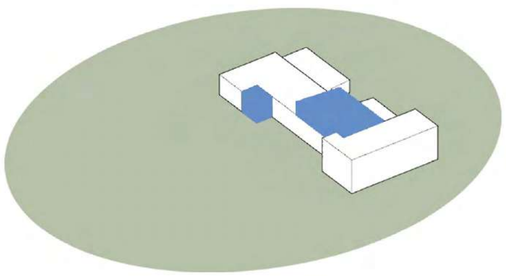
Space has been provided for cultural activities, evening classes have been organized, and commercial activities have been incorporated.



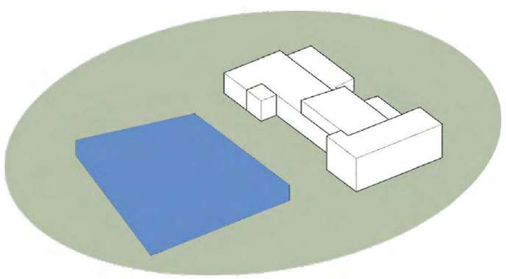
CURRENT STATE



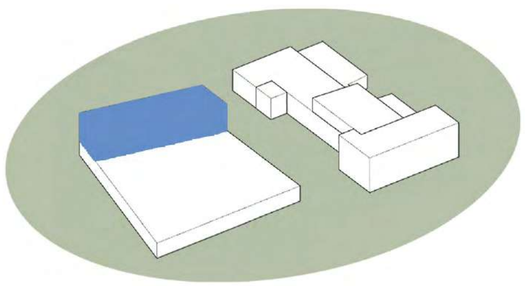
DESIGN PROPOSAL



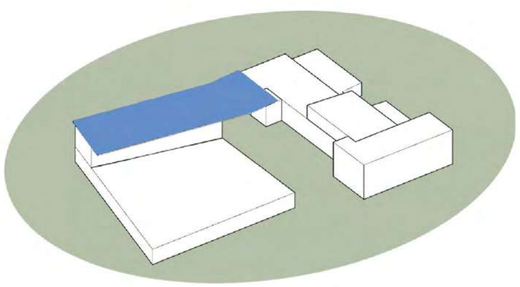
ADDITIONS



CINEMA



BAR



GREEN ROOF



Pond

The urban park is composed of two paths: the first one, at the ground level, crosses the park first and then the square, acting as an urban connection between the different areas of the city; the second one, instead, slowly rises up to the height of 5.50mt, and going through the green sloping roof, covers the bar, reaching the restaurant's terrace at the same level, thus creating a connection between the innermost part of the park and the most frequented part of the building.

Along both paths, there are benches and steps, which, thanks to the nature surrounding them, create small resting areas.

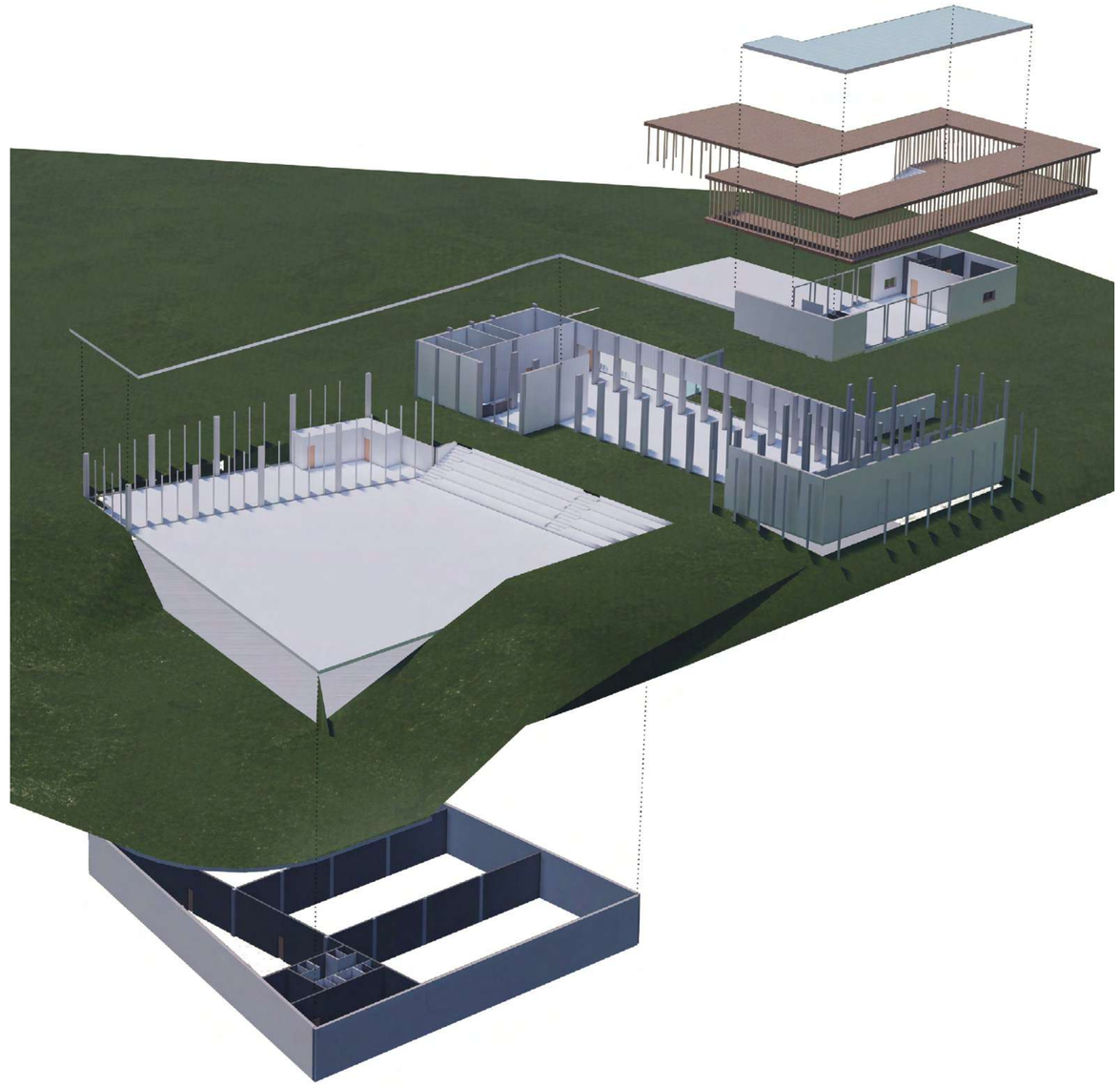


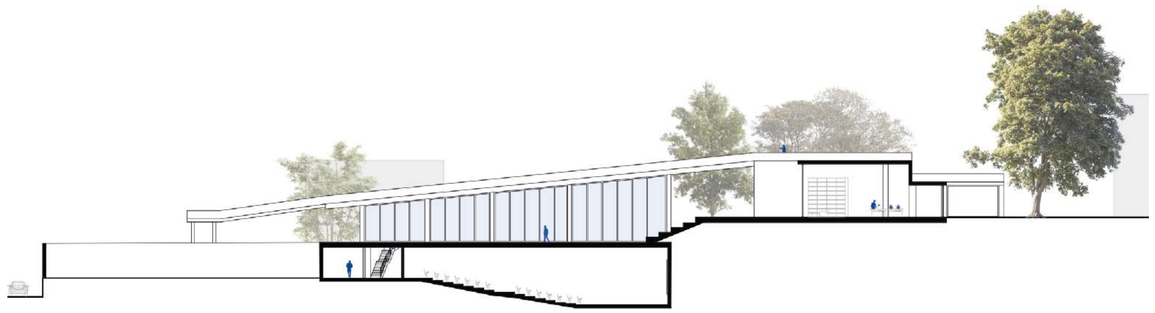
Elevated path that engages with the roof garden of the bar



Bleachers

The building is articulated on different levels. The first is that of the cinema, which occupies the first level of the pre-existing building. The roofing of the cinema is the plaza on which the bar stands. In turn, the roof garden of the bar acts as a link between the pre-existing building and the new one, being connected to the second walkable cover of the building. A projecting floor is attached with steel to the building of the former Alisud, covered with wood that creates a connection between the two green roofs of the building, at an altitude of 3.30mt and 3.50mt respectively.

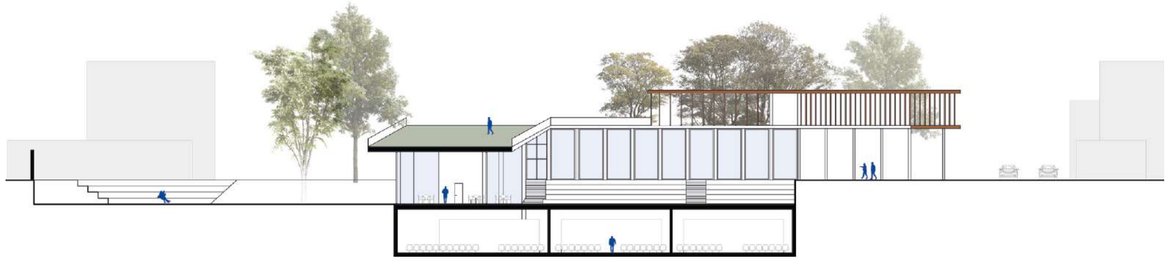




SECTION A

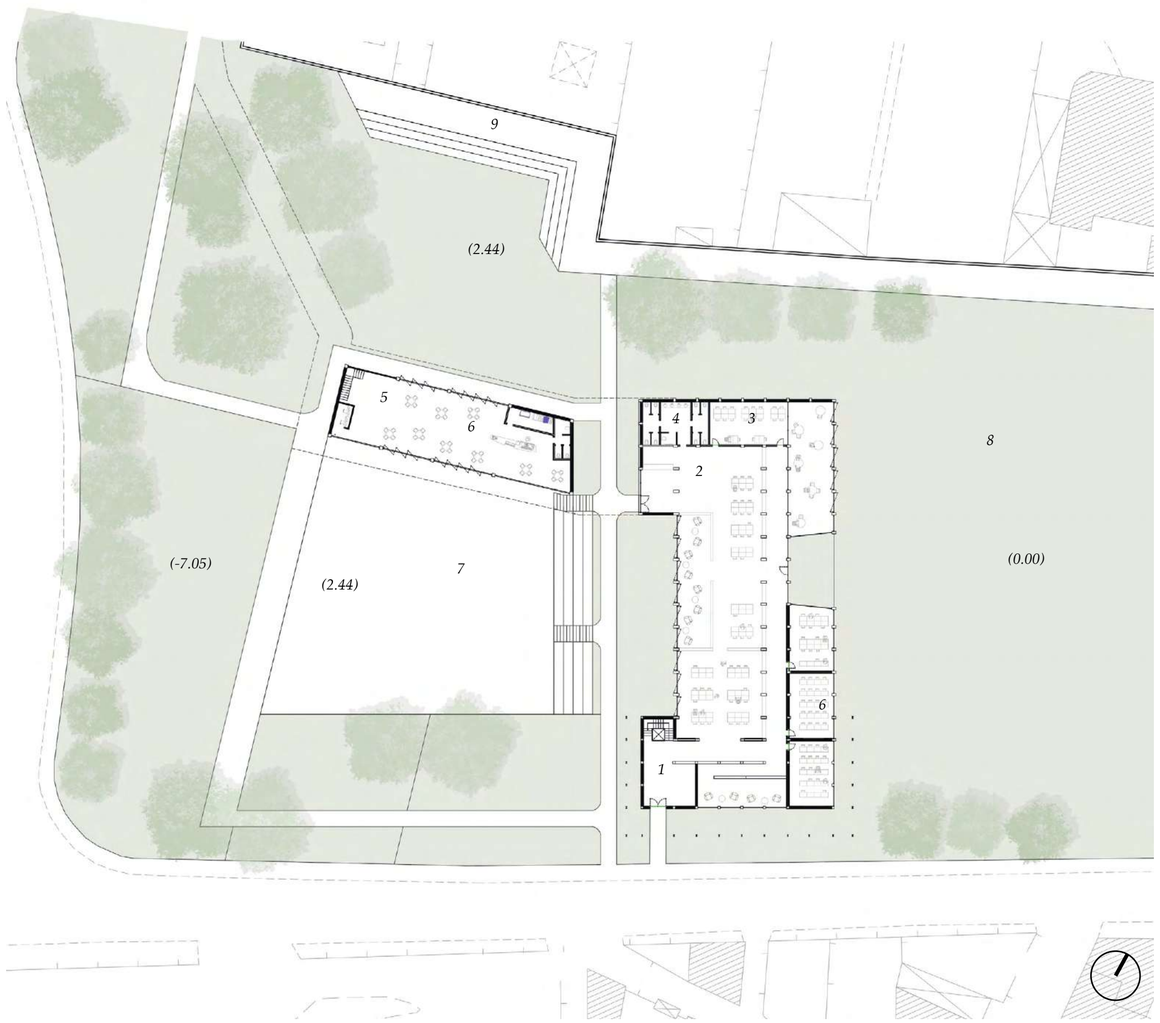
0 4 10 20m

1. Entrance hall
2. Library
3. Reading room
4. Restrooms
5. Cinema entrance
6. Bar
7. Square
8. Temporary installations
9. Bleachers



SECTION B

0 4 10 20m

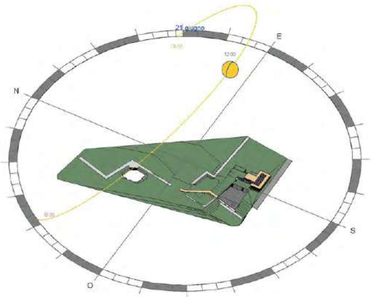


GROUND FLOOR 0,0m

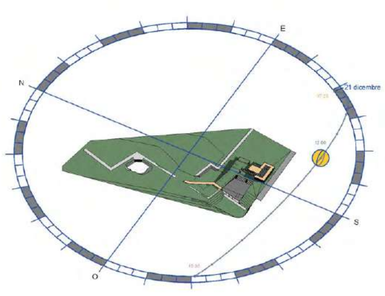
0 4 10 20m



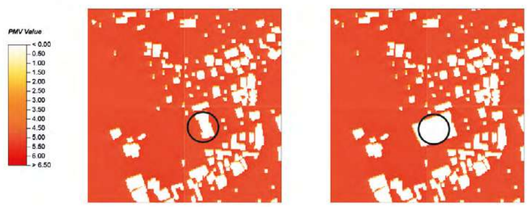
GENERAL VIEW



summer solstice | *June 21*



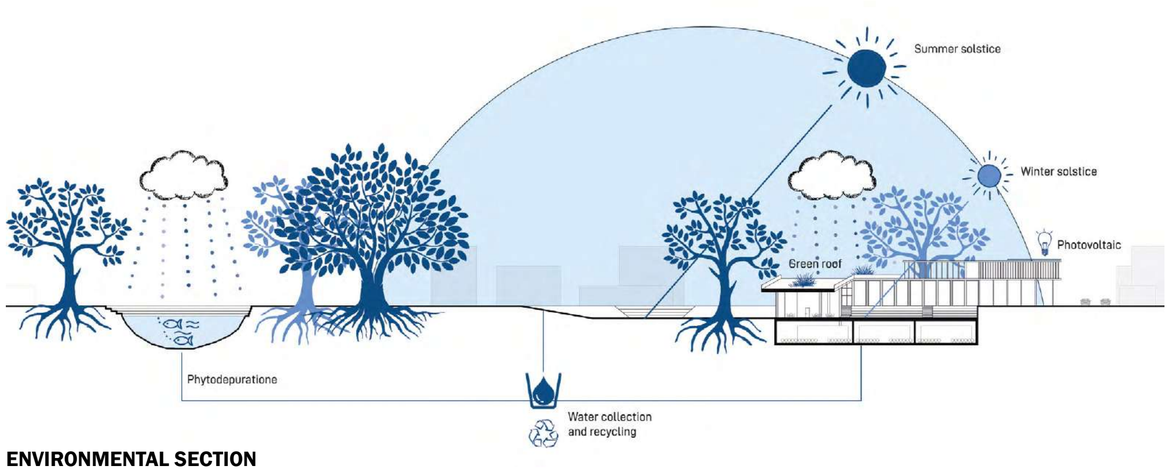
winter solstice | *December 21*



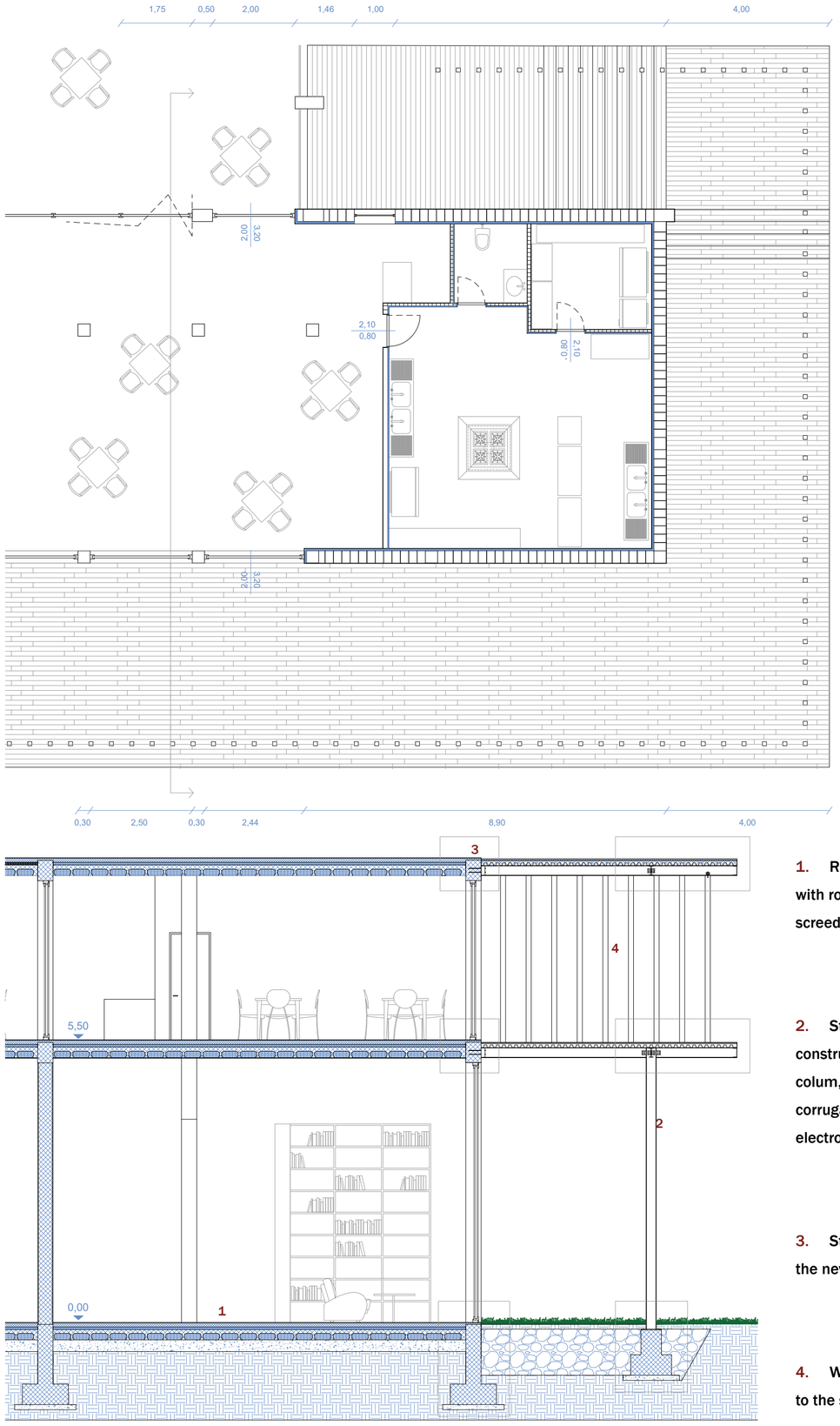
PMV | *Thermal sensation index*



POT\ *Air temperature*



ENVIRONMENTAL SECTION



1. Reinforced concrete floor with rock-wool insulation, 10cm screed and 3cm flooring

2. Steel post-and-beam construction. 20cm IPE steel colum, 20cm steel main beam, corrugated sheet metal and electrowelded mesh

3. Steel shock isokorb to hooks the new structure to the old one

4. Wooden pillars are attached to the steel beam

PLAN AND SECTION BUILDING AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

LUCA RUOCCHIO - PLAN A NEW GROWTH

OVER THE BORDER: SPACES FOR THE COMMUNITY

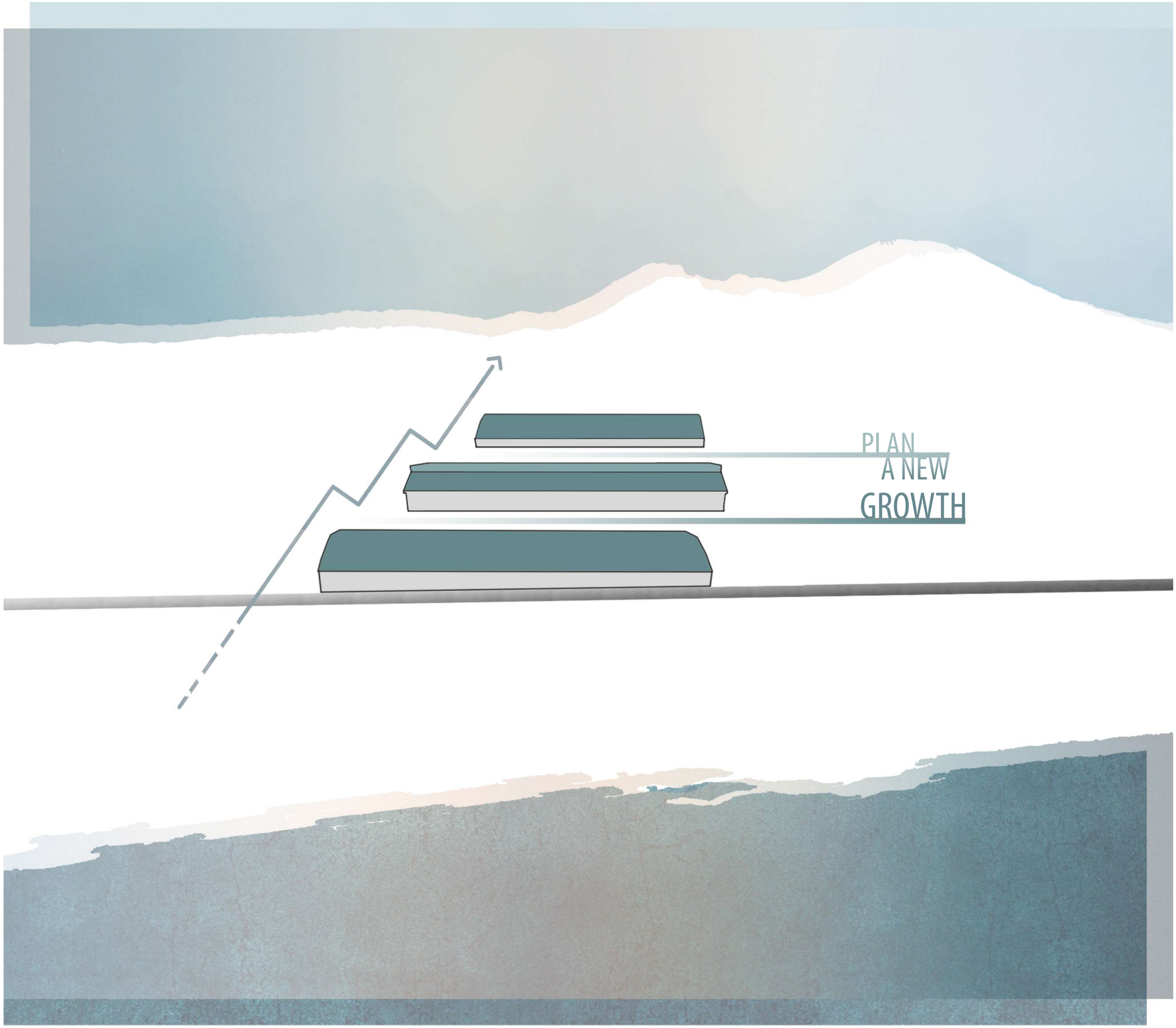
The idea behind this project stems from the desire to recover and redevelop the former Kerasav industrial plant.

This occupies an extensive area on the edge of the town, in the upper part of the town of Portici, almost on the border with Herculaneum.
The complex, implanted in 1952, was built in the vicinity of pre-existing late nineteenth-century structures that were incorporated within the area in question.

Various functions took place inside it, until it was abandoned in 1978.
Over the years it has been a source of income and employment for the area and its image has taken root in the memory of the Portici community.
Today the area is part of the municipal heritage of Portici, but unfortunately the complex is the victim of a decay stratified in time and space.
While the highway, on the one hand, makes the intervention area easily accessible, on the other it has done nothing but exclude it from the rest of the city and its development and growth processes.
The goal, therefore, is to return these spaces to citizens through a process of functional regeneration and conversion. The complex would pass from a center of economic production to a center of cultural production, involving public administrations, in order to enhance the unused and ruined municipal real estate for social purposes. All this with a view to promotion that goes from culture to society at the service of citizens.

Program:
social incubator, study rooms, workshop and coworking spaces, library, commercial gallery, restaurant and auditorium

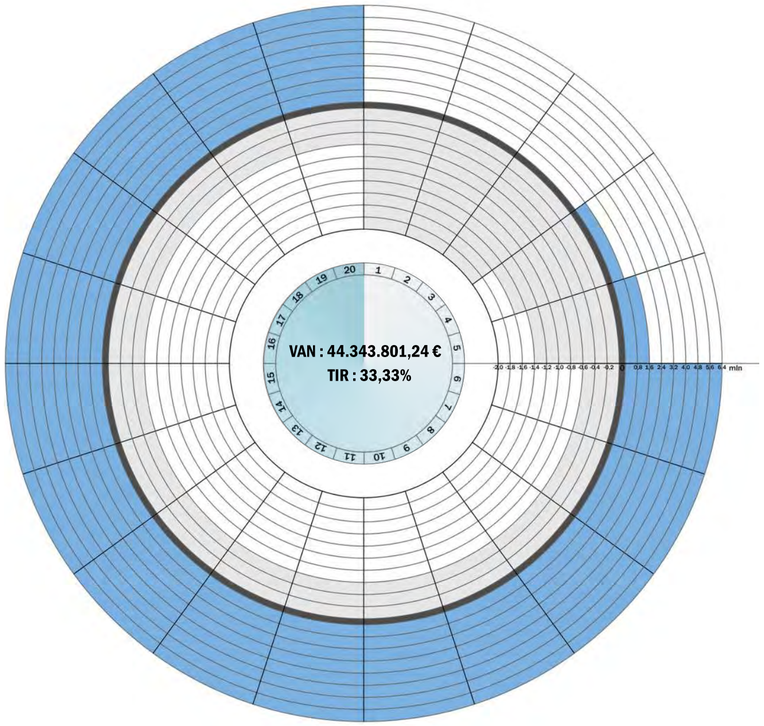
Covered area	7056 m²
Uncovered area	17402 m²
Levels above ground	2
Built volume	23394 m³
Estimated cost	6.962.890,55 €





From the study of the indicators relating to the ecological, socio-economic and urban areas, critical issues were identified that led to the formulation of strategies, objectives and finally actions. The area is characterized by numerous green spaces, most of which are inaccessible. With the exception of the seat of the Municipality of Portici, upstream of the motorway, there are no poles or places for the community. Hence, the formulation of a strategy aimed at the revaluation and recovery of the entire area, with the aim of making it a new urban catalyst and at the same time, with the inclusion of productive functions, also a city economic engine.

Possible promoters of the project were therefore identified, such as the Municipality of the city of Portici, the Metropolitan City of Naples and private entities. The identified operators are traders in general, teachers. Finally, the users highlighted are certainly citizens but also and above all students and freelancers. From the study of the financial analysis relating to the chosen functions, a VAN of € 44,343,801.24 and an TIR of 33.33% emerged from the relationship between costs and revenues. From the project masterplan it is possible to read the organization of the site in relation to the context.

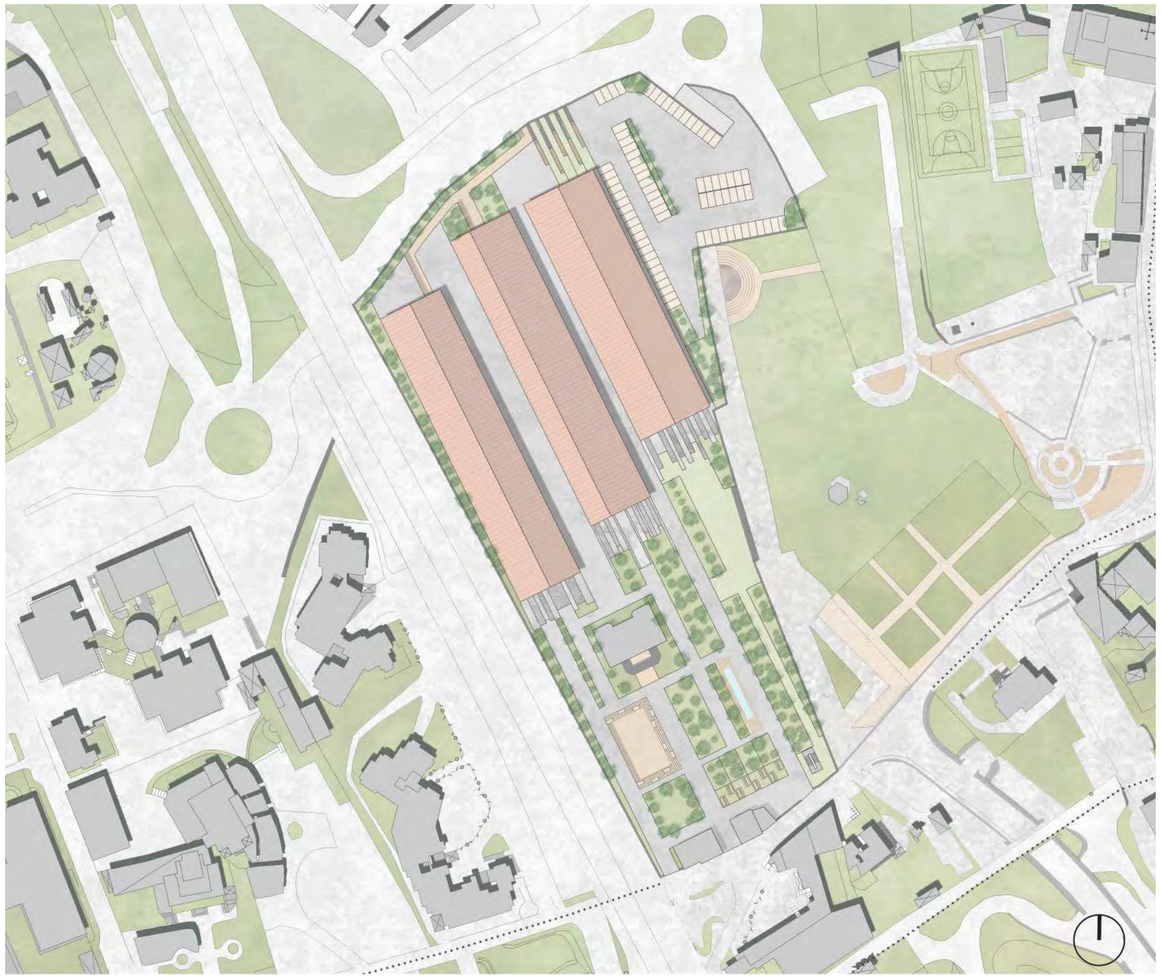


CASHFLOW

Graph relating to the study of the financial analysis in reference to the costs of redevelopment of the existing and construction costs of the new elements, in relation to the functions that generate revenue.



CASHFLOW BY SCOPE



PORTICI PARK THE PROJECT IN THE CONTEXT

0 40 80 160m









EX KERASAV



CURRENT STATE MORPHOLOGICAL READING URBAN ANALY-



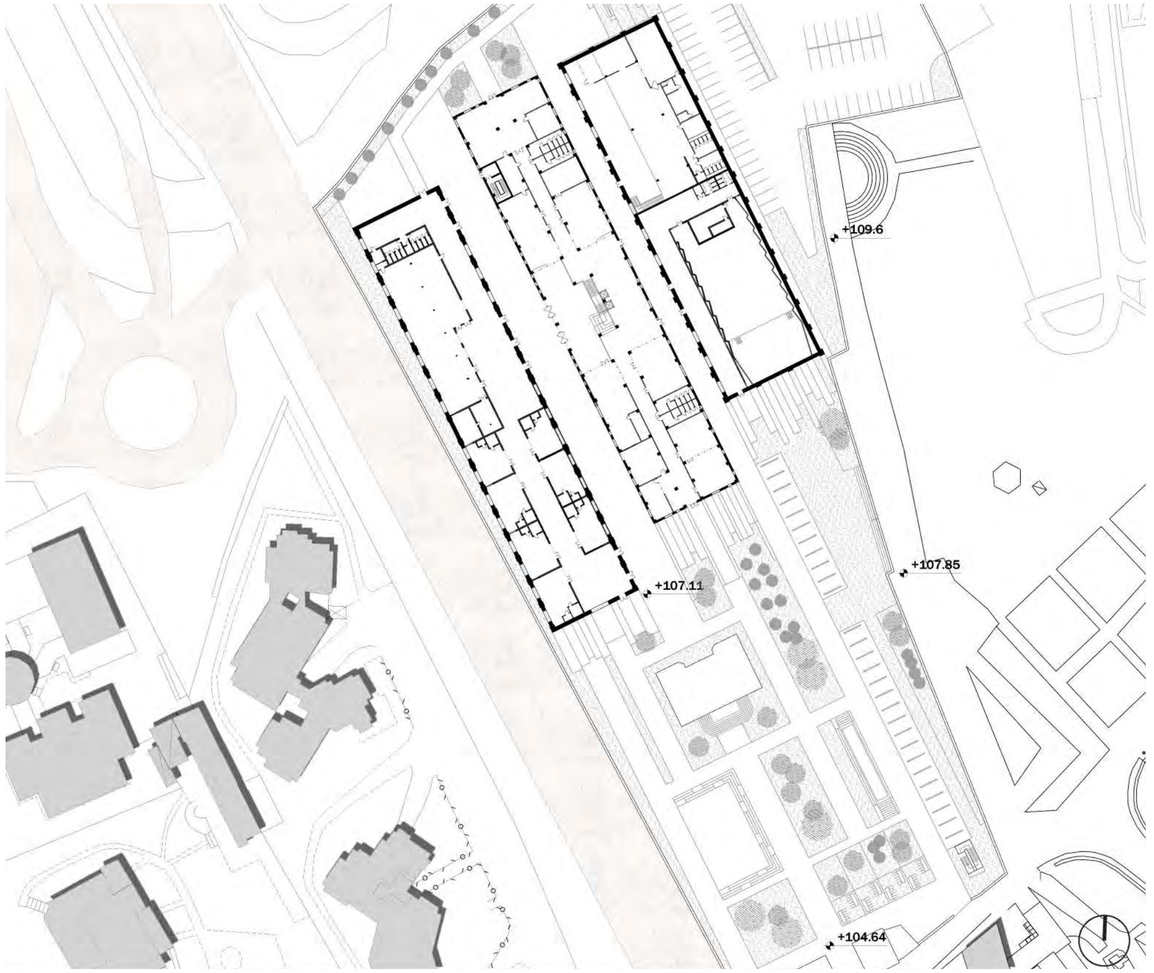
SYNTHESIS OF URBAN ANALYZES

From the comparison between the state of affairs and the state of the project it is possible to understand the transformations relating to the morphology of the place and those that have affected the industrial warehouses. The open space has been redesigned, eliminating some ruined bodies. There are three access routes to the park that lead to the buildings. In the central building, a second deck was built that could accommodate additional spaces for the community.

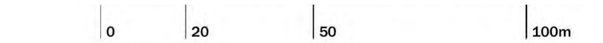
A series of paths alternate with green spaces. There is also a bike sharing service and a play ground for the little ones.

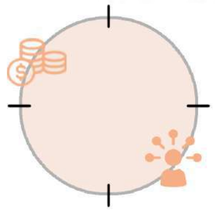
CRITICAL ISSUES

The motorway axis determines a clear separation between the city center and the border areas.

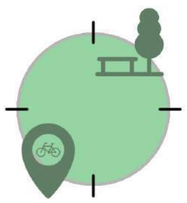


DESIGN PROPOSAL

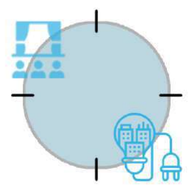




AMBITO
SOCIO ECONOMICO



AMBITO
ECOLOGICO



AMBITO
URBANO

SUMMARY OF ACTIONS ON AN URBAN SCALE

The central building as the fulcrum of the whole project.

The former industrial warehouses are made of reinforced concrete with a tuff masonry infill. As for the internal layout, they are characterized by a single full-height space and a vaulted roof.

The one relating to the central body has collapsed and only the reticular beams that supported the roof tiles are still present. Therefore, the replacement with a double pitched roof with an interposed folder was imagined.

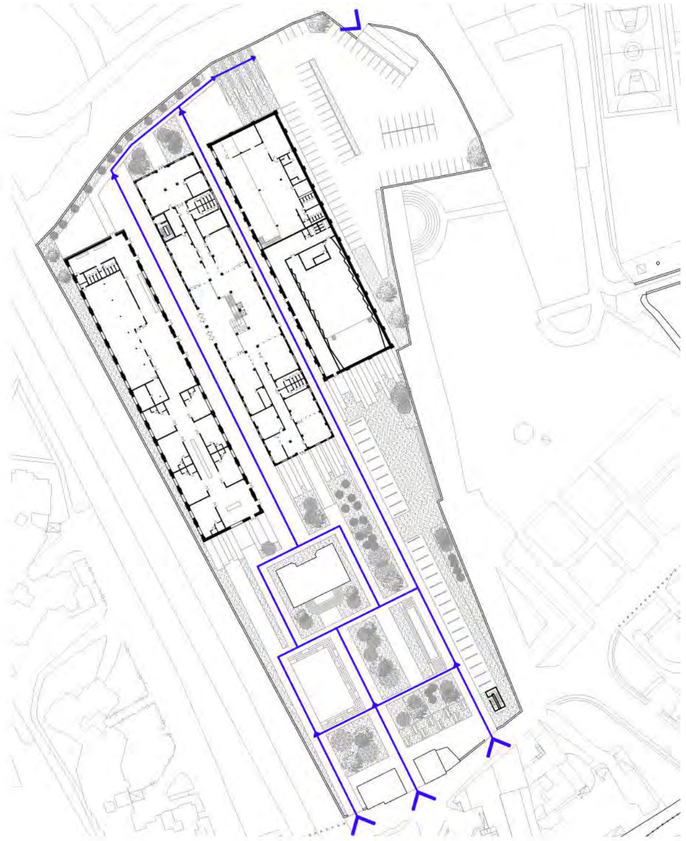
The extreme warehouses are instead affected by a more modest internal arrangement to accommodate commercial functions: a gallery with shops, a restaurant and an auditorium.

For the distribution of the intermediate one, the plan was shaped in such a way as to make the central atrium accessible from all sides. This is reached through a sorting corridor that connects the various rooms. The full-height hall is designed as the heart of the entire building. Thanks to the numerous windows, opportunities for collaboration and visual connection are created: a covered square accessible from all points of the complex.

There are study rooms, a projection room, coworking classrooms, training rooms and offices.

The open space has been redesigned by tracing the existing axes between the pavilions, thus establishing a hierarchy of routes, preferring the longitudinal ones over the transverse ones. From the shed that houses the auditorium, a wooden portico rises which, with a straight and pure line, leads to a third element in line with the pre-existing 19th century buildings, located at the south entrance of the complex. It is a staircase that offers a privileged view of the sea and Vesuvius, visually climbing over the motorway limit.

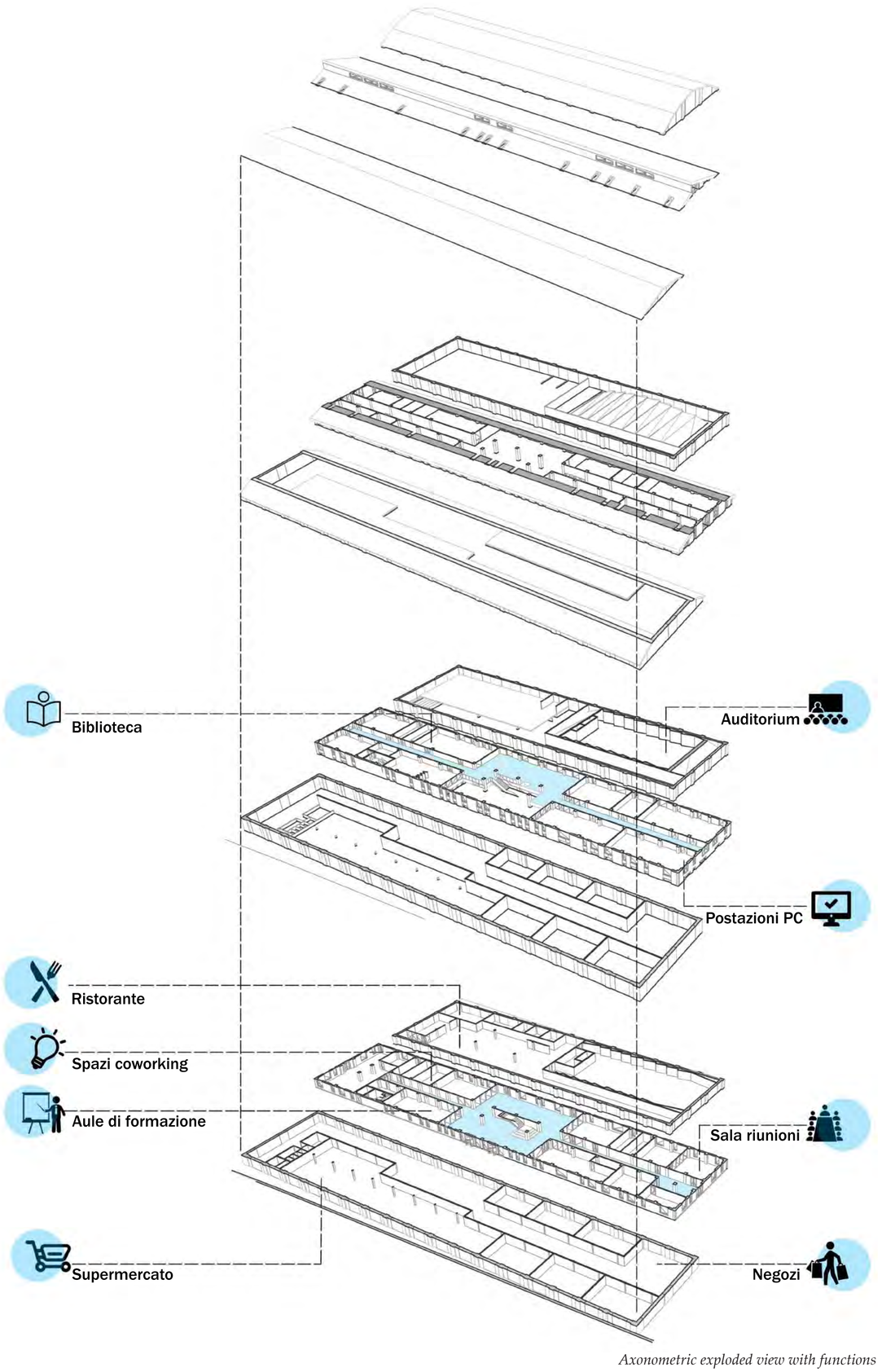
Finally, there is a rear parking area accessible via a ramp. The motorway junction located in the immediate vicinity makes the area easily accessible even from neighboring towns.



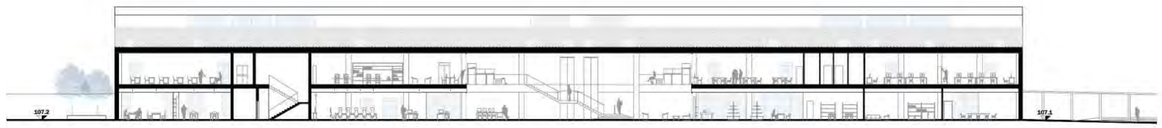
Accessibility and external routes



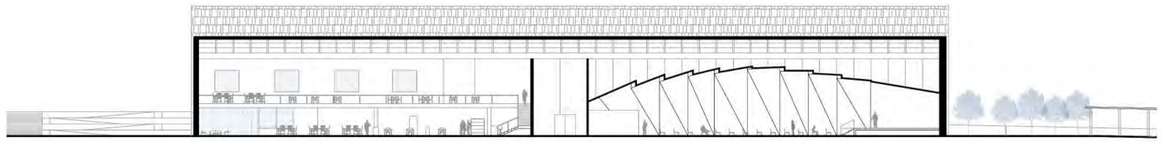
Internal routes and main entrances



Axonometric exploded view with functions



SECTION A-A'

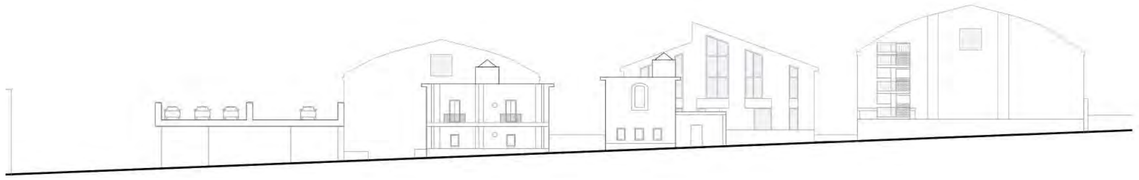


SECTION B-B'

0 5 20 50m



SECTION C-C'



SOUTH EAST ELEVATION, from the street

0 5 20 50m



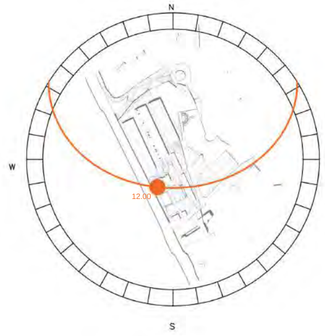
GROUND FLOOR PLAN + 1,5 m

0 5 20 50m

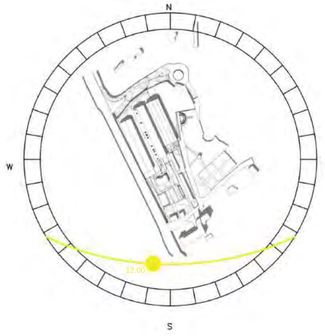




EXTERNAL AND INTERNAL VIEW OF THE CENTRAL PAVILION



summer solstice | 21june



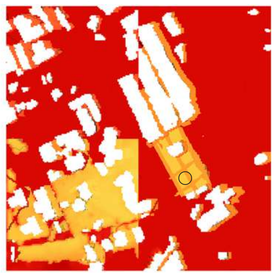
winter solstice | 21 december

State of affairs



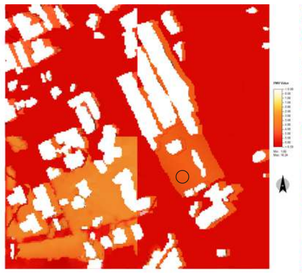
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State of project



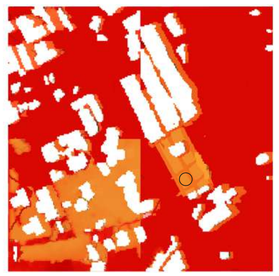
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State of affairs - 2050



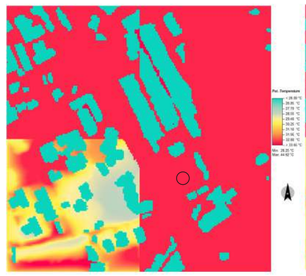
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State of project - 2050

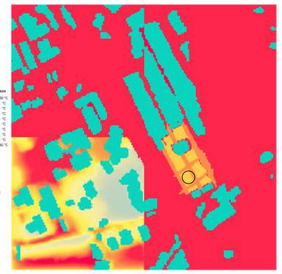


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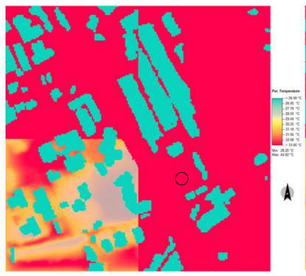
PMV | Thermal sensation index



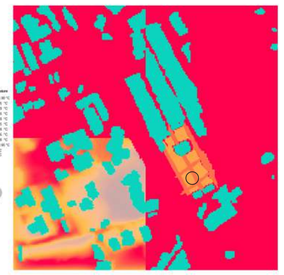
reference value: 33,20



reference value: 32,10

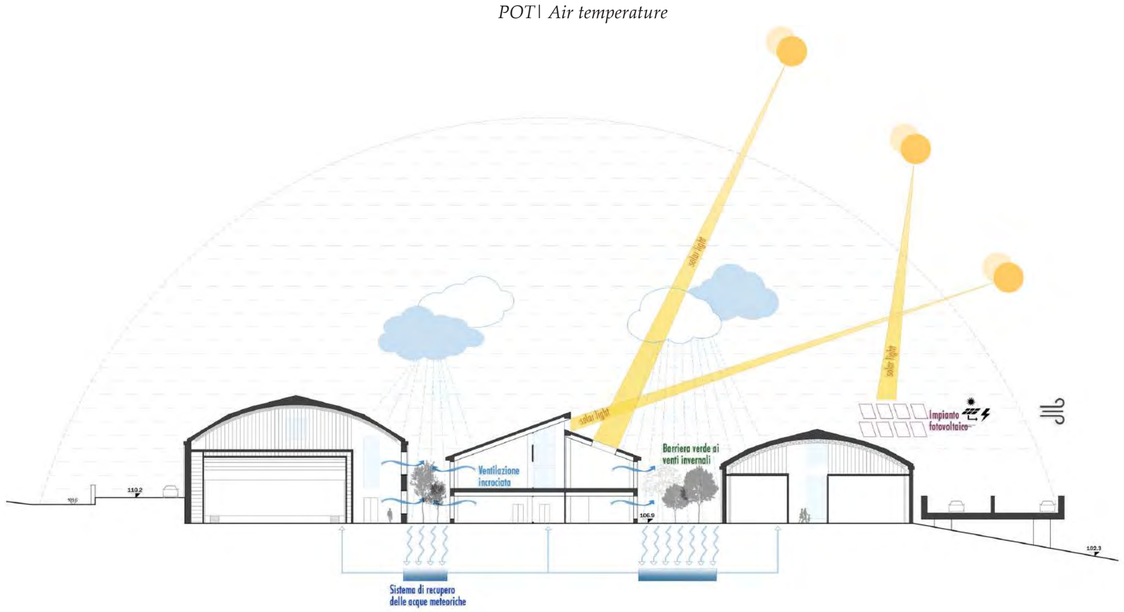


reference value: 33,80

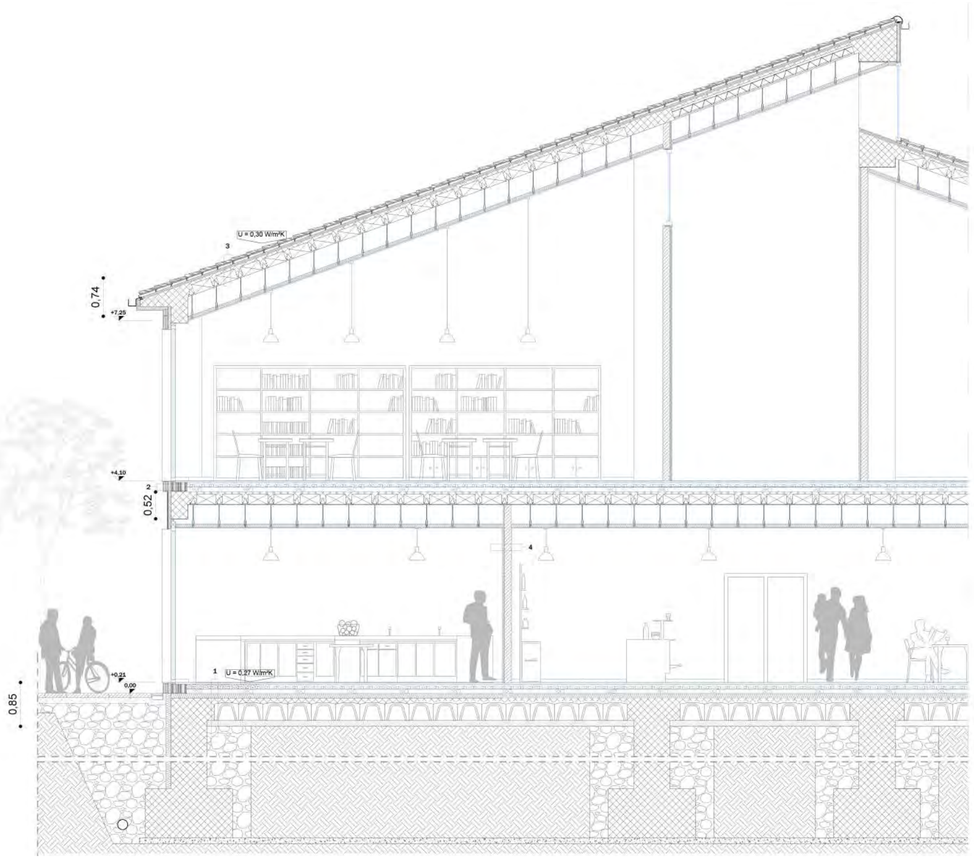


reference value: 32,50

POT| Air temperature



ENVIRONMENTAL SECTION



FOUNDATION SLAB

Floor on ventilated crawl space, made with modular elements in regenerated plastic material and equipped with radiant heating
U = 0.274 W/m²K

EXTERNAL VERTICAL WALL

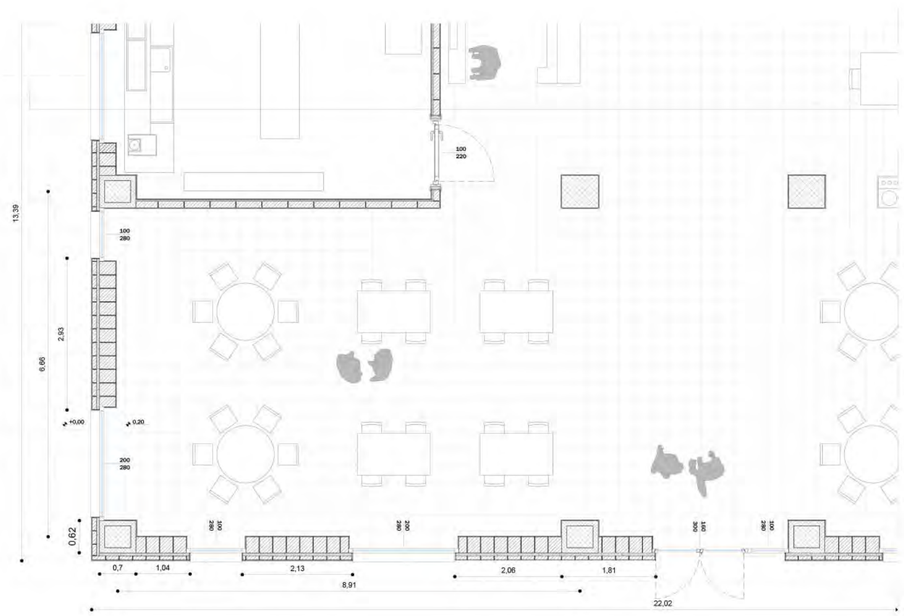
Wall made from a pre-assembled monobloc consisting of two brick and insulating elements Neopor in between. The external brick block provides protection of the insulating panel from shocks and atmospheric agents
U = 0.192 W/m²K

ROOF COVERING

Slab in brick concrete with inclined pitch, characterized by an air gap that separates the roof covering from the sheath and from the underlying insulating layer
U = 0.306 W/m²K

INTERNAL VERTICAL WALL

Wall made up of blocks in brick and mineral wool insulation
U = 0.283 W/m²K



EXCERPT PLAN AND BUILDING SECTION AND PUBLIC SPACE SCALE 1:75

PORTICI ADVANCED DESIGN STUDIO

ANGELA TUFANO - SOCIAL REGENERATION FARM

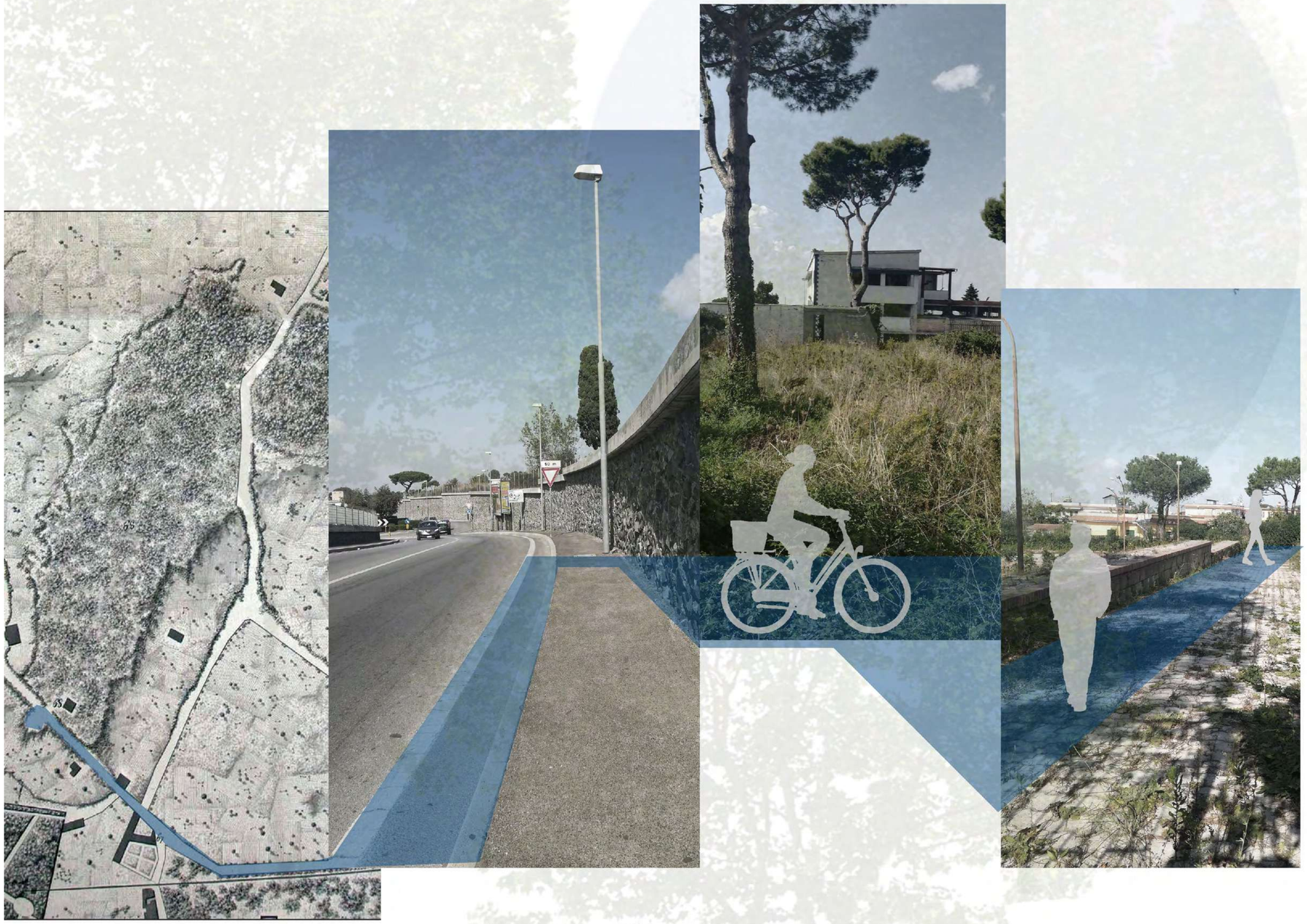
BEYOND THE BARRIER: BETWEEN DEGRADATION AND REVALUATION

The proposal starts from the desire to recover the building of the former Alisud venue: located in the border area with the Municipality of Ercolano, just a few meters from the highway A3 which, as a barrier, separates this area from the rest of the city of Portici.

The building is in a state of total abandonment, while behind there is a large expanse of uncultivated garden placed on different leaps of altitude. The area is surrounded by a few houses, little inhabited, forgotten spaces and, according to the local people, this is a “no man’s land”.

The project site was a time the Real Fagianeria Borbonica, a green area used to be cultivated and where were raised pheasant and other birds. The recovery of the building follows the original idea: a place surrounded by nature, combining the landscape and its natural aspect to the economic side, creating a social farm.

The public functions are included in the pre-existing building, the surrounding greenery is partly used for vegetable gardens and orchards, partly to create an urban park with panoramic points, a cycle track, shaded areas. In the final part of the outdoor project is designed a walkway to go over the highway reaching the hill that is an obstacle to the panoramic view



Program

social farm, conference hall, offices, shop, pavilions

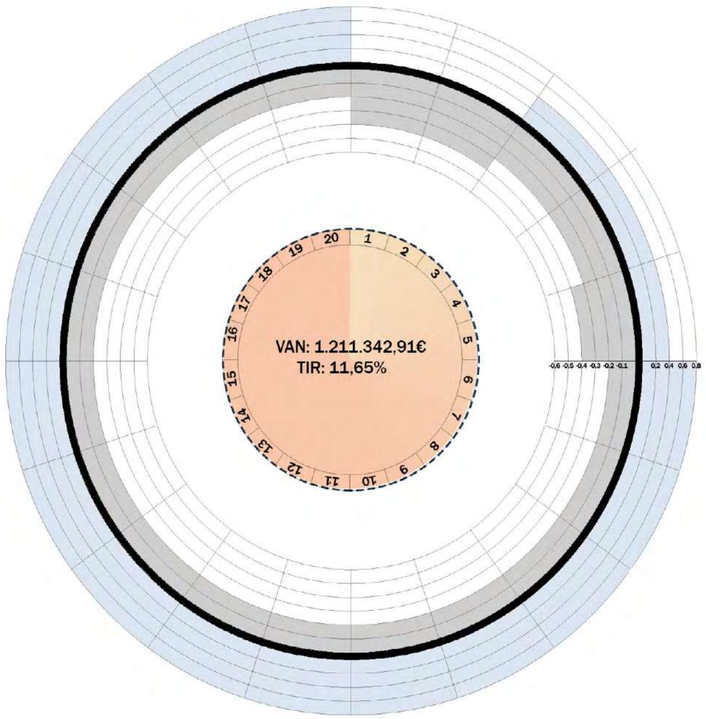
Covered area	1.814 m^2
Uncovered area	14.504,83 m^2
Levels above ground	2
Built volume	5.380 m^3
Estimated cost	4.707.012 €

Social farm and urban park: from the study of socio-economic, urban and ecological aspects to the transformations of the area.



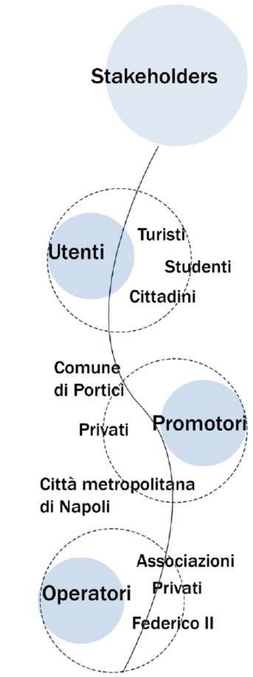
According to the study of socio-economic, urban and ecological indicators, critical issues were identified which led to the formulation of strategies, objectives and actions.
The area is dense of green spaces many of which are inaccessible, meanwhile the absence of cultural events, tourist flow, and the public transport deficit have led to the formulation of a strategy for the revaluation and the recovery of the whole area, because the aim is make it a new point of social aggregation that can give an impulse to the local economy.

Therefore, possible project promoters have been identified such as the Municipality of Portici, private institutions, the Metropolitan City of Naples, while a number of associations active in the territory have been identified as possible project operators, and finally users are definitely citizens but also students and tourists.
The ratio of costs and revenues and the study of the financial analysis of the selected functions has revealed a VAN of 1.211.342,916 € and a TIR of 11,65%. The masterplan shows the new organization of the site.

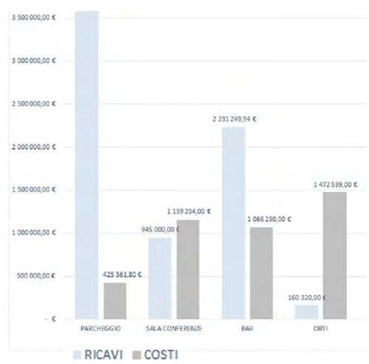


CASHFLOW
Chart about the study of the financial analysis in reference to the redevelopment costs of the existing and construction costs of the new elements, related to the functions that generate revenue.

STAKEHOLDERS MAP



CASHFLOW FOR SCOPES



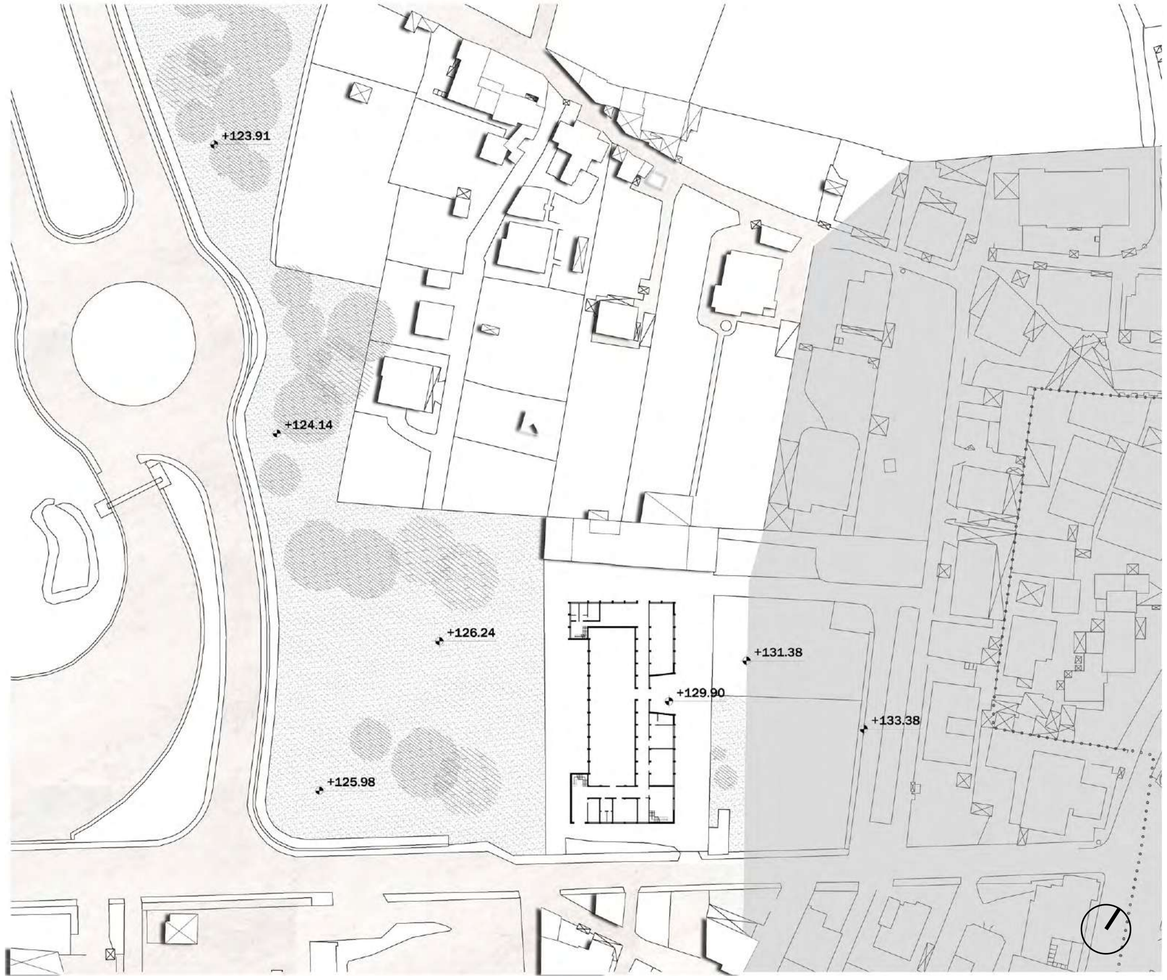


PORTICI PARK THE PROJECT IN THE CONTEST



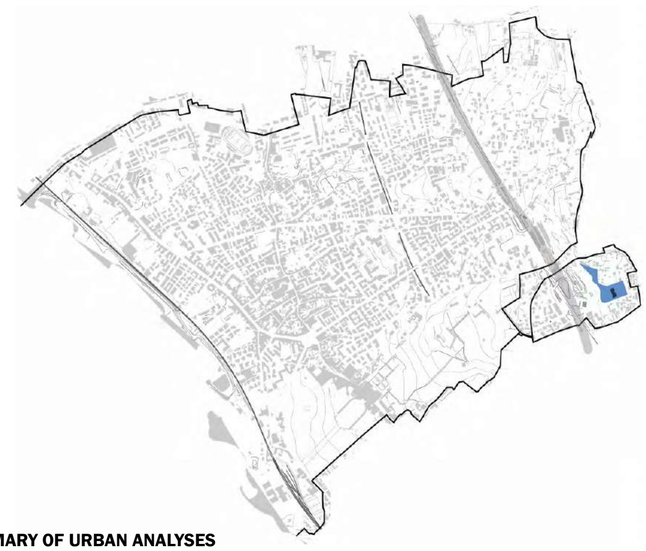


CURRENT STATE EX ALISUD



CURRENT STATE MORPHOLOGICAL STUDY URBAN ANALYSIS

0 20 50 100m

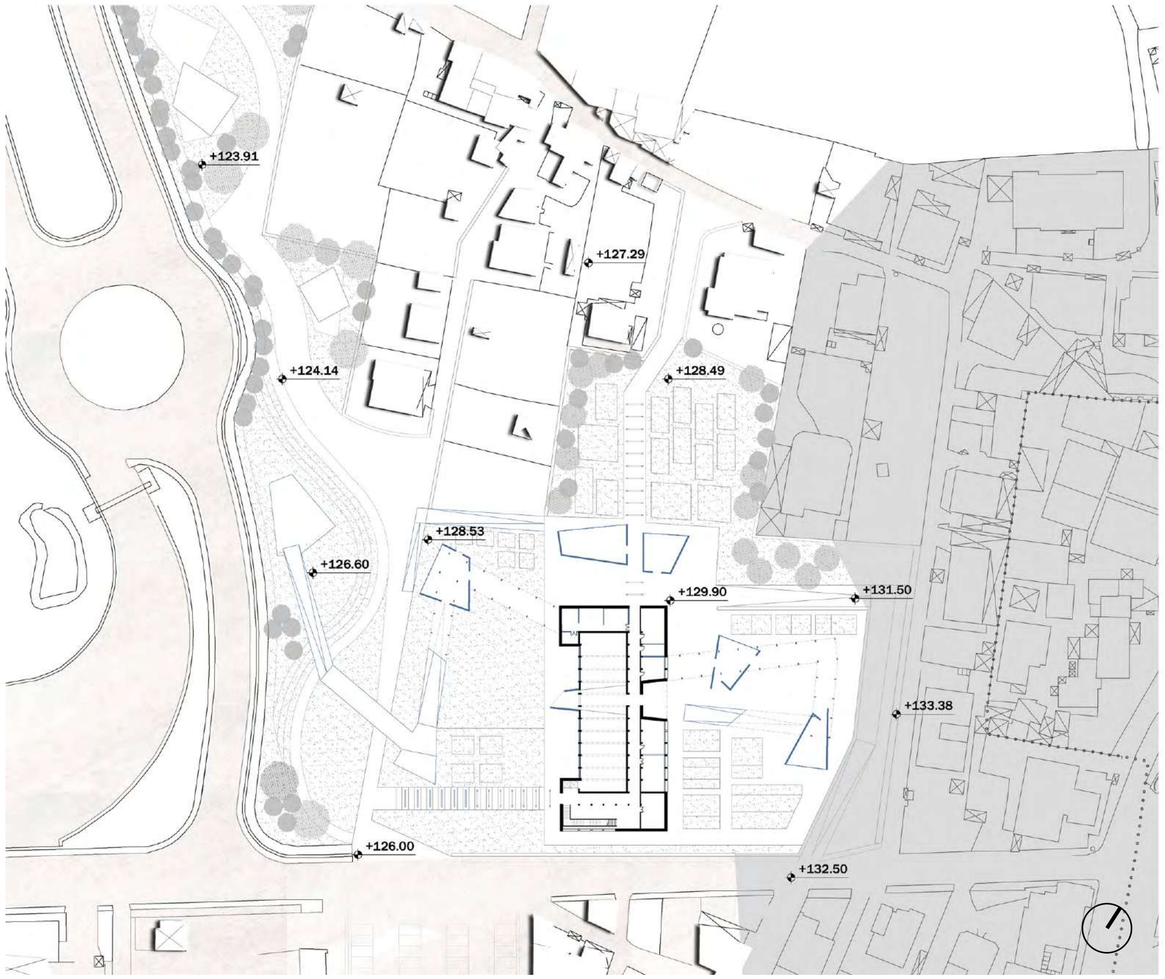


SUMMARY OF URBAN ANALYSES

The comparison between the current status and the project status shows all the transformations about the morphology of the site and the pre-existing nucleus: an internal organization is designed for the new functions with the addition of walkways to create a path from the roof of the building to the green area, the project about the vegetable gardens and orchards and the pavilions built under the walkways.

CRITICALITY

The highway as element separating the border areas from the city centre



DESIGN PROPOSAL

0 20 50 100m



SUMMARY OF URBAN ACTIONS

The transformations of the pre-existing structure have as their aim to make it completely crossed.

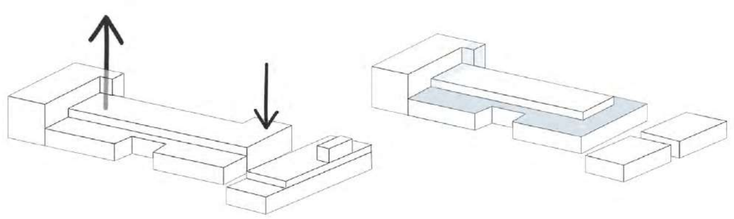
The staircase block is turned into elevators to allow the climb on the roof of the lower building which is made trampling, also due to the drop in the level on the right side of the building.

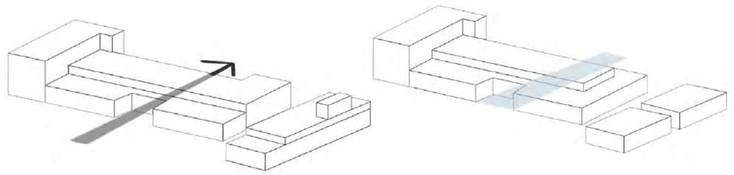
The central crossing is designed according to the architectural guidelines already present, making the structure permeable.

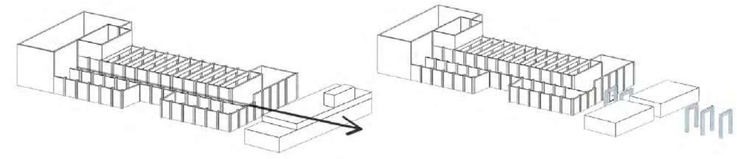
The last process is crossing the building along its entire length up to the vegetable gardens, bringing outside the structural element of the frame that characterizes the central hall.

The project of the outdoor space emerges by analysing the existing accesses with their relative tracks, and the urban tracks, trying to open the site to the context obtaining a pattern of tracks. According to the idea of making a dialogue between the building and the surrounding area, pavilions and walkways have been addicted, as connecting elements among this two bodies.

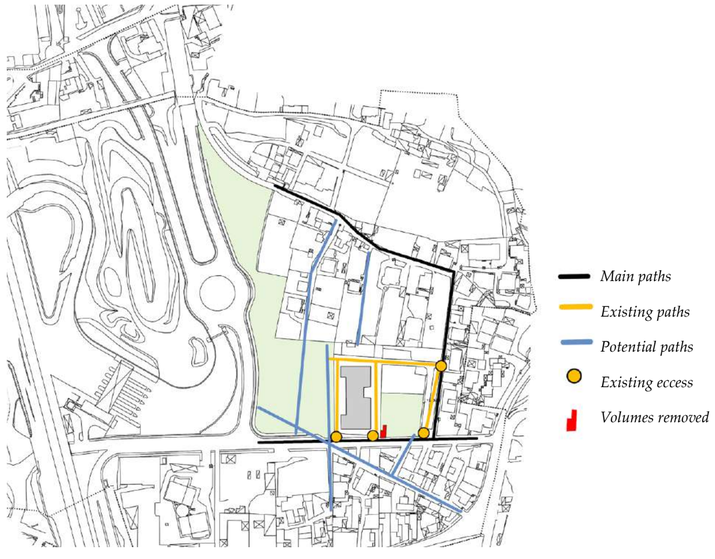
The social farm consists of a meeting room and a conference room, offices for staff, services, storages with meat locker and agricultural products. The central hall, conceived as the hearth of the farm, is a space for the sale and tasting of products, a sort of market covered by the particular glass roof.

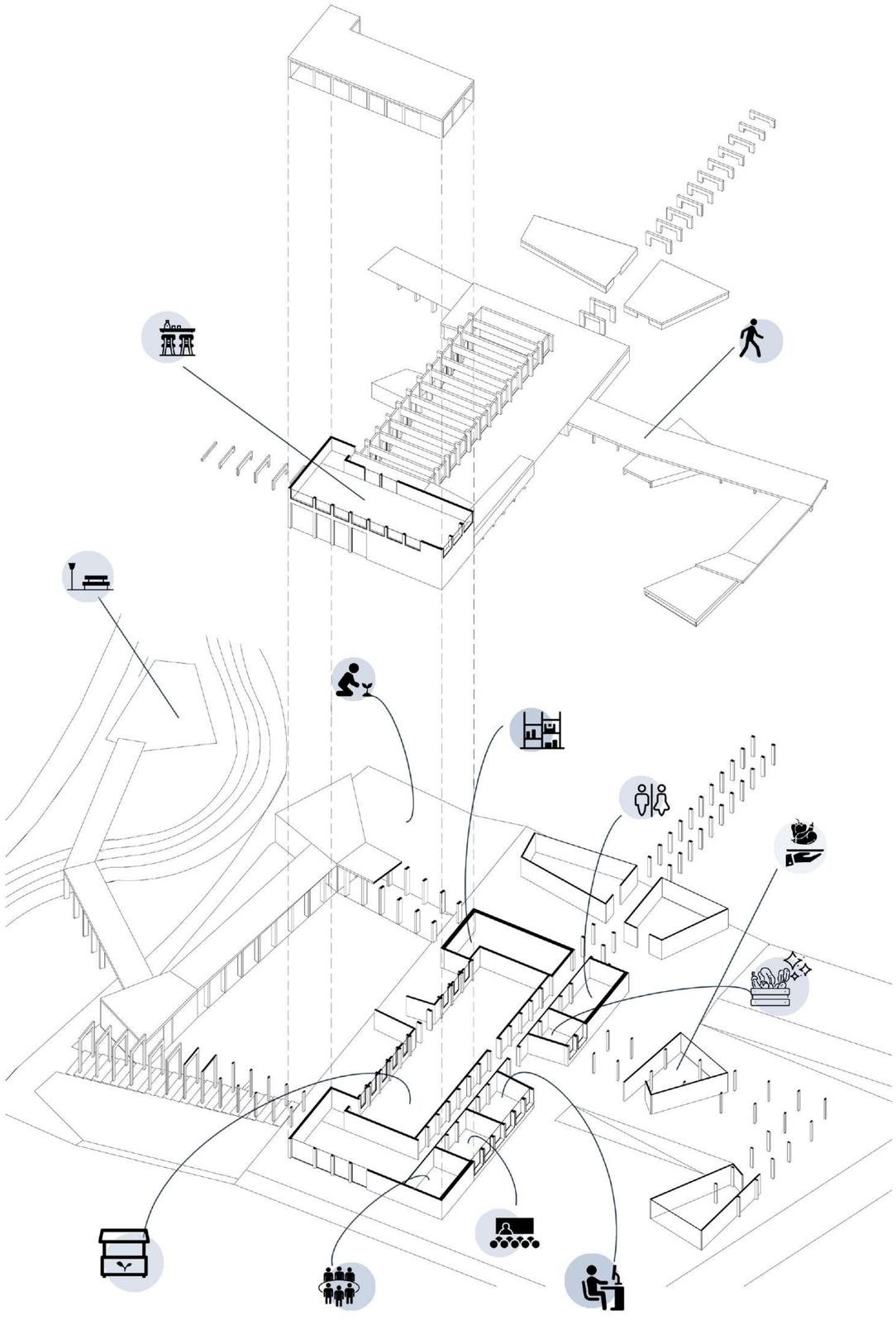






THE PATTERN OF TRACKS FOR THE OUTDOOR PROJECT





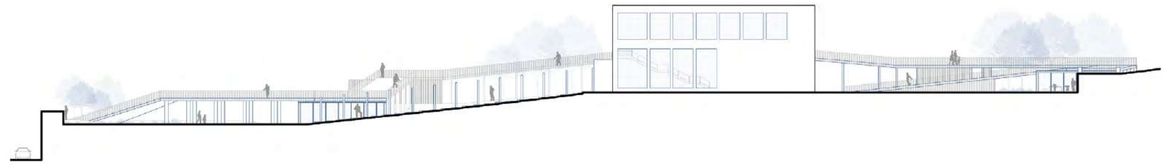


EST ELEVATION



SECTION A-A’

0 10 25 50m



SUD ELEVATION



SECTION B-B’

0 10 25 50m

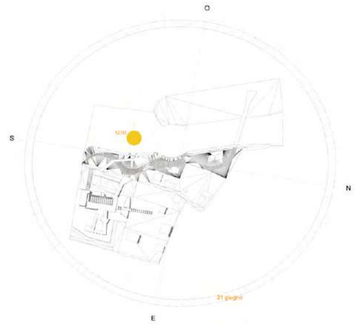


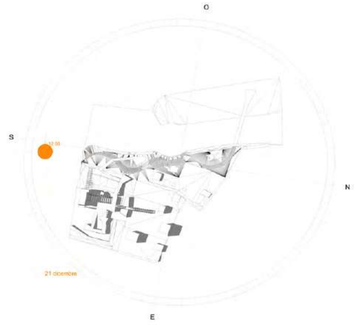
GROUND FLOOR + 1.5m

0 10 25 50m



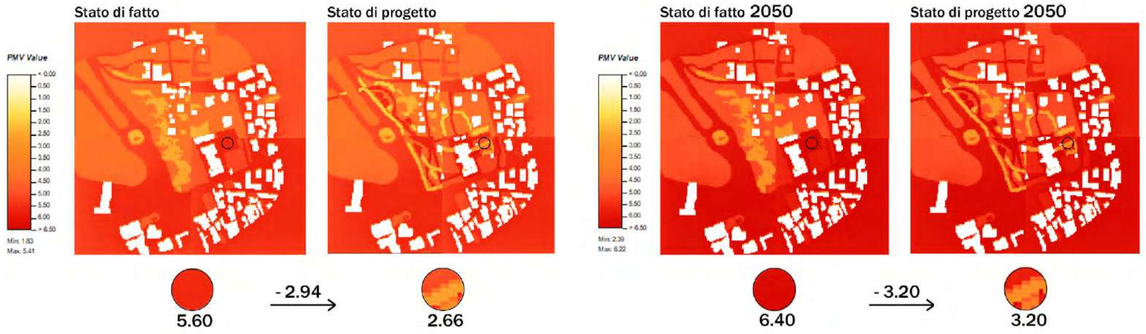
THE OUTDOOR AREA: THE NEW FACADE , PAVILIONS AND VEGETABLE GARDENS



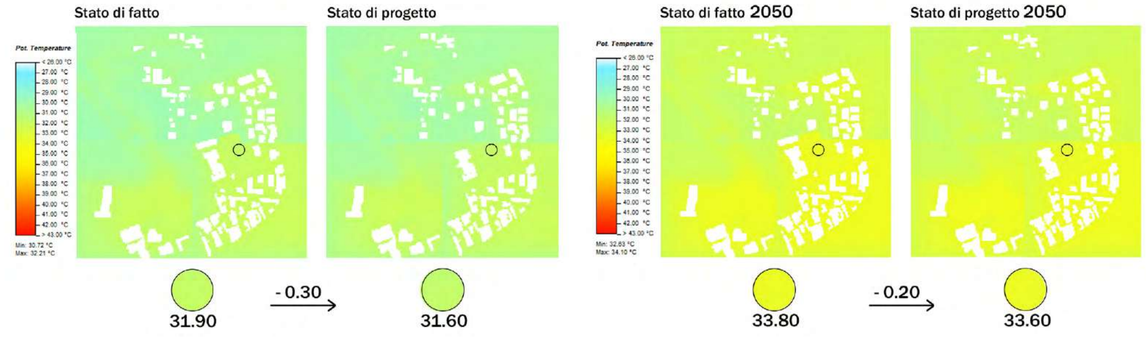


summer solstice | *21 june*

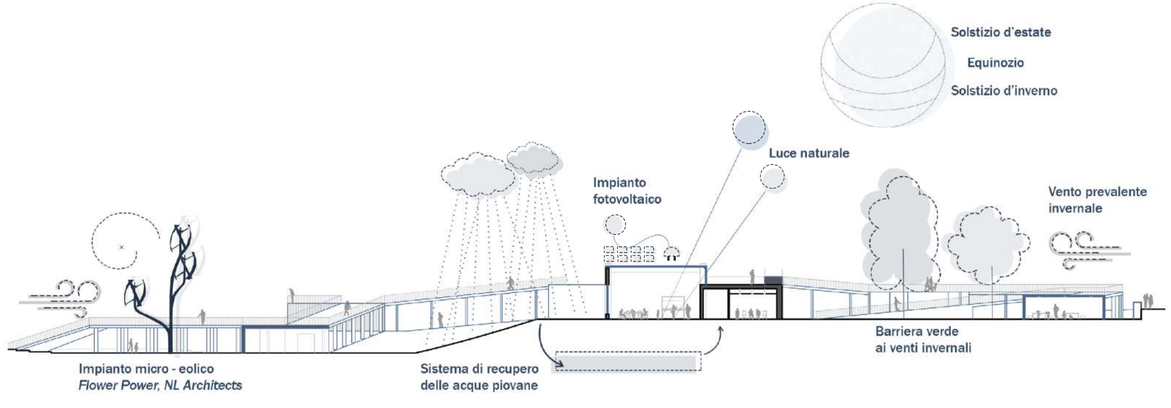
winter solstice | *21 december*



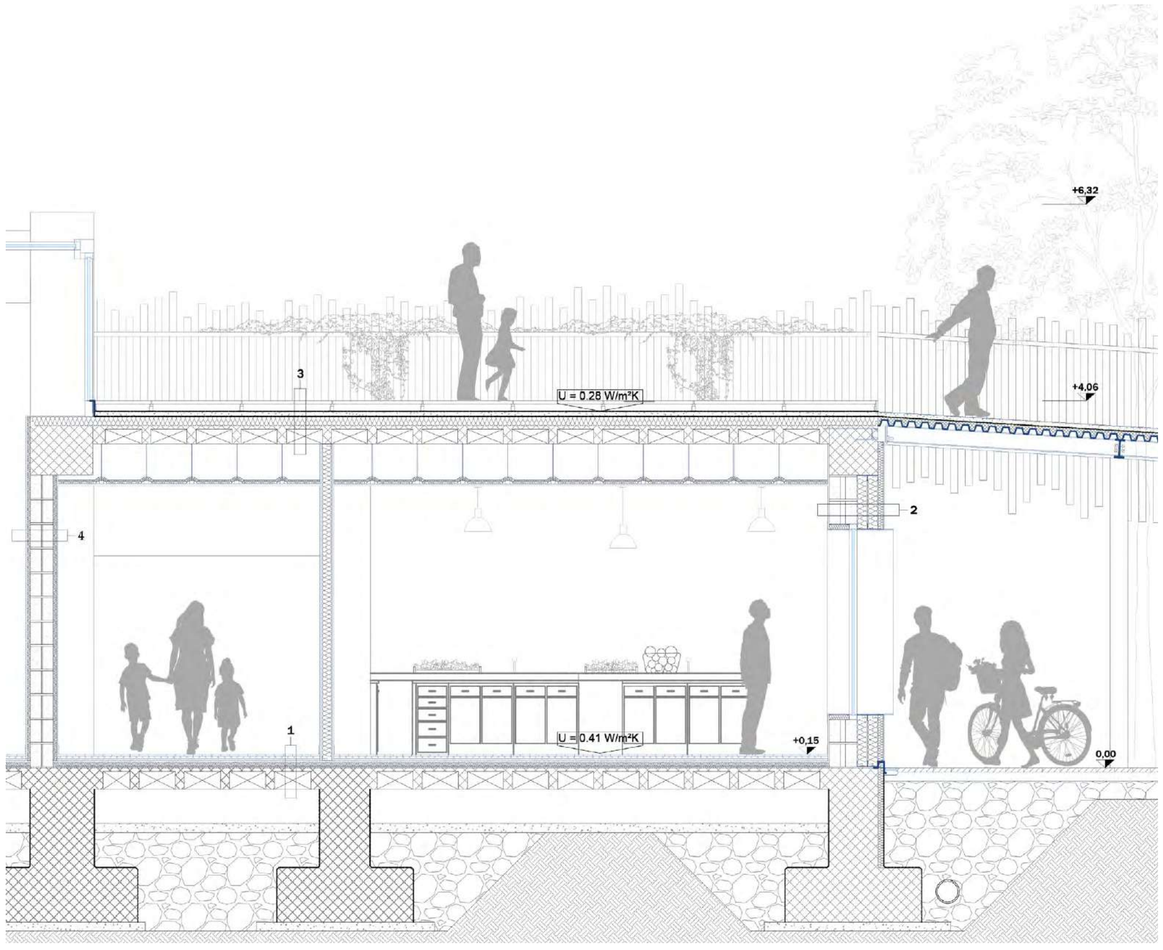
PMV | Predicted Mean Vote



POT | Air Temperature



ENVIRONMENTAL SECTION



FOUNDATION FLOOR

Gres floor
Radiant floor
Drywall
Granular leveling
Hemp fiber insulation
OSB wood panel
Cement brick slab

EXTERNAL VERTICAL WALL

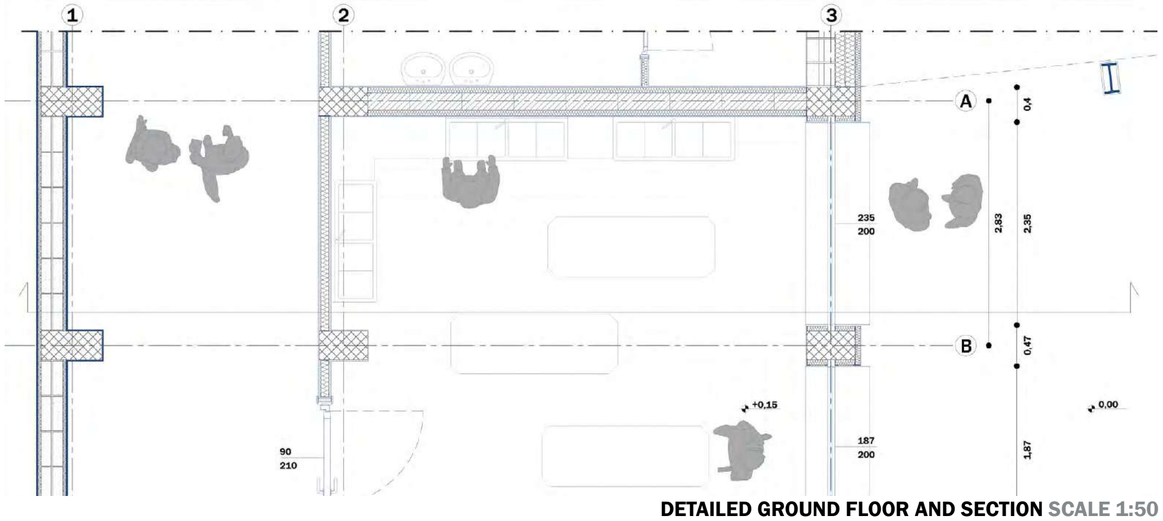
Internal plaster
Block of yellow tuff
Hemp fiber insulation
External plaster

ROOF COVERING

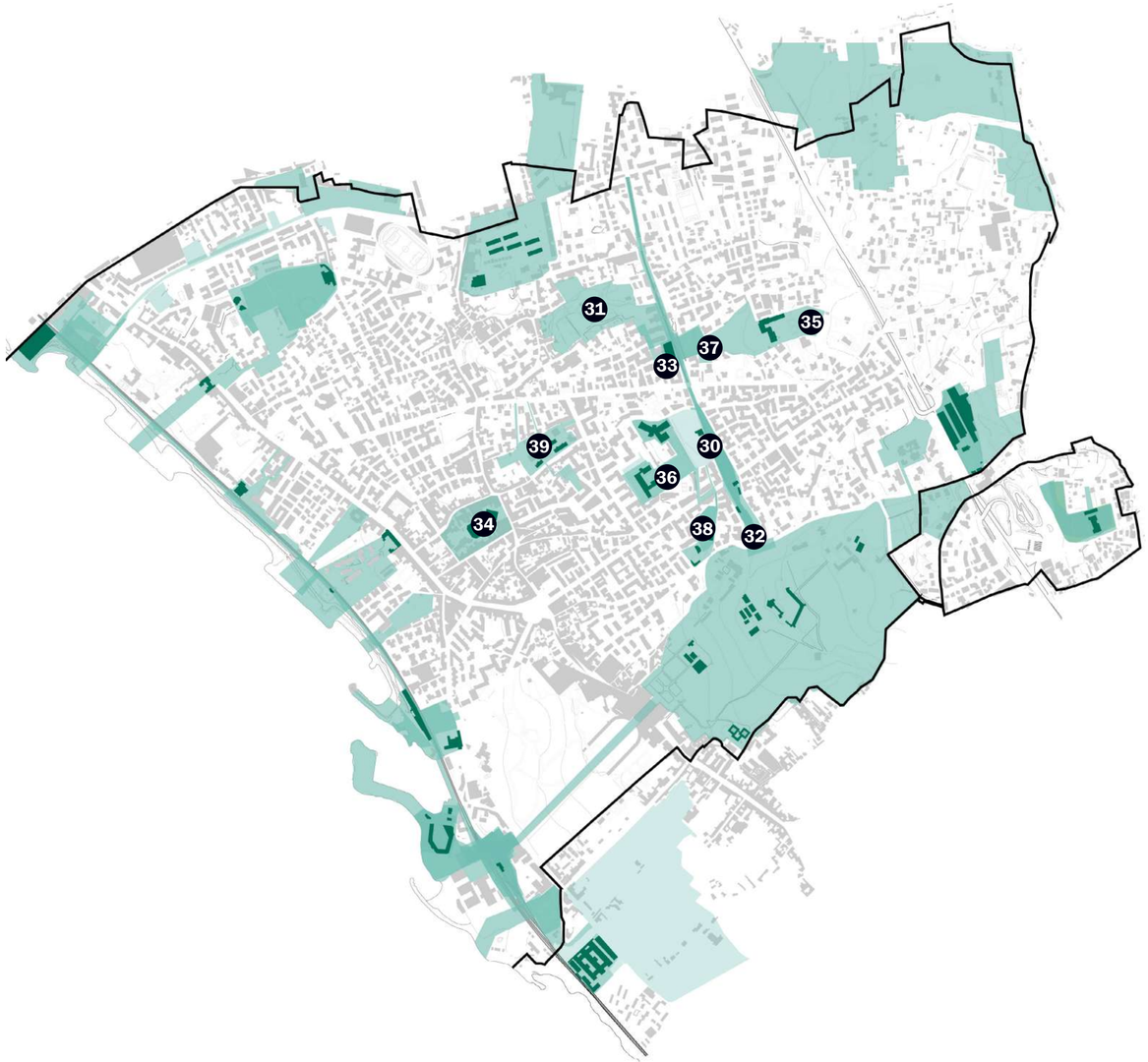
Raised floor
Waterproof case
Screed
Waterproof case
Hemp fiber insulation
Cement brick slab

INTERNAL VERTICAL WALL

Layer of plaster
Drywall
Block of yellow tuff
Drywall
Layer of plaster



DETAILED GROUND FLOOR AND SECTION SCALE 1:50



INTERNAL AREAS
LE AREE INTERNE

30. Cross city Luca Battista
31. Bellavista contemporary park Massimiliano Buonaiuto
32. Green Connection Dario Colella
33. Relinked city Liliana Coppola
34. Constant motion Antonio Corcione
35. From past to present Maria Parente
36. Green mind school Sara Pasquariello
37. Urban reappropriation Alessia Francesca Picarelli
38. Into the dencity Alessia Scarcella
39. In the middle Giulia Talamo

PORTICI ADVANCED DESIGN STUDIO

LUCA BATTISTA - CROSS CITY

A STRATEGY AGAINST URBAN HEDGES

CROSS THE CITY AND CREATE NEW PUBLIC SPACES

Cross City “was born with the idea of breaking down the urban barriers that increasingly characterize our cities and densified territories such as the city of Portici.

Often these barriers find correspondence in the infrastructures that cut the cities into real portions of territory: the city of Portici is characterized by a clear division through three longitudinal axes which are the railway, the circumvesuviana and the highway.

The goal is to be able to incorporate them within the context by progressively eliminating this sense of caesura and “transforming” what we define as barriers into living, aggregating and above all characterizing spaces.

In the specific case, an area is chosen that is located on the edge of the circumvesuviana. The latter develops within the most densified part of the city, becoming underground in some places such as within the “Park of the Portici Palace.

Through the use of new buildings, parks, equipped public spaces, sports facilities, altitude jumps, aerial and underground crossings, the regeneration of these spaces takes place, which integrate with the rest of the city and improve its livability. areas of the circumvesuviana but also to those of the railway and the motorway or for any type of “urban barrier”; in such a way as to be able to obtain a perfect design collaboration.



Program

Urban park, Public and commercial gallery, Sport Center, Station, Public spaces

Covered area	2354m²
Uncovered area	3058m²
Floors	2
Built volume	15834m³
Estimated coast	5840576 €

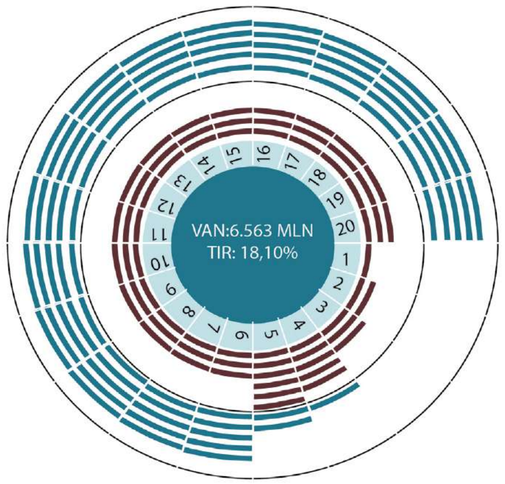
The project area is located at the intersection of via Libertà and Via Aldo Moro and extends in both directions, involving a large part of the open area of the Circumvesuviana. It is possible to divide it into two areas on the north and south sides of the bridge in which the latter collaborate to become a unitary system.



The following are the first comparisons with the project from the point of view of the urban strategy and from the point of view of economic analysis:

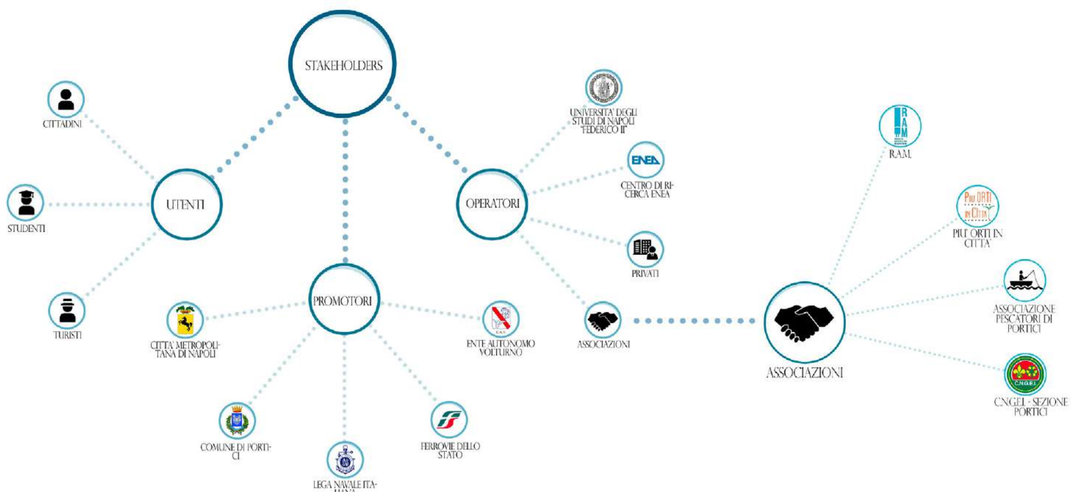
With regard to the economic question and evaluation, the “cashflow” is analyzed over a twenty-year period in which construction and management costs and global revenues emerge and from which we can obtain the NPV and IRR which give us an estimate of the convenience of the project. Subsequently, the “cashflow” is analyzed for individual functions in order to understand which are the driving forces compared to those exclusively for public service. Finally, a map of the main actors present in the city of Portici who can actively participate in the realization of the project is indicated.

The Urban Planning strategy stands out for the identification of a defined number of areas on the uncovered curcumvesuviana axis (400 m). These areas can have multiple and different uses by exploiting the differences in quotas. The goal is to assist the multiplicity of these areas in a strong and unitary system.





FINANCIAL ANALYSIS CASHFLOW ANNUAL BY FUNCTIONS

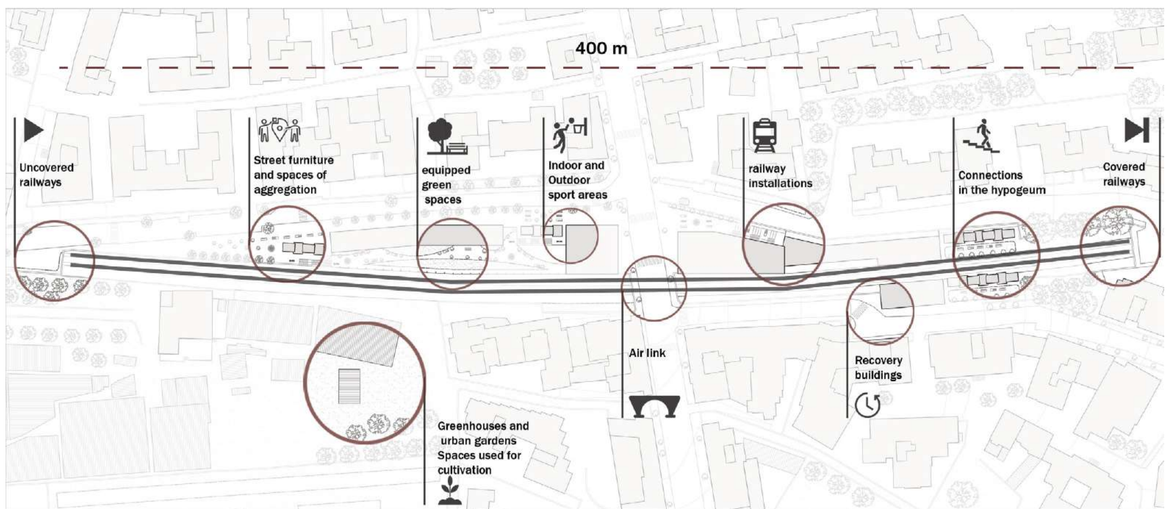


STAKEHOLDER MAP THE MAIN PLAYERS IN THE AREA

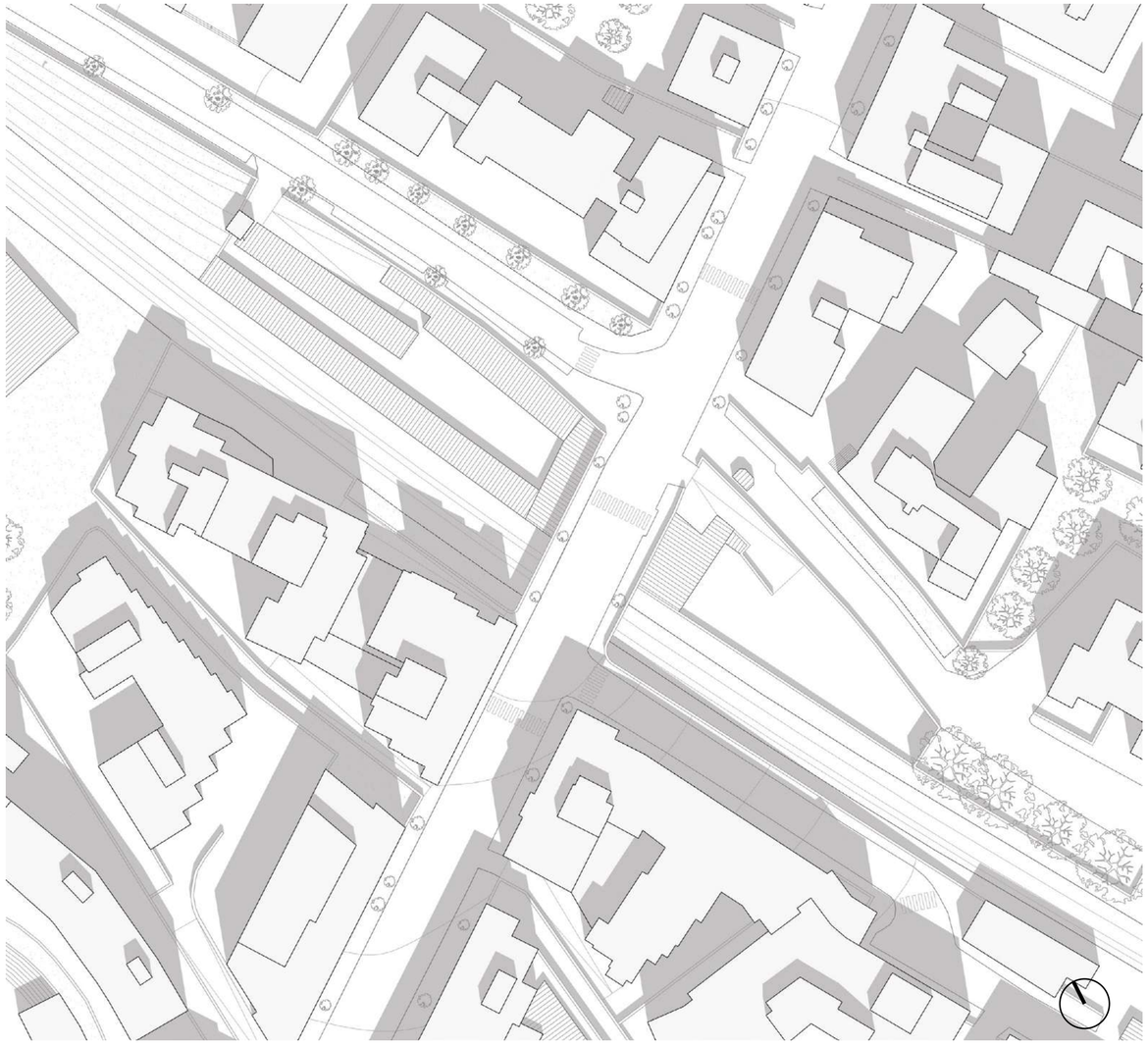


PORTICI PARCO THE PROJECT IN THE CONTEXT

0 30m 60m 125m

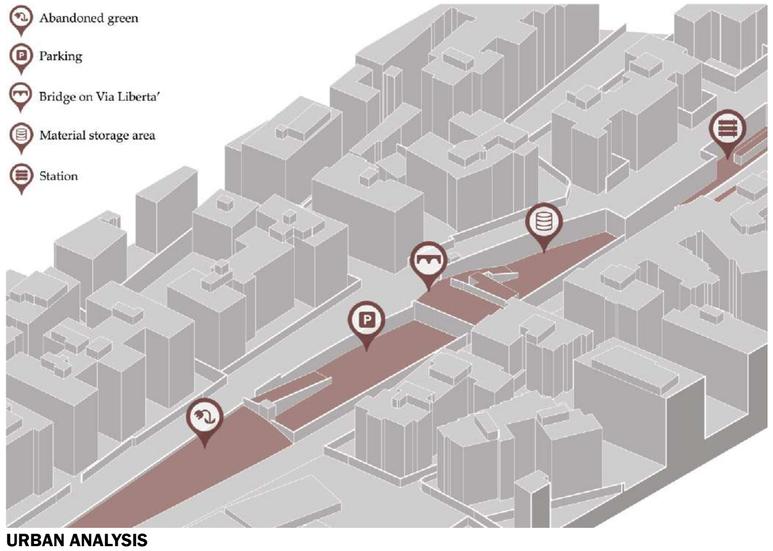


URBAN STRATEGY



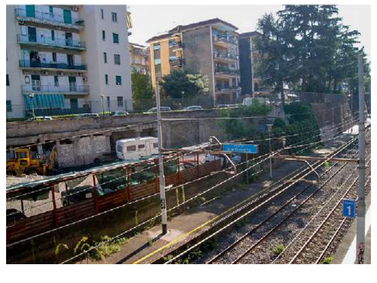
CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

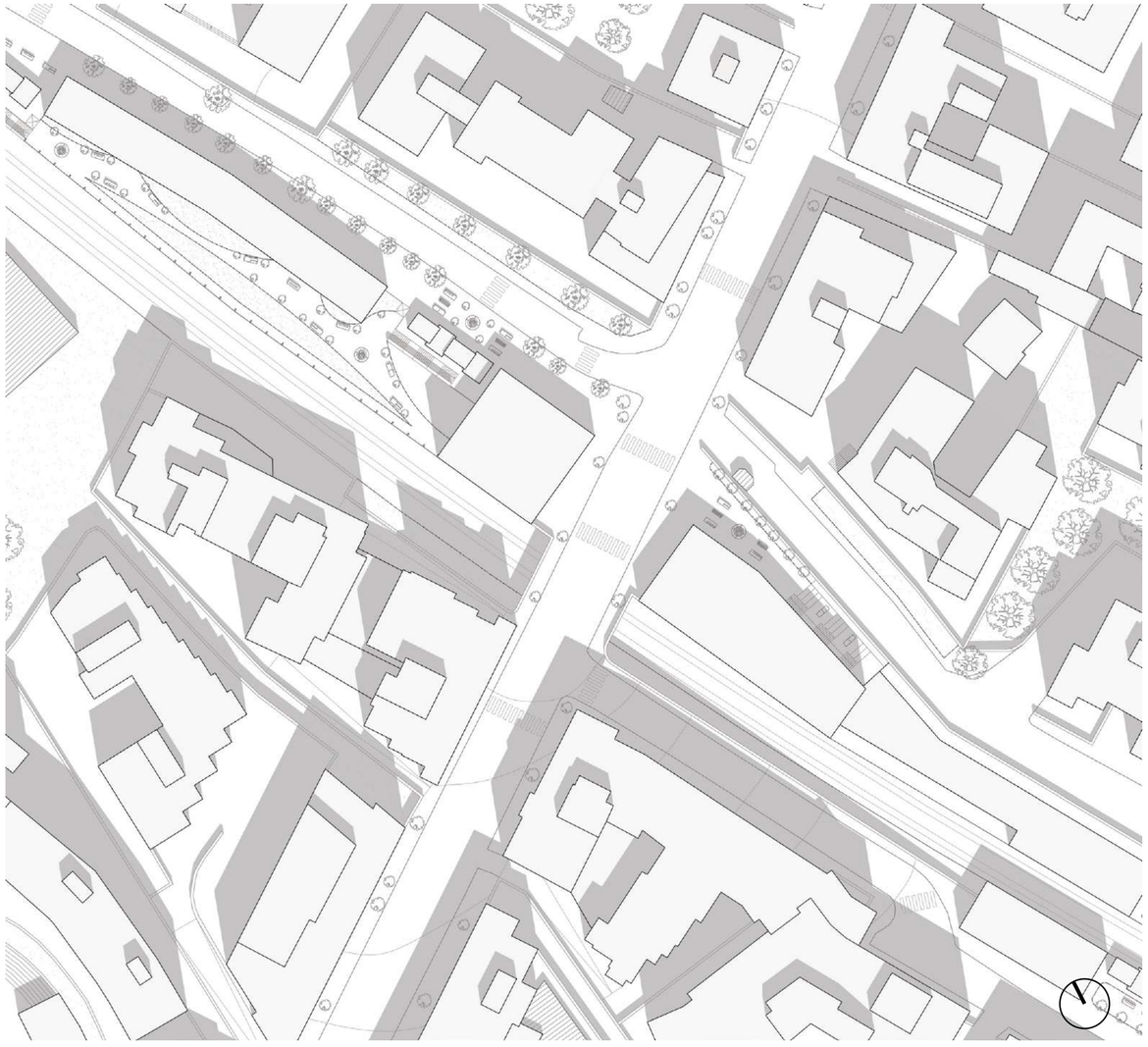
0 15 37.5 75m



URBAN ANALYSIS

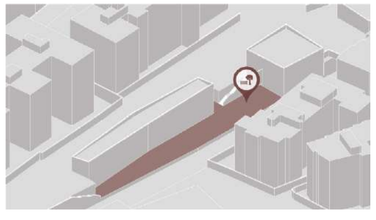




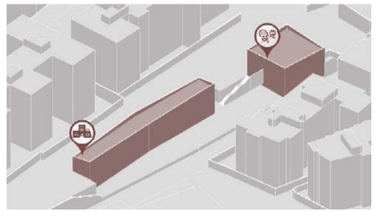


DESIGN PROPOSAL

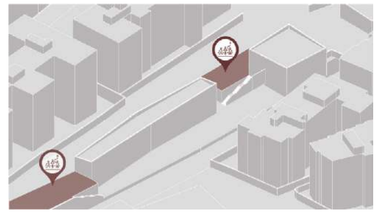
0 15 37.5 75m



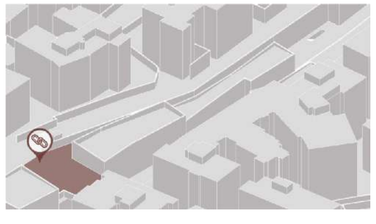
PARK FOR THE CITY



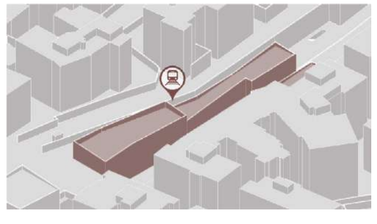
NEW PUBLIC FUNCTIONS



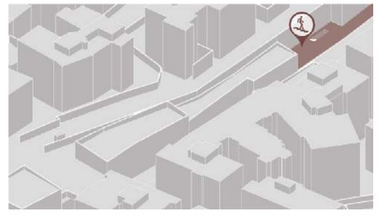
PUBLIC SPACES



AIR LINK

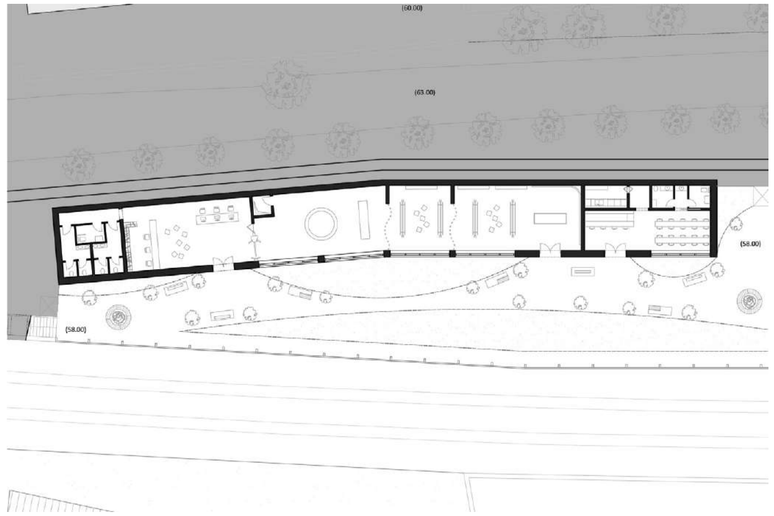


PORTICI STATION



CONNECTIONS IN TE HYPOGEUM

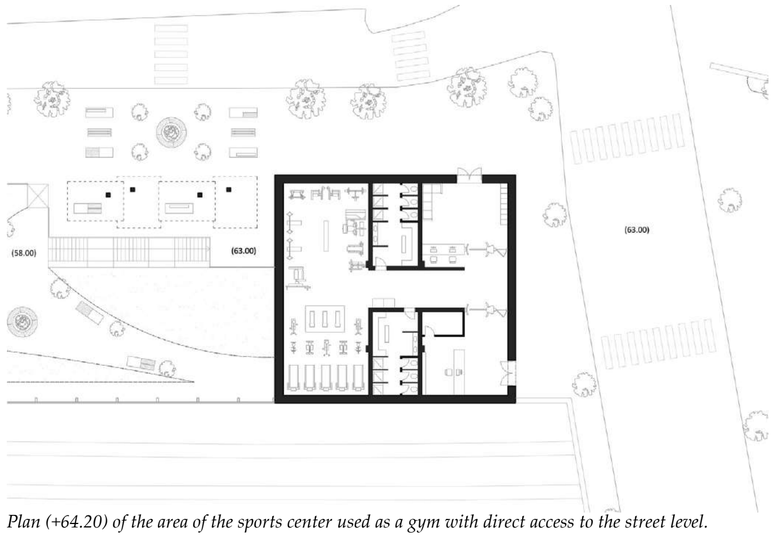
The project is divided into three main volumes that develop on the two sides of via Libertà. The latter are interspersed with a series of public areas and equipped green spaces that break the continuity of the architectural element. The main concept is to target the reservoir through discontinuous elements that are able to relate to the urban context.



Plan (+59.20) of the public gallery with direct access to the park.

The three volumes contain a series of functions each chosen to give strength to the whole system:

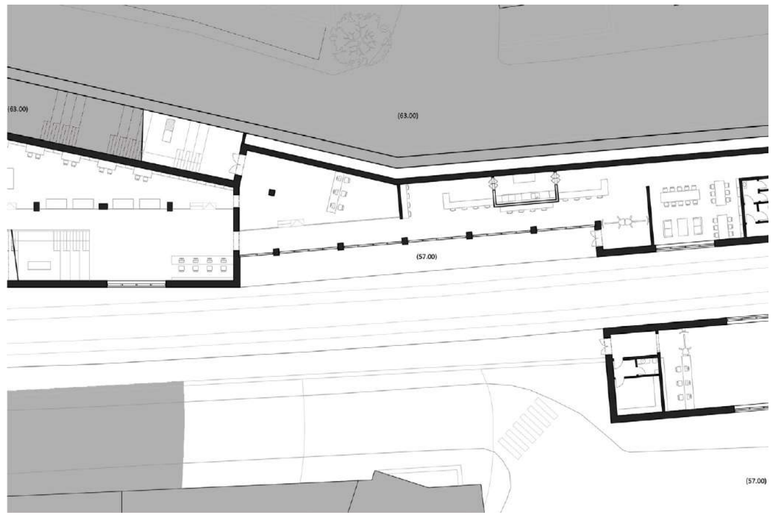
The Gallery develops on two levels; the first consists of a public gallery used for exhibitions or events which can only be accessed through the park level. A bar and cafeteria area independent from the public gallery function is located in the south end in such a way as to provide a service to those who use the park regardless of the opening or use of the public gallery. The next level (at the level of the Via Aldo Moro road) we have a commercial gallery divided into 10 rooms, each of which can accommodate different types of set-up.



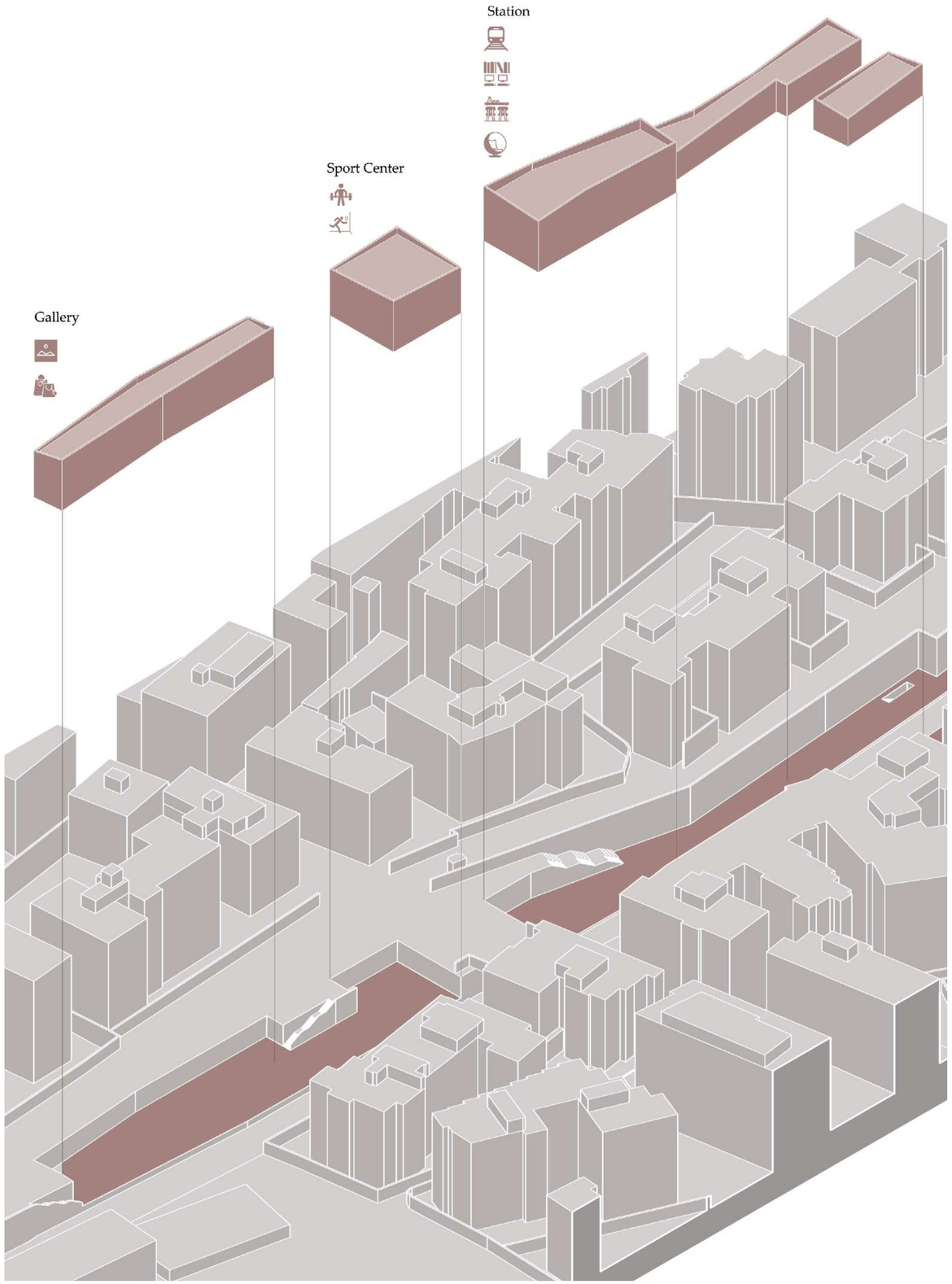
Plan (+64.20) of the area of the sports center used as a gym with direct access to the street level.

- The cubic element has the function of a sports center and also develops on a double level: At street level we have a gym while at the park level we have squash courts. The whole system is designed for indoor sports activities around the system

-The last element represents the new station of the Circumvesuviana of Portici; the latter incorporates the current station into a very varied system in which a series of functions have been designed around the station that allow the space to be liveable in all circumstances: a space frees / Idea Store, private study areas, a cafeteria and equipped leisure areas. The element develops mainly on one level with the exception of the north end which connects at street level. An underground connection is also conceived for the two sides of the tracks.



Plan (+59.20) of the main area of the Station: Entrance, Ticket Office, Bookshop, Leisure Areas, Bar

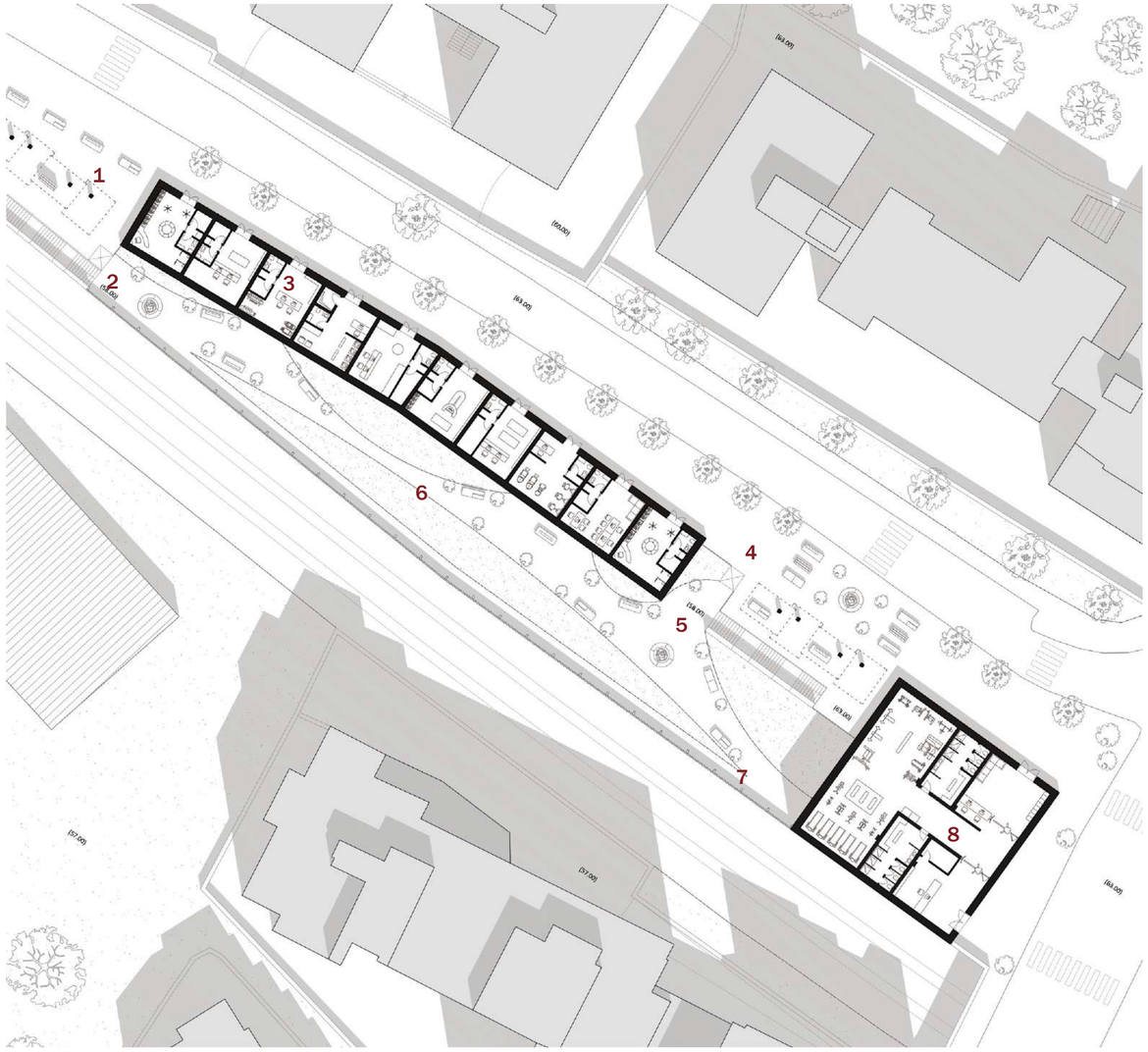




0 4 10 20m

CROSS SECTION

1. Public outdoor space
2. North acces to the park
3. Commercial gallery
4. Public outdoor space
5. East acces to the park
6. Parco Circumvesuviana
7. Sound absorbing barrier
8. Sprt center

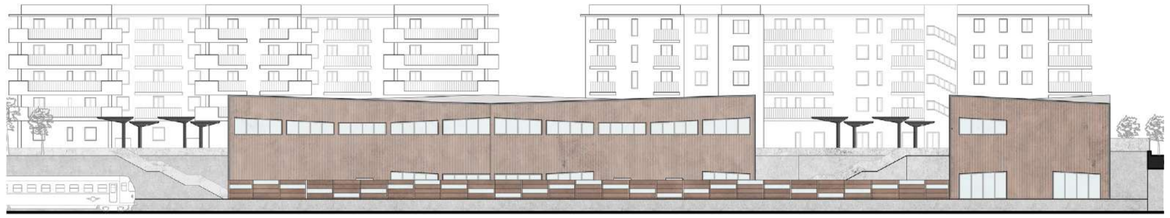


0 10 25 50m

PLAN + 64,2m



LONGITUDINAL SECTION

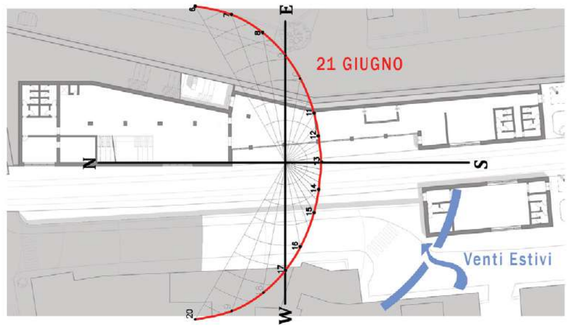


0 10 25 50m

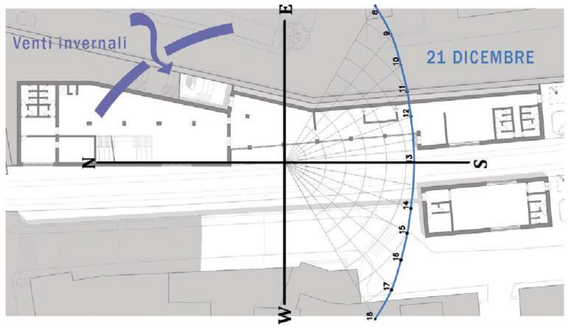
WEST ELEVATION



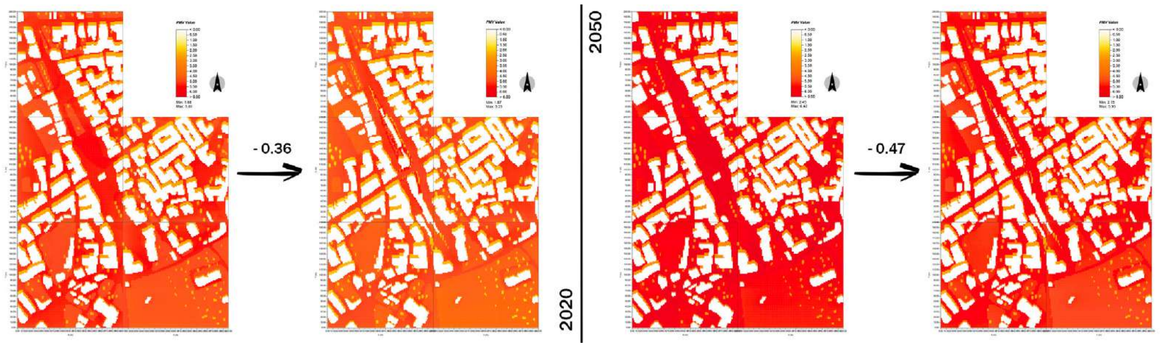
THE PARK OF THE CIRCUMVESUVIANA



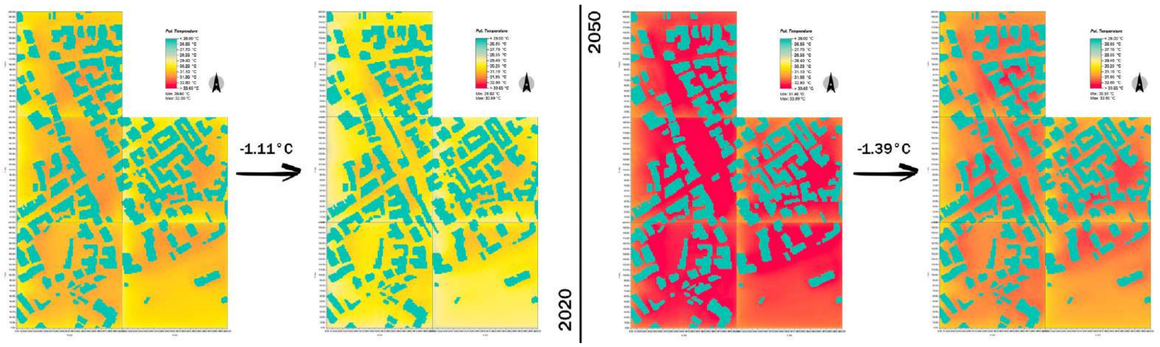
summer solstice | *June 21st*



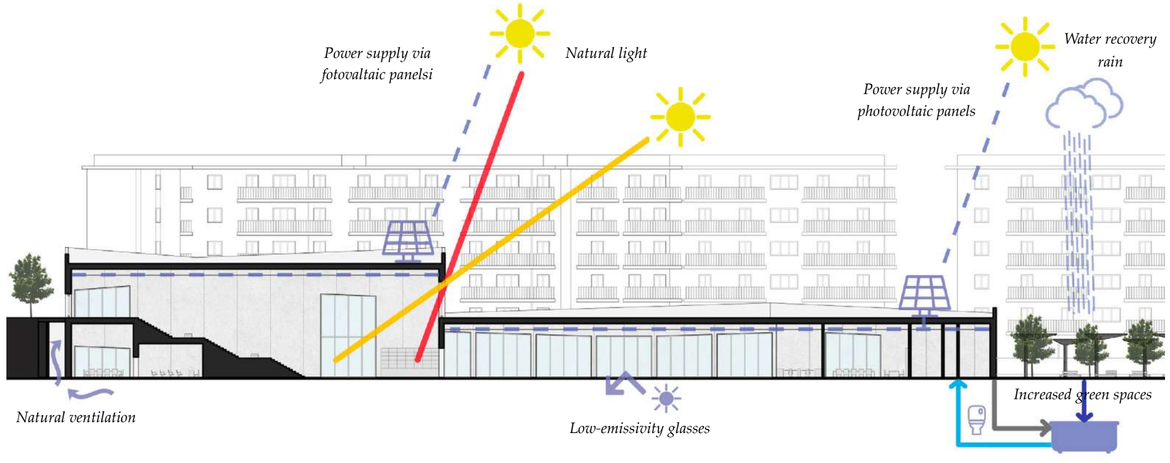
winter solstice | *December 21st*



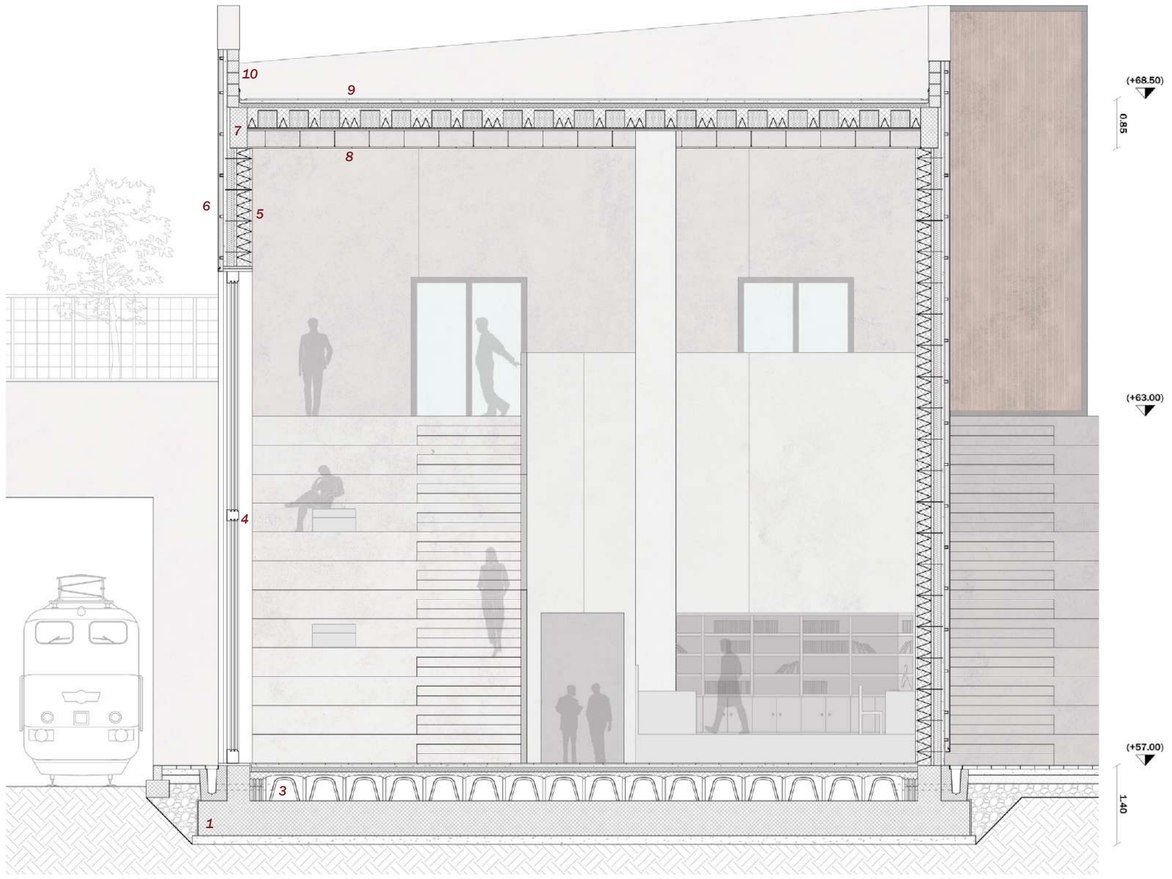
PMV | Thermal sensation index

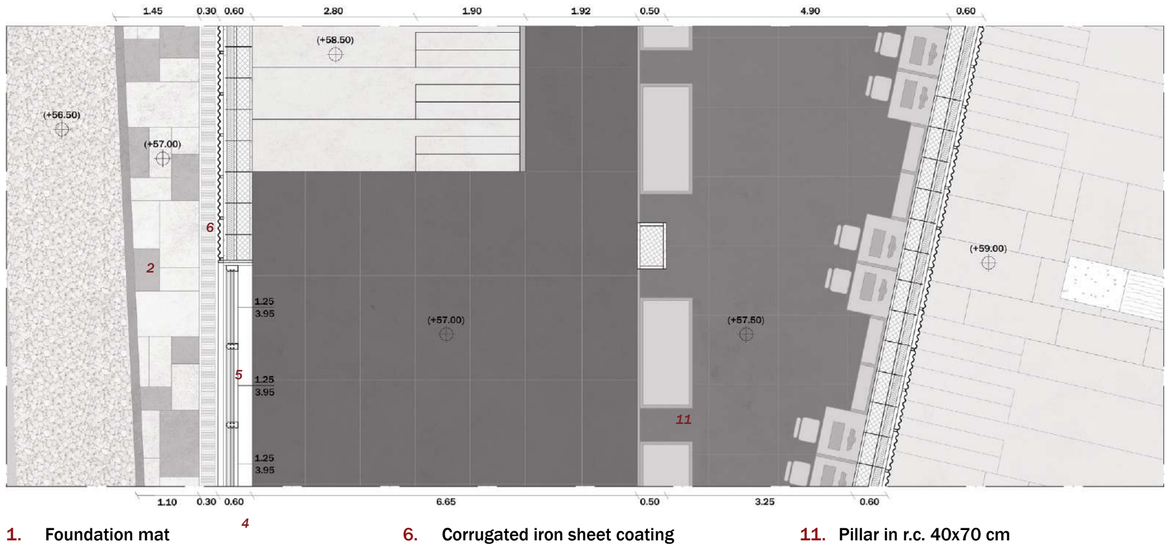


POT| Air temperature



AMBIENTAL SECTION





1. Foundation mat
2. Railway platform
3. Ground floor loose stone foundation
4. Frame with triple low-emissivity glass
5. *Vertical prefabricated closure in r.c.*
6. Corrugated iron sheet coating
7. Bem in r.c. 30x70 cm
8. False ceiling
9. Roof floor in *Predalles*
10. Parapet
11. Pillar in r.c. 40x70 cm

PLAN AND SECTION OF THE STATION SCALE 1:75

PORTICI ADVANCED DESIGN STUDIO

MASSIMILIANO BUONAIUTO - BELLAVISTA CONTEMPORARY PARK

A STRATEGY AGAINST URBAN SPRAWL
A GREEN SOLUTION TO THE CONCRETE JUNGLE

The city of Portici, with about 12000 inhabitants/km^2, is the second Italian municipality by population density, and this tends to be reflected in its urban aspect, which looks like a large concrete jungle that stretches from the slopes of Vesuvius to the coastal, almost resembling a small "*Italian Shanghai*". In this dense jungle, despite the presence of the large Park of the Portici Royal Palace, the green spaces are small and insufficient to guarantee the population some breathing space, and the public spaces are isolated from each other, both separated by material and immaterial barriers (like wide distances).

In response to these problems, it was decided to design a new urban park, aimed at assimilating the function of public and green space, inserting it in the building density, in its degraded or unused spaces, separated from the rest of the collective or difficult to reach, without however demolish the context already built, but showing respect and trying to improve it.

The adjective "**contemporary**" is given by the overcoming of the classic vision of urban park, seen as a space intended only for collective green, through the inclusion of public functions, such as commercial, sporting, cultural activities, which can also make it a new attractive hub of the city.The area destined to host the park is the Bellavista district, which, like the nascent park, takes its name from an exclamation of Queen Maria Carolina of Austria who at the sight of the landscape from Colleggio Landriani exclaimed "*oh, what a beautiful sight*".

Program

Urban park, with sports facilities, commercial and cultural activities, restaurants, offices, student residence.

Covered surface	7.899,60 m^2
Uncovered surface	64.173,98 m^2
Built volume	37.426,62 m^3
Estimated cost	16.386.031,14€



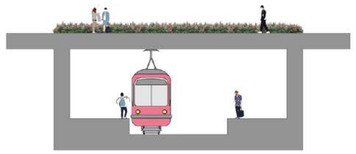
The project concerns the two green areas located on the sides of the Portici-Bellavista station: one area is the abandoned and degraded garden of the Landriani College, while the other area is private agricultural fields. Both areas are isolated from the rest of the town by the various buildings that surround them and their borders, which represent the typical architectural barrier common in Portici.



To add to the latter there is also the circumvesuviana line that cuts the city in half. The idea of the project is to transform these closed areas into public spaces, creating openings by breaking down the small boundaries of the private homes that surround them, but never touching the existing buildings, respecting them. Part of the circumvesuviana line is interred with a linear green park, creating more public space surrounding the station. The two large areas are then revised as two new parts according to a new large linear park, where new slender structures are inserted developing them along the edge, leaving the central spaces to be protagonists of the new green park. The new structures are used as shops, offices, libraries in the ex-agricultural area, while in the ex-garden of Landriani the structures will be a student residence for students of the agricultural university of Portici, a museum and laboratories. An old abandoned greenhouse along the new access on Via Zumbini is reconfigured as a new covered market with an integrated underground parking.







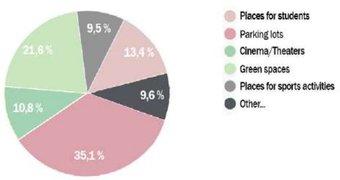


PORTICI'S BARRIERS

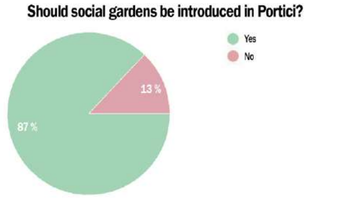
Portici is a city where there are several spaces, both public and private, separated both from the existing building itself, which organized the city territory in a concrete jungle, and from the borders of the same properties. A further barrier that characterizes the territory are large infrastructures such as the circumvesuviana which cuts it in half. The strategy is to overcome these barriers by interrupting them, in the case of the circumvesuviana, or by exploiting them to create new public spaces, as in the case of the buildings of the residential park near the station, also adding various commercial activities.

SOCIAL STUDY ANALYSIS

What activities do you think should be implemented in Portici?

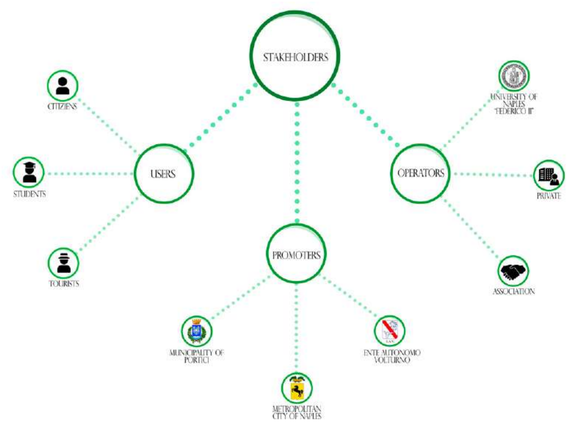


Should social gardens be introduced in Portici?

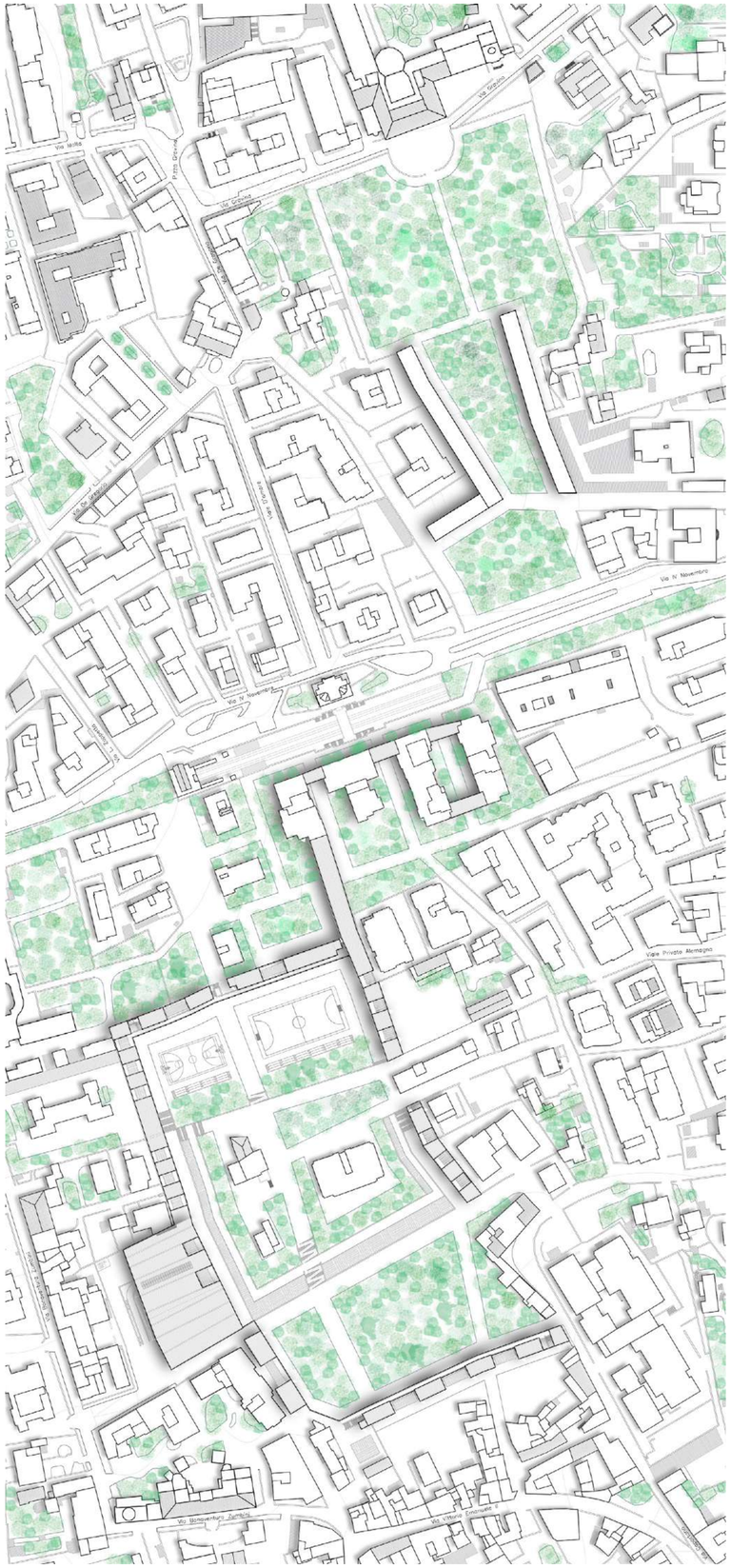


Social studies on the population highlights the request by citizens to implement in the city as spaces intended for green parks, sports areas, social gardens ... requests to which the project responds.

STAKEHOLDERS



The project also aims to implement the influx of tourists and students to the city, and finds interest in management also in various territorial associations.



MASTERPLAN 0 50 250 500 m



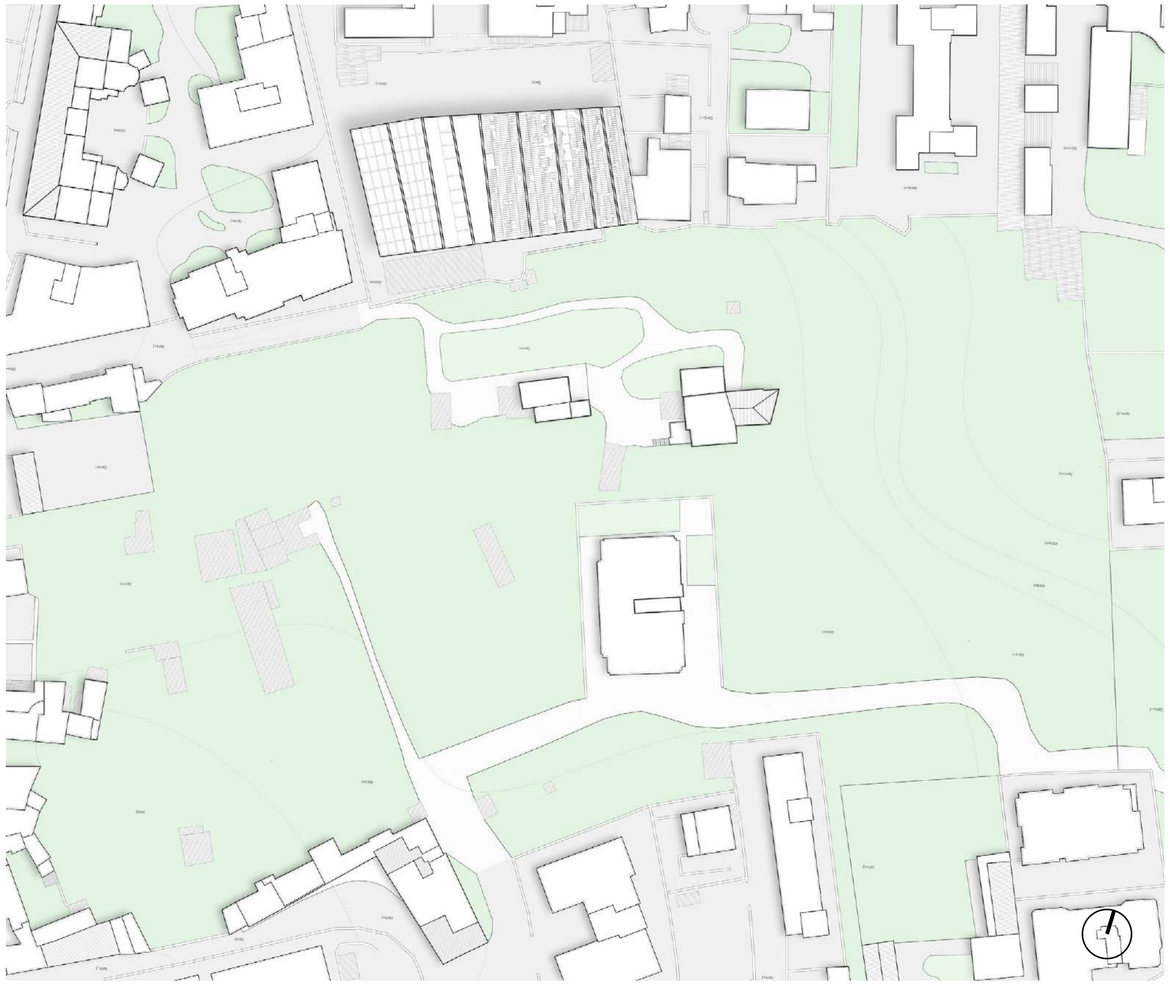
IN THE CONCRETE JUNGLE



OVERCOME BARRIERS WITH NEW ENTRACES



BUILD ALONG THE EDGES

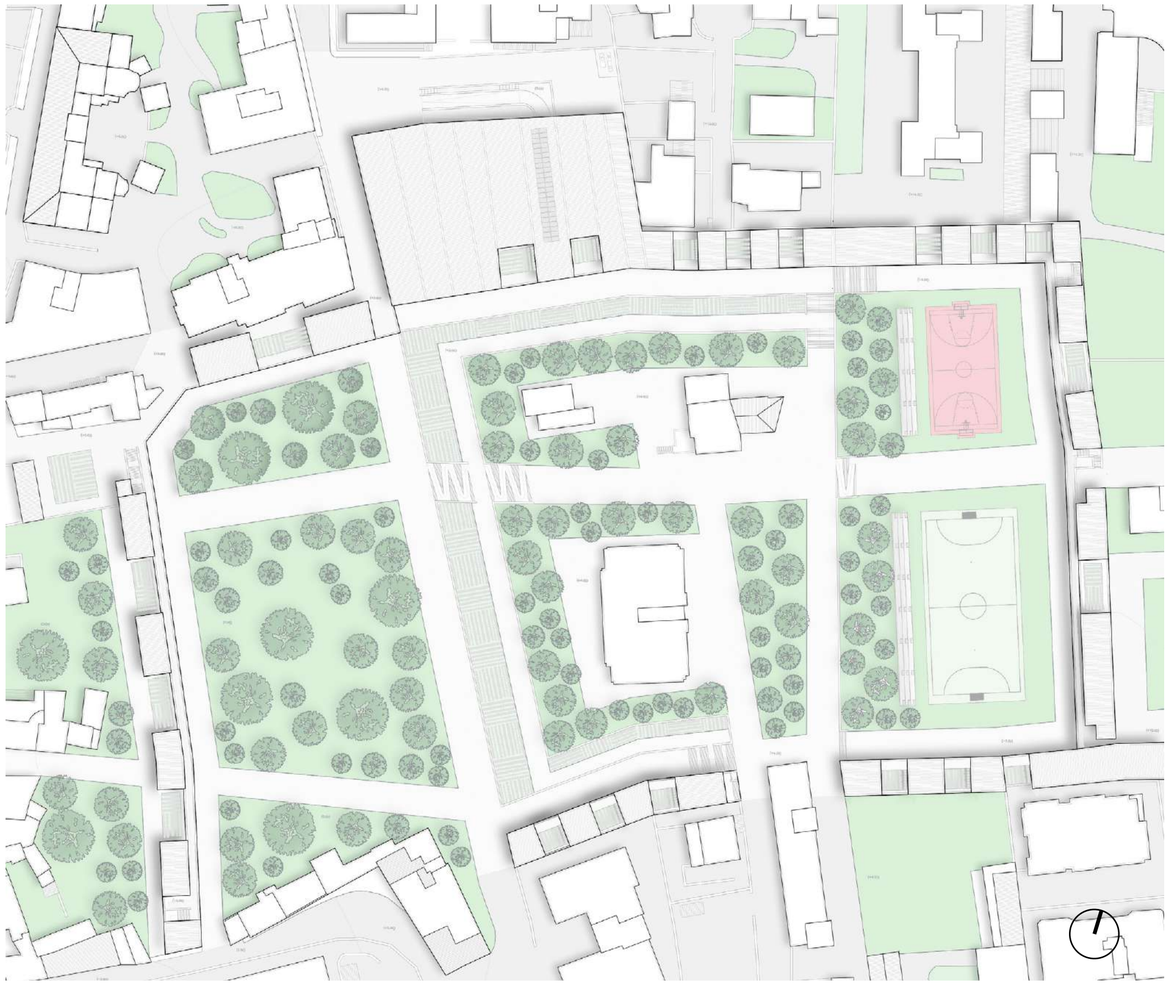


CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 10 25 50m

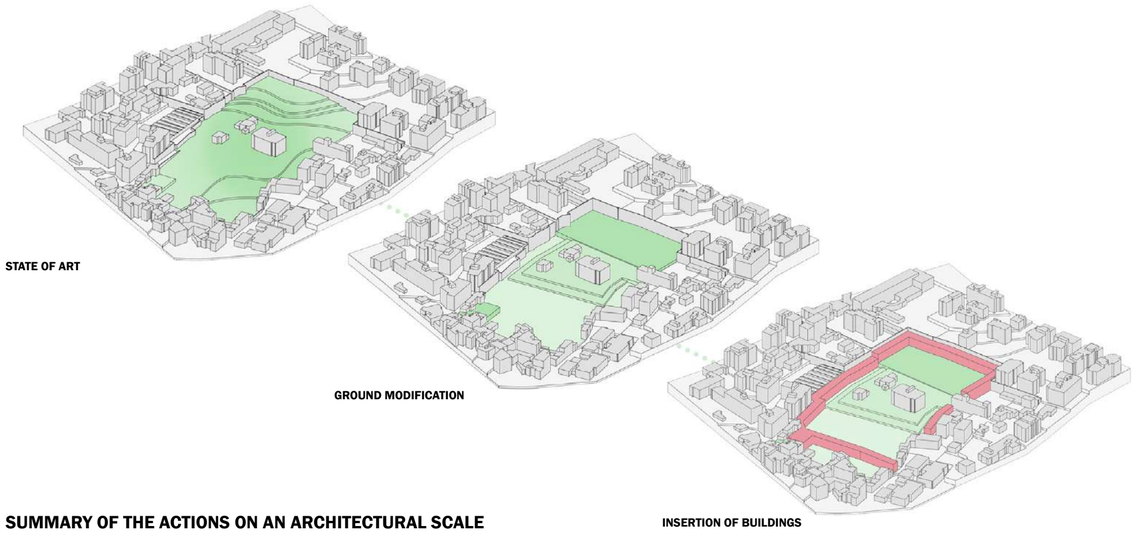


PHOTOGRAFIC DOCUMENTATION



DESIGN PROPOSAL

0 10 25 50m



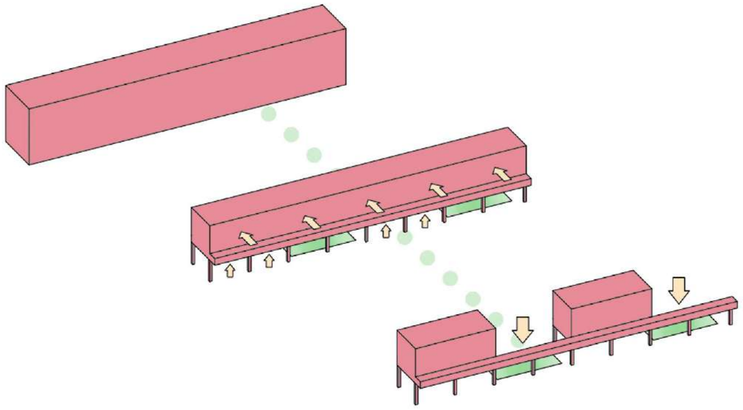
SUMMARY OF THE ACTIONS ON AN ARCHITECTURAL SCALE

To keep as much space as possible to be assigned to the green areas of the park, it was decided to create slender and low structures (on average 8 m thick and 10 m high) that develop along the edge of the area, in close contact with the built context. It was also chosen to preserve part of the former function of the area, through the union of social gardens both in the large central green space and in the structures, but in different ways.

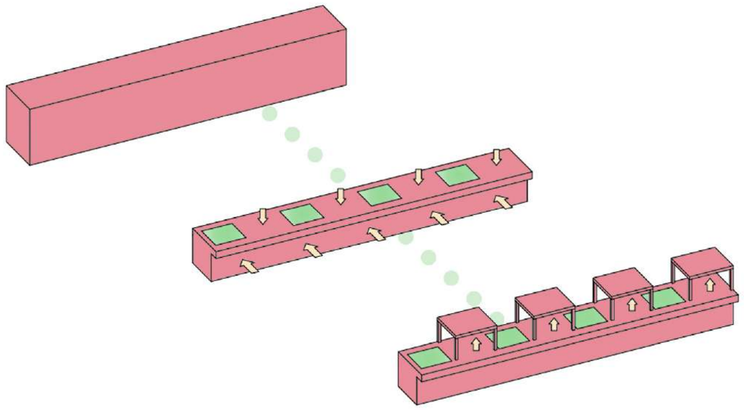
For the structures arranged to the East and West (**Scheme A**) in reference to the central space, it was decided to develop the indoor functions along the upper level, leaving the lower one intended for a roofing and passageway, with the structural elements visible. Social gardens are also placed on the lower level, piercing the upper level in correspondence.

Instead, for the structures arranged in the North and South (**Scheme B**) in reference to the central space, a similar but inverse reasoning was carried out: the indoor functions are developed along the lower level, subtracting the upper one where the social gardens are inserted; in the spaces between them, the lower structural elements are already extended, creating covered areas.

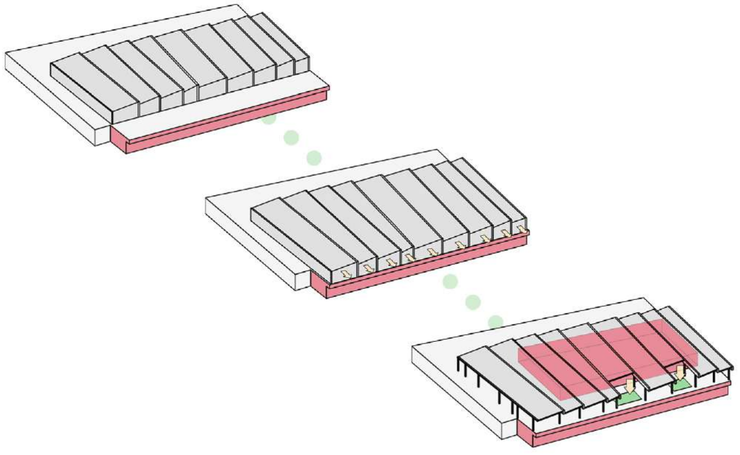
A totally different reasoning is carried out for the structure that developed in correspondence with the old abandoned greenhouse (**Scheme C**): by replacing in a first phase the type of roofing of the building, from gable roofs to single-pitched roofs, the structure is extended on the upper level of the corresponding building. Subsequently, the decision was made to reduce the closed perimeter of the greenhouse, destined to become a covered market. Here too the social gardens are inserted on the upper floor and, consequently, the roof of the greenhouse is pierced in correspondence with them.



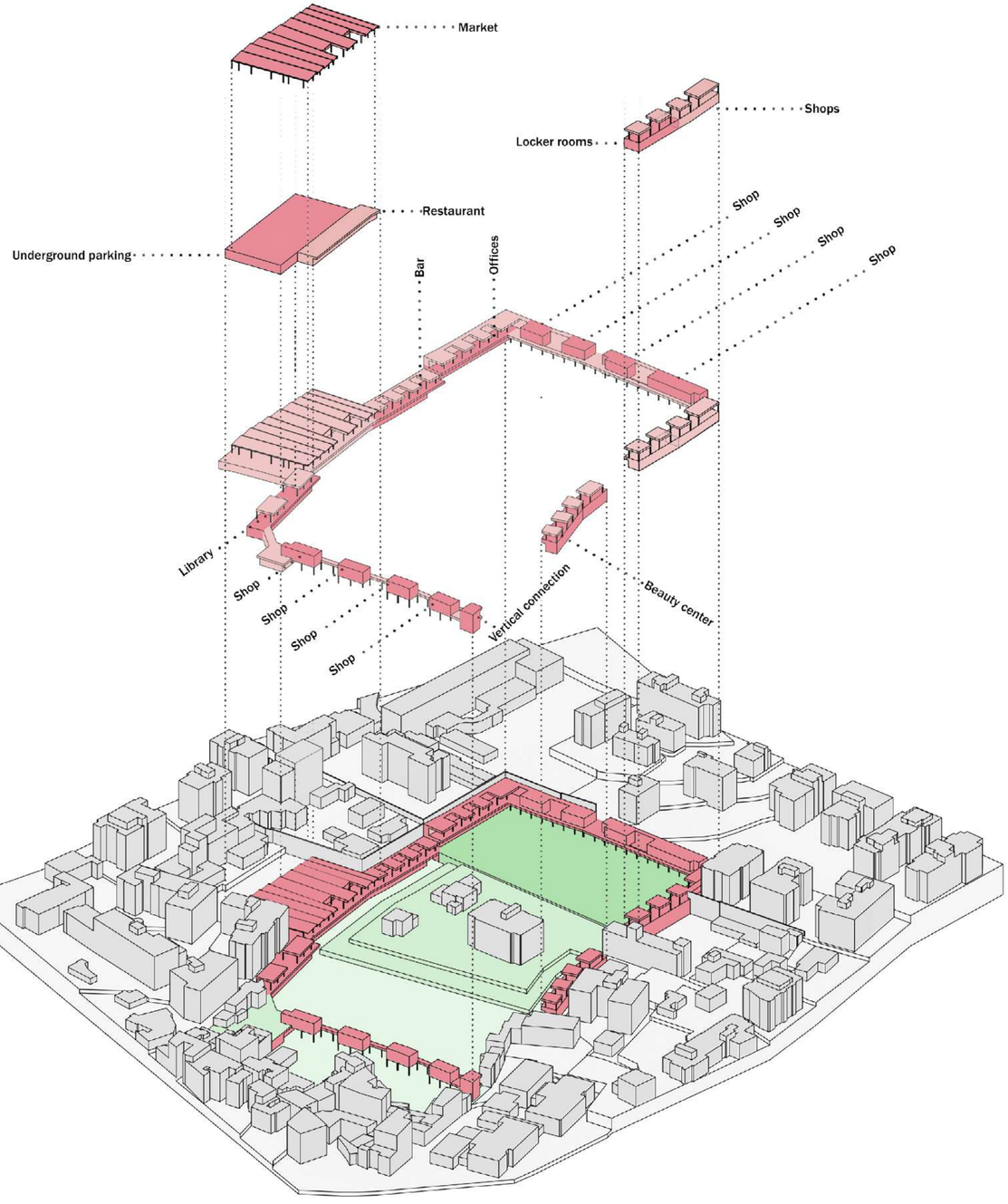
Scheme A: indoor functions on the upper level, social gardens on the lower level.

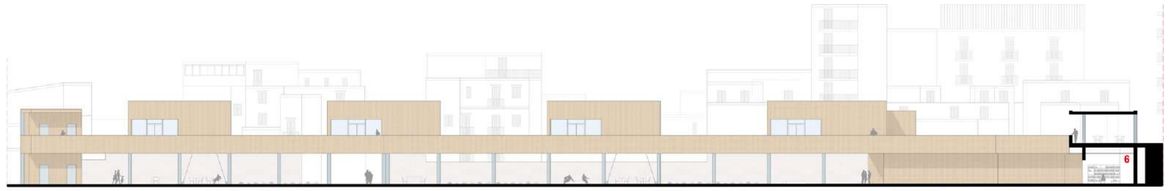


Scheme B: indoor functions on the lower level, social gardens on the upper level.



Scheme C: extension of the greenhouse and development of the covered market.

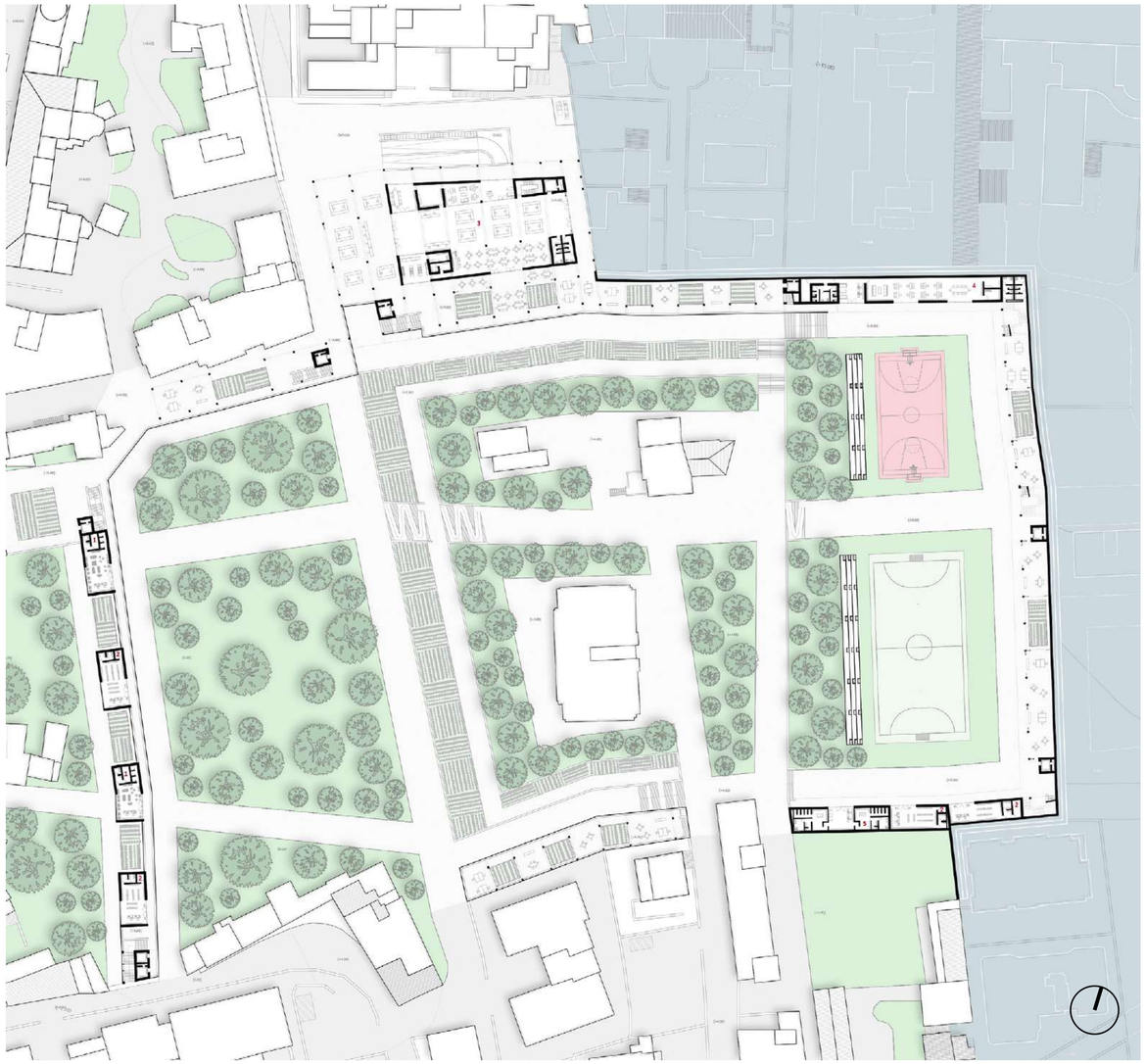




SECTION A

0 3 7,5 15 m

1. Dress shop
2. Sundries shop
3. Covered market
4. Offices
5. Locker rooms
6. Library



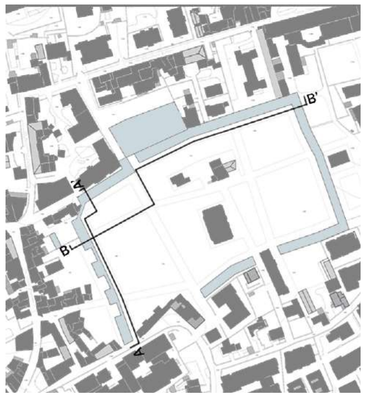
LEVEL 1 PLAN + 5,0m

0 5 12,5 25 m



SECTION B

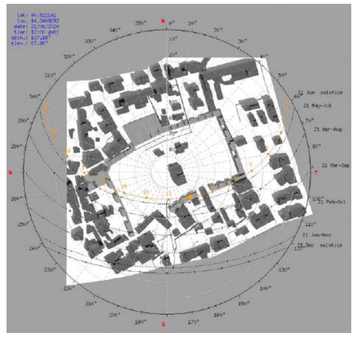
0 5 12,5 25 m



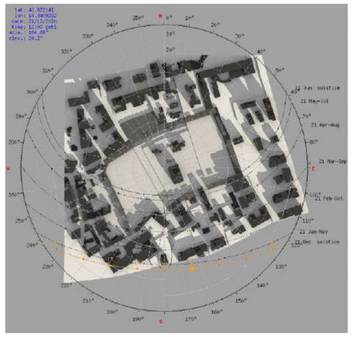


THE COVERED SPACE





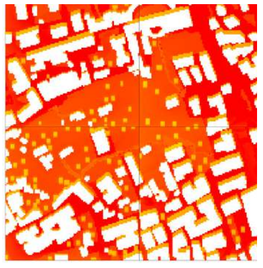
Summer solstice | *june 21*



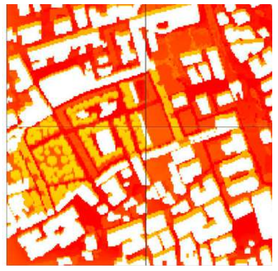
Winter solstice | *december 21*

Year 2020

Current status

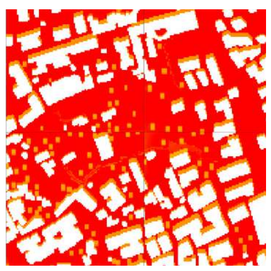


Project

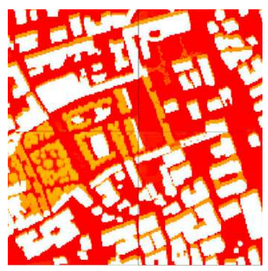


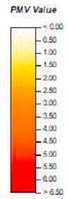
Year 2050

Current status



Project

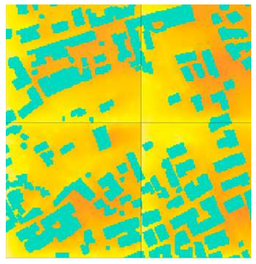




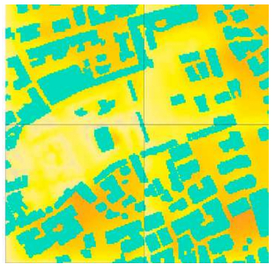
PMV | *Thermal sensation index*

Year 2020

Current status

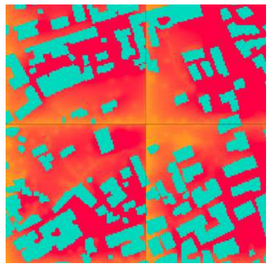


Project

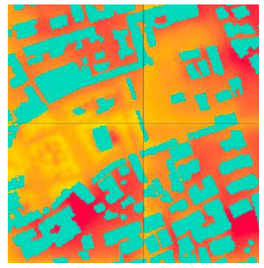


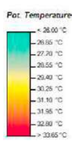
Year 2050

Current status

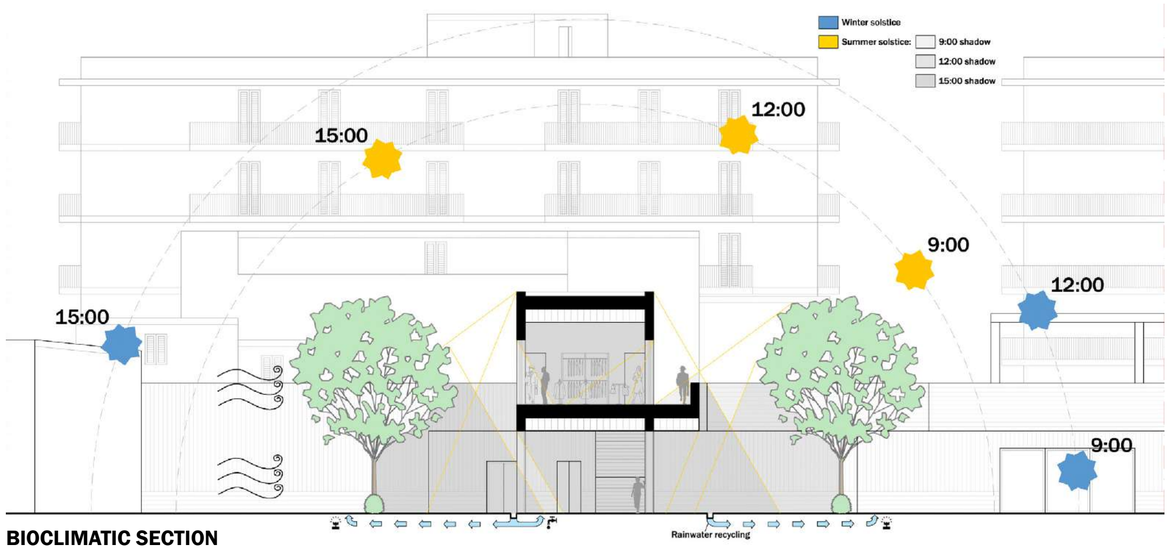


Project

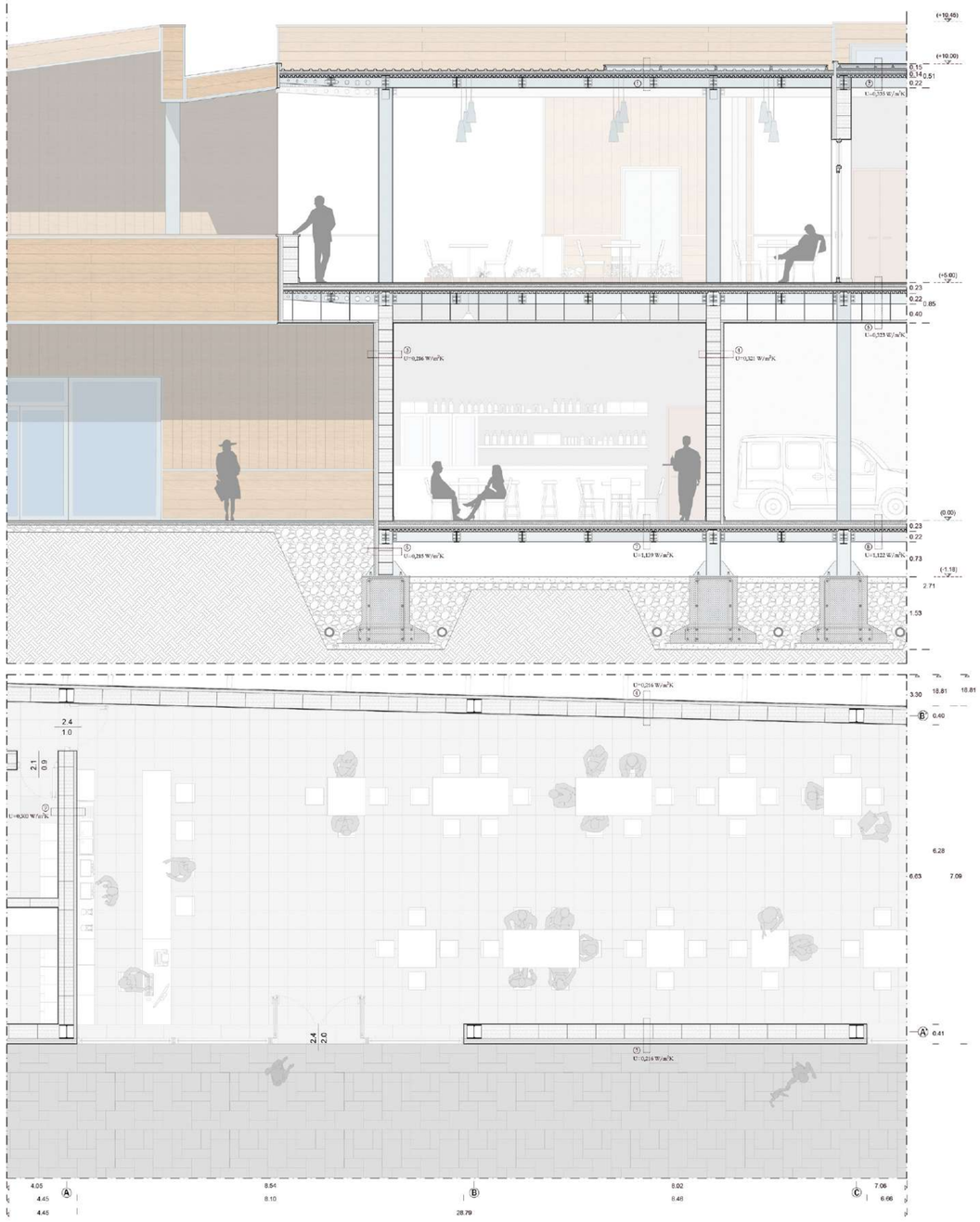




POT\ *Air temperature*



BIOCLIMATIC SECTION



1. External roof: solar cell, corrugated sheet, concrete screed, reinforced concrete layer, corrugated sheet, beam IPE 220.
2. Internal roof: solar cell, corrugated sheet with polyurethane foam insulation, vapor barrier, concrete screed, vapor barrier, corrugated sheet, beam IPE 220.
3. Vertical external wall: wood flour and PVC panel, steel channel, kenaf fiber insulation, gasbeton block, plaster layer.
4. Vertical wall against the parking lot: plaster layer, gasbeton block, kenaf fiber insulation plaster layer.
5. Intermediate slab: porcelain stoneware floor, mortar layer, concrete screed, vapor barrier, kenaf fiber insulation, corrugated sheet, beam IPE 220, countertop, plaster panel.
6. Vertical wall between ground and crawl space: vapor barrier, plaster panel, kenaf fiber insulation, gasbeton block.
7. Slab on the craw space: porcelain stoneware floor, mortar layer, concrete screed, vapor barrier, kenaf fiber insulation, corrugated sheet, beam IPE 220.
8. Slab on the craw space (parking lot): epoxy resin floor, mortar layer, concrete screed, vapor barrier, kenaf fiber insulation, corrugated sheet, beam IPE 220.
9. Vertical internal wall: plaster layer, kenaf fiber insulation, gasbeton block, plaster layer.

PLAN AND SECTION OF BUILDING AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

DARIO COLELLA - GREEN CONNECTION

A GREEN RIVER IN THE CITY

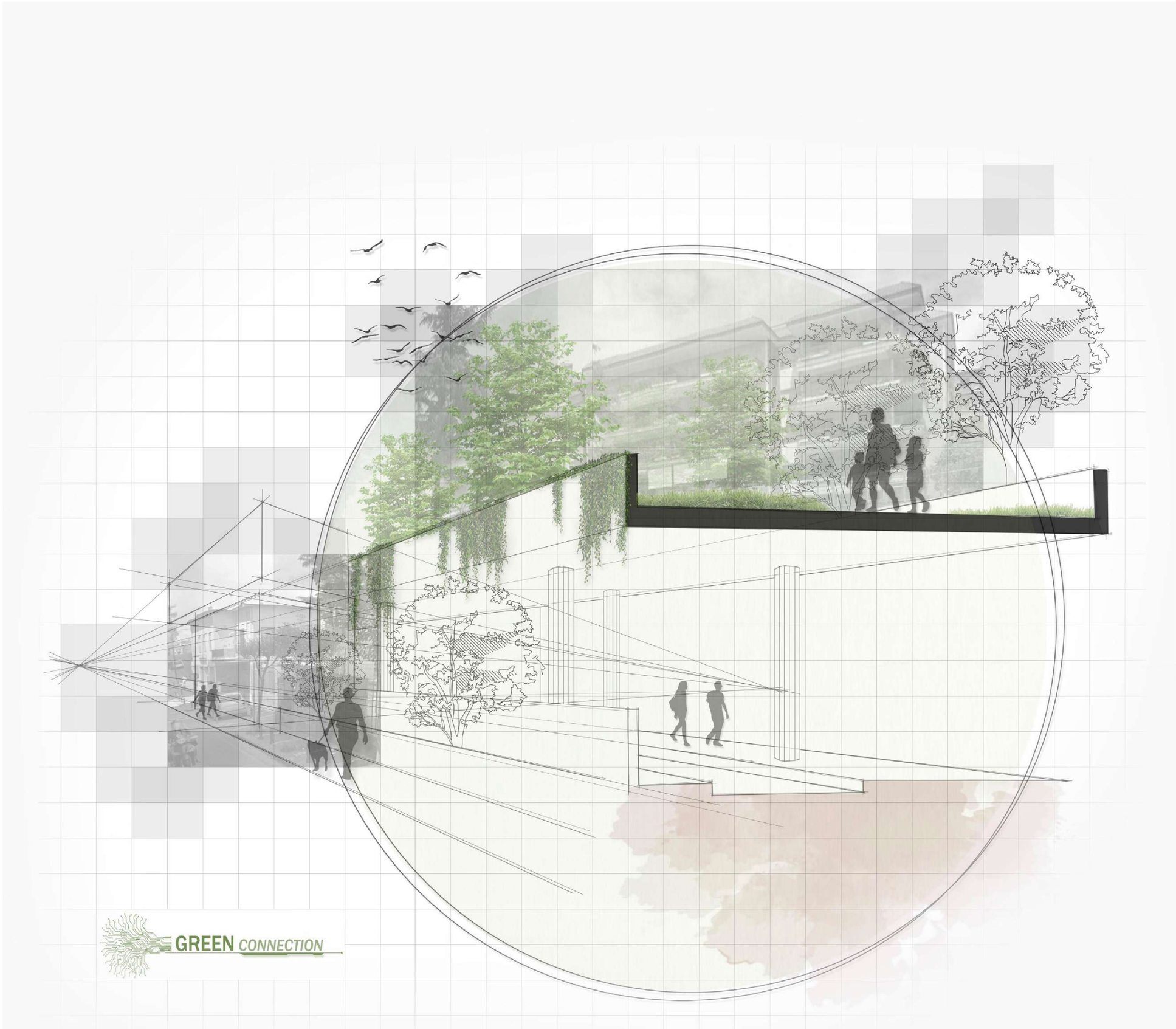
The project aims to redevelop the area crossed by the circumvesuviana near the station in Via Libertà, burying the railway trench with an equipped green cover.

The trench over the years has represented a real caesura for the population of Portici and has caused differences of opinion and thought.

The area of the trench is now an unused space with abandoned and degraded areas that create a real architectural barrier, which does not facilitate the cross passage within the city.

The aim of the project is to use the roof of the trench as a space used for sharing and living and lively culture, flanked by different functions that can enhance the social and architectural aspect of the area.

The different functions create urban edges along which this green river flows within the city.



Program

multi-storey car park, trench covering, commercial gallery, station, bar / restaurant, library, sports equipment

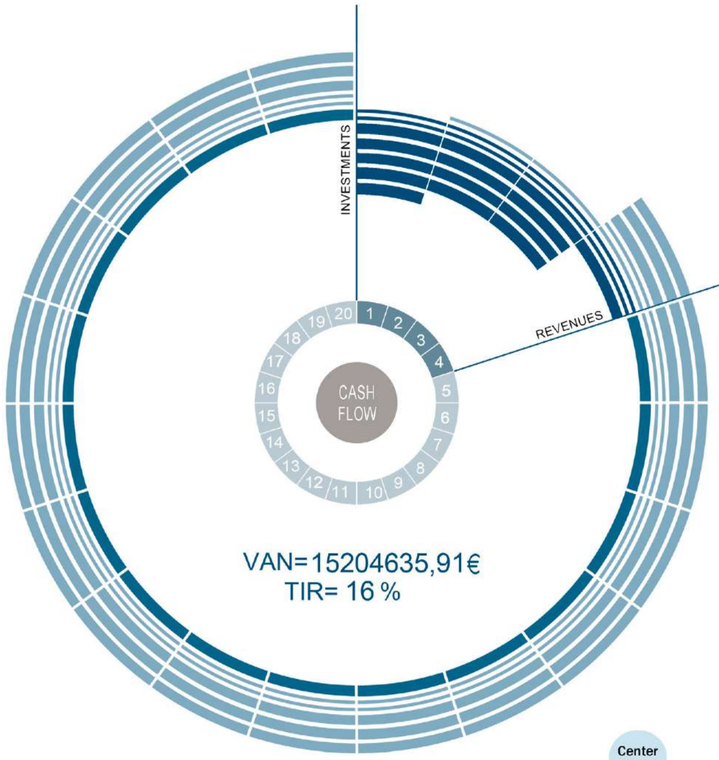
Covered surface	4420 m²
Uncovered surface	2594 m²
Floors above ground	2
Built volume	22100 m³
Estimated cost	10057378 €

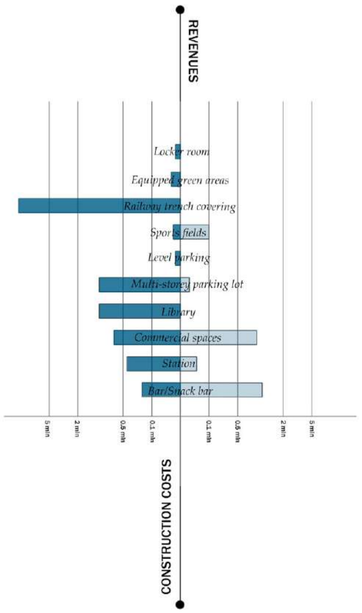
The extension of the upper park of the Palace, through the coverage of the railway trench, generates a new aggregation space within the city, consisting of new equipped green areas and new public and social functions.

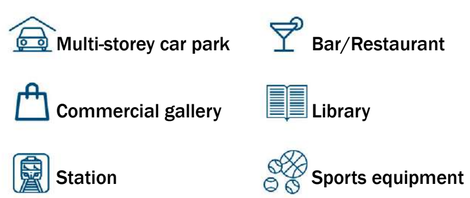


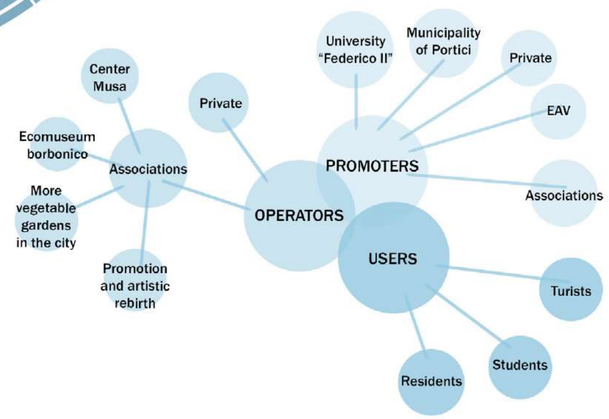
Analyzing the territory, the lacks and the criticalities that the city of Portici possesses have emerged. Among these it is evident that there are few green spaces equipped in relation to the built-up area, and that some infrastructures such as the circumvesuviana have become a real caesura within the territory, creating a real barrier that prevents the direct passage between the two neighboring areas.
The goal was to create a connection between these two areas and connect them in turn to the upper park of the Royal Palace to extend and increase the green space within the city.

The project functions emerge from a careful analysis of the entire municipal territory and have been designed to increase and improve the quality of space and to increase those already existing.
In order for the project to be realized it has been identified a network of stakeholders consisting of different figures: promoters, operators and users.





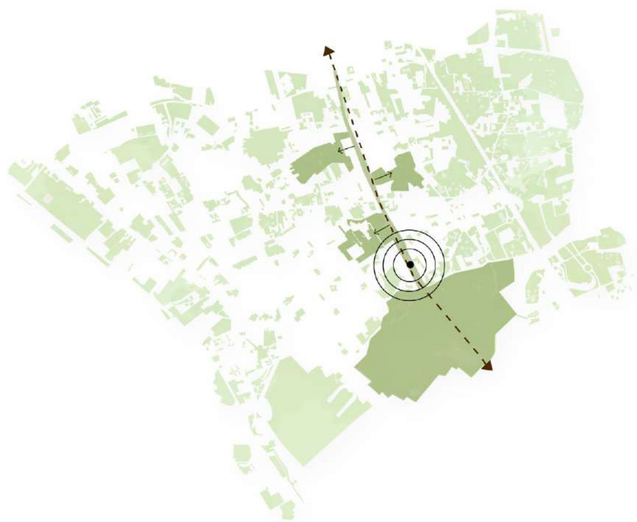






PORTICI PARK THE PROJECT IN CONTEXT

0 20 100 200m



Existing green areas

Green project connection

Connections

Project Area

URBAN STRATEGY

1. Parking
2. Open air storage
3. Station



CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 28 70 140m



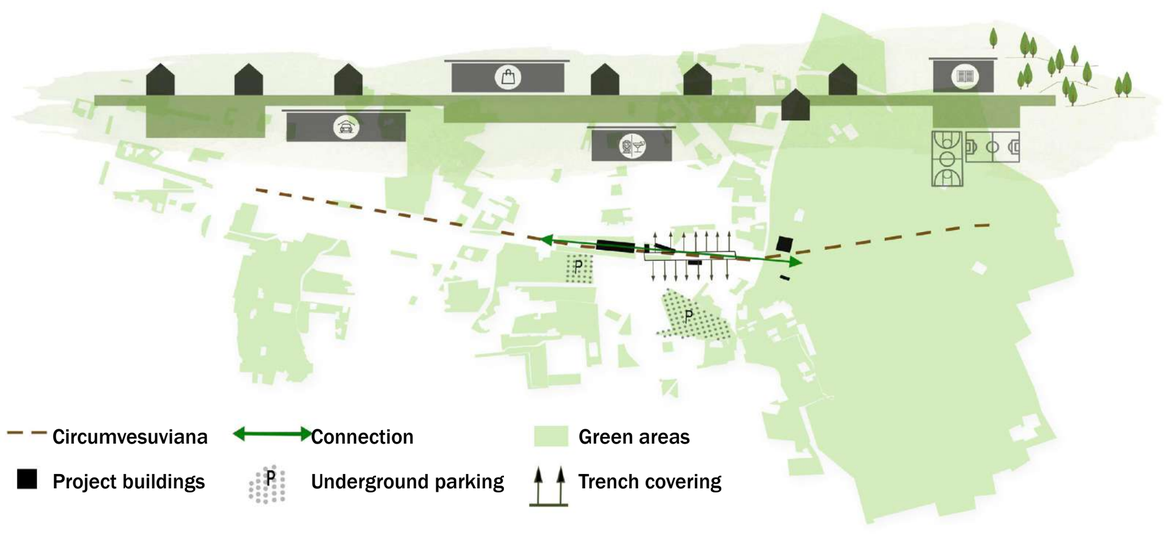
PHOTOS OF THE STATE OF AFFAIRS

1. Multi-storey car park
2. Commercial gallery
3. Station /bar/restaurant
4. Trench covering
5. Library



DESIGN PROPOSAL

0 28 70 140m



SUMMARY OF ACTIONS ON AN URBAN SCALE

The functional diagram shows the division of the interior spaces with separate entrances for the different functions.

As can be seen from the plans, the entrance to the station is on the first level, which consists of the ticket office, an office for staff, services and a technical room. The first level also provides access to the platform and the shopping gallery. The entrance to the second level is at a different height from the station and gives access to the bar/restaurant, which in turn consists of a service block and a large hall.
At the same height as the bar/restaurant is the roof of the trench, a space equipped with green areas, areas for temporary exhibitions and outdoor games. The building as a whole appears as a single large volume, the lower part of which, by analogy with the void generated by the roof of the trench, consists of glass walls, while the upper part is a full volume that contrasts with the void below. Finally, the plan of the roofs is flat and not practicable.



Roof plan (+10.60)



Second floor plan level (+6.00)



First floor plan (+0.00)

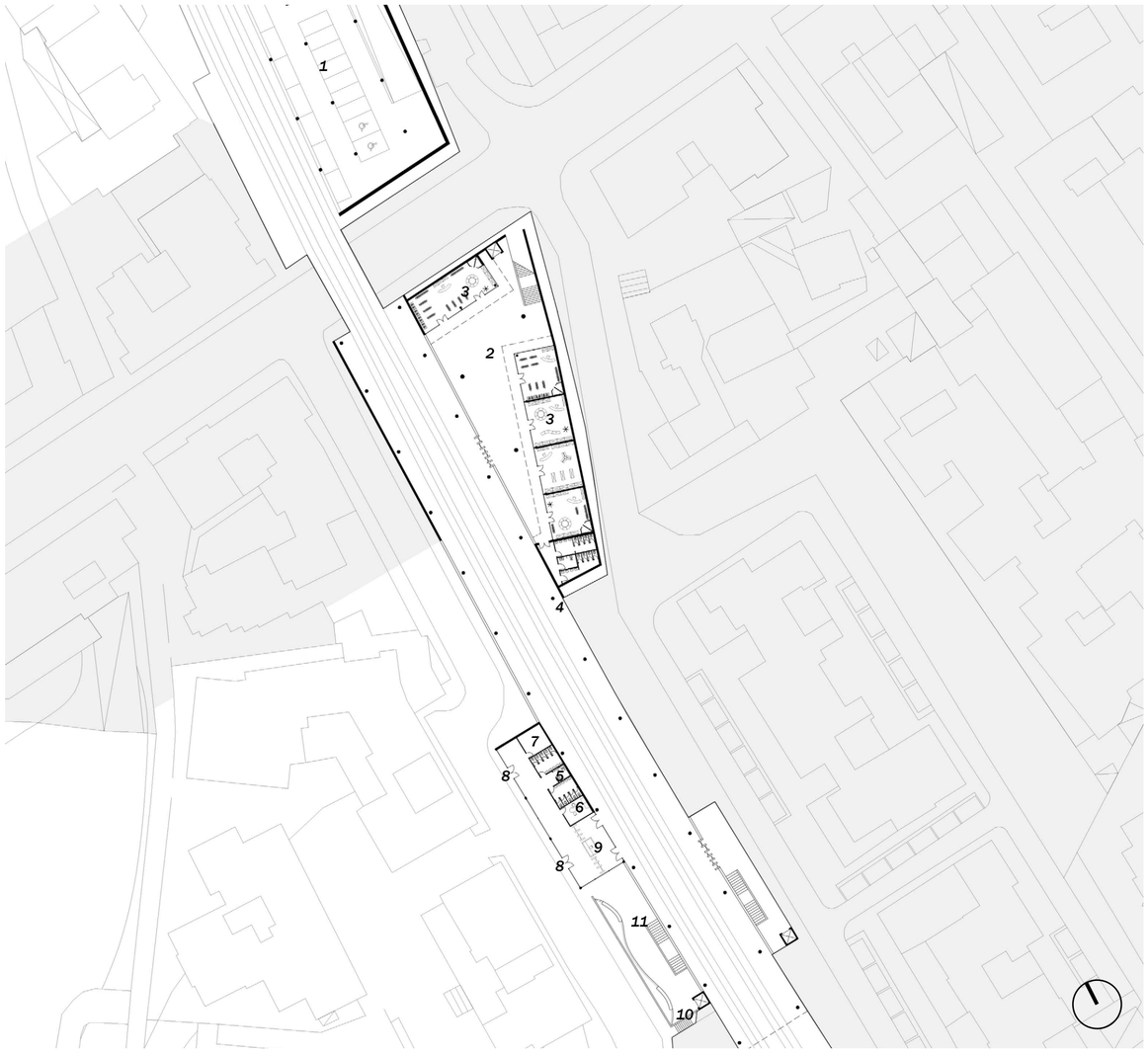




WEST ELEVATION

0 5 25 50m

1. Multi-storey car park
2. Commercial gallery
3. Shops
4. Station platform
5. Services
6. Office
7. Technical room
8. Entrace
9. Ticket office
10. Connections
11. Equipped outdoor space

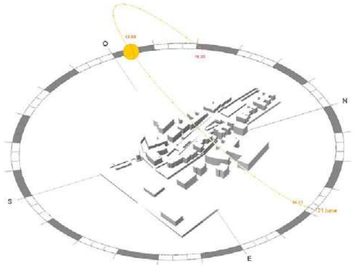


PLAN 1 LEVEL + 0,0m

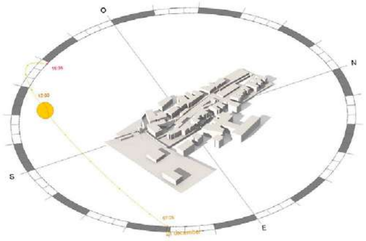
0 15 37.5 75m



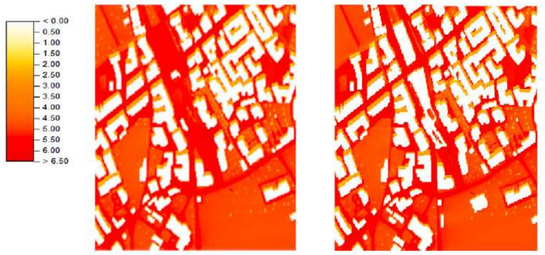
EXTERNAL VIEW



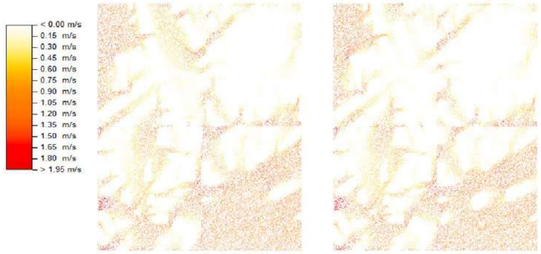
Summer solstice | *June 21*



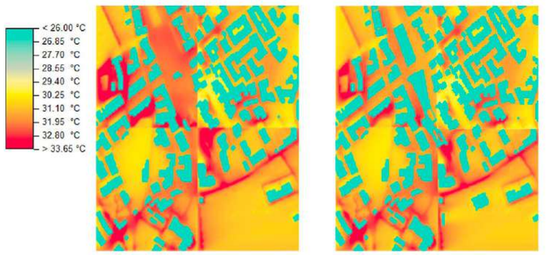
Winter Solstice | *December 21*



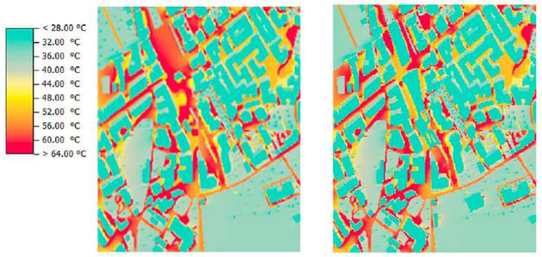
PMV



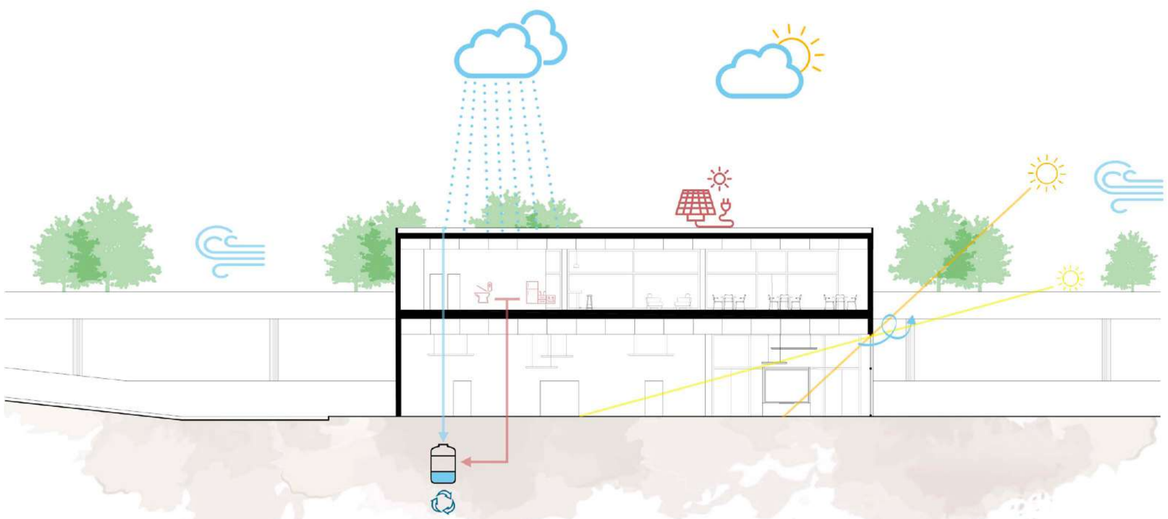
WIND SPEED



POT

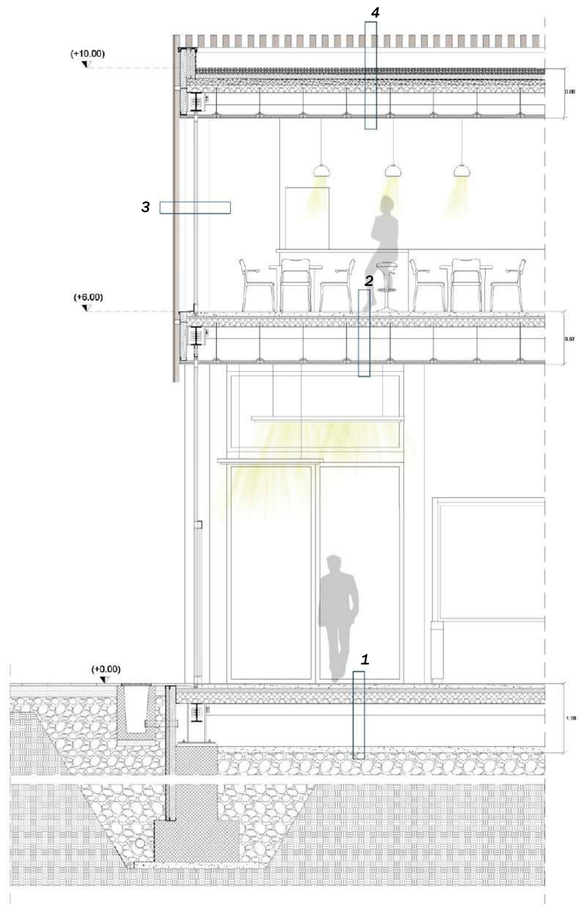


T SURFACE

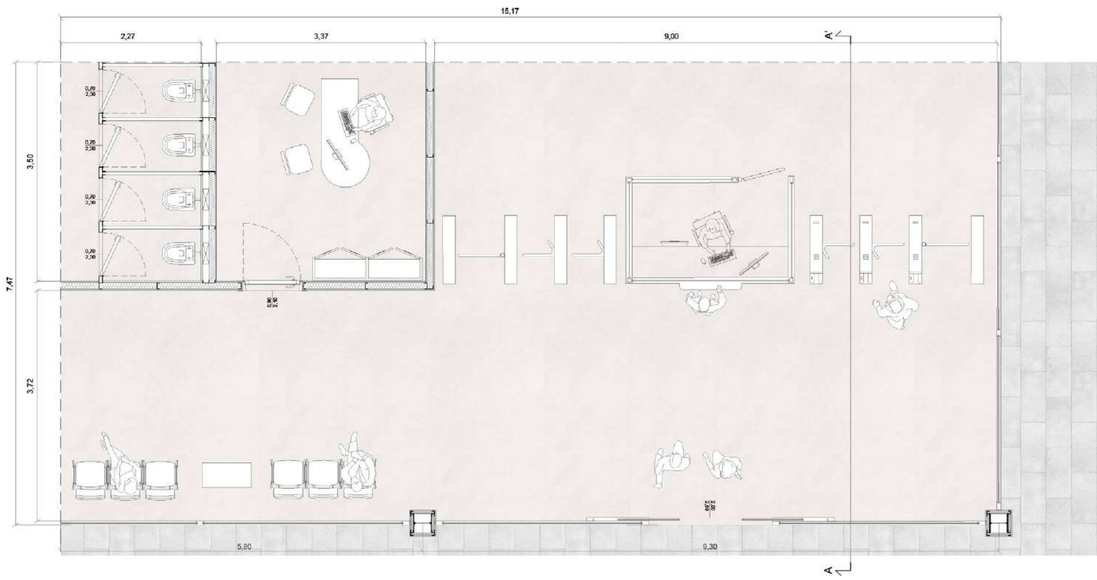


ENVIRONMENTAL SECTION





1. Floor against ground
2. Intermediate floor
3. Window
4. Roof covering



PLAN AND SECTION OF BUILDING AND PUBLIC SPACE SCALE 1:70

PORTICI ADVANCED DESIGN STUDIO

LILIANA COPPOLA - RELINKED CITY

A STRATEGY AGAINST URBAN SPRAWL

RECONNECTIONS IN THE AREA OF THE RAILWAY TRENCH

The “Relinked City” project for the city of Portici, was born out of a desire to give back places for leisure to its citizens where they can walk and breathe away from the noise of the city, away from the daily congestion in which they are forced due to high population density.

Portici is the first place among the most urbanized municipalities not only of the Vesuvian area, but of the entire country with about 12,000 inhabitants/sq km (among the highest in Europe). A large part of this urbanization is related to residential use and comes to cover almost the entire municipal territory.

To date, the city is saturated.

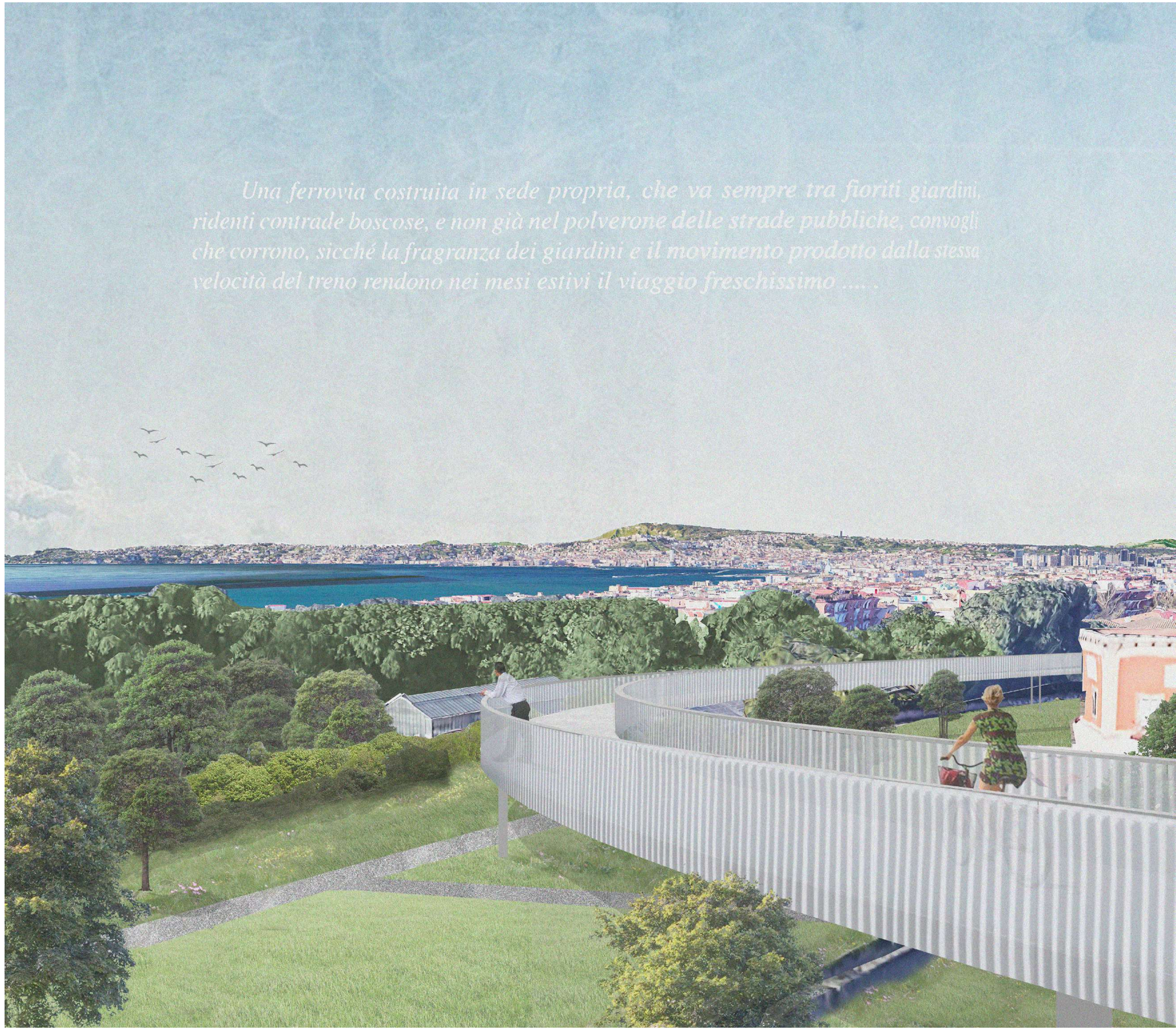
The goal is to break the monofunctionality that characterizes the city by focusing on those green spaces that today are unused because neglected or difficult to reach due to urban transformations that have occurred over the years.

In allowing citizens to regain possession of these spaces and to find their identity, the project of a cycle-pedestrian walkway stands as a reminder of the past, to how they perceived the space travelers who, in the early ‘900, moved between the landscapes on the slopes of Vesuvius through the old railway: it allows you to move quickly, without obstacles and, at the same time, to enjoy a picturesque view, especially at the point where the walkway crosses the Upper Park of the Royal Palace of Portici.

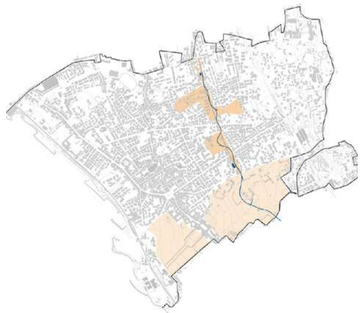
Program

Cycle-pedestrian walkway, urban park, bike sharing, bar

Covered surface	**500 m²**
Uncovered surface	**6000 m²**
Floors above ground	**3**
Built volume	**4800 m³**
Estimated cost	**€ 37.900.500**

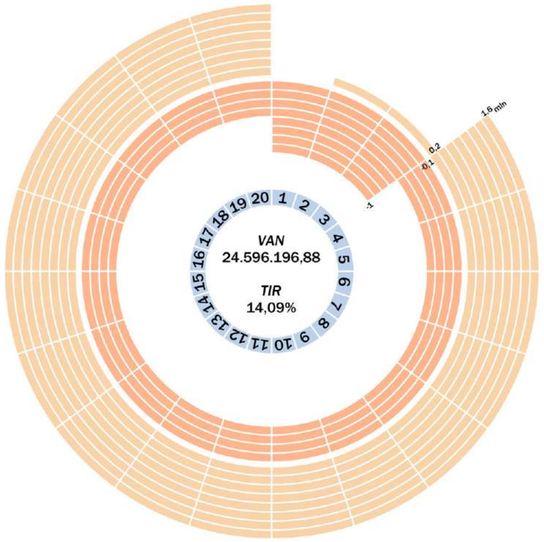


The project is located near the railway trench that runs through the city center from north to south. The chosen area looks like a long void that cuts the city into two parts, limiting the longitudinal and transverse connections. At the sides of this fracture there are green areas, neglected and difficult to reach.



The chosen area extends along a strip that holds together three large green areas within the city and the railway line straddling them.

The purpose of the project is to improve the quality of life of citizens by giving them places for leisure and improving interurban travel. The project involves the organization of a system of parks in the heart of the city connected through the construction of the coverage of the railway trench that will be the link. This cover is conceived as a linear park that runs through the whole city and enters the green areas in question, at the point where these open towards the railway, forming cross-links that connect different areas of Portici currently separated.
In particular, the project described in these pages provides the redevelopment of the station "Via Libertà", near the entrance to the Upper Park of the Royal Palace, the creation of a green cover on the railway trench and a cycle-pedestrian walkway to encourage soft mobility and to connect the city to neighboring municipalities where, in the future, the same structure can be repeated



FUNCTIONS — 20 YEARS

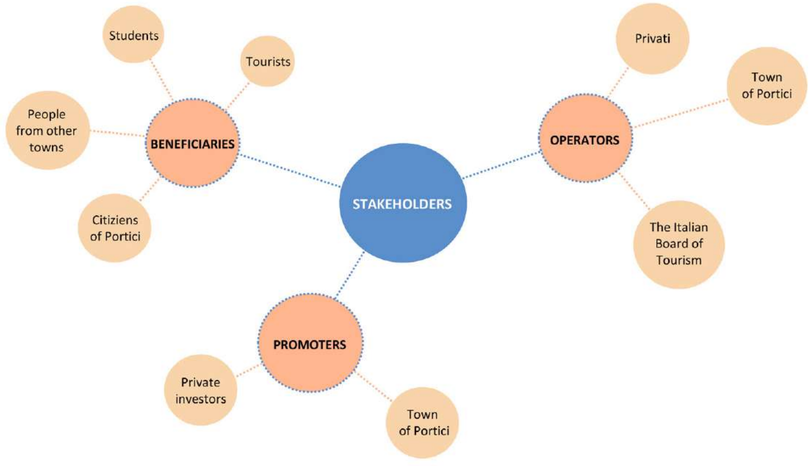
BAR
22.623,00
40.000,00

RAILWAY STATION
96.516,20
3.650.000,00

BIKE SHARING
906.561,24
4.562.50,00

CYCLE-PEDESTRIAN WALKWAY
2.833.755,66

URBAN PARK
82.260,00



re-appropriation of the city

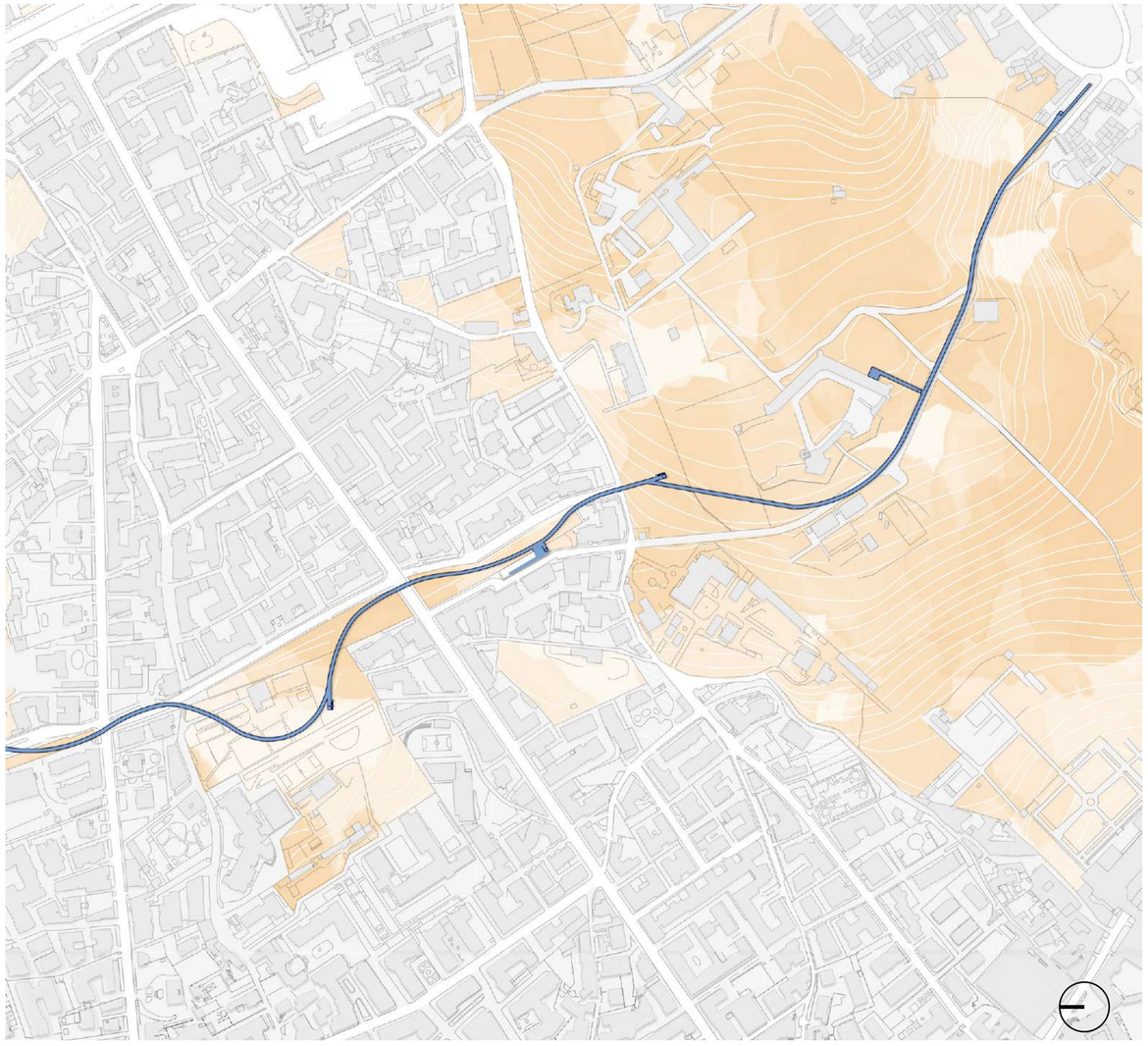
participation

green areas

mobility

new public spaces

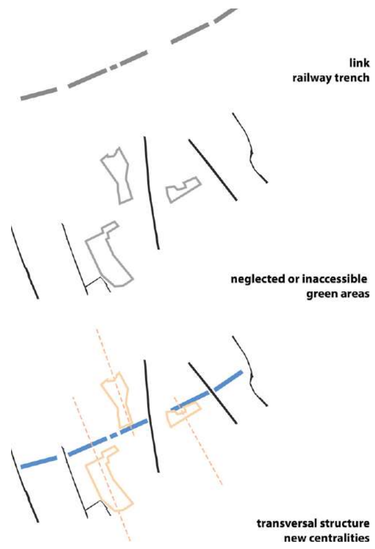
interaction

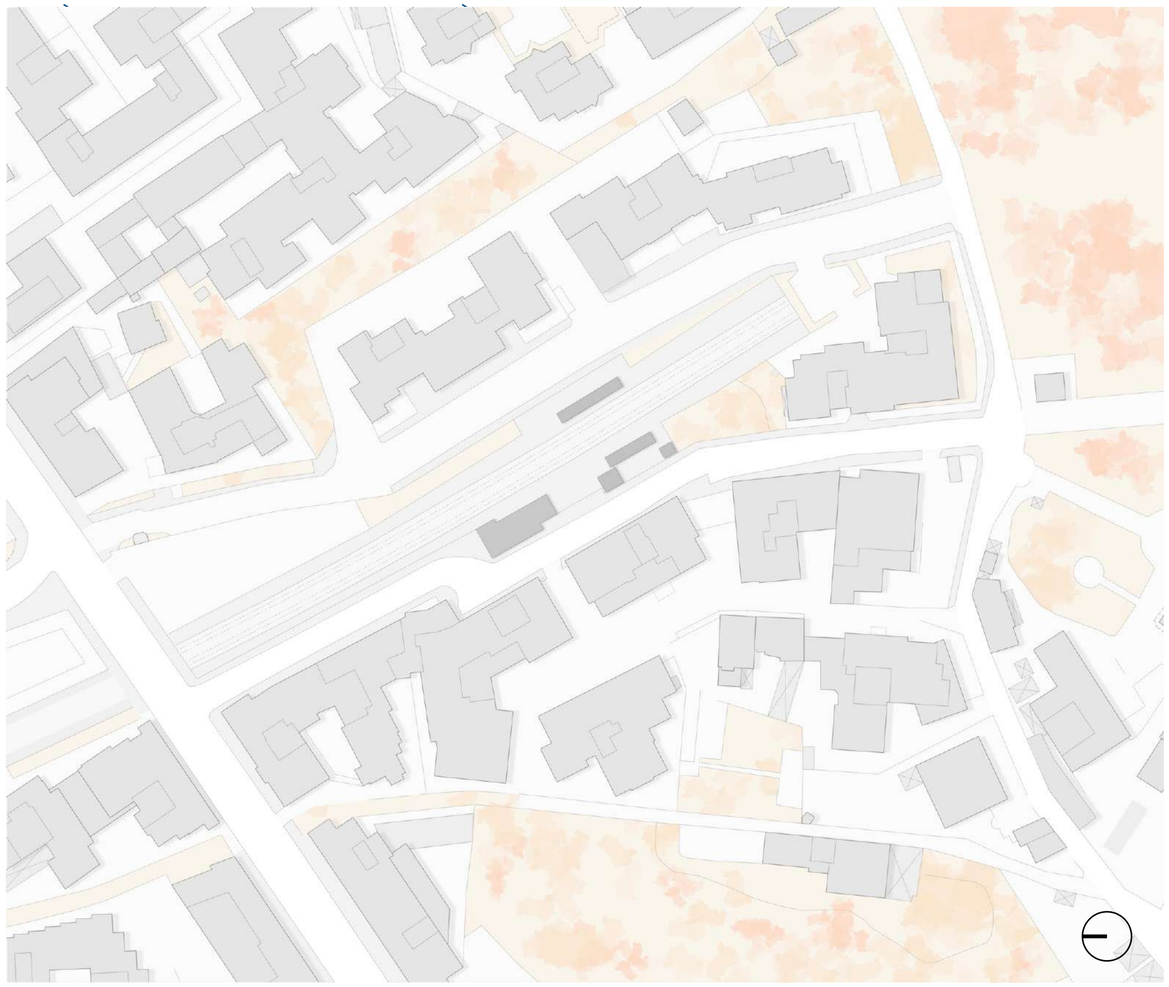


PORTICI PARK THE PROJECT IN THE CONTEXT

0 20 50 100 m







CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

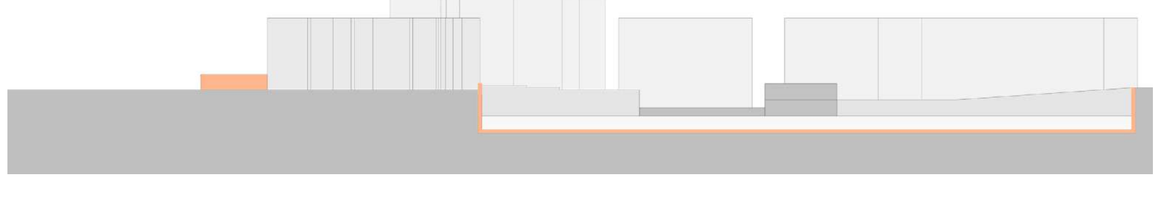
PARK BOUNDARY



RAILWAY TRENCH



SUMMERY OF THE URBAN ANALYSES



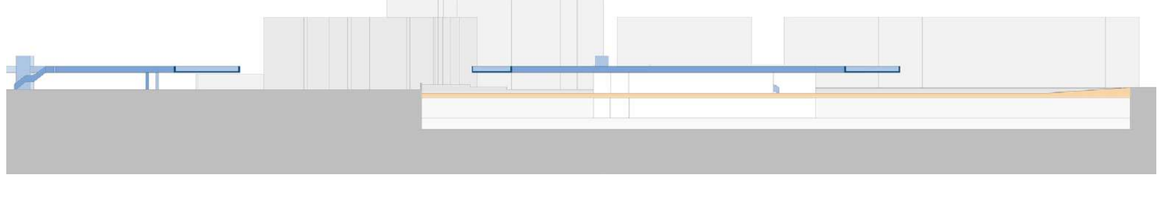


DESIGN PROPOSAL

CONCEPT



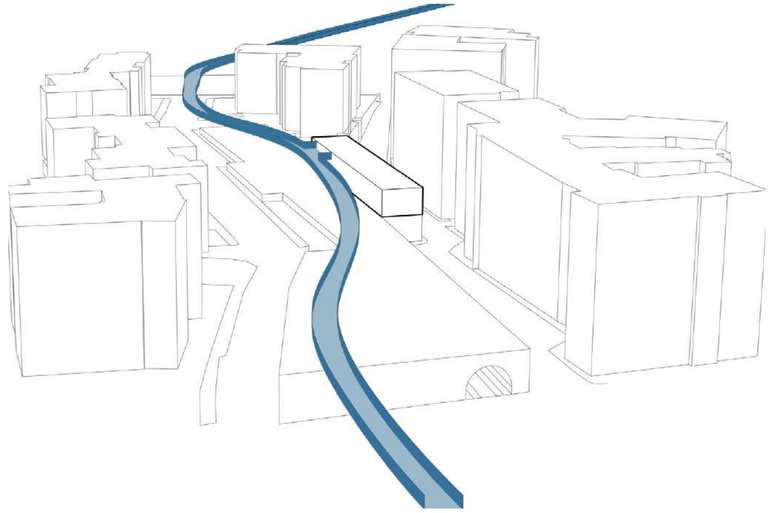




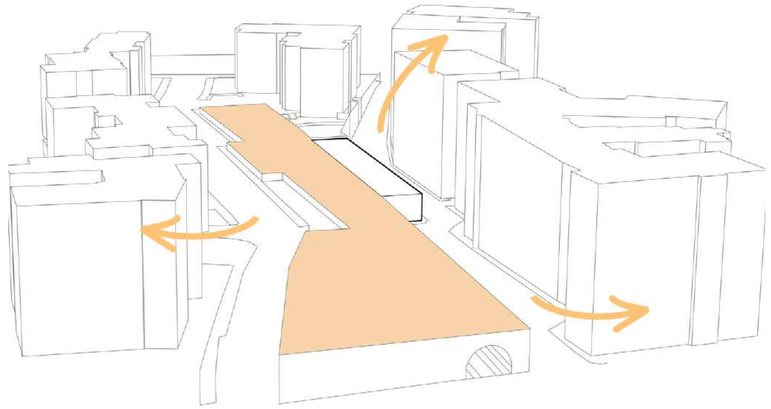
The project concerns the aesthetic and functional requalification, as well as the technological adaptation of the railway station Via Libertà. The intervention provides for the modernization of the old building of the station. Most of the designed space will be devoted to green areas and micro mobility.

The existing building is made up of a building that in 1976 replaced the station “Via Salute” following the works of doubling and modernization of the circumvesuviana line that led to the elimination of some level crossings. On that occasion, the new location of the rails was subjected to 10 meters above street level. The project of the new railway station foresees a single volume composed of two floors, one destined to the railway station and its annexed services and one destined to host a bicycle parking. In addition, since the area is characterized by the presence of residential buildings and low permeability, it was planned to bury the railway line that crosses a long urban stretch by creating a green covering, designed as a connecting piece of various urban systems: ecological, cultural, road.

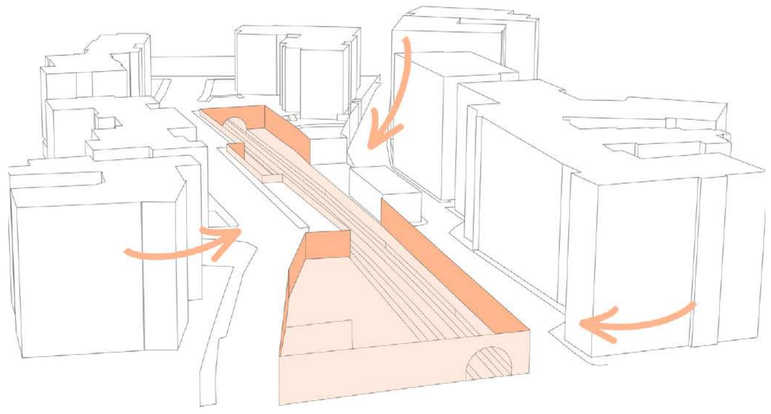
Since the station is near the entrance to the Upper Park of the Royal Palace, it is no longer thought of as a pure infrastructural node, but as an urban landmark through the cycle-pedestrian walkway. The structure of the station and the cover (or new linear park) are thus placed in direct connection with the Park of the Royal Palace, connected to the main axes of the city.
The whole projected area can be considered as a real “door” to the city from the south both for local users, for visitors and other users.



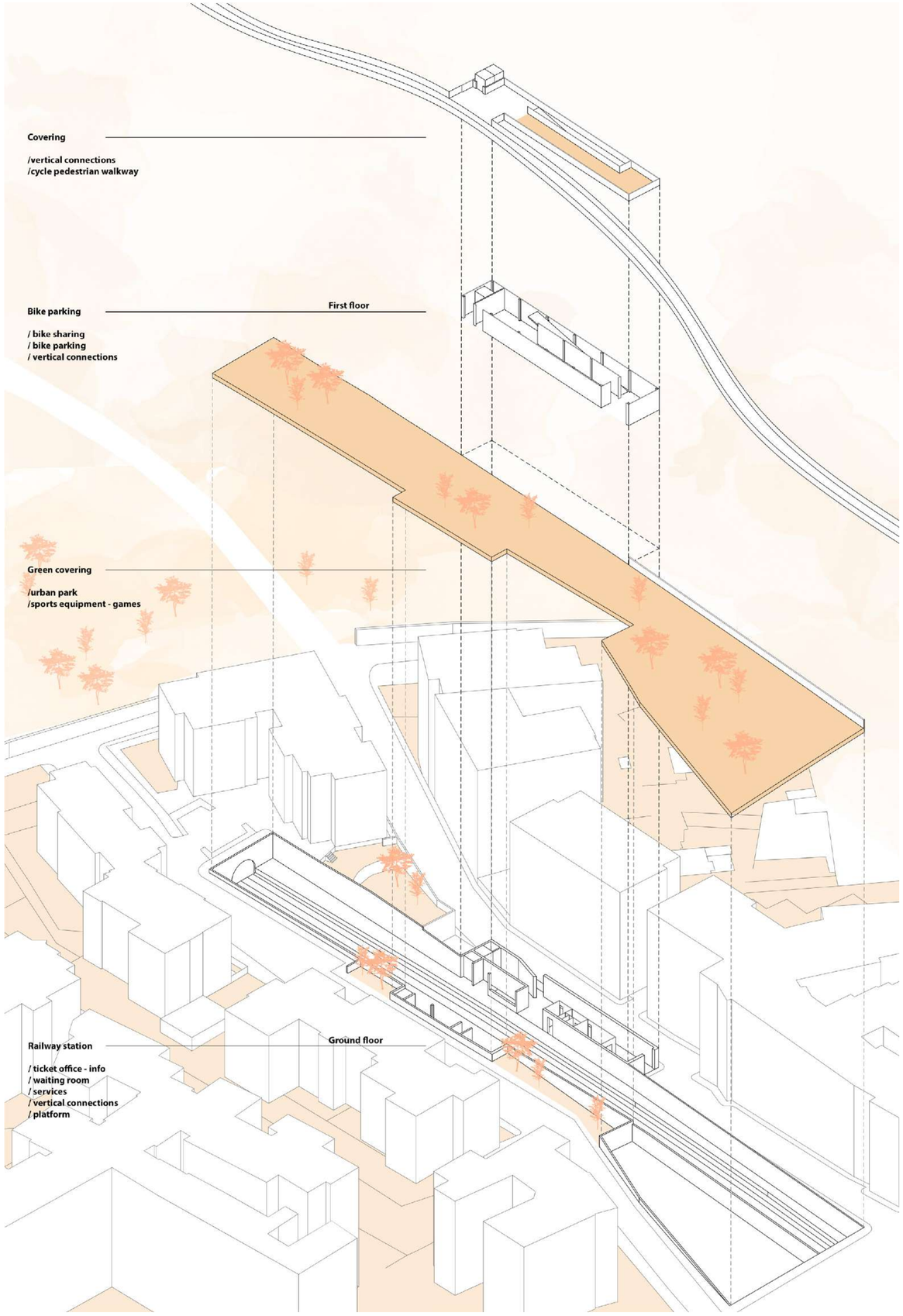
Cycle-pedestrian walkway, landmark

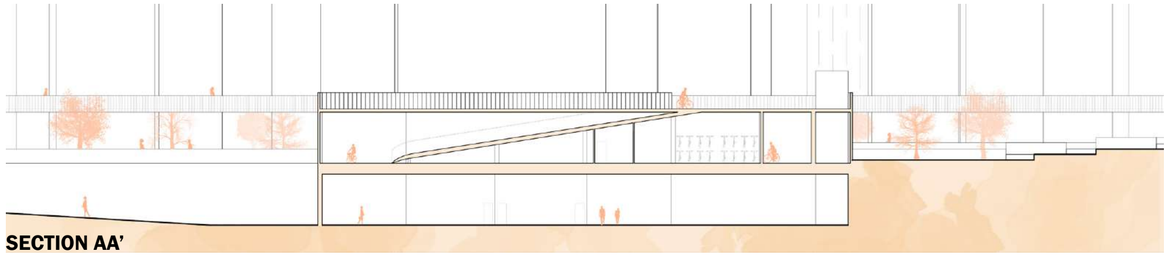


New linear urban park, link

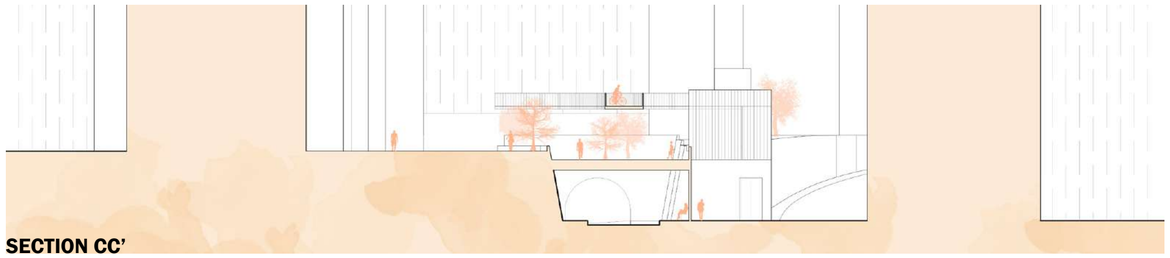


Old railway station, 1976

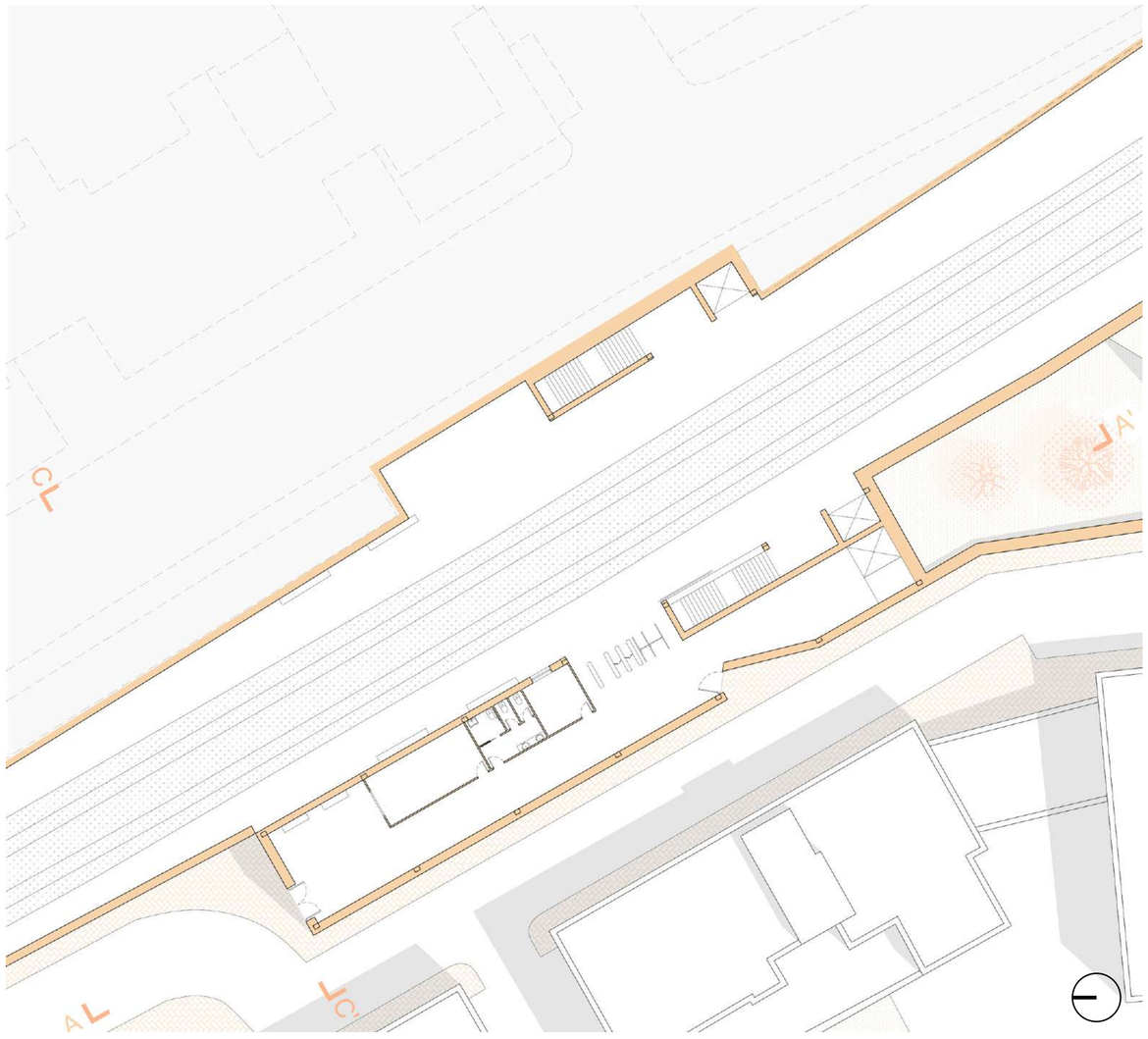




SECTION AA'



SECTION CC'

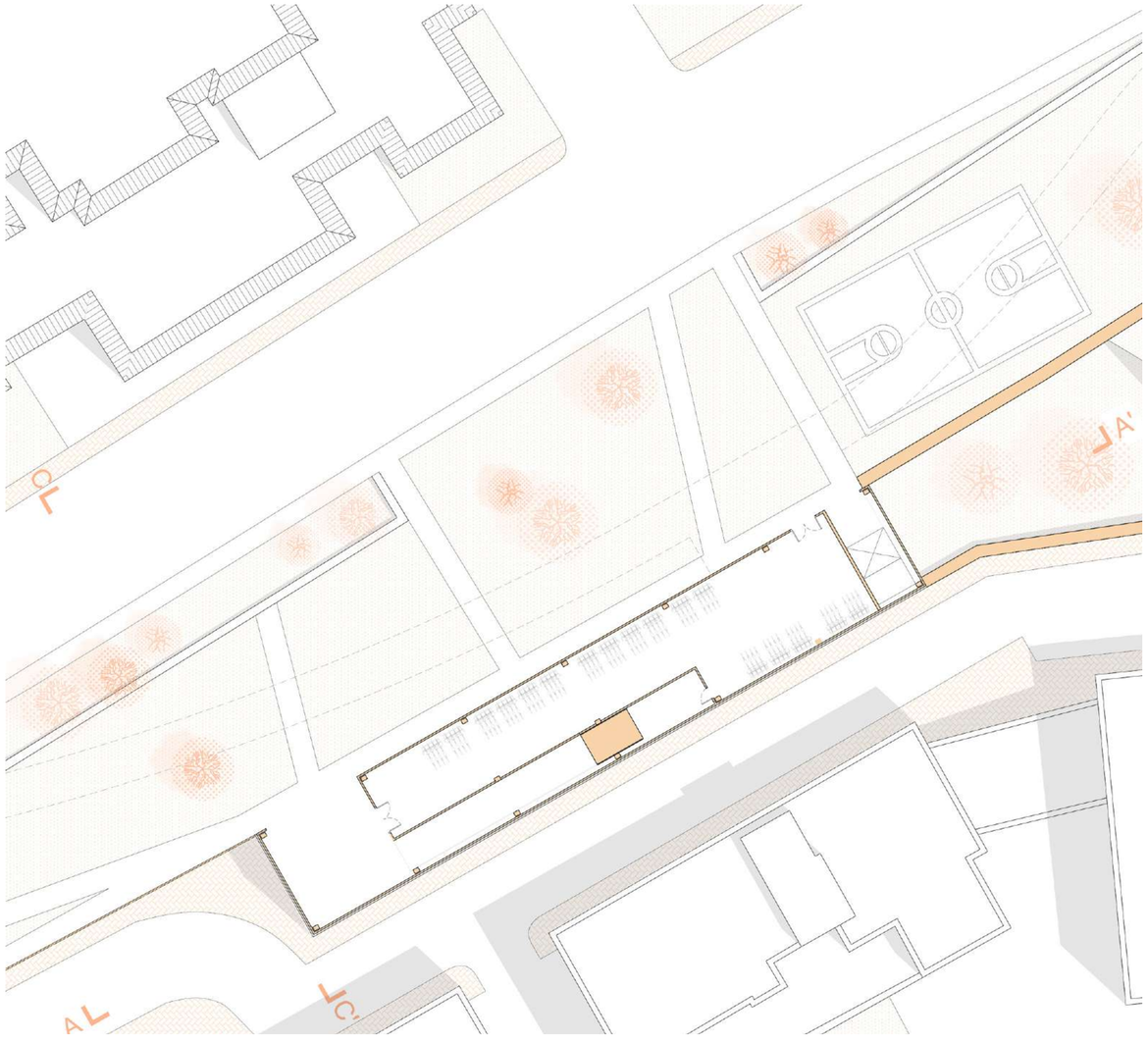


LEVEL 1 PLAN + 0,00m

0 6 15 30 m

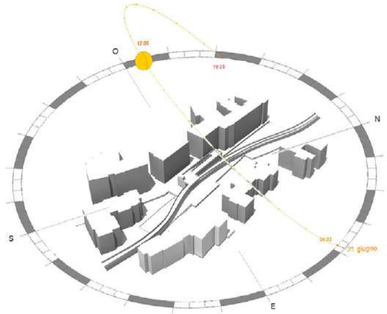




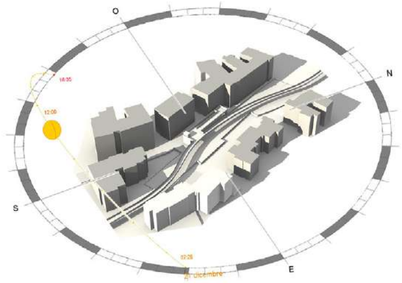


LEVEL 2 PLAN + 5,70m

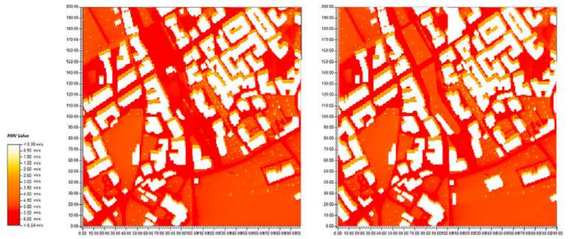
0 6 15 30 m

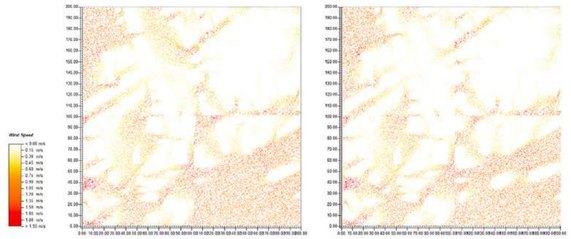


summer solstice | *21st June*

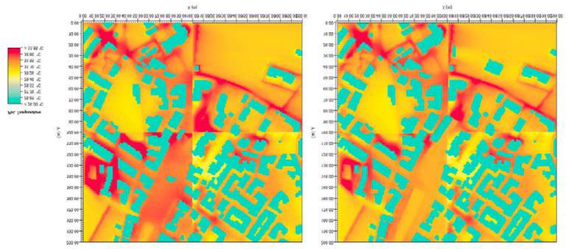


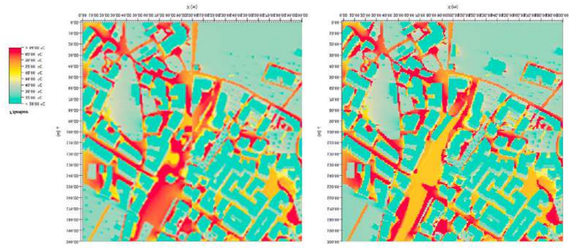
winter solstice | *21st December*



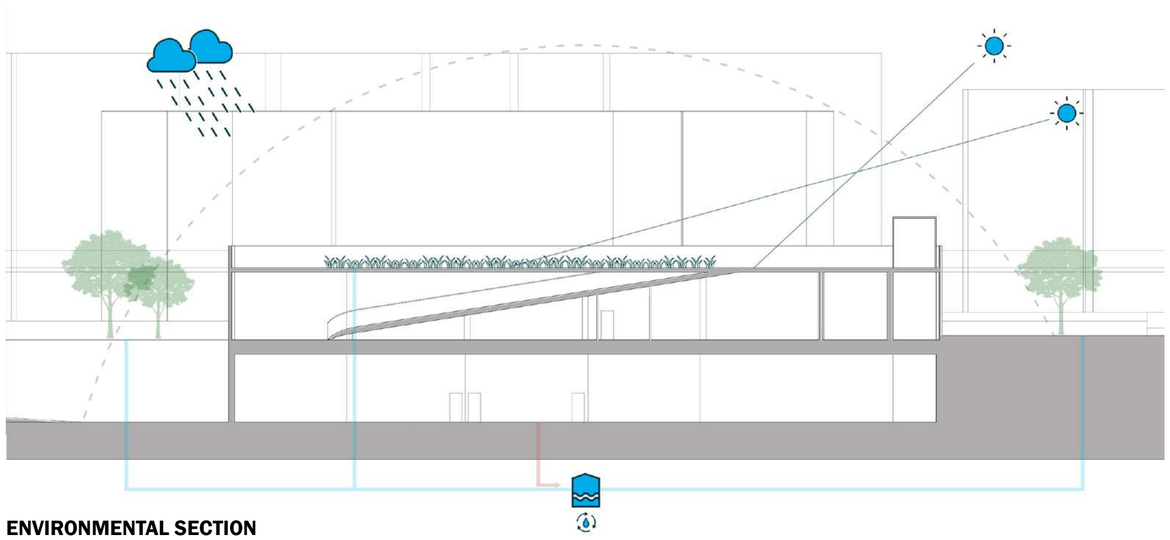


PMV | *Thermal sensation index*





POT\ *Air temperature*



ENVIRONMENTAL SECTION

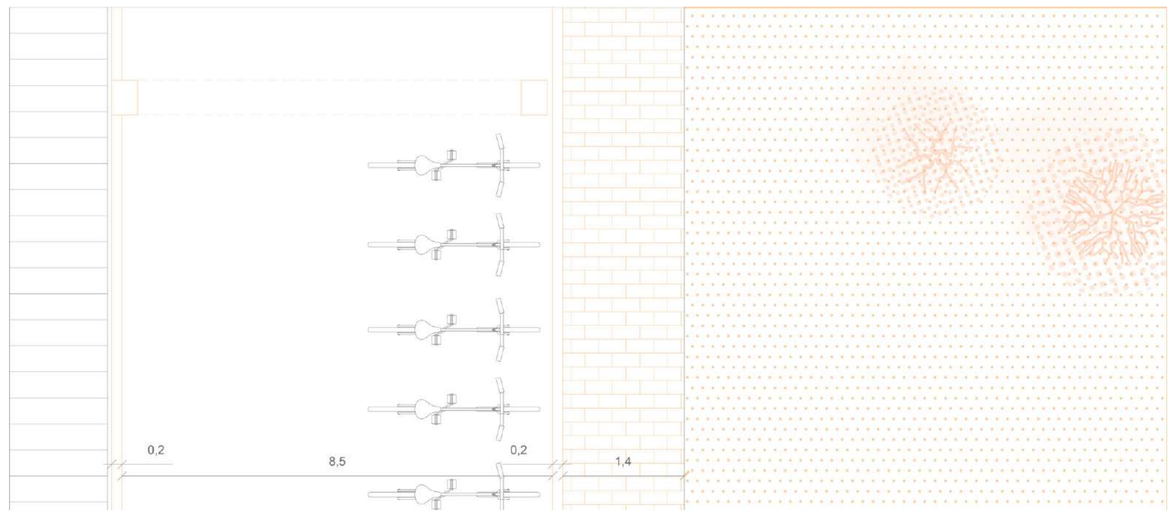


1. DETAIL A - COVERING:

green roof layer of vegetation, loam, cement foundation, vapour barrier, isulation, non woven fabric, concrete floor slab, corrugated sheet

DETAIL B - INTERMEDIATE FLOOR:

floor, screed, setting bed, vapour barrier, isulation, concrete floor slab, isulation, indoor panel



PLAN AND SECTION BUILDING AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

ANTONIO CORCIONE - YELLOW CENTRAL MARKET

STRATEGY AGAINST URBAN EXPANSION
RELATIONSHIP BETWEEN GREEN SPACES AND BUILT

Portici is an Italian municipality formed by 53,801 inhabitants of the city Naples underground in Campania. It is the second Italian municipality for population density with approx 12.000 inhabitants per kilometer square.

By carrying out a careful analysis of the urban fabric of the city, immediately the high density of built that suffocates the center e the whole city of Portici. From the years seventy, to date, the city has suffered a due metaformosis from the uncontrolled spread of new buildings, which in addition to administrative difficulties, it resulted to an even greater difficulty, that of poor well-being and of poor livability of citizens. This is a fact not to be underestimated, right now, it's coming to life there "Green City" theory, which has like development principle controlled of the built and the relationship with green space.

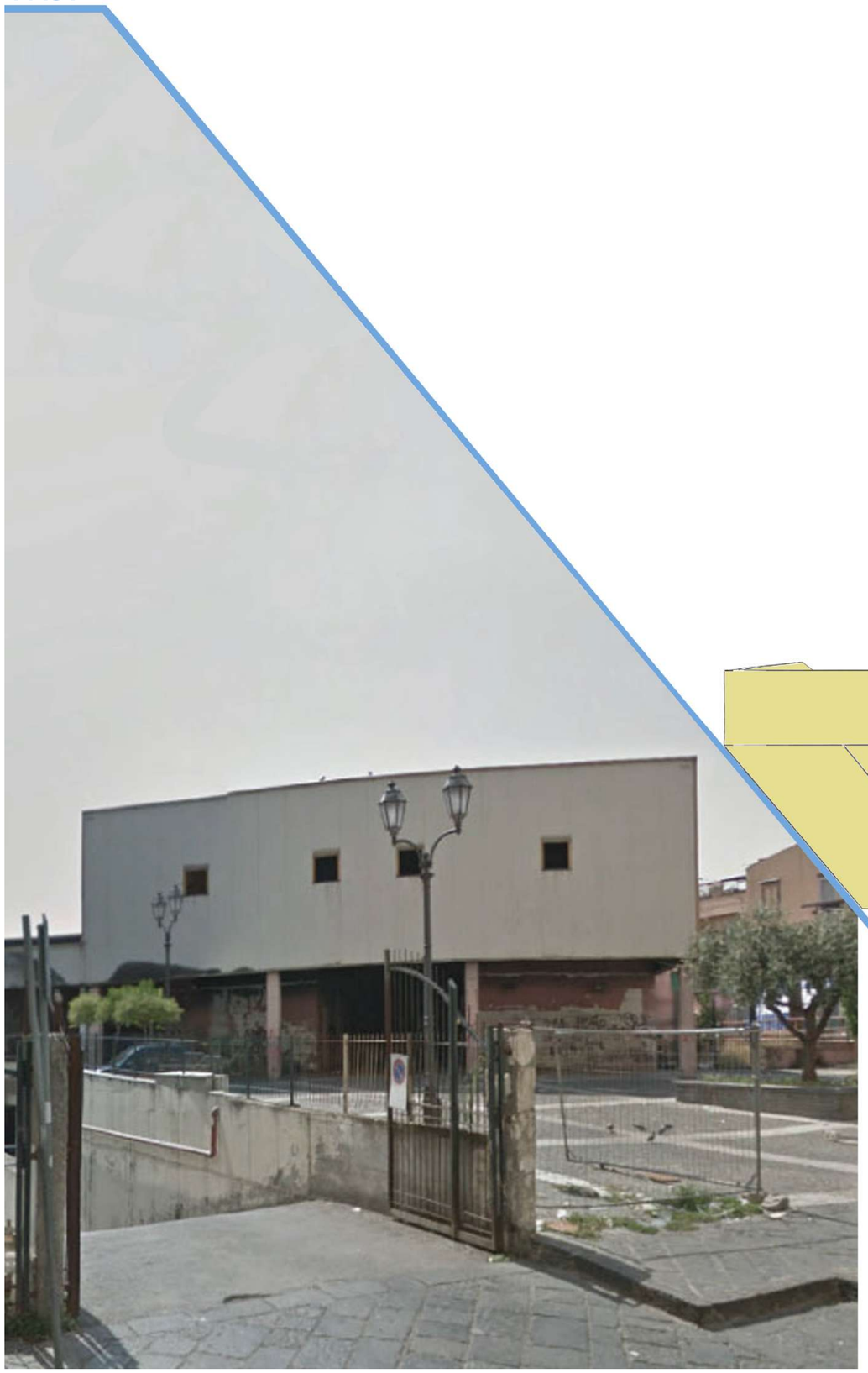
In a more accentuated way, these problems manifest themselves in the center history of the city where the higher rate of building density. In there is a total absence of these areas of green spaces, where they exist and resist show up in one state of advanced abandonment, an absence of useful services for citizens thus demarcating a situation of chaos inextricably linked to the urban fabric. Because of this reason, the goal is to intervene on the existing one going to re-establish the relationship that must exist between the space green and the built, thus streamlining the building system and carrying out new points of aggregation, places of staying, urban parks.

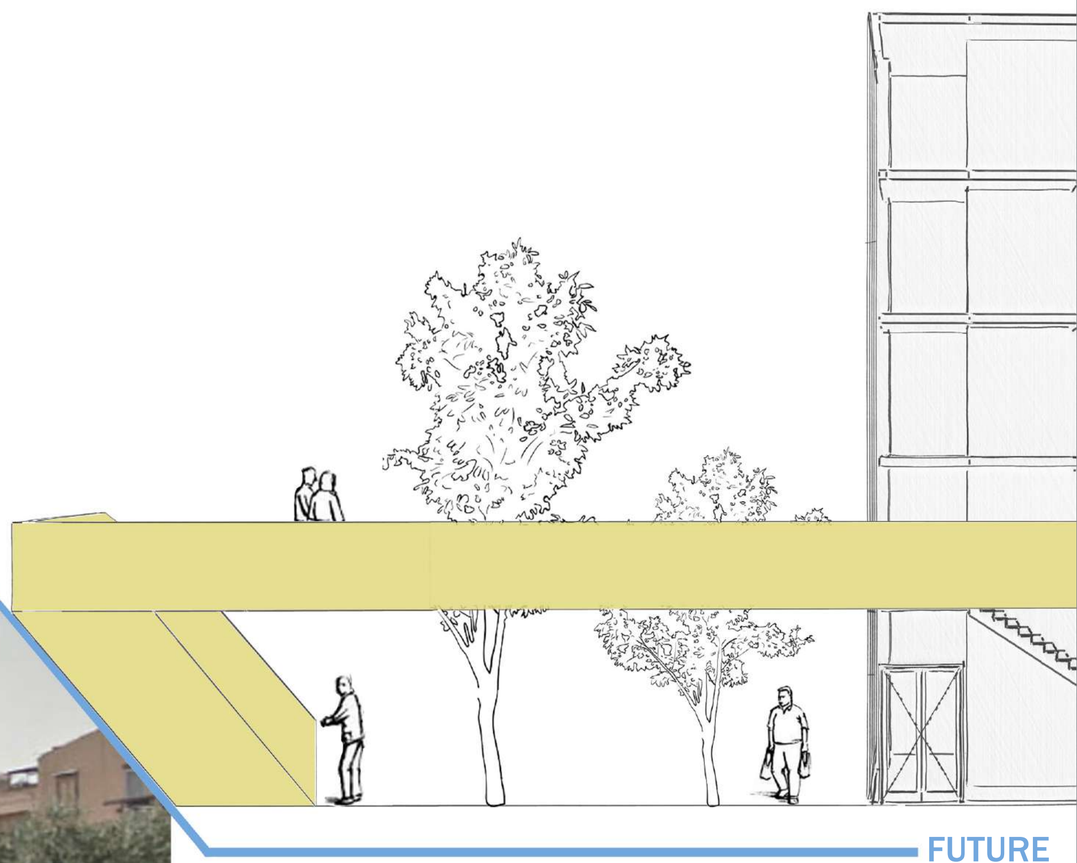
Program

cultural and social center, public facilities, services, urban park

Covered area	**2398,22m²**
Uncovered area	**6065,73m²**
Floors above ground	**4**
Built volume	**21652,01 m³**
Estimated cost	**31.843,34 m²/€**

PAST





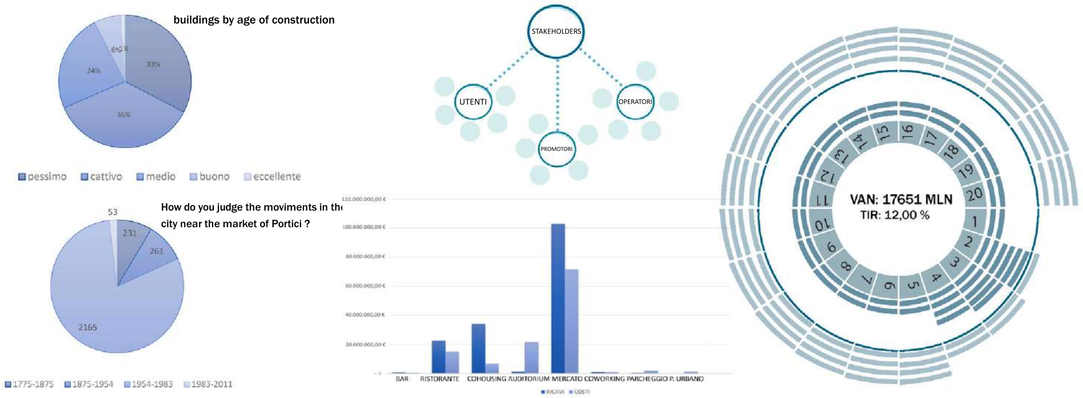
FUTURE

Analyzing the urban fabric, the idea was born to intervene in the center, in particular in the Portici market area, in via Arlotta. The building in question has always been the subject of debates and discontent both among citizens and in the public administration, so much so that it is called "ECOMOSTRO".



The covered market, built in the early 80s, is one of the negative symbols for the city of Portici. To date it is abandoned and in a state of advanced decay, a den of garbage and crime. Strategically it covers a very central position that could have improved, since its design, the already congested urban fabric, adding services useful to the population. Built and never entered into operation, the market still today is the subject of many discussions and proposals, which range from total demolition to a zoned intervention up to the idea of a new re-functionalization.

The proposal that is presented in this document touches on all the different points above indicated, first of all trying to give a new life to the structure and at least to improve its permeability, reconnecting it with a series of new paths and new accesses to the urban fabric. The proposed work turns out to be not only an intervention aimed at the structure but a real urban reorganization of the neighborhood where the market is located.



FINANCIAL ANALYSIS

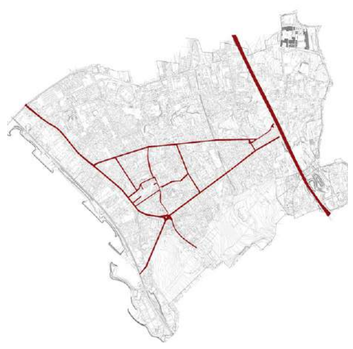
The graphs above show the analysis path made after the identification of the intervention area. These graphs represent the analyzes of the urban fabric, the considerations of citizens on mobility, who the Stakeolders are, up to an analysis of the construction and management costs of the work to be carried out

URBAN CONTEXT



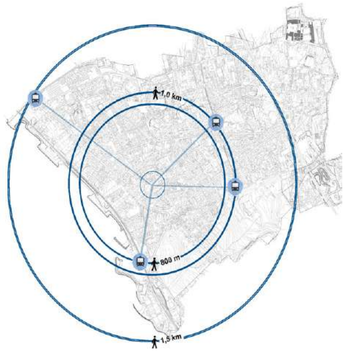
Aerial photogrammetry. useful tool to analyze the context, saturated with buildings and without green spaces.

VIABILITY



Aerial photogrammetry. useful tool to analyze the context, saturated with buildings and without green spaces

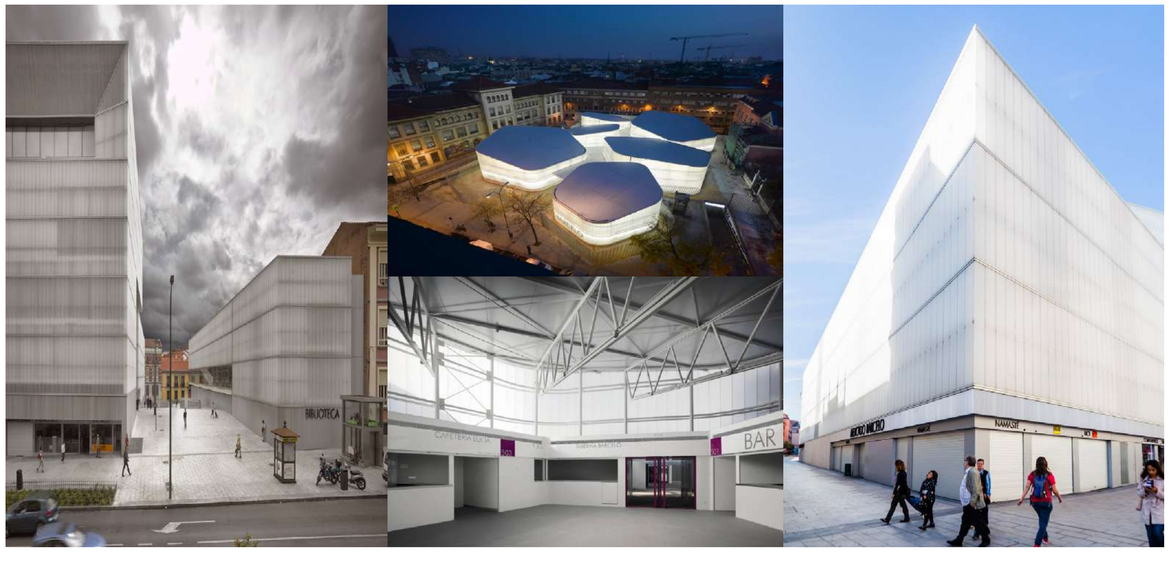
PUBLIC TRANSPORT

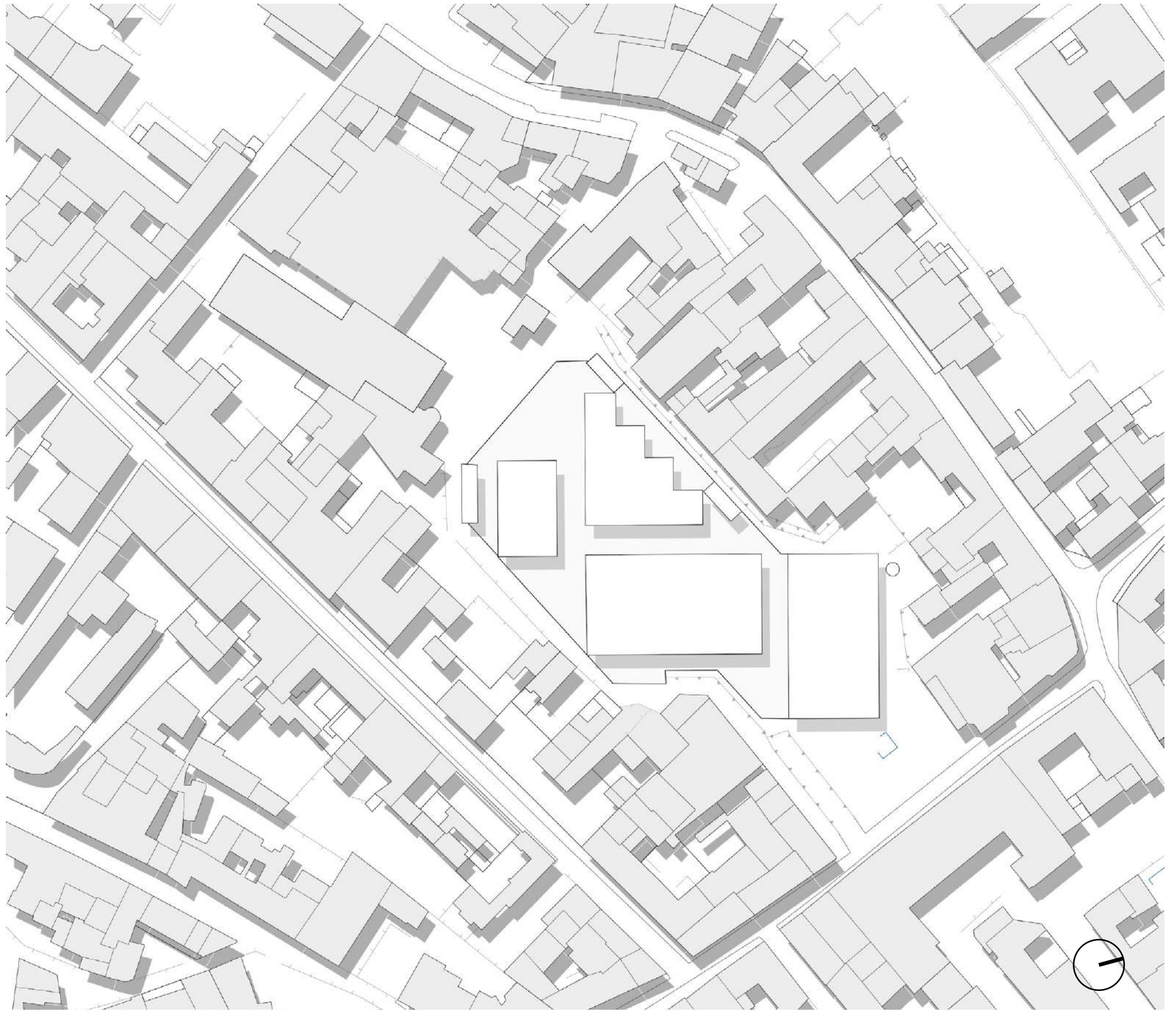


Transport scheme. the graph shows the distances, with concentric centers, of the 4 stations in Portici with the city center.

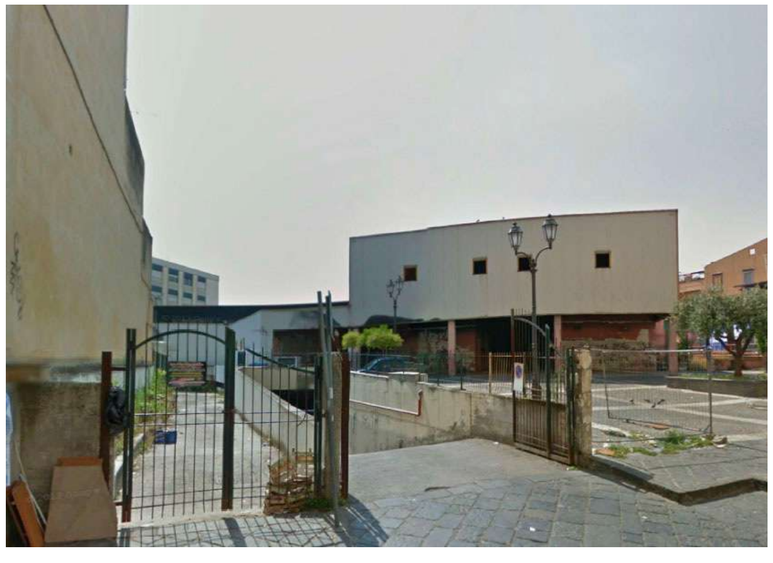


PORTICI'S PARK THE PROJECT IN CONTEXT





CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS





ECOMOSTER

The photos of the state of affairs show the advanced state of neglect and decay of the covered market with arcades.



DESIGN PROPOSAL

0 20 50 100m

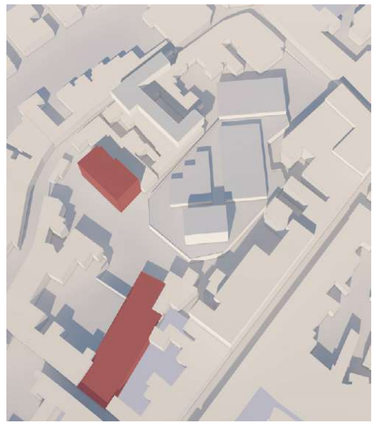


BUILDING ROUTE.

Phase 1: analysis of the state of affairs and identification of the buildings and / or parts of the building to be demolished



Phase 2: partial demolition of the former market area building for the creation of new green spaces to facilitate integration.



Phase 3: demolition of the two buildings highlighted in the graph for the construction of two new access points favoring the pedestrian flow.

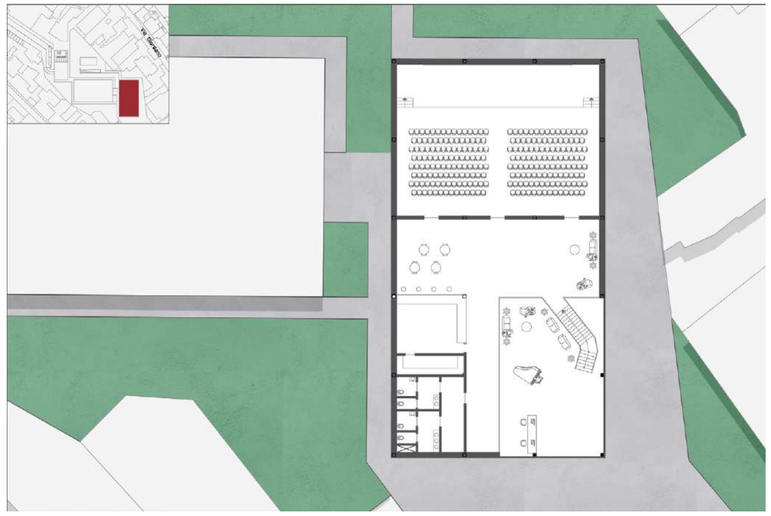
The construction of several pavilions stems from the need to create new green spaces within a context saturated with buildings, with the aim of creating new meeting spaces and places to stay for the entire community of Portici.

The project was born with a precise idea: that of not completely demolishing the work but trying in some way to intervene on the existing one, through partial demolitions and renovations. Despite the construction of several pavilions, giving the idea of unrelated and independent bodies, the structure is actually connected at all points. As can be seen in the axonometric section on pag. 8, the basement is completely connected and reflects the shape of the existing building. On the ground floor and in the basement, the market halls have been inserted into which stands have been planned and designed for the sale of food products and some refreshment areas where the user is given the opportunity to consume the products purchased. In addition to restoring its original function, others have been added to the building, as can be seen in the diagrams. The first zoom shows the auditorium in plan, with the foyer located at ground floor.

The auditorium is located in the first pavilion facing the square, on via Arlotta, has a room calculated with a maximum of 250 people and has a separate entrance from the market area with the intention that it can be used even when the market is closed.

In the second zoom the Co-housing is represented in plan. It is an experiment that is having a lot of success in Italy and in Europe and consists in creating real estate units that can be given to young couples or to those who cannot buy a house.

The third zoom shows the plan of Co-working, also a successful experiment, and literary coffee. The Co-working consists of large and large spaces to give greater comfort to those who will work inside and has large windows overlooking the new square. The literary café, designed following the idea of providing more services to the community, has an entrance on via Giordano, thus ending its independent activity.



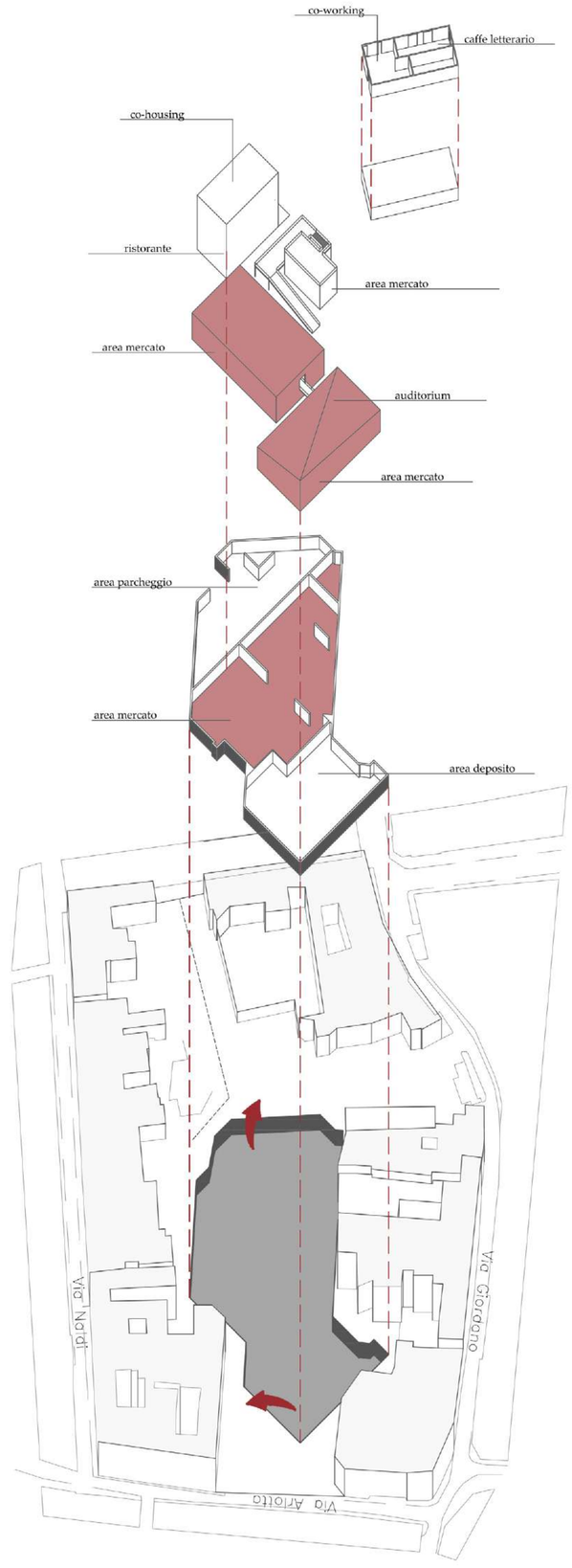
Zoom auditorium. Located in the first pavilion on the square in via arlotta (+3.70)

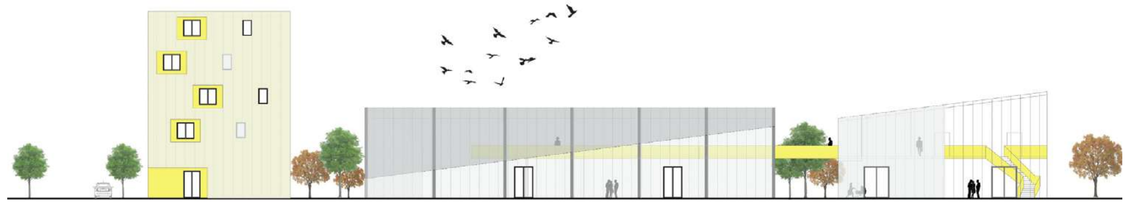


Zoom Co-housing. Standard plan of 4 floors for 8 residential units. (+4.50)



Zoom Co-working and literary café (0.00)

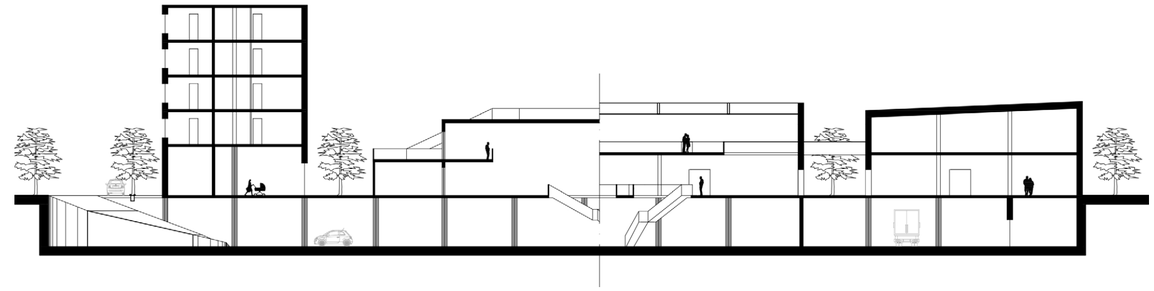




PROSPECTUS

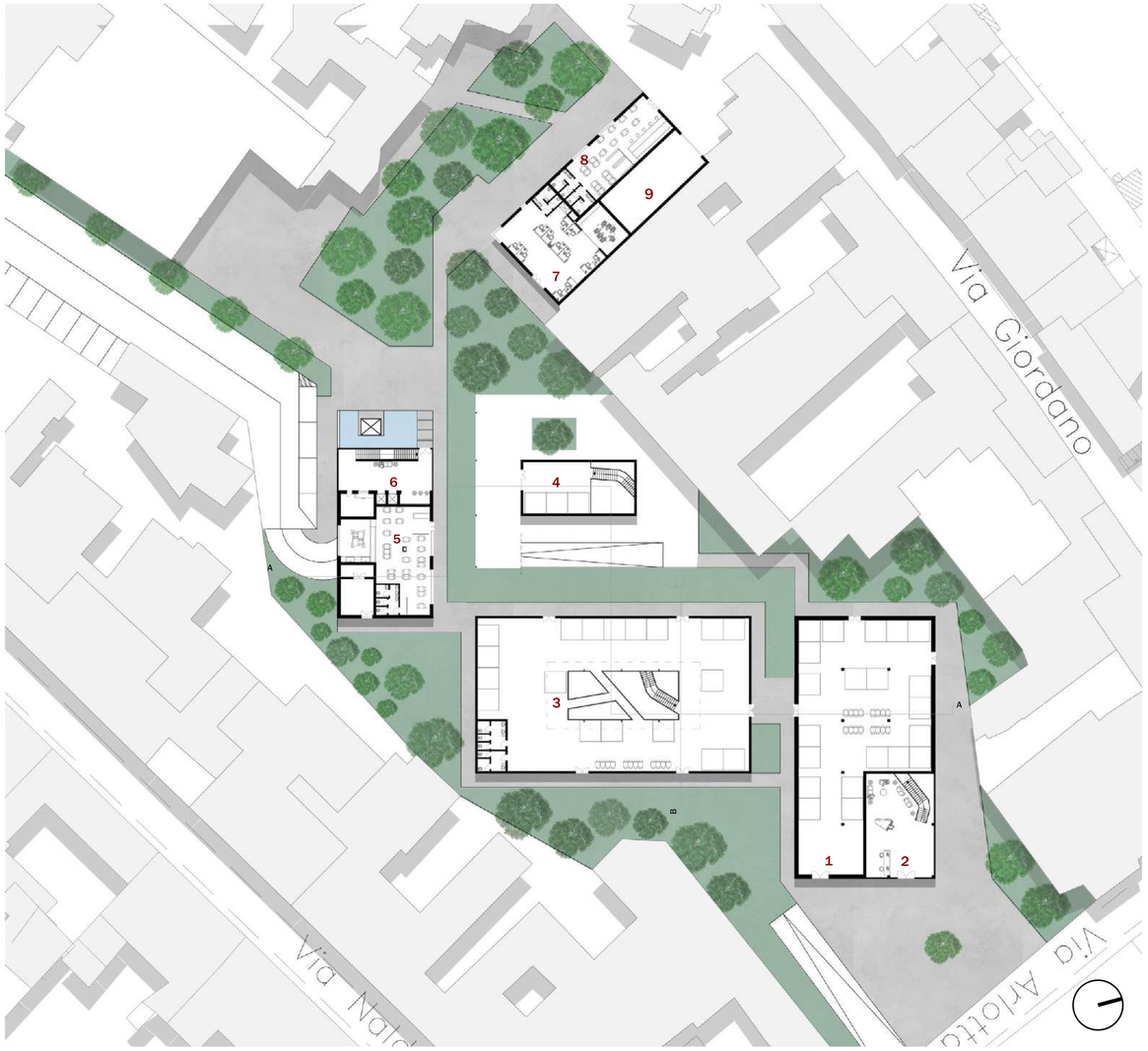
0 10m 30m 60m

1. Market entry
2. Foyer Auditorium
3. Market hall
4. Market hall
5. Restaurant
6. Co-Housing entry
7. Co-working
8. Literaty cafe
9. deposit



SECTION A

0 10m 30m 60m



GROUND FLOOR + 0,00

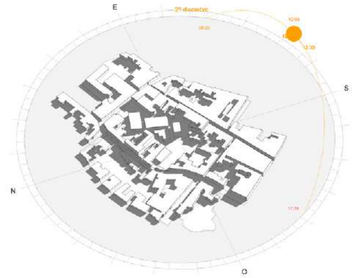
0 10m 30m 60m



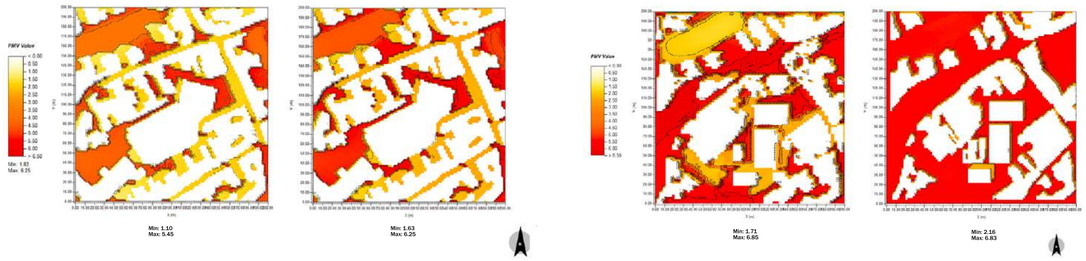
THE SQUARE. EXTERNAL VIEW



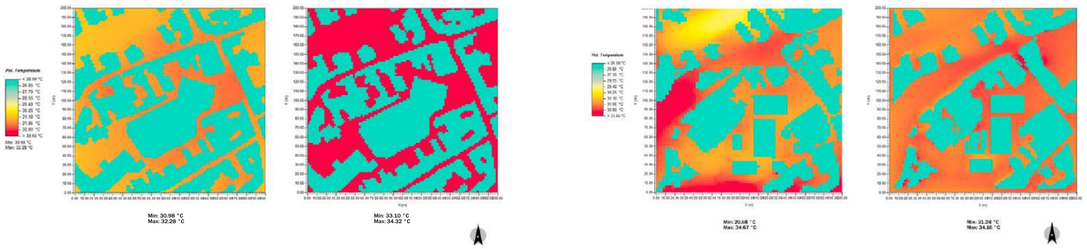
Summer solstice | *21 giugno*



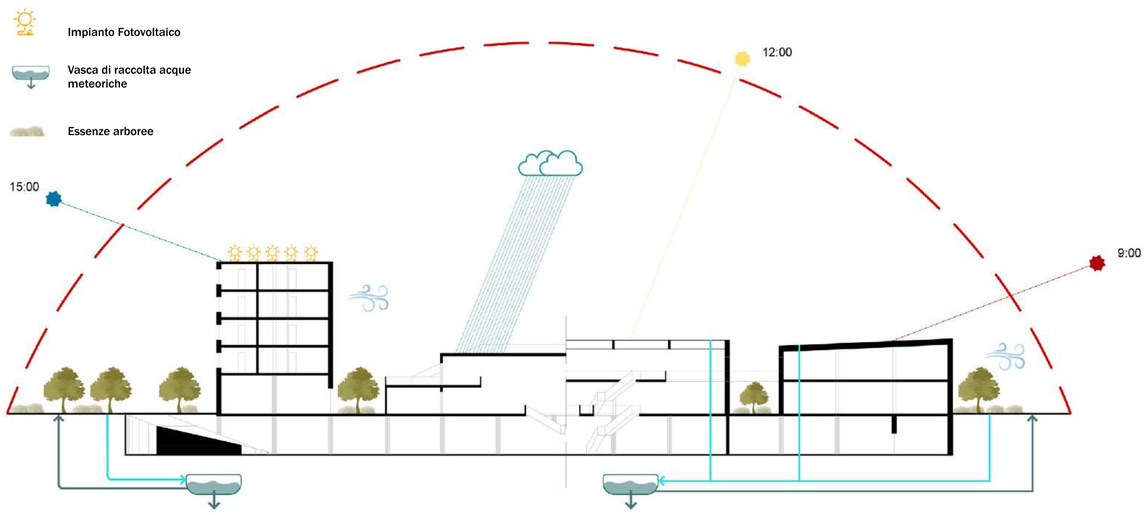
Winter solstice | *21 dicembre*



PMV | Thermal sensation index



POT| Air temperature



ENVIRONMENTAL SECTION

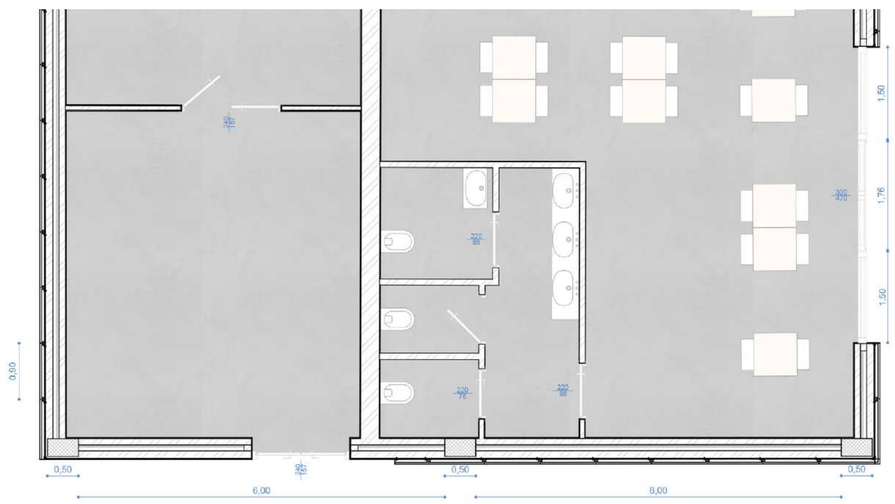


1. COVERING FLOOR
Floor 2 cm;
Waterproof case;
Slope screed 10\4 cm;
Expanded EPS insulation 4 cm;
Wood fiber insulation; 4 cm;
Non-woven fabric membrane;
Brick and concrete floor. 20 cm.

2. INTERMEDIATE FLOOR
Floor 2 cm;
Mat 3 cm;
Acoustic insulation by mapei 1 cm;
Wood fiber insulation 4 cm;
Brick and concrete floor 20 cm;
Intrados plaster 1 cm;
Plasterboard panels 1,3 cm.

2. INTERMEDIATE GARAGE FLOOR
Pavimento 2 cm;
Massetto 3 cm;
Isolante acustico mapei 1 cm;
Isolante in fibra di legno 4 cm;
Solaio laterocemento 20 cm;
Intonaco intradosso 1 cm.

4. VERTICAL CLOSURE
Plaster 1,5 cm
Brick of 12 cm;
Air chamber 4,5 cm;
Rock wool insulation 5,5 cm;
Brick of 10 cm;
plaster 1,5 cm;
Polycarbonate panel 3 cm.



PLAN AND BUILDING SECTION AND PUBLIC SPACE SCALA 1:50

PORTICI ADVANCED DESIGN STUDIO

MARIA PARENTE - FROM PAST TO PRESENT

A STRATEGY TO REDISCOVER THE ARCHITECTURAL HERITAGE AND RECONNECT THE AREA OF BELLAVISTA

The aim of the project is the redevelopment of the surroundings of the so called “Collegio Landriani”, in the area of Bellavista, in Portici. This part of the town, almost on the borders of Portici and next to the highway, is currently underused; the huge green spaces are abandoned, as well as the historical complex, which has no continuous intended use. This project wants to enhance the historical and architectural value of the exhisting building - as well as the landscape value of the area - and to insert new functions, required by the really dense population of Portici and by the students of the faculty of agriculture, hosted at the nearby royal palace.

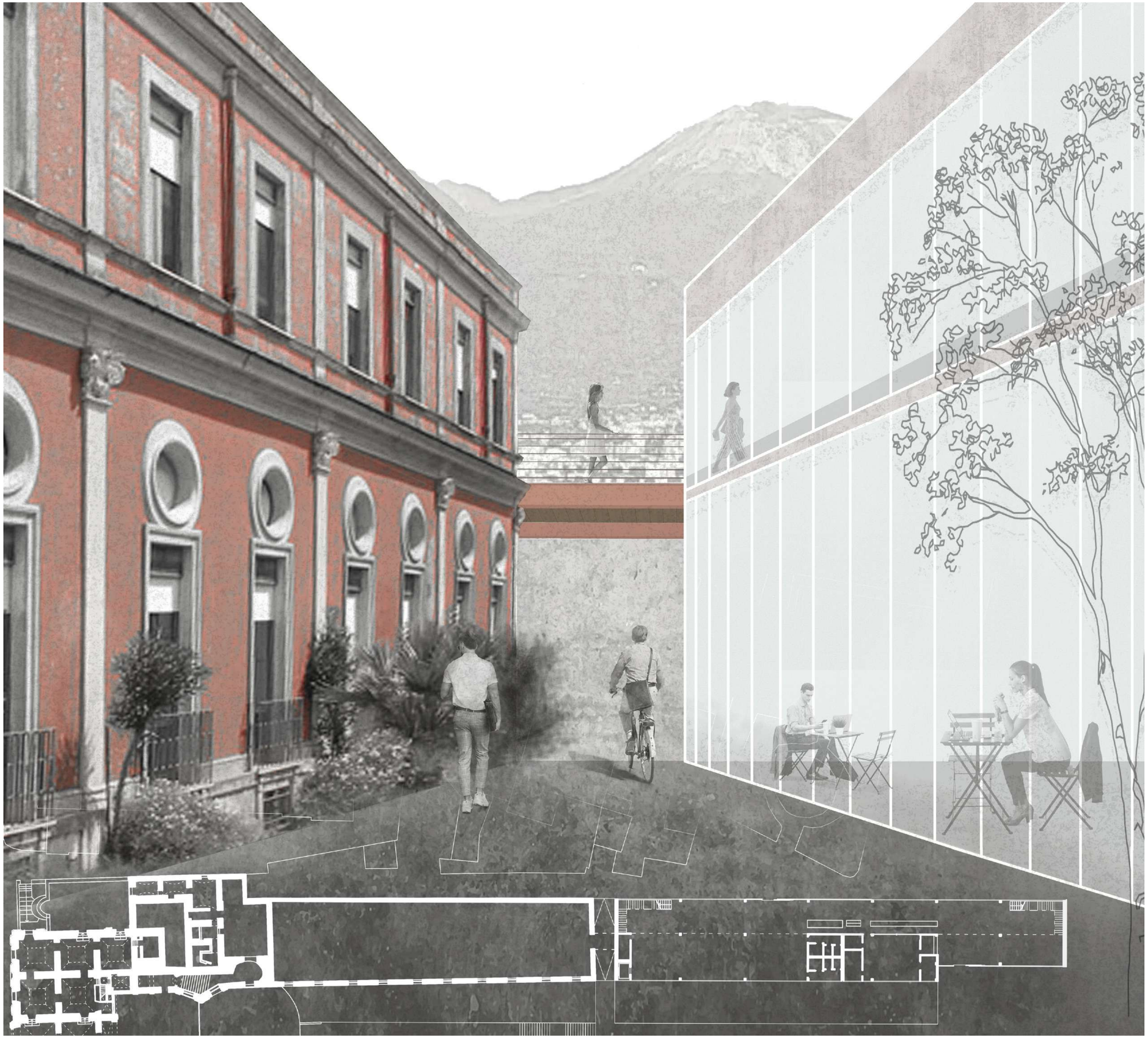
The new building, conceived as an extension of the historical one, is aligned with the new wing of the Collegio Landriani, to strenghten the idea of a contemporary architecture, whose aim is to be in continuity with the historical heritage. This initial illustration wants to highlight this idea of transition from past to present.

The so colled Collegio Landriani was built around 1750. The villa, with the huge front garden, gave the name to the area of Bellavista, because of the great view, from the sea to the Vesuvius, that could be seen from the palace. The villa was purchased by the Orsini di Gravina family at the end of the 18th century. At the beginning of the 20th century it was property of a religious order and it became a boarding school. By mid-century, the north wing - the one with whom the new building is in continuity - was built.

Program

study rooms, library, student dorm, mensa, sport centre and parking.

Covered area	**4.850m²**
Uncovered area	**3.600m²**
Above ground floors	**2**
Built volume	**20.470m³**
Estimated cost	**€ 6.950.000**

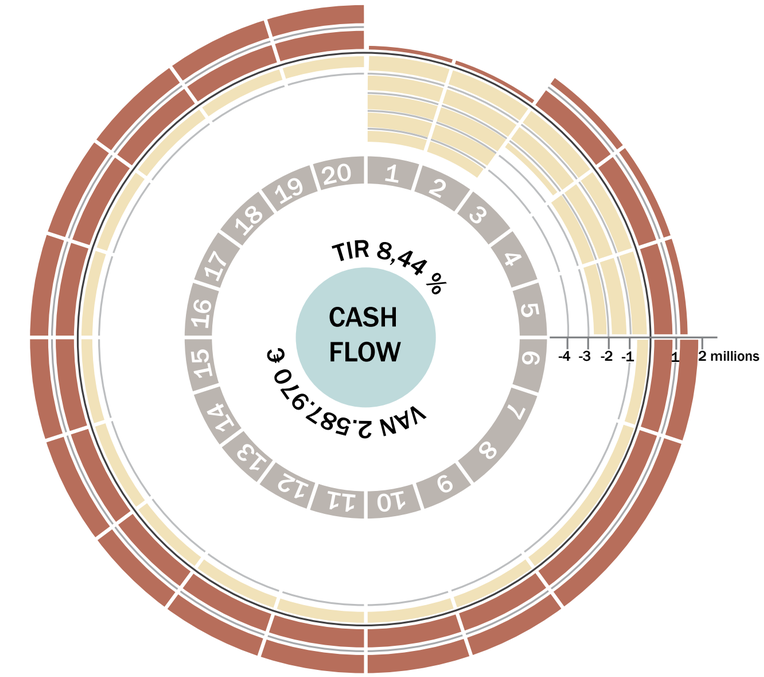


The extension of the Collegio Landriani fuses architecture and landscape: a sports centre is built mainly underground, taking advantage of the differences in altitude. It is a "below ground zero" architecture - with low impact on such a densely built town - which gives back public space, thanks to a walk-on green roof that covers the complex.

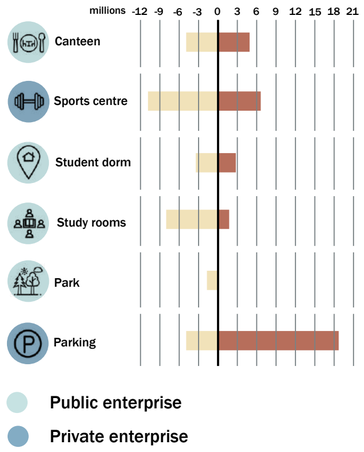


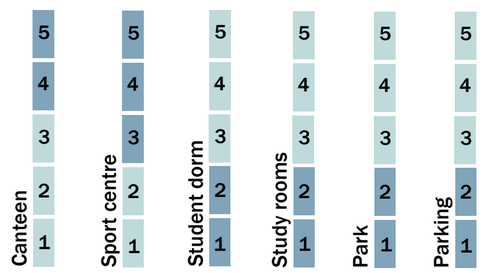
In order to purse the goal of rediscovering the importance of culture and to satisfy the need for facilities for the agricultural students of the nearby faculty, the exhisting building will host study rooms and a student residence in the new wing. The extension will be a canteen with a sloped roof, connected to the old building thanks to a bridge.

The masterplan includes the project of a series of physical connetion in the area: a new path reconnects the back of the Collegio Landriani, and therefore the sports centre, with the crowded via Diaz; the park in front of the building is renovated and reopened, to provide green public space to the citizens of Portici and to reintroduce the historical path, which starts from the Collegio Landriani and ends near the railway and the station of Bellavista. At the end of the park, a system of ramps allows to reach the lower level where the station is located. From the ramps you can access the two levels of underground parking, situated below the public green square, which tries to solve the lack of parking lots in the surroundings of the station.

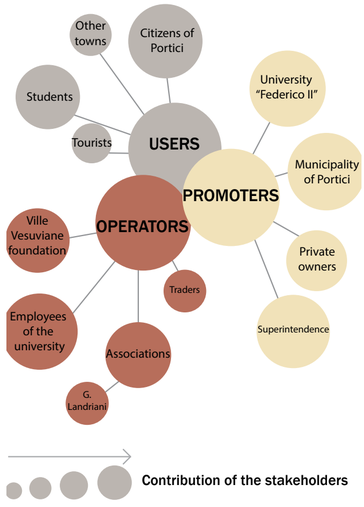


CASH FLOW

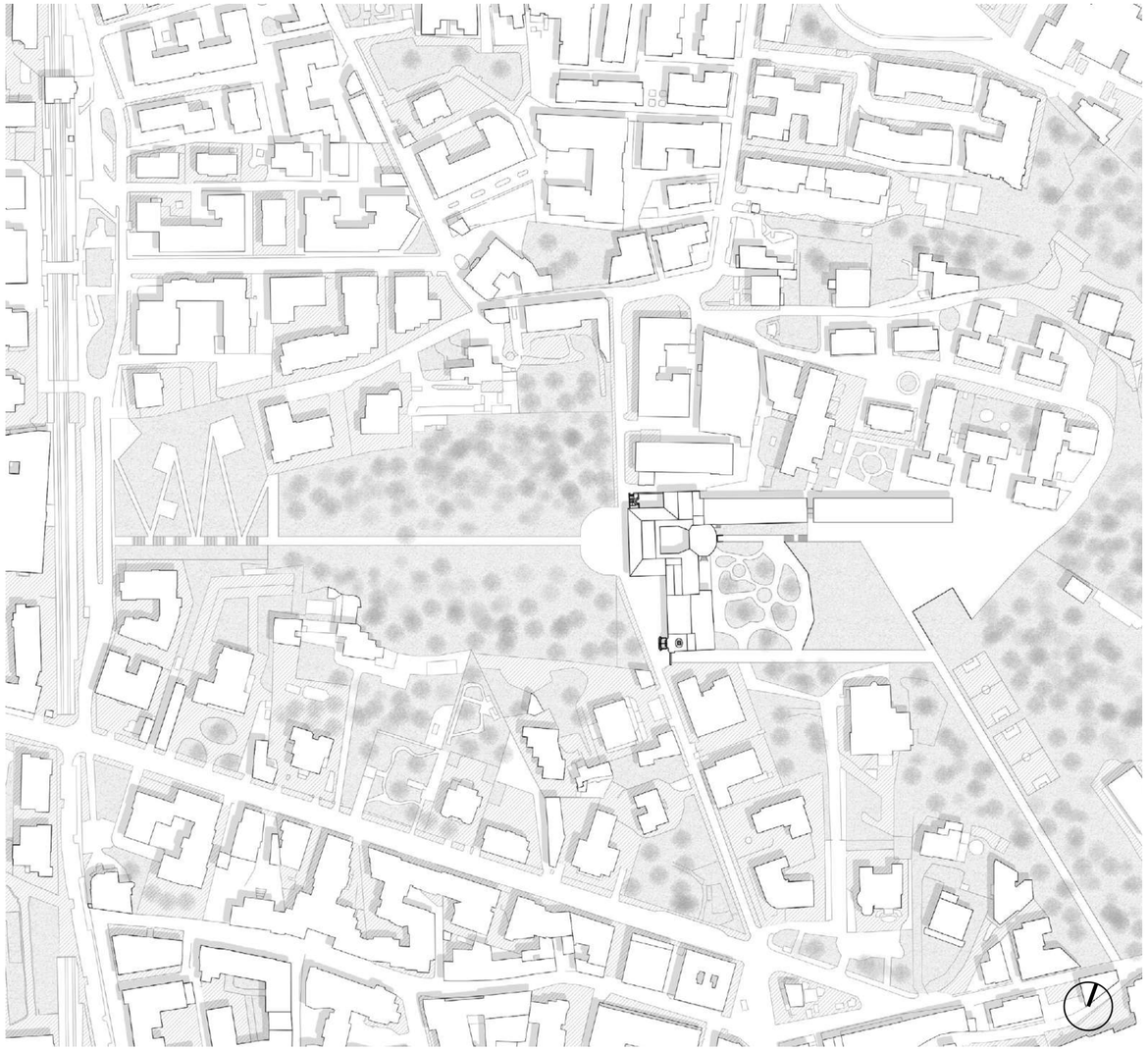




TIME SCHEDULE

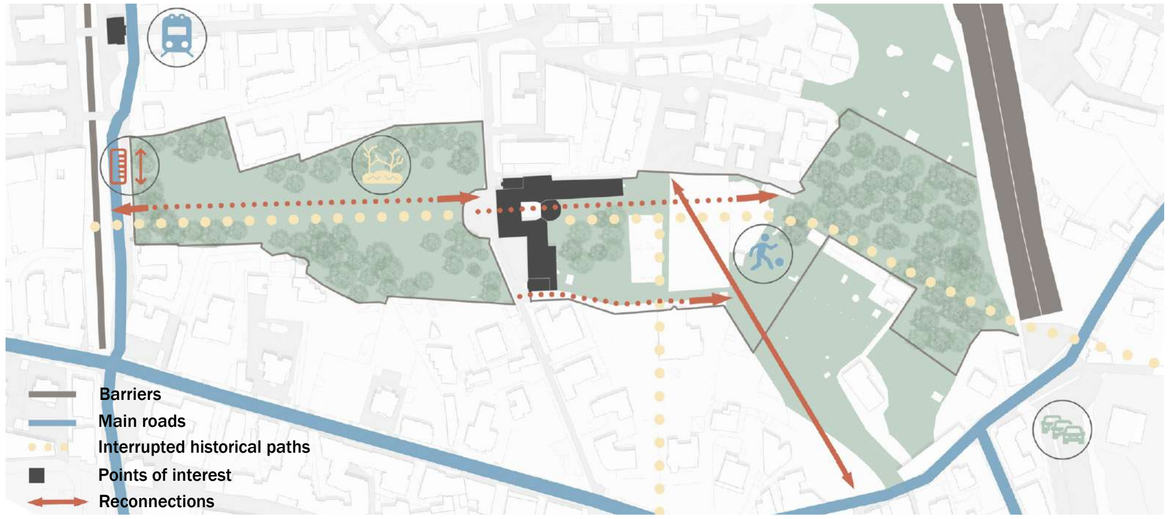


STAKEHOLDER MAP



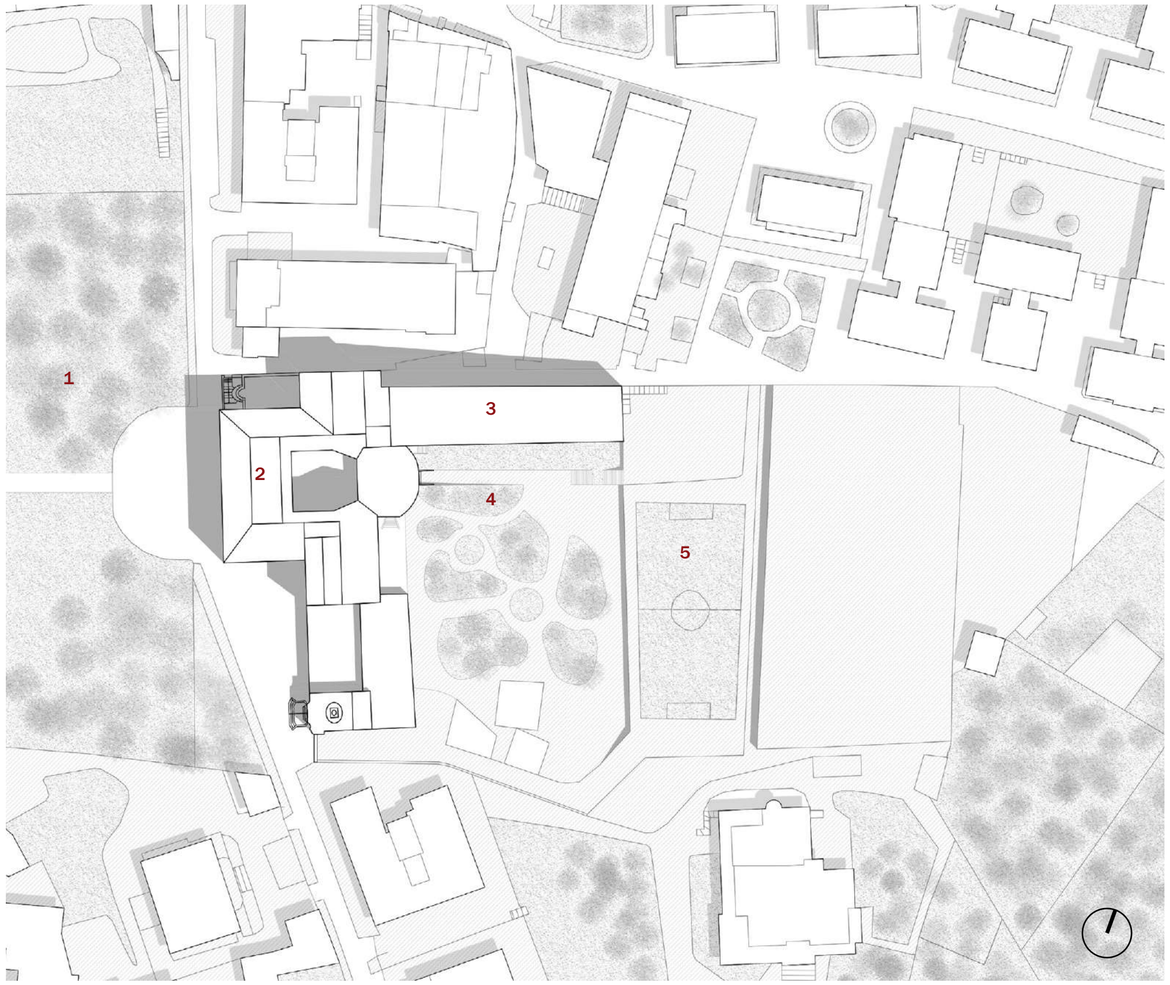
PORTICI PARCO THE PROJECT IN ITS CONTEXT

0 40 100 200m



URBAN STRATEGY

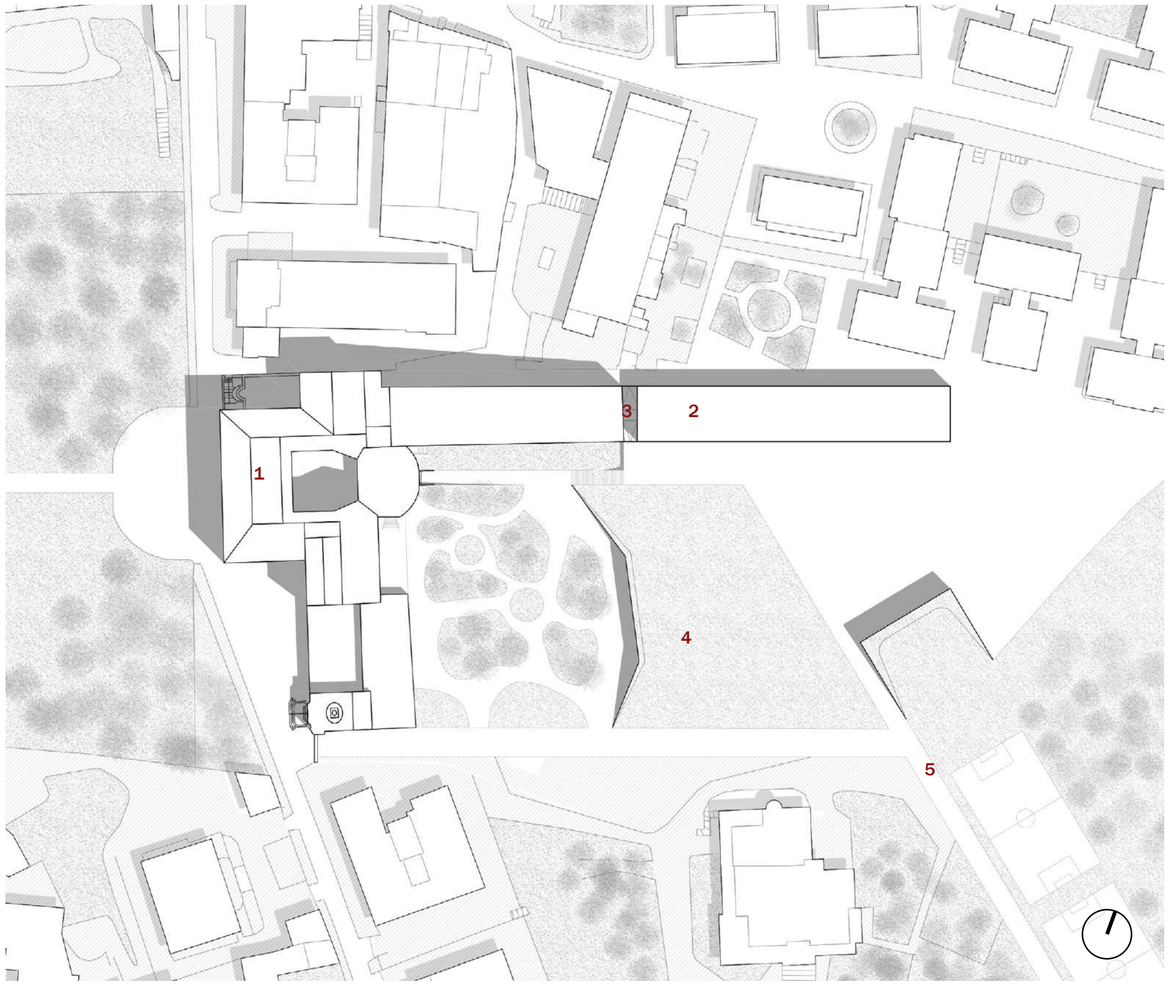
1 Park of Palazzo Landriani
2 18th century building
3 20th century wing
4 Historical garden
5 Exhisting sport field



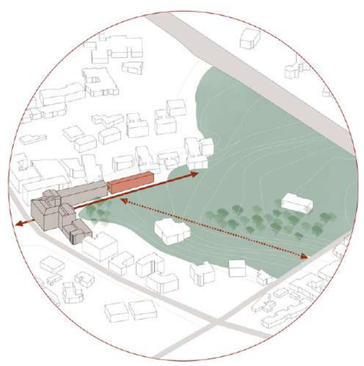
CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS



1 Restoration of Palazzo Landriani
2 Extension
3 Walkway
4 Subtraction and recomposition of soil
5 Reconnection to via Diaz

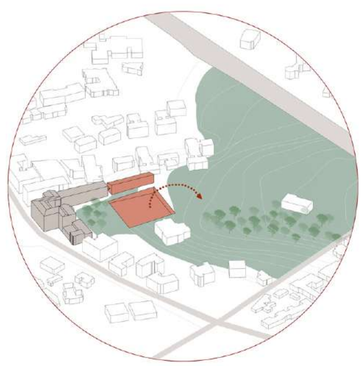


DESIGN PROPOSAL



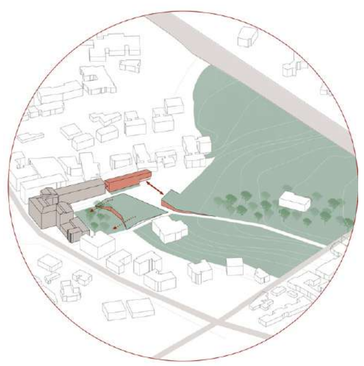
RECONNECTION

New urban connections, restoration and extension of Palazzo Landriani.



SUBTRACTION OF SOIL

Creation of an underground sport centre which is a new attraction in the area.



RECOMPOSITION OF SOIL

New relations with the outdoor space and between the buildings.

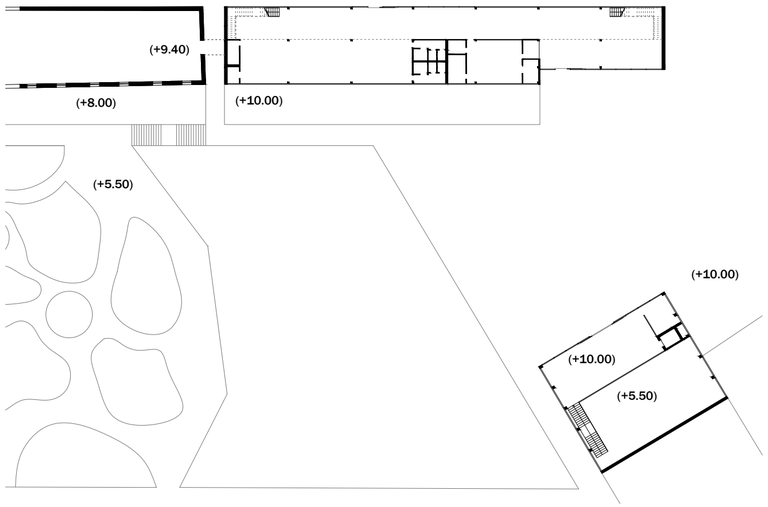
The functional diagram shows the spatial layout of the complex with entrances situated at different levels to reconnect the historical garden of the Collegio Landriani and the level of the walk-on green roof of the sport centre and of the entrance of the canteen.

As you can see from the plans, the main entrances of the canteen and of the sports centre are on the upper level. The only above ground volume of the sport centre hosts the reception and has a sloped green roof which communicates with the one of the canteen, whose entrance is exactly opposite the previous one. The canteen is located on two levels and from the upper one, which is a kind of gallery looking on the lower one, you can reach the exhisting building through a steel walkway. At the entrance there is a cafeteria, where people can relax after training sessions. The kitchen and the toilet block are in central position, so that people can take the meal and sit at the tables situated on both levels.

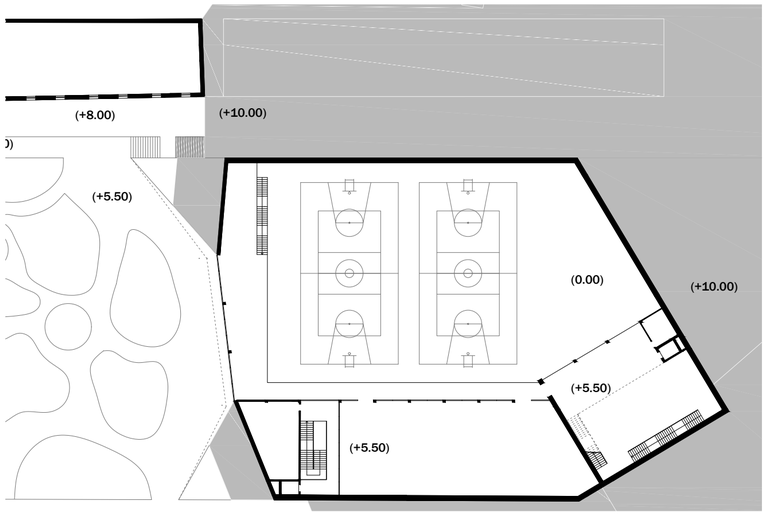
The building is covered by two layers of traslucent U-shaped glass profiles which provide an inviting transparency and a feeling of lightness - also thanks to the thin steel structure - as well as excellent thermohygrometric performance and low impact on the historical site. The traslucent cladding lets light enter during the day while, at night, the building becomes a kind of lens, which lights up the surroundings with the internal light.

From the historical garden, which is set at a lower level than that of the mensa, you can enter the sports centre, thanks to a gallery, mainly meant for the spectators of the matches, which lets you enter the gym and looks on the double height space with the sports fields.

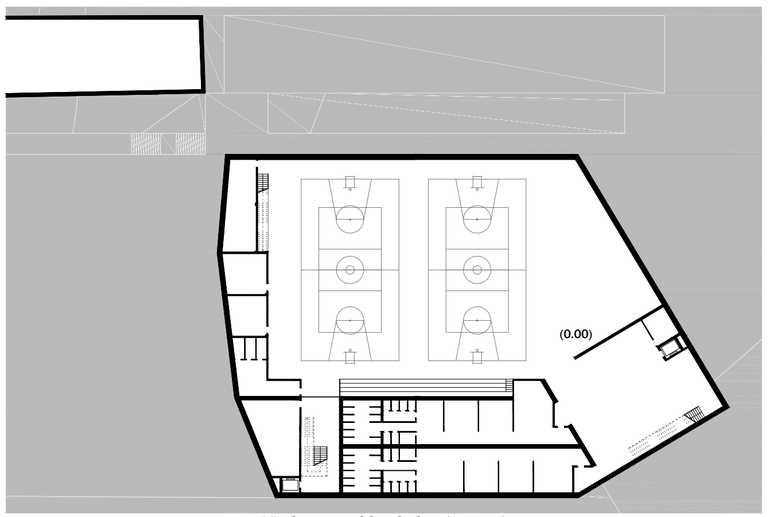
The lower level can be reached from both the volume of the entrance and the aforementioned gallery and it contains the changing rooms, the utility rooms and of course the playgrounds for basketball and volleyball, as well as side spaces for gymnastics and a small spectator stand. The double height space is supported by steel truss girders, which can be seen from the playground.



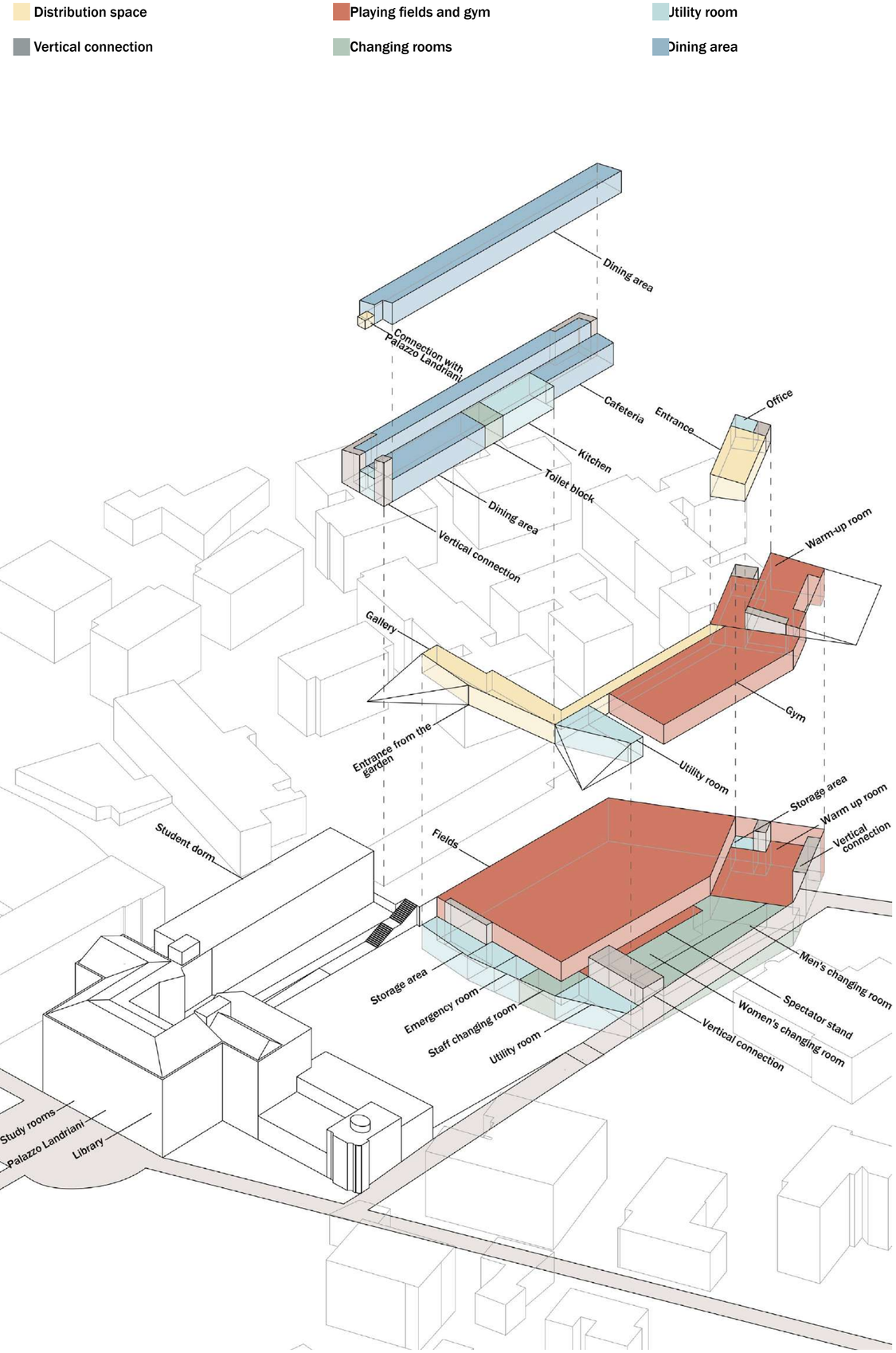
Entrance level plan (+10.00 m)

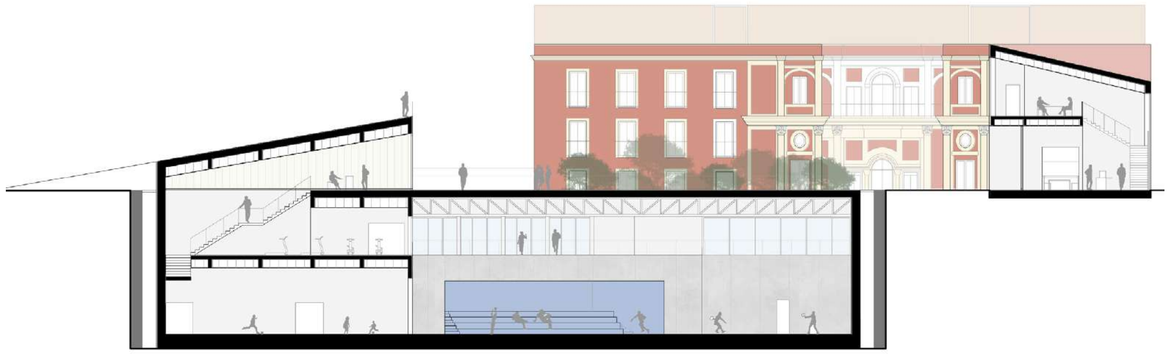


Historical garden level plan (+5.50 m)



Underground level plan (0.00 m)

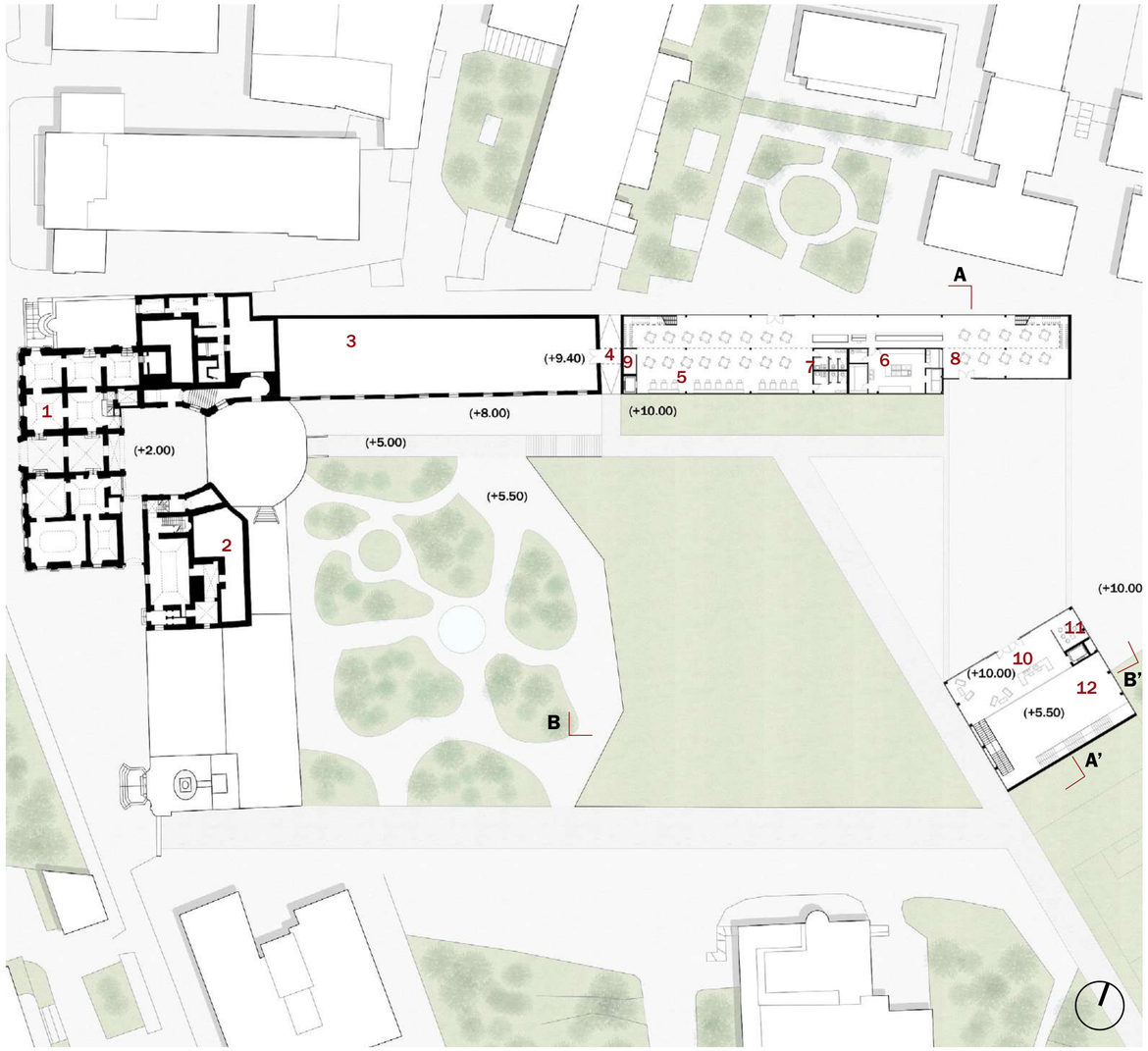




SECTION A

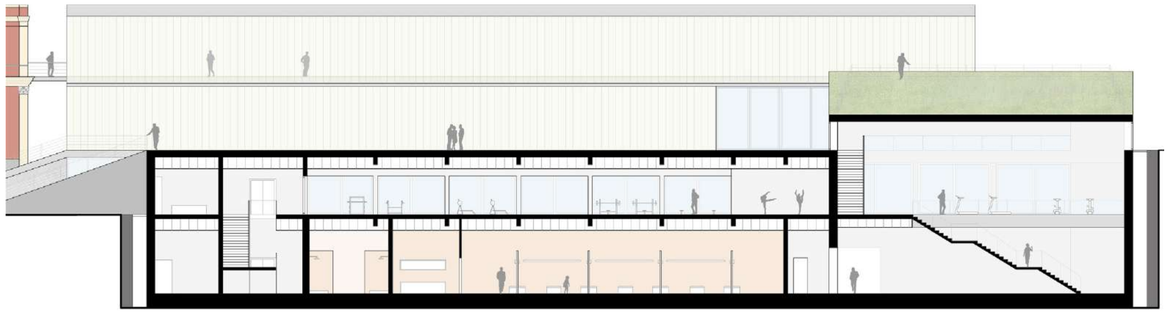
0 5 15 30m

1. Study rooms
2. Library
3. Student residence
4. Walkway to Palazzo Landriani
5. Dining area
6. Kitchen
7. Toilet block
8. Cafeteria
9. Storage area
10. Entrance - reception
11. Office
12. Warm-up room



LEVEL 3 PLAN + 10,0m

0 10 30 60m

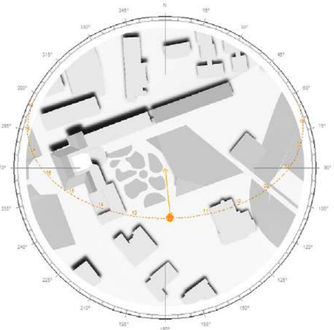


SECTION B

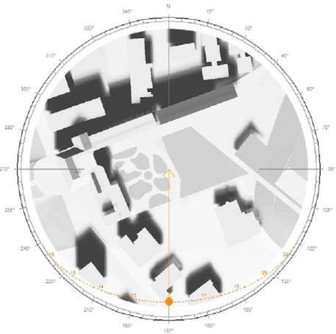
0 5 15 30m



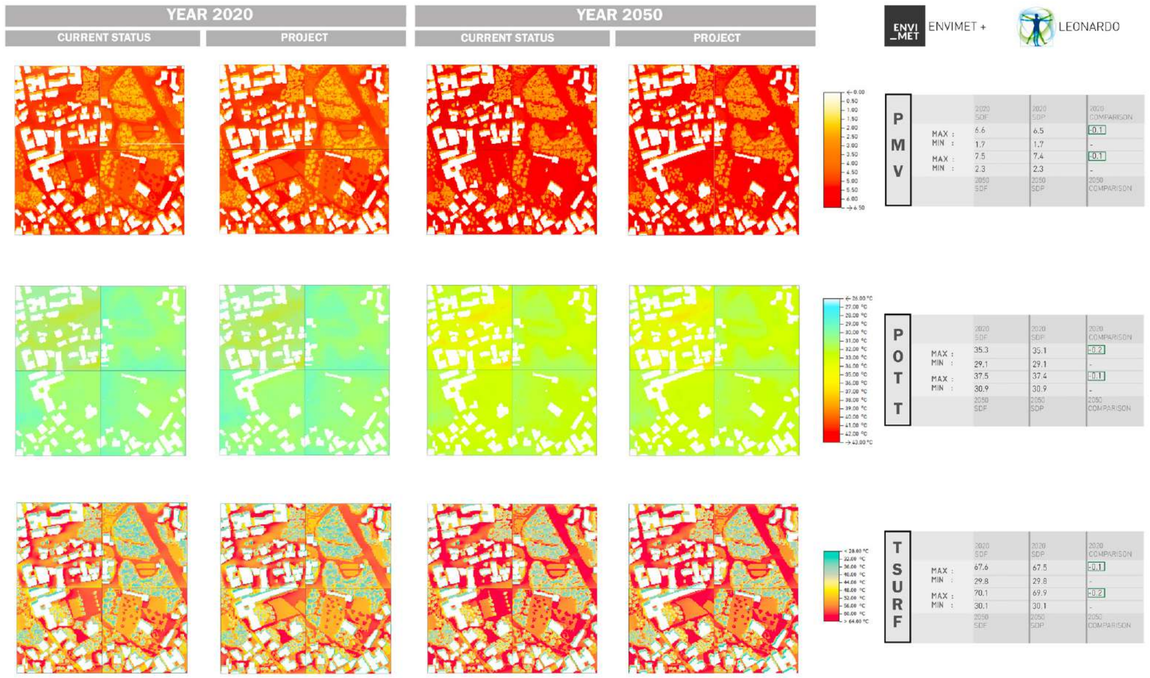
OUTSIDE VIEW

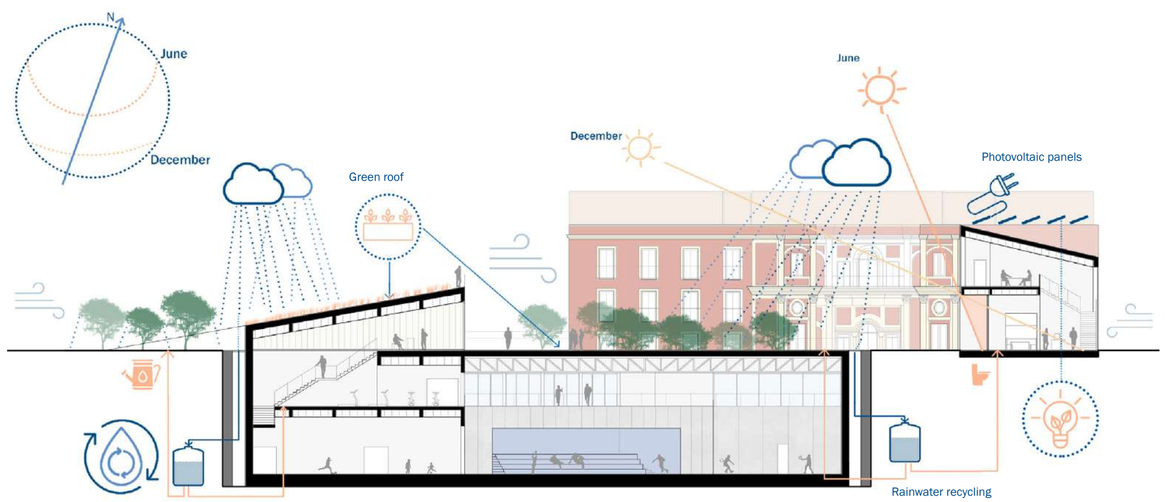


Summer solstice | *21 June*

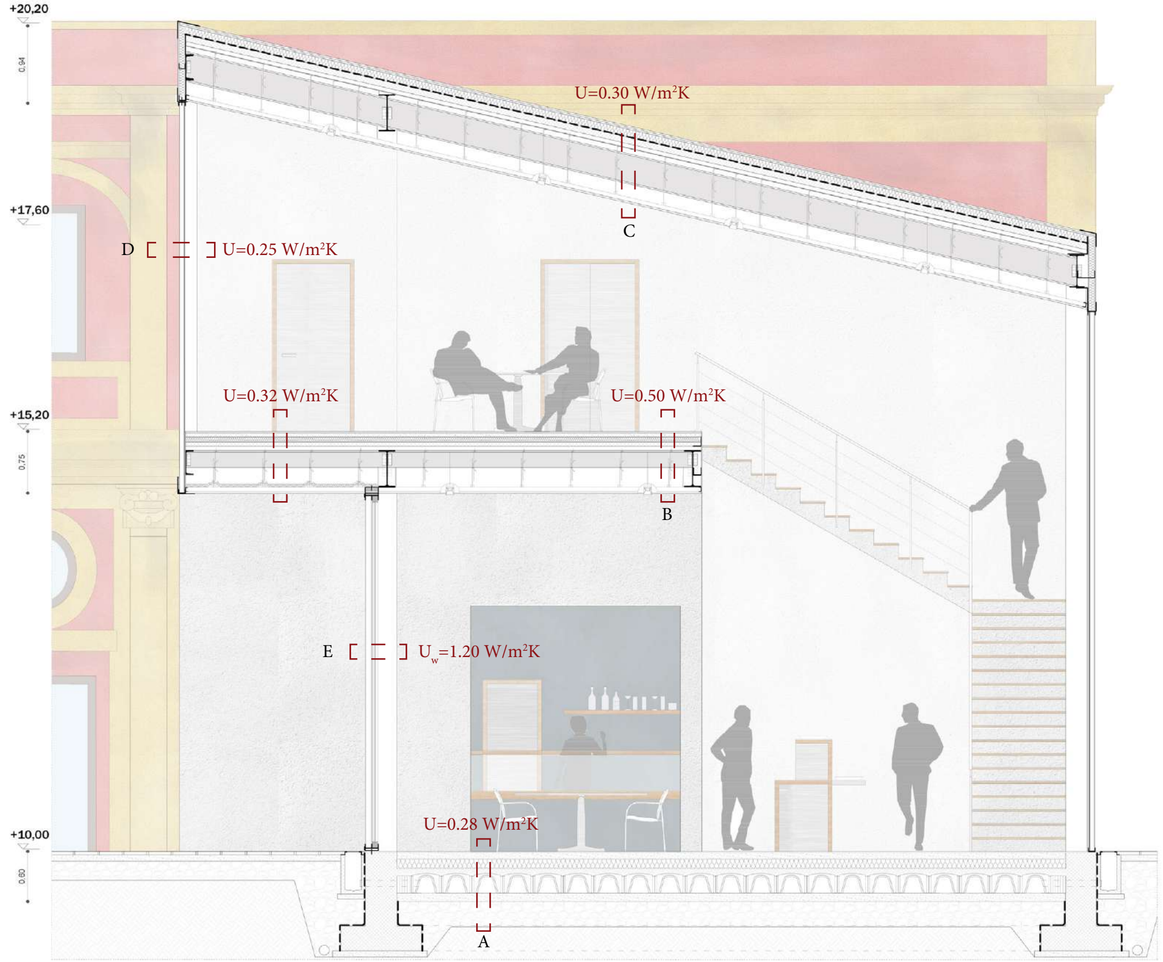


Winter solstice | *21 December*





BIOCLIMATIC SECTION



A. Wooden floor, mortar, screed, wood fiber insulation, in situ jet of reinforced concrete, modular polypropylene formwork, lean concrete, gravel, ground.

B. Wooden floor, mortar, screed, wood fiber acustic insulation, jet of reinforced concrete, profiled sheet metal, secondary steel beam IPE 240, plasterboard false ceiling.

C. Fiber concrete slab, wood fiber insulation, waterproofing, concrete, profiled sheet metal, secondary steel beam IPE 360, false ceiling.

D. Two layers of traslucent U-shaped glass profiles filled with transparent insulation material.

E. PVC frame and low-e double glazing.



PLAN AND SECTION OF THE BUILDING AND THE OUTDOOR SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

SARA PASQUARIELLO - GREEN MIND SCHOOL

CONNECTION BETWEEN GREEN AND BUILT PATH BUILDING

GREEN MIND SCHOOL

Green Mind School is a project that comes from need for new spaces to support the school activity already present in the area under study.
Here there are two public schools that welcome students starting from kindergarten up to secondary school.

The idea comes from wanting to give new spaces, built or not, to school activities, but not only.
The goal is also to open an area that between infrastuctures, soil with different heights, uncultivated areas and a high building density, is closed in a fence and difficult to access: if not through the entrance of the two school or through a private entrance.

In fact, this area is located in the central area of Portici, the most densified area and with few green spaces.
We are located near Circumvesuviana train stop called “Via Libertà”.
This infrastructure cuts the city of Portici in two longitudinally, but it is not the only, in fact to the north of Portici we find the highway and on the waterfront the state railway and these also contribute to further longitudinal cuts of the city.

Therefore a further objective is to overcome the Circumvesuviana train “obstacle” guaranteeing continuity between the two areas of the city and to open this area transversally and with further public and direct access.



Program

School equipment: school workshop, study rooms, library, sporting area, educational garden.

Covered area	2649m²
Uncovered area	37146m²
Above ground floors	2
Built volume	22781
Estimated cost	€2.862.890

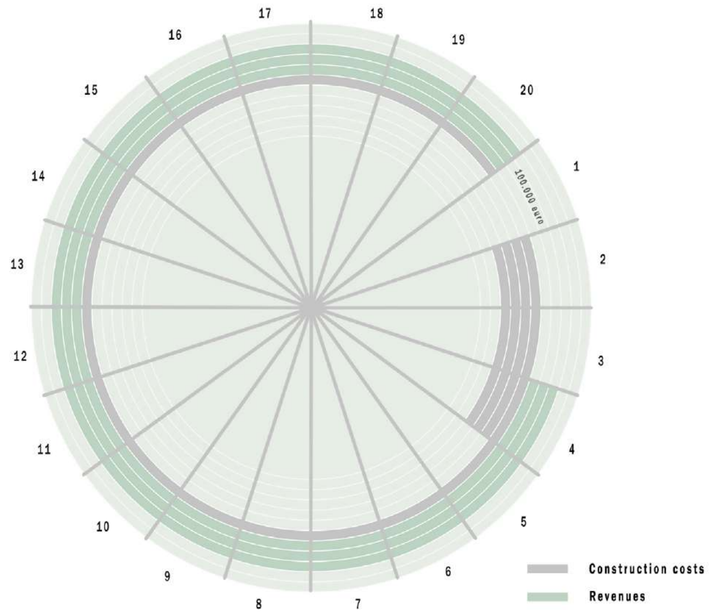


Green Mind School mustn't only perform one function, that is school activity, but must be a point of reference for the city, through the opening of these spaces to the community and to the cultural and sports associations of the city of Portici.

The area in which the project is located is a space confined and delimited by the Circumvesuviana train, via Libertà, via A.Moro, via G. Poli, via L. Da Vinci and the two public schools of the city.
The area is inaccessible from the outside, with abandoned points where nature has taken over and points where there are private greenhouses.

The project tends to open an area through the undergrounding of the Circumvesuviana train going to overcome the current jump in altitude and creating a linear park above it.
While the remaining area is dedicated to the volume for school equipment and the adjoining park with a space for sports activities.

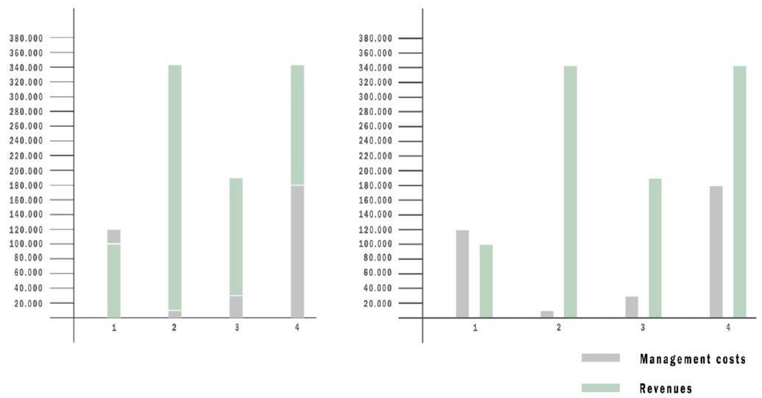
The volume is developed on two levels, both above ground and foresees a construction cost of approximately 3 million euros and achievable in 3 years.
In the years following the 3, there is a profit given by the opening of these spaces to associations and to public use when it is not used as a school activity.



VAN	2.862.890,68 €
TIR	13%

CASHFLOW

Graph of the cashflows of a project over a given period of time. In this case it is construction costs and revenues over a period of 20 years.



CASHFLOW AND GRAPHS OF COSTS AND REVENUES



PORTICI PARK THE PROJECT IN THE CONTEST

0 20 50 100m



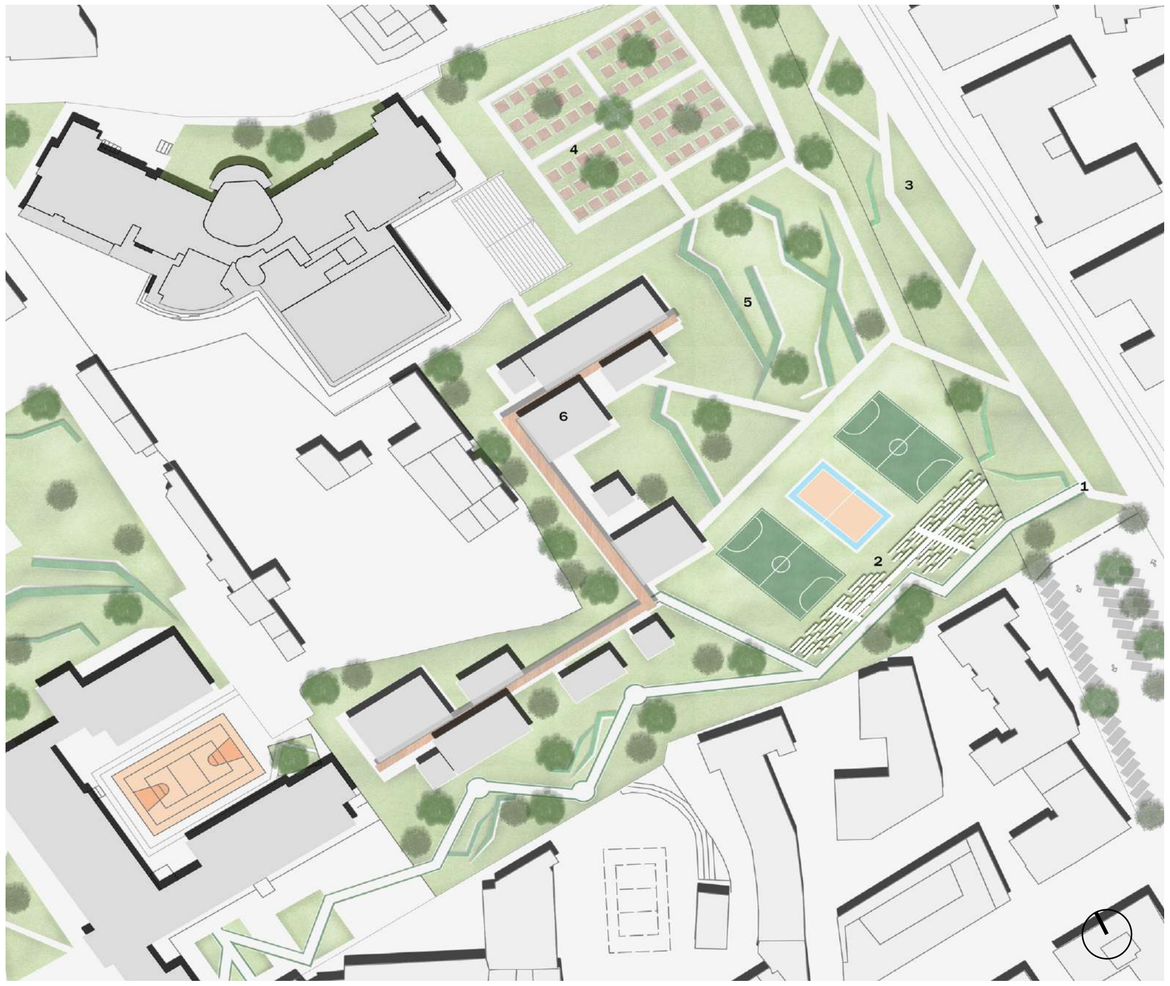
1. Private entrance
2. Private greenhouses
3. Circumvesuviana train
4. Public school
5. Public school
6. Uncultivated area



CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

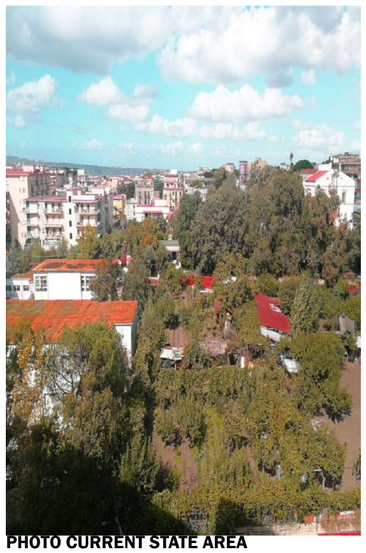
0 10 25 50m

1. Entrance from Via A. Moro
2. Sporting area
3. Linear green park
4. Educational gardens
5. Green park
6. Project volume



DESIGN PROPOSAL

0 10 25 50m





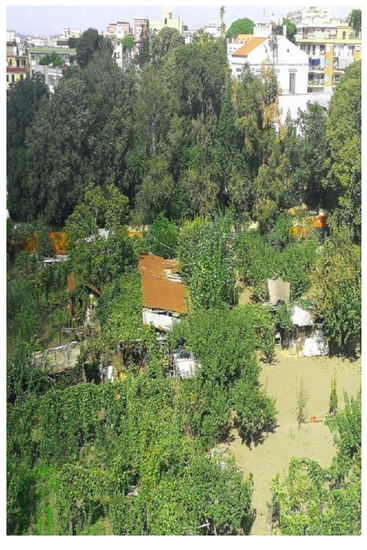
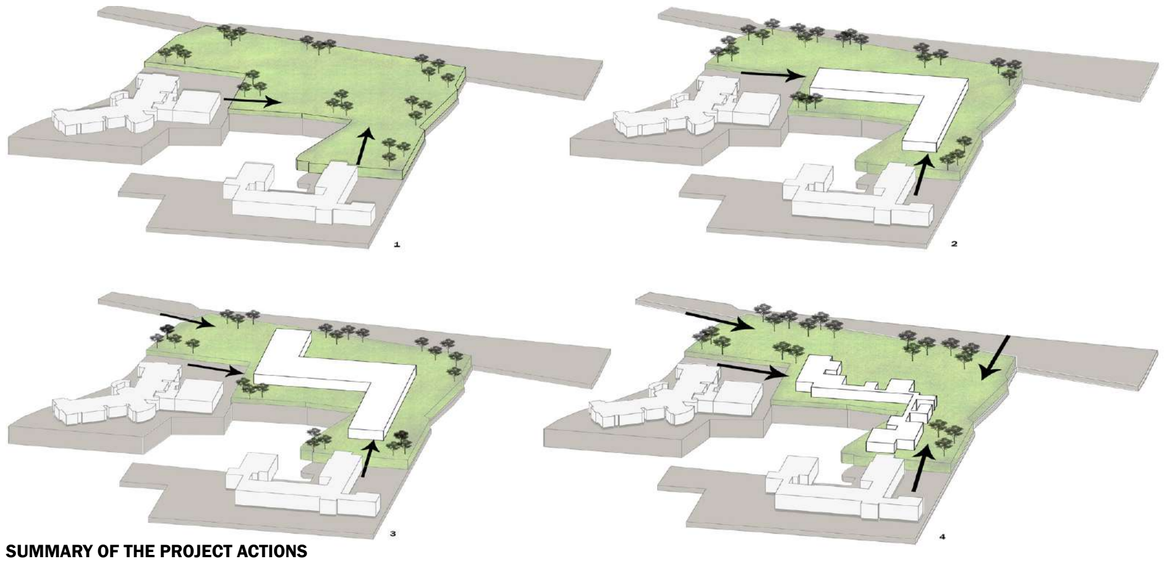


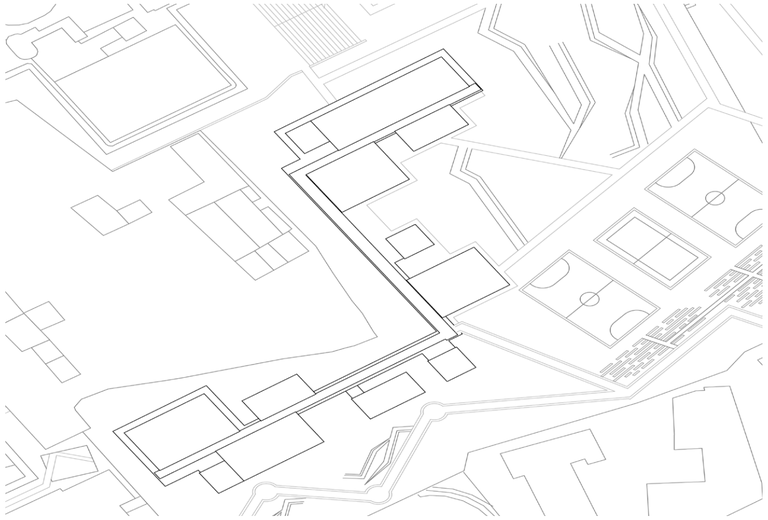
PHOTO CURRENT STATE AREA



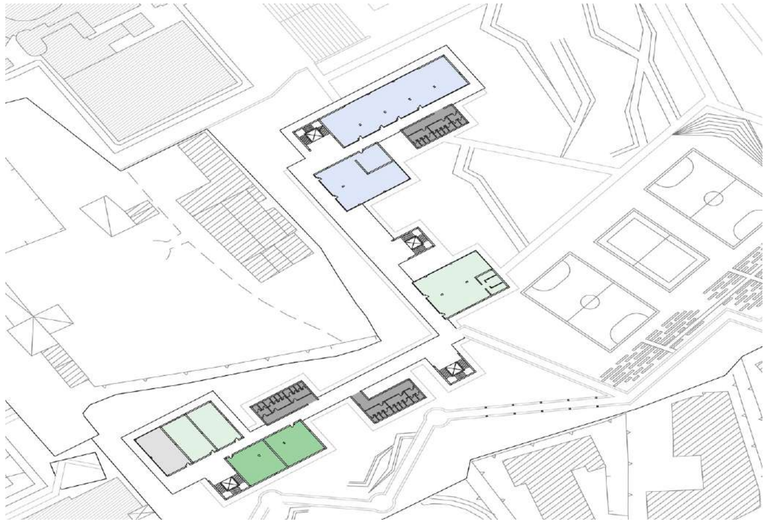
SUMMARY OF THE PROJECT ACTIONS

The built volume can be read as a building-path as it tends to eliminate the distance between the two schools, creating a continuous school center. The focal point of the building can be represented by the connecting corridor that holds together all the spaces that are articulated along it.

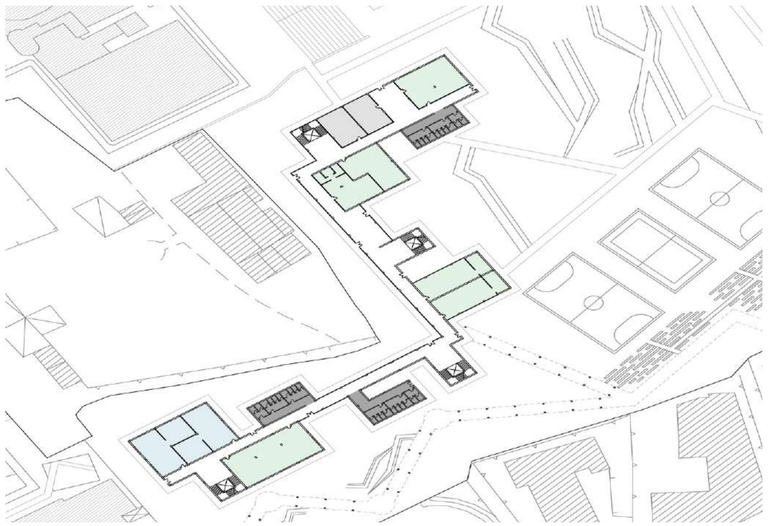
To arrive at the final solution, there were several project actions: 1. wanting to connect the two schools through a path; 2. the connecting path was transformed into an “L” -shaped block but was not well integrated with the whole area and also formed a barrier between buildings and nature; 3. the block consists of a second “L” to also incorporate the park; 4. the double “L” block is divided into two levels, formed by single blocks of different volume held together by the connection path. The shape of this volume allows for a greater relationship between buildings and nature and greater permeability of the latter with the volume, allowing for a “dialogue”. The first level houses several entrances corresponding to the stairwells and functions such as offices (in gray), classrooms that can be drawing, painting, music (in green), kindergarten (in light blue) and three blocks of services.
The second level, on the other hand, has a wooden porch that acts as a link for the spaces that host functions such as the library and the study room (in blue), the classrooms (in green), the office (in gray), the halls. cinema (in dark green) and three service blocks. The wooden porch also acts as a link with the path that cuts the area transversely in order to “embrace” the building and connect everything.
The remaining part of the area is completely dedicated to the park, green spaces, sports activities and educational gardens (present in the initial masterplan). The park circumscribes the building envelope, also developing on the rise, defining the ground in some points.
The building is completely made of reinforced concrete, with a supporting frame structure (pillars and supporting beams), with a curtain wall with uprights and transoms with double glazing and in wood for the porch, the balustrade and the fixtures (pvc-wood).



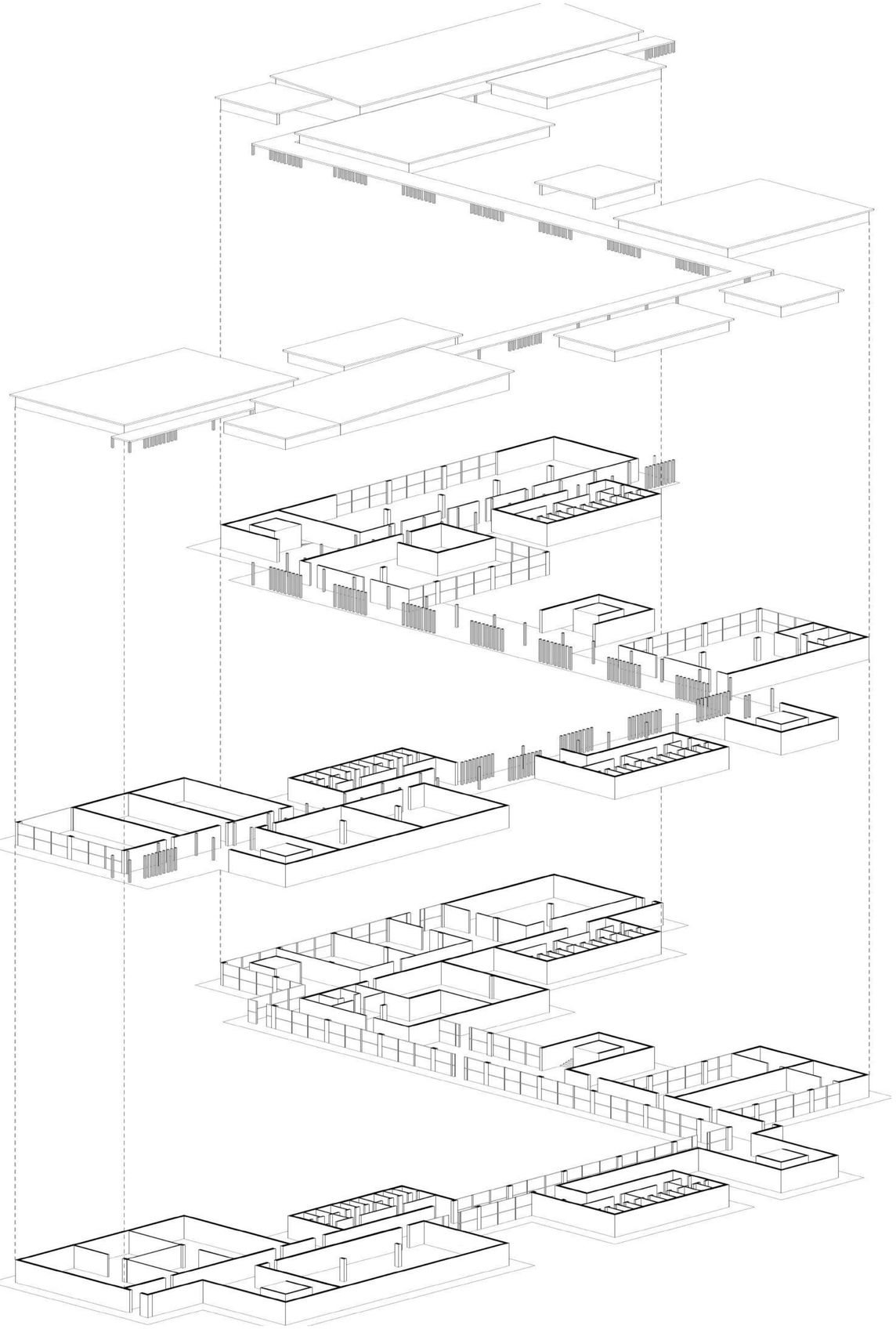
ROOFTOP PLAN

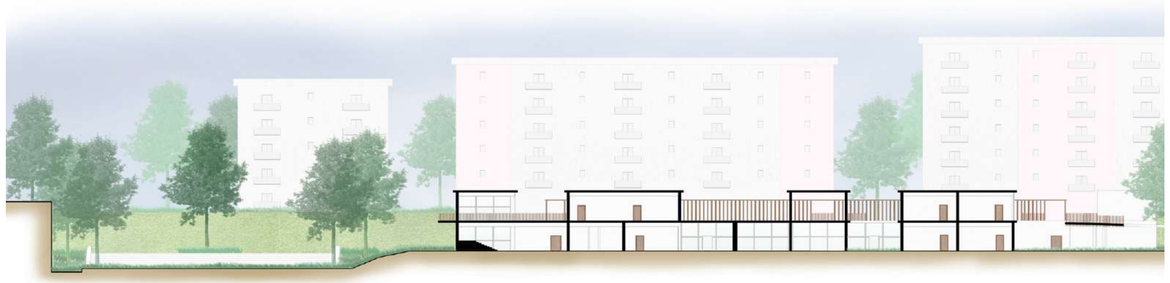


FIRST FLOOR PLAN



GROUND FLOOR PLAN





SECTION A

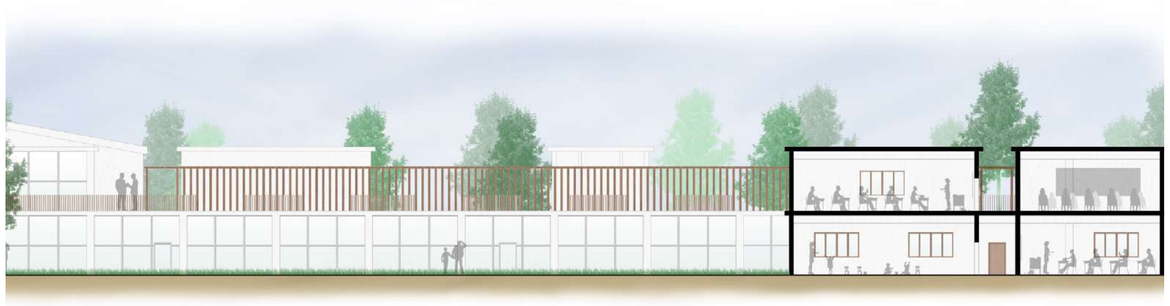
0 4 10 20m

1. Entrance
2. Classrooms
3. Connections
4. Study room
5. Music room
6. Painting room
7. Kindergarten
8. Drawing room
9. Classroom
10. Cinema room
11. Connection



GROUND FLOOR +0,0m

0 4 10 20m

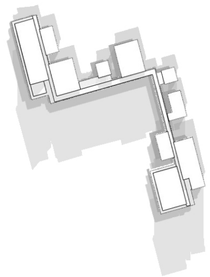


SECTION B

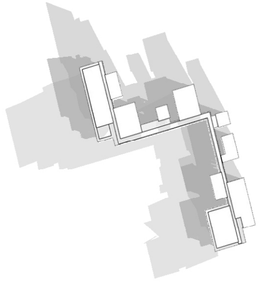
0 4 10 20m



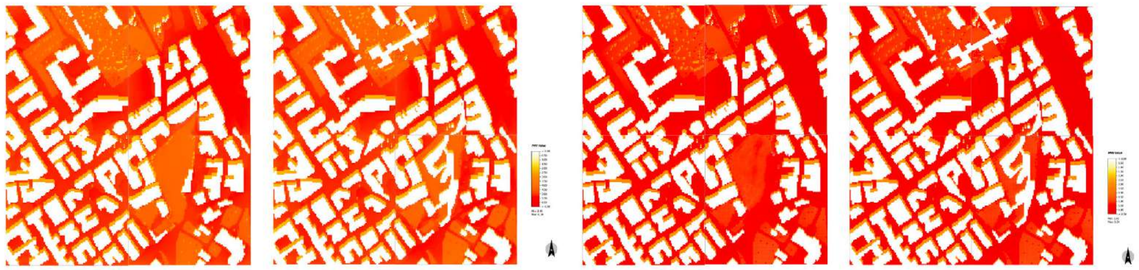
RELAX AREA INSIDE



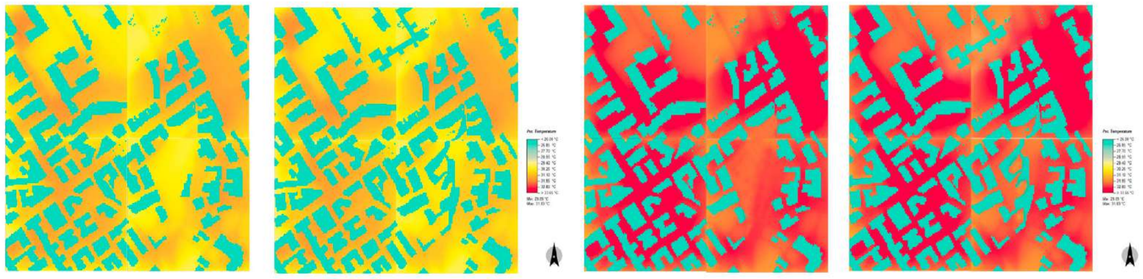
summer solstice | *june 21st*



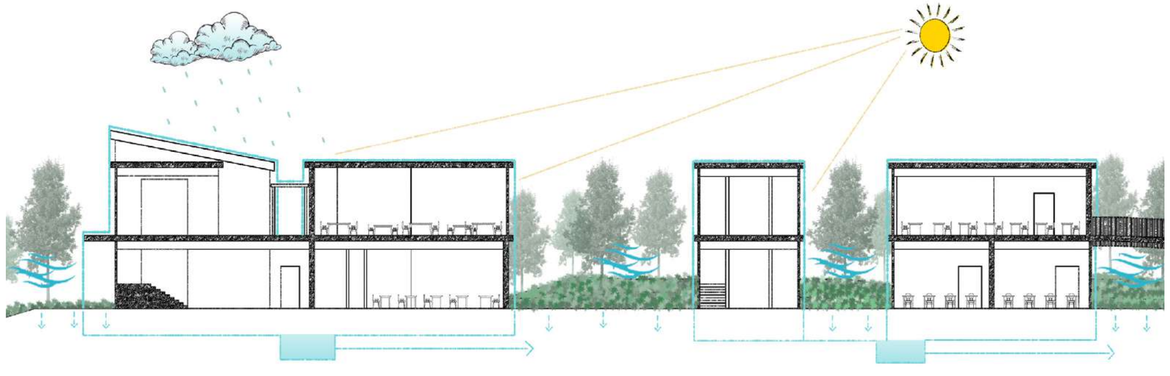
winter solstice | *december 21st*



PMV | Predicted mean vote model



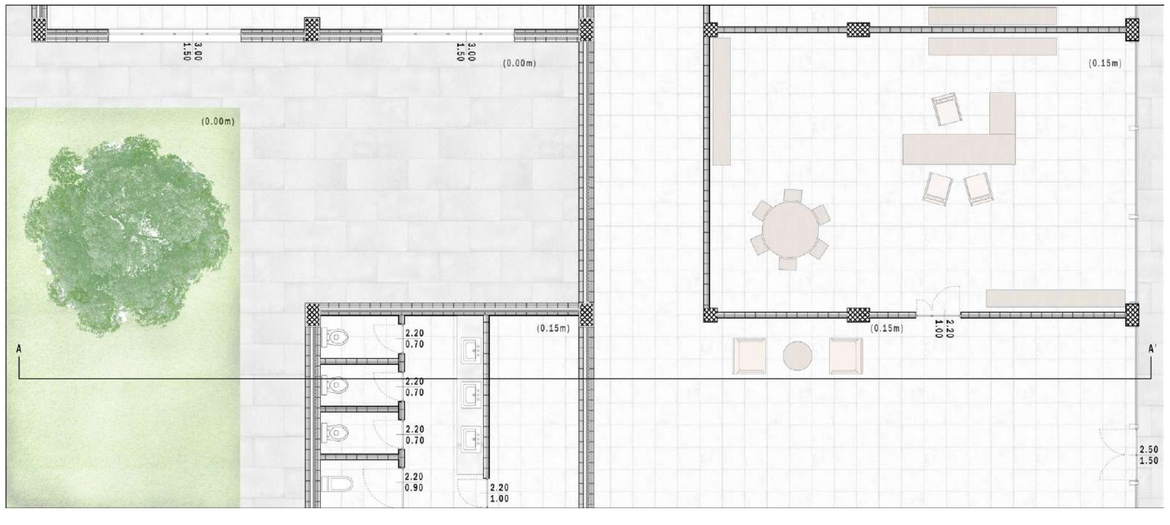
POT\ Air temperature



ENVIRONMENTAL SECTION



1. Lower horizontal closure: concrete slab on ventilated crawl space with polyurethane insulating layer, waterproofing sheath, laying screed and flooring.
2. Upper horizontal closure: brick concrete floor with joists in reinforced concrete and with polyurethane insulating layer, vapor barrier, lightened concrete screed, flooring.
3. Upper horizontal closure: brick concrete floor with joists in reinforced concrete and with polyurethane insulating layer, vapor barrier, sloping screed, waterproofing membrane and drainage layer in gravel (flat roof not practicable) and wooden structure with tiles and breathable layer (sloping roof).
4. Vertical opaque closure: double brick wall with air gap, insulation and plaster.
5. Vertical internal partition: perforated brick and plaster wall.
6. Transparent vertical closure: double glazing with steel structure for uprights and transoms.



PLAN AND SECTION OF BUILDING AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

ALESSIA FRANCESCA PICARELLI- URBAN REAPPROPRIATION

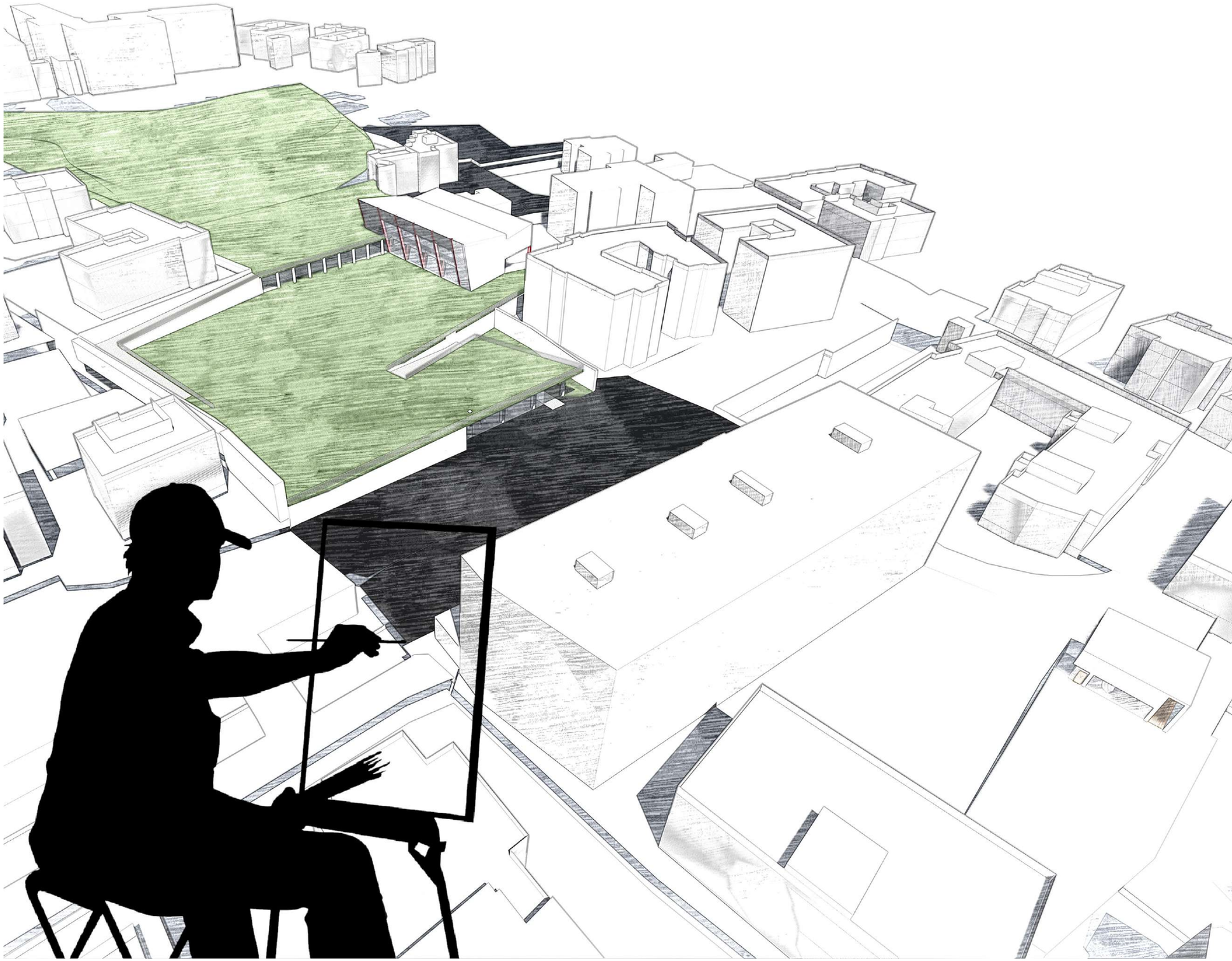
STRATEGY OF DROSSCAPE RECOVERING

Strategies on evolutionary dynamics of architecture and the city are current in densely stratified urban environments.

It is essential to dwell on all those spaces, perhaps of lesser extent, that are abandoned, unused, degraded, who no longer belong to the citizen, and become almost strangers to the same city. The term “Drosscape”, which indicates a material without value or waste, can be extended to the concept of city, and then, of urban space.

Berger said: “The dross is considered as a natural component of any city that develops dynamically. It is an indicator of the health of urban development”. Drosscapes are interstices, “in-between” spaces in the urban fabric of the city.

Following an in-depth analysis of the problems of the city of Portici, found by the finding of official data and citizens’ perceptions. the project aims to give back to the citizen, protagonist of the urban space, the abandoned and degraded areas, that have strategic positions for a new, planned and modern urban space.



Program

cultural center, urban park, places, shop, parking

Covered area	5415m²
Exposed surface	8902m²
Floors above ground	2
Built Volume	178695 m
Estimated cost	7330280€

The project area is close to the stops of the circumvesuviana of Portici, and the park of Palazzo Landriani, the historic building of the city of Portici.

In the first analysis evaluations were carried out through the collection of soft and hard data, which led to the definition of a strategic reference line for project choices, based mainly on the criticality and potential of the entire municipality of Portici and the specific area of the project.
Estimates have been made to assess the economic value of the project, based on historical data of similar works, which have had an effetive correspondence with the metric calculation carried out subsequently.



	1	2	3	4	5	6	7	8	9
CULTURAL CENTER									
SHOPS									
PARKING									
CIRCUMVESUVIAN COVER AND SQUARE									
PARK									
MUSEAL PASS									

TIME SCHEDULE

ECONOMIC AND FINANCIAL PLAN

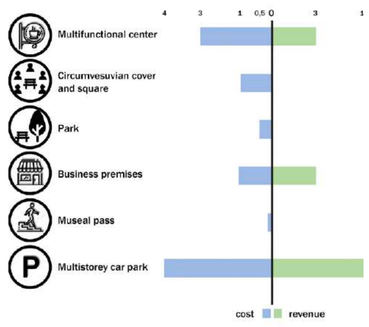
OPERE	CATEGORIE DI OPERE	A (m^2)	COSTI UNITARI	COSTO TOTALE		RICAVO TOTALE NETTO
SALA POLIFUNZIONALE	Bar	430,00	1.312,28 €	1.312,28 €	920.487,21 €	52.838,40 €
	Aula studio	877,00	1.048,09 €	919.174,93 €		1.700,40 €
	Sala conferenze					72.600,00 €
	Libreria					46.940,16 €
PIAZZA	Copertura circumvesuviana	73 ml	8.533,25 €	622.927,25 €	494.033,79 €	
	Piazza	2464,5	148,16 €	365.140,32 €		
PARCO	Parco	4125,95	36,44 €	150.349,62 €		
LOCALI COMMERCIALI	Locali commerciali - ex-novo	765	1.042,42 €	797.451,30 €	980.285,60 €	472.500,00 €
	Locali commerciali - recupero	347,00	526,90 €	182.834,30 €		472.500,00 €
PARCHEGGIO CON TETTO GIARDINO	Parcheggio	4356,00	1.074,73 €	4.681.523,88 €		788.400,00 €
PASSAGGIO MUSEALE	Passaggio museale	103,6	1.000,00 €	103.600,00 €	103.600,00 €	

CASH FLOW

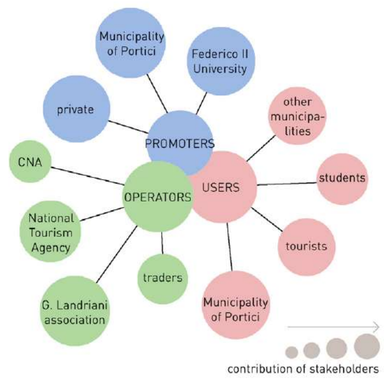


Summary chart of the financial analysis carried out on the basis of the construction costs of the entire project and the revenues of each function.

CASH FLOW BY SCOPE



MAP OF STAKEHOLDERS





PORTICI PARK THE PROJECT IN THE CONTEXT

0 20 50 100m







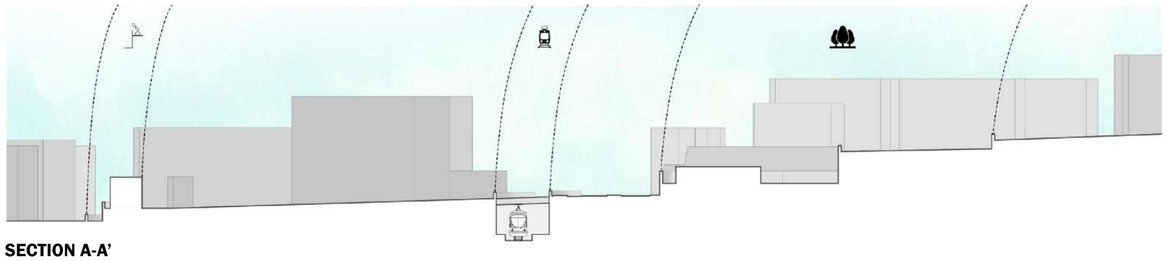
CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 20 50 100m



ABANDONED AREAS - REMOVALS - DEMOLITIONS

The project area is a place that holds together infrastructure, nature and history, but these aspects do not communicate with each other: the project provides for a progressive re-appropriation, and redevelopment, of abandoned green spaces, of closed roads, and of some unused and degraded structures. A further objective is to solve and overcome the sharp jumps in altitude that persist between one area and another, which make it difficult to use the spaces and difficult to reach the different areas.

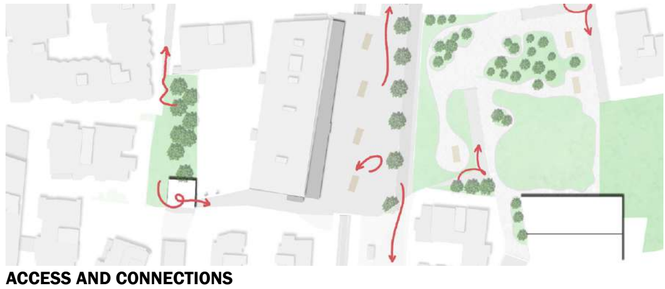


SECTION A-A'



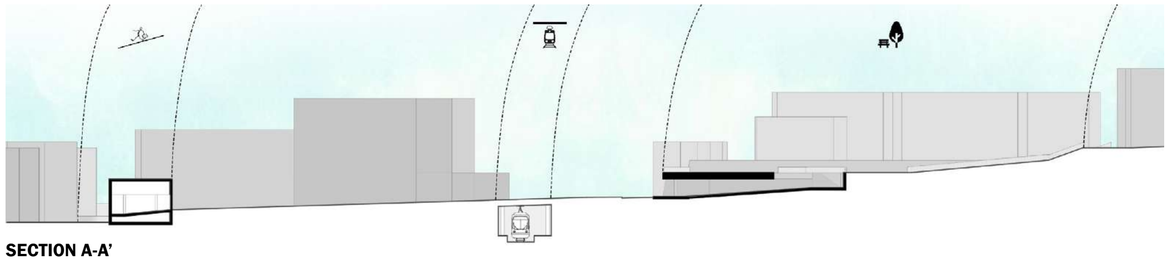
DESIGN PROPOSAL

0 20 50 100m



ACCESS AND CONNECTIONS

Essential is therefore the theme of connection through the realization of a widespread and lived architecture that integrates with the surrounding landscape and that allows the enjoyment and recovery of the urban context, reopening accesses and creating new aggregation points and new connection systems. The aim is to design on the line of a new “Portici city-park”, focusing on the usability of the spaces and on a new programming and organization of the spaces.



SECTION A-A'

The project involves the realization of three buildings and several public spaces:

- a new cultural centre, which will divide the Palazzo Landriani forest from the new urban garden;

- a new square built on the roof of the circumvesuviana that will make it possible to reopen some commercial premises in the farm facing the park of Landriani and on which will hold in commercial premises of new construction, under the new urban garden;

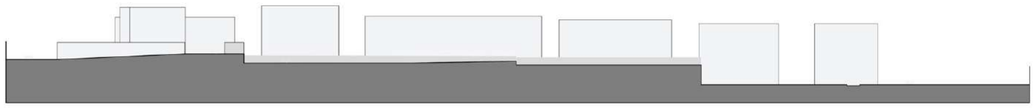
- the museum passage that connects the project areas and that is available for temporary installations of all kinds and nature;

- a multi-storey car park with garden roof in an area already used for this function by the PUC.

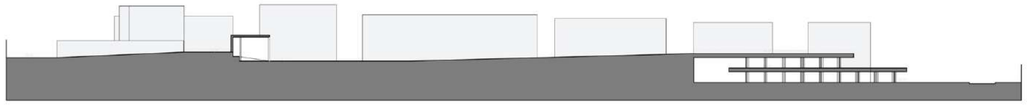
In particular, the cultural centre will host a literary café, a study room with dynamic furniture and free plan, a library-mediateca of completion to the literary cafe and a conference room to disposition of the palace Landriani and the Municipality of Portici available also for book presentations and film projections. All areas will have a dynamic aspect characterized by terraces and views that frame the scenic beauty of Portici. The project becomes a new nucleus for social relations, for ecological relations, which have an aspect of primary importance in every design element, and at the same time a fulcrum of sorting. All through the transformation of barriers into new points of connection, not only physical, but mainly social.

Thanks to this improves the usability of the entire area, and it is possible to reach different areas in many different directions, previously difficult to reach, improving and raising awareness of citizen participation and slow mobility that solves many critical points of the place. This diffused space emerges from a strong contrast, and from a careful research of the spaces that become strategic points of urban growth.

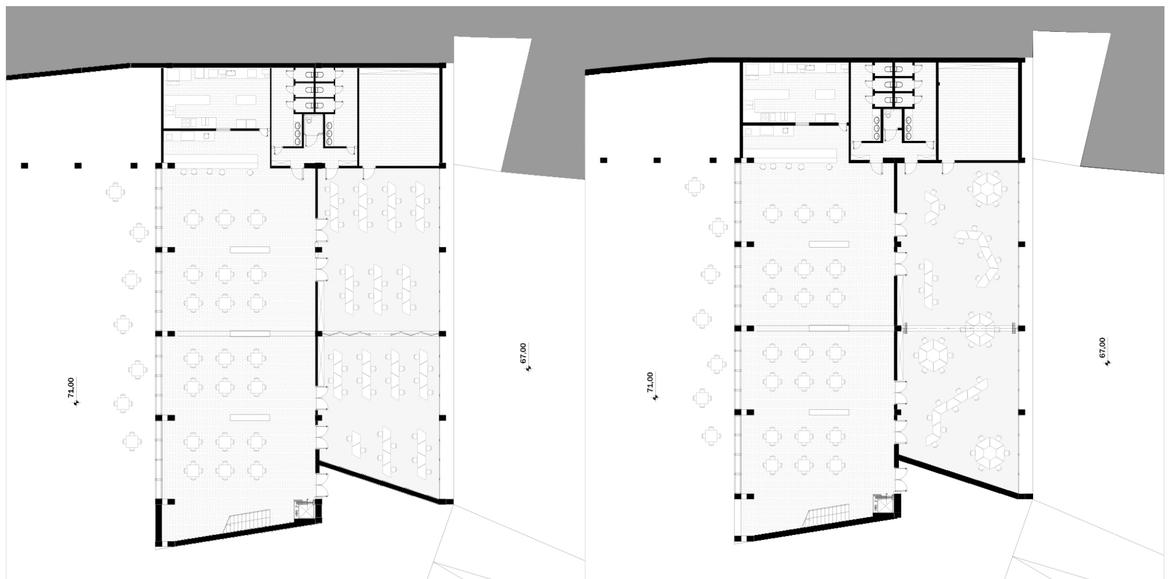
MUSEUM PASSAGE AND PARKING

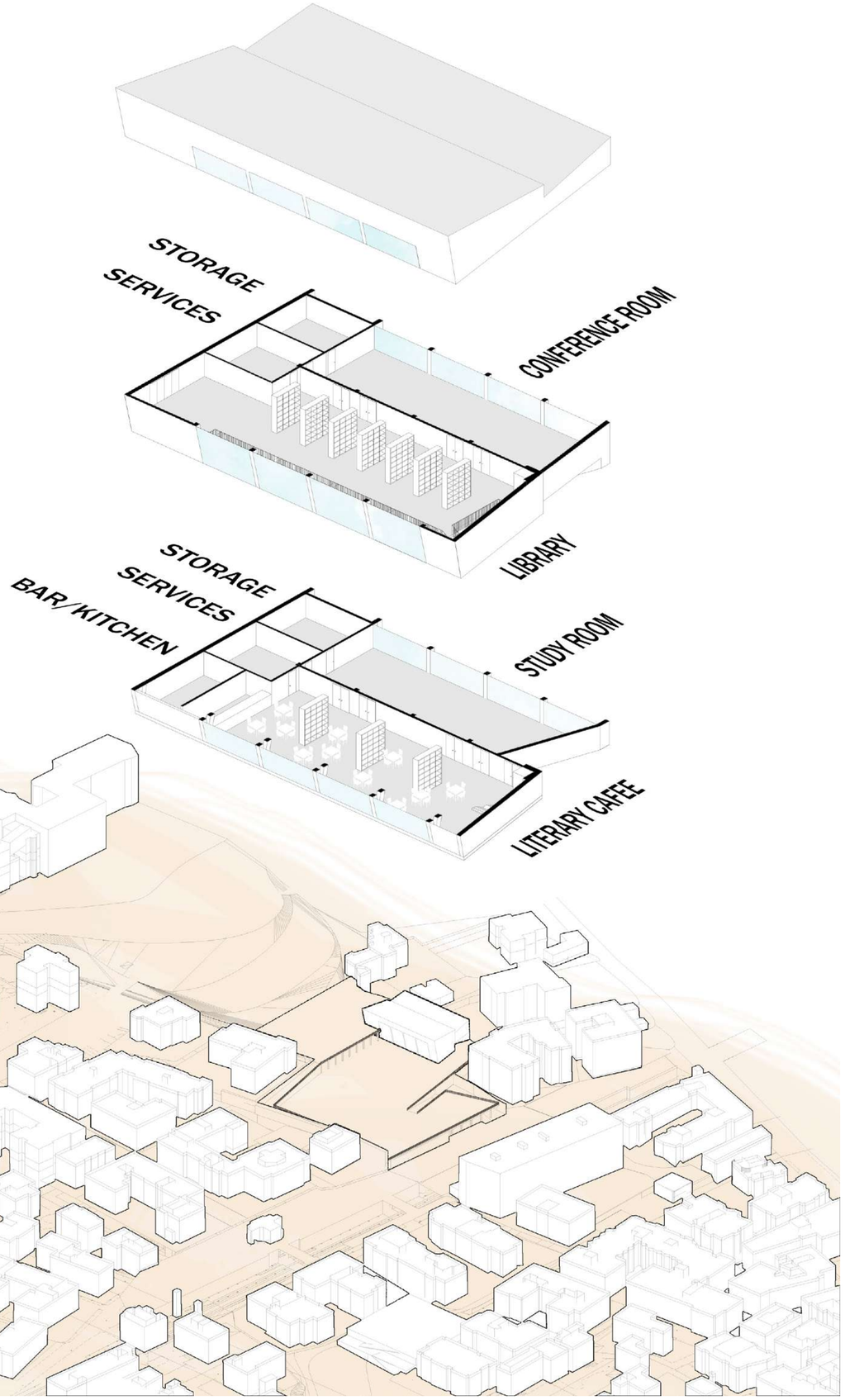


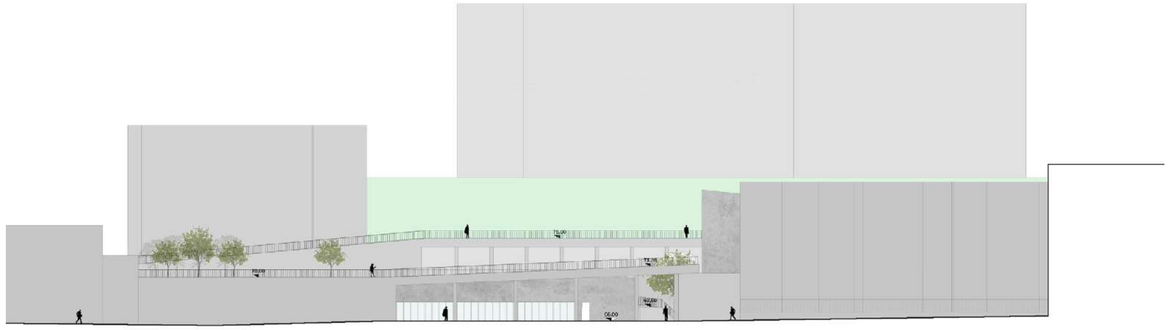
CURRENT STATE



DESIGN PROPOSAL







SECTION B-B’

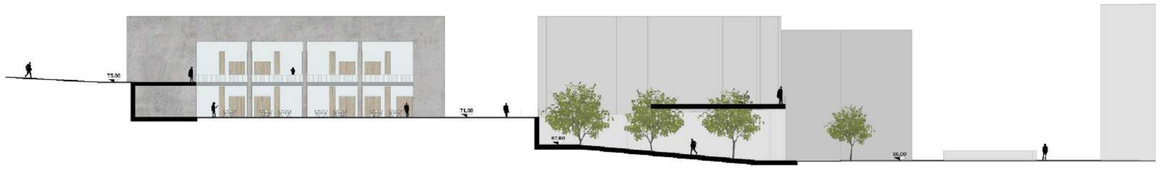
0 10 25 50m

1. Business premises
2. Shops
3. Square
4. Services
5. Walking ramp
6. Car park



LEVEL 1 PLAN + 69,0 m

0 10 25 50m



SECTION C-C’

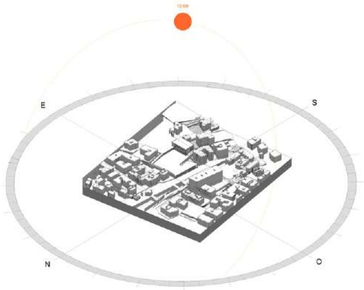
0 10 25 50m

1. Garden
2. Exhibition space
3. Literary cafe
4. Services
5. Study room
6. Storage

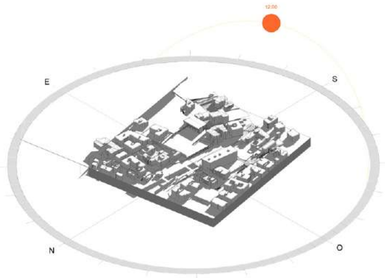


LEVEL 2 PLAN + 73,0 m

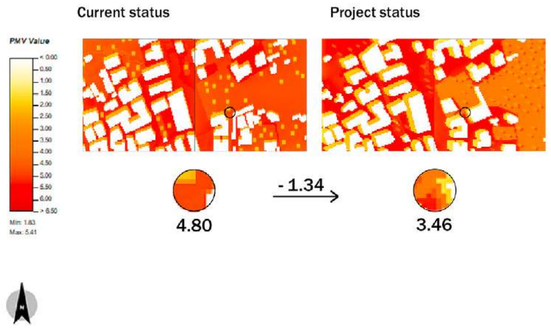
0 10 25 50m

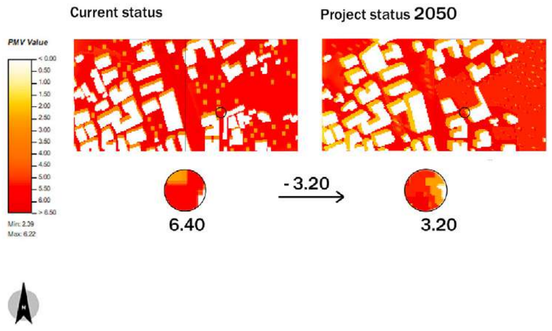


summer solstice | *21 June*

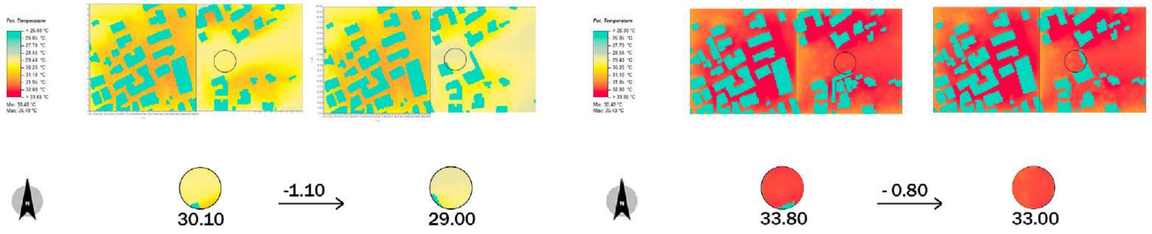


winter solstice | *21 December*

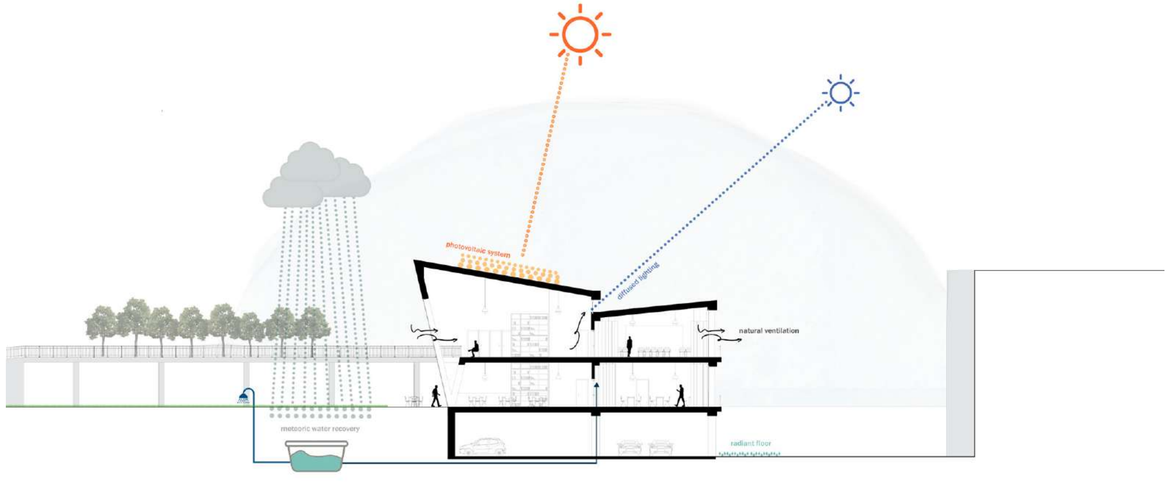




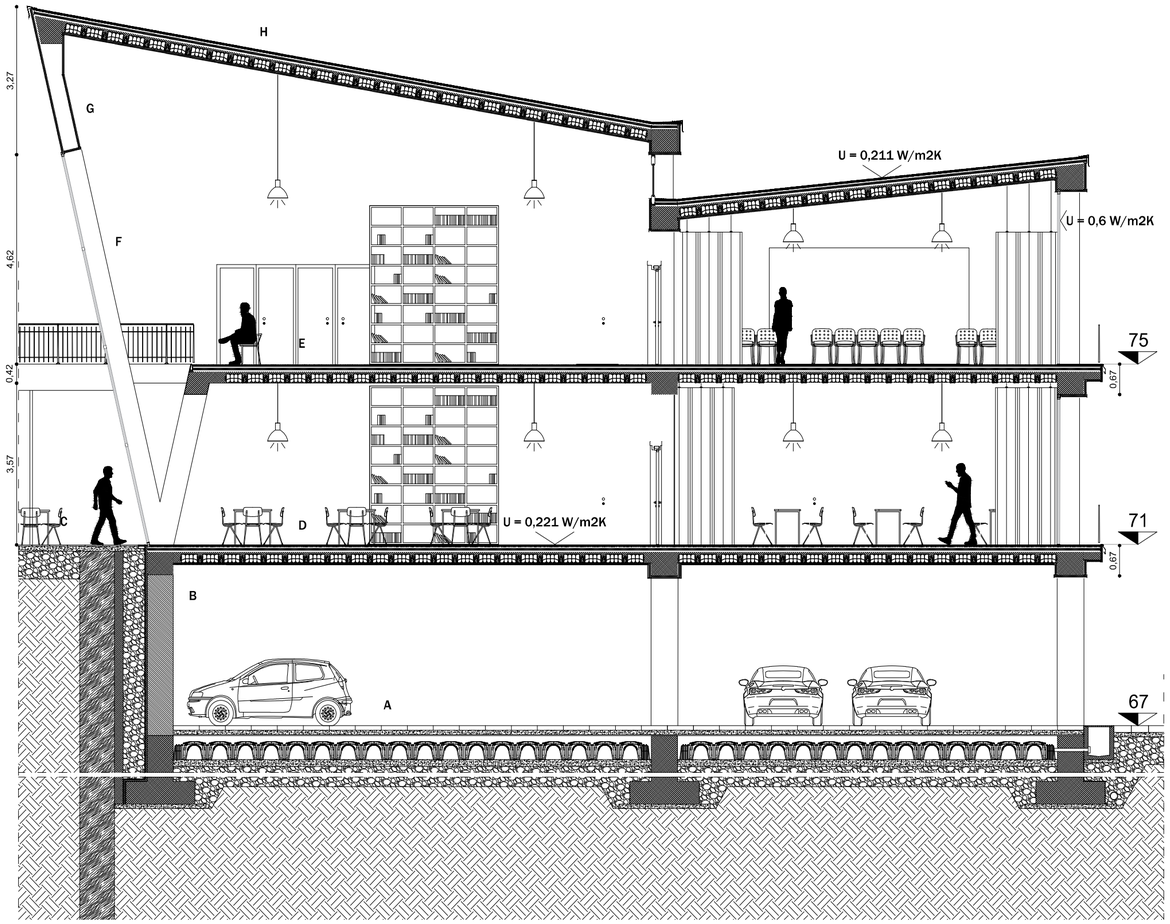
PMV | *Thermal sensation index*



POT | *Air temperature*



ENVIRONMENT SECTION



A. Draining paving type Macro Drain, lightened concrete screed, vapour barrier, concrete jet and ventilated crawl space, concrete levelling screed, filling gravel, compact ground

B. Compact ground, bulkhead and reinforced concrete wall for soil containment, filling gravel, waterproofing membrane, insulation in polyurethane, concrete jet, plastering inside type Redart Rockwood

C. External lava stone paving, levelling floors, filling gravel, compact ground

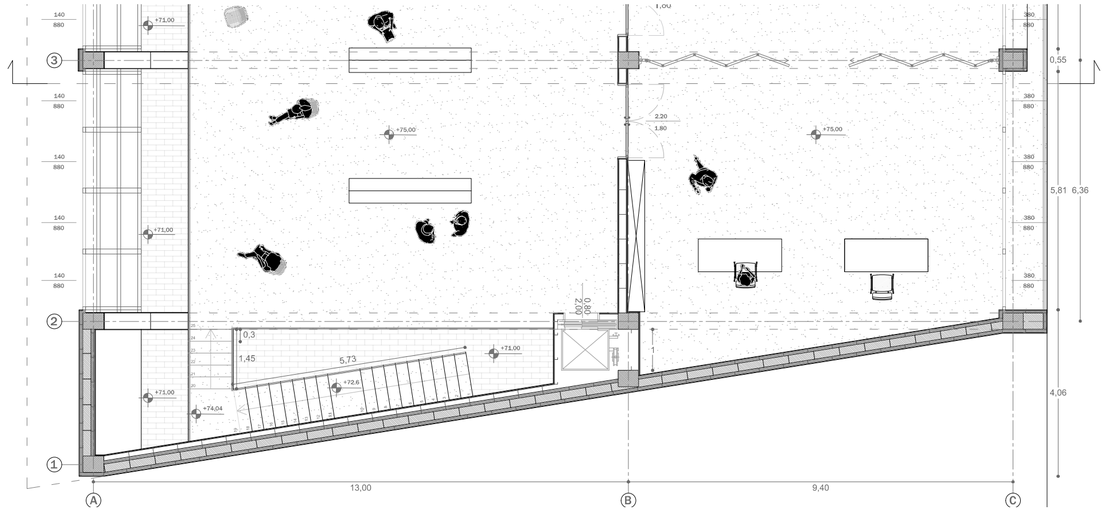
D. Internal floor in stoneware, levelling floors, insulation type Corkpan, concrete floor slab, insulation type Corkpan, internal plaster type Redart Rockwood

E. Internal floor in stoneware, levelling floors, insulation type Corkpan, concrete floor slab, internal plaster type Redart Rockwood

F. Glass with aluminum frame type FINESTRAL Super-Valor

G. Panel in fibre cement type EQUITONE, insulation type Corkpan, plasterboard, metallic sub-structure support to the external fibre cement panelling, plastering inside type Redart Rockwood, 1 cm

H. Levelling floors, vapour barrier, insulation type Corkpan, vapour barrier, concrete floor slab, external plaster type Redart Rockwood



PLAN AND SECTION OF THE BUILDING AND PUBLIC SPACES SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

ALESSIA SCARCELLA - INTO THE DENCITY

A STRATEGY AGAINST URBAN SPRAWL
RECONNECT THE CITY THROUGH HIDDEN AREAS

The city of Portici rises on the slopes of Vesuvius extending for about four square kilometers until it reaches the sea. Although it is a small town, the same cannot be said of the number of its inhabitants, which makes it the second largest municipality in Italy for population density.

The excessive number of buildings, due to the violent post-war building expansion policies, in a small area like this, leads to serious problems of congestion and crowding, in addition to the lack of space to be allocated to public utility services.

Despite the innumerable buildings, however, in Portci, there are still a few small empty areas, often abandoned and hidden, which present a lot of potentialities from the point of view of their reuse in a public key and no longer private residential.

The area of this project is just one of them: in the city center, hidden for the entire perimeter by tall buildings, completely inaccessible but at the same time close to the main local transport network, the Circumvesuviana, and close to one of the typical historic villas in the area, the eighteenth-century Villa Rocca.

The area under study, in fact, after analysis and studies carried out on the territory, turned out to be the countryside of the Villa; currently the area is owned by the Municipality which, in the new Piano Urbanistico Comunale, arranges the accommodation for the construction of a parking.

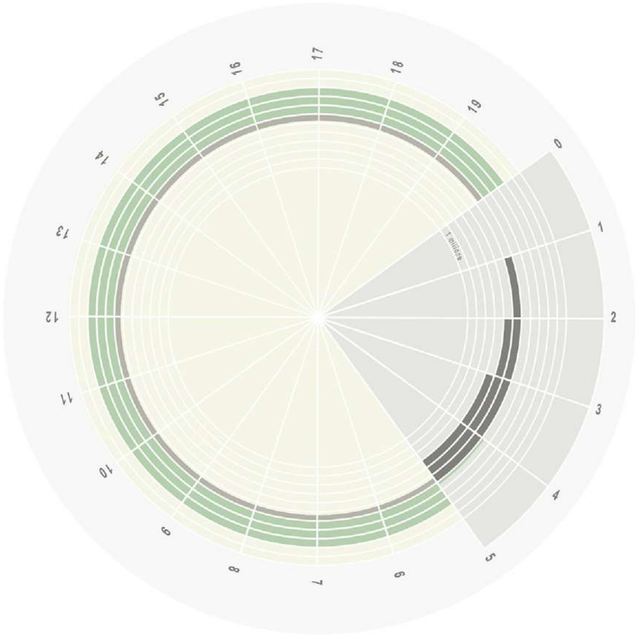
Program

Cultural park, music, cinema, art

Covered area	**2687m²**
Uncovered area	**6086m²**
Floors above ground	**3**
Built volume	**27367m³**
Estimated cost	**€9.140.992**





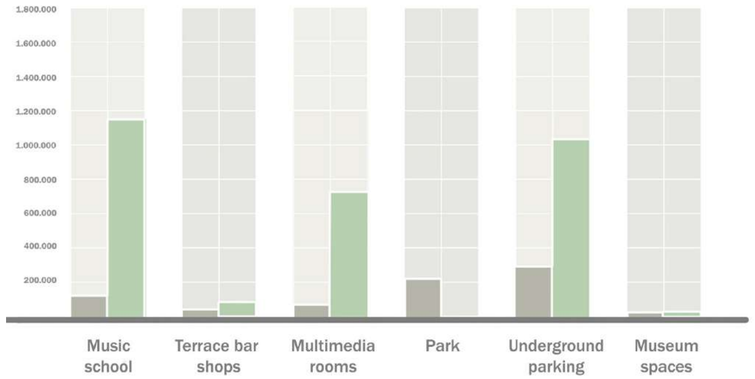


An abandoned and unknown area can be a real asset if viewed in the context in which it is located. Schools, villas, the railway network make the area unique as well as being easily accessible and frequented by many students and adults.

On the basis of the analyzes carried out on site, on the factors characterizing the area, looking at the European educational models, it was decided to create an open park, accessible on several points, which hosts three buildings inside, respectively dedicated to music, food, and cinema. Particular attention is paid to Villa Rocca, for which the entire main floor is reused for museum installations and art workshops.

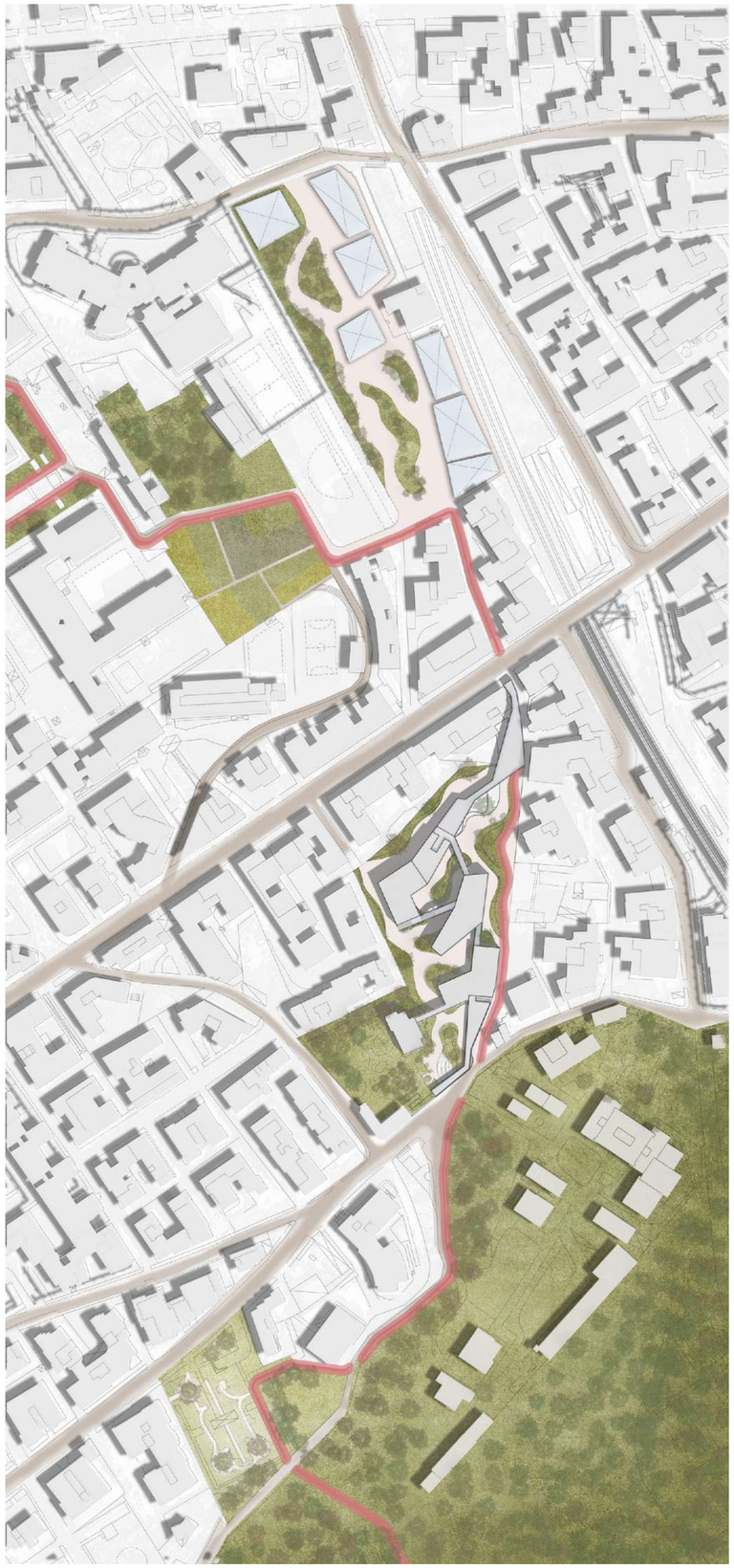
These functions find an excellent response from an economic point of view, reaching an IRR of 18%, as the future annual earnings of the planned park will cover and exceed the expenses related to its maintenance.

The idea is that the project area extends north and south, in the direction of the schools and the upper park of Reggia di Portici, so that the area passes from an “intrusion” into a landscape made only of tall and large buildings, to an element of cohesion and diffusion of a green system and theme parks. This is possible only by the“explosion” of the area outwards, finding new access points, restoring the perimeter roads that have fallen into disuse.



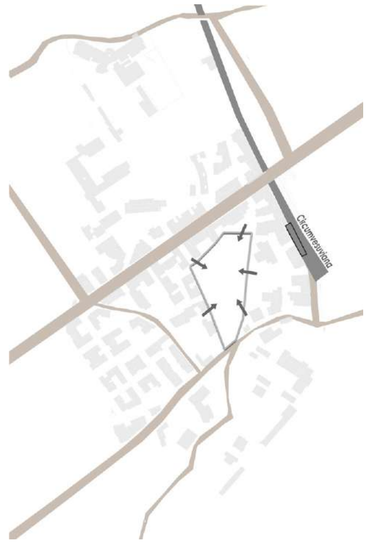
10.770.342,27	18,67%
NPV	IRR

FINANCIAL ANALYSIS

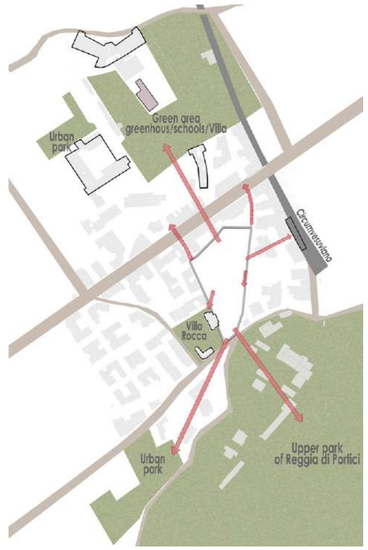


PORTICI PARK

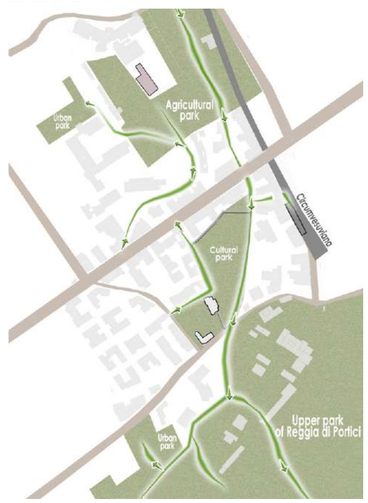
0 20 50 100m



1. INTRUSION



2. EXPLOSION



2. DIFFUSION

1. Street

2. Circumvesuviana

3. Villa Rocca

4. Abandoned areas

5. Abandoned stable

6. Park of Reggia



ACTUAL STATE MORPHOLOGICAL STUDY URBAN ANALYSIS







1. Street

2. Circumvesuviana

3. Villa Rocca

4. Urban park

5. Historic street

6. Park of Reggia

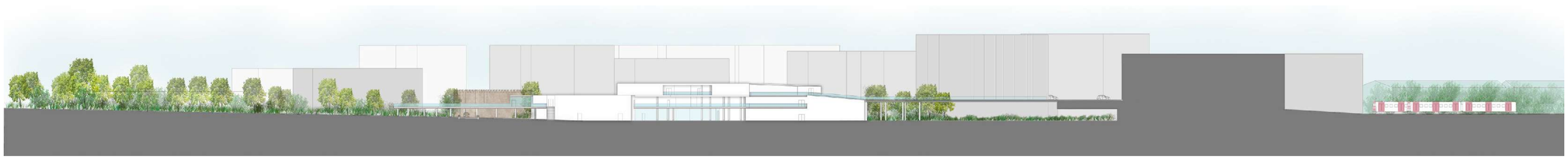


PROJECT STATE PROJECT ACTIONS









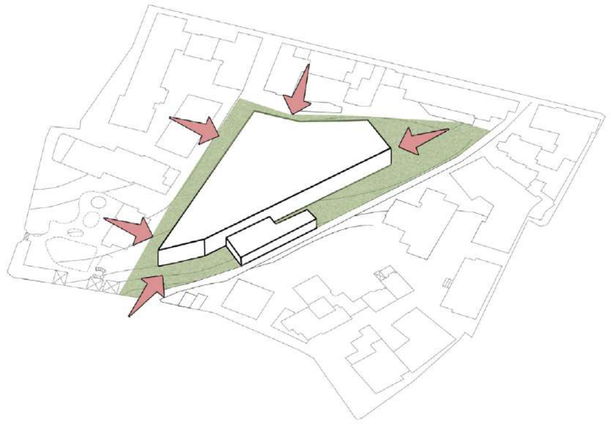
An area with borders already precisely delineated by the rows of houses that surround it and loom over it, closing it. An idea of openness to the outside, of practicability and accessibility.

The first step that guided the composition of the project was the relationship with the context. The same provides a primordial triangular shape which is the basis of subsequent evaluations.

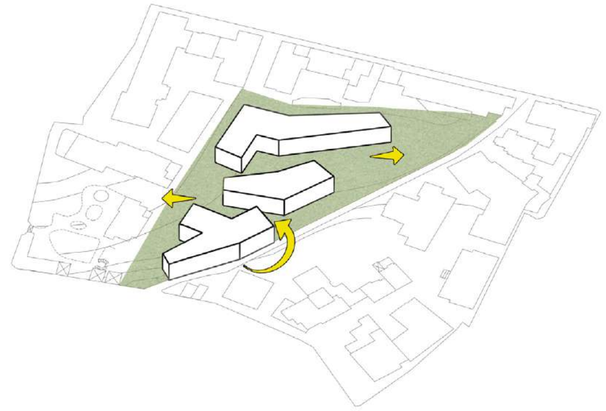
Secondly, the idea that the building and the external space are not two distinct elements, but interconnected and interacting with each other; it follows the need to pierce the shape, open it in the direction of the two main attractions: the Villa Rocca and Via Libertà, the main street of the Municipality, then moving on to incorporate buildings of little value inside.

The next step accentuates the idea of reconnection. An internal connection, which develops planimetrically through air connections between the three designed blocks, which leave the ground floor for free use of the park. An external connection that is elaborated through two plates that flank the perimeter, embracing the villa on one front and the road on the opposite one. The two blocks, upper and lower, are articulated and intersect in the central element that acts as a fulcrum and a cohesive element of the entire system.

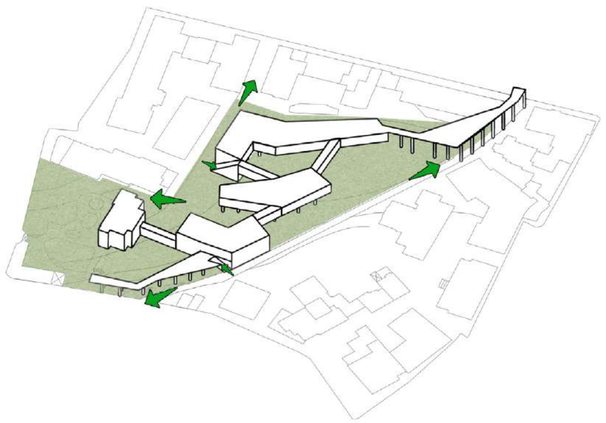
The central building will house a bar / restaurant, and a shopping arcade on the upper level. The block that connects to the road, further north and closer to the schools and the underground road that directly connects to it, will be used as a music school, with workshops, study rooms and concert halls. Finally, the last block towards Villa Rocca will be destined to accommodate multimedia rooms on both levels, with a bar and a large terrace that reaches up to the eighteenth-century garden. The connection with the villa will also be internal with an additional air connection leading to the museum spaces on the first floor of the illustrious residence.



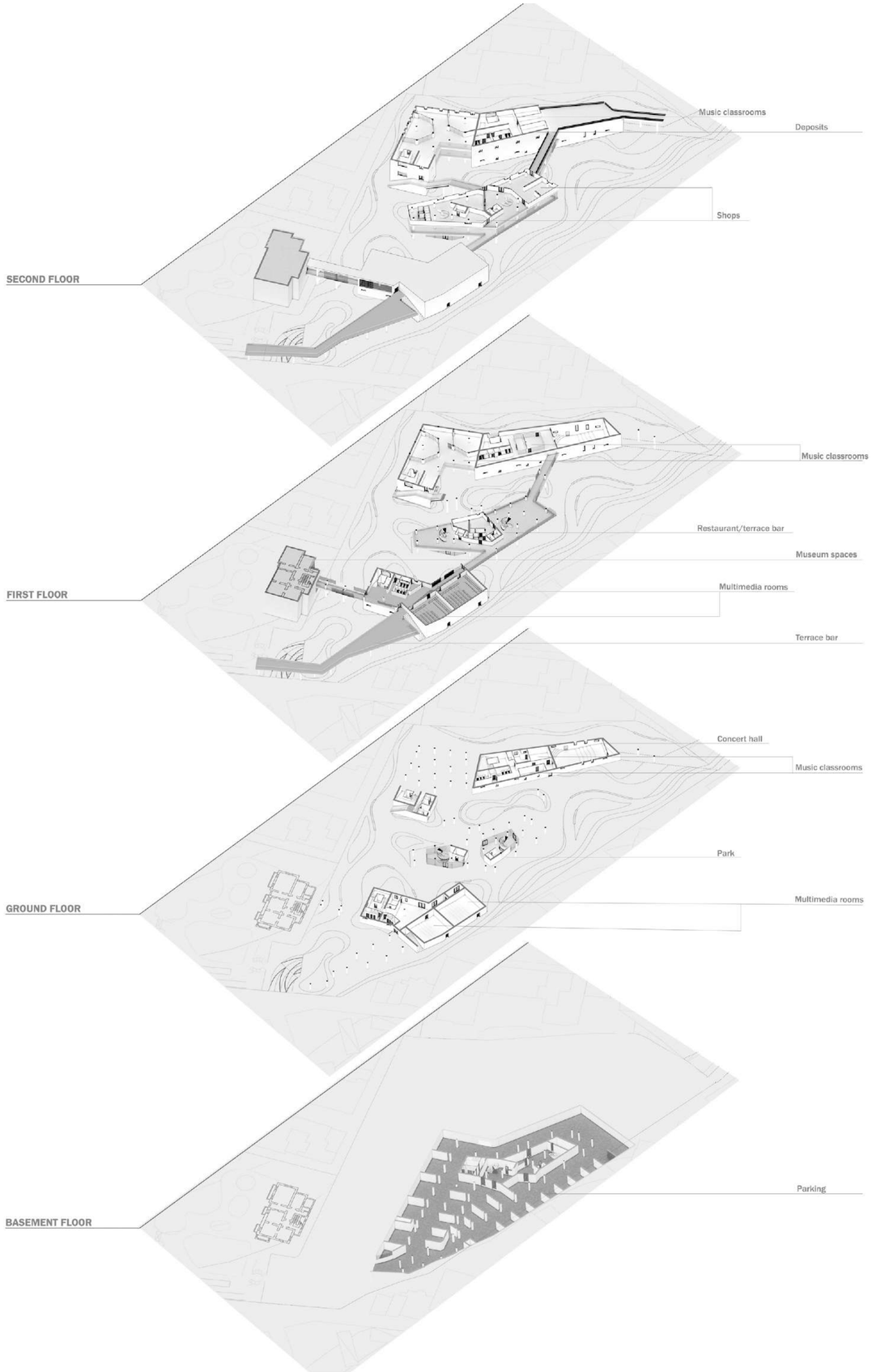
1. Definition of a starting shape based on the context

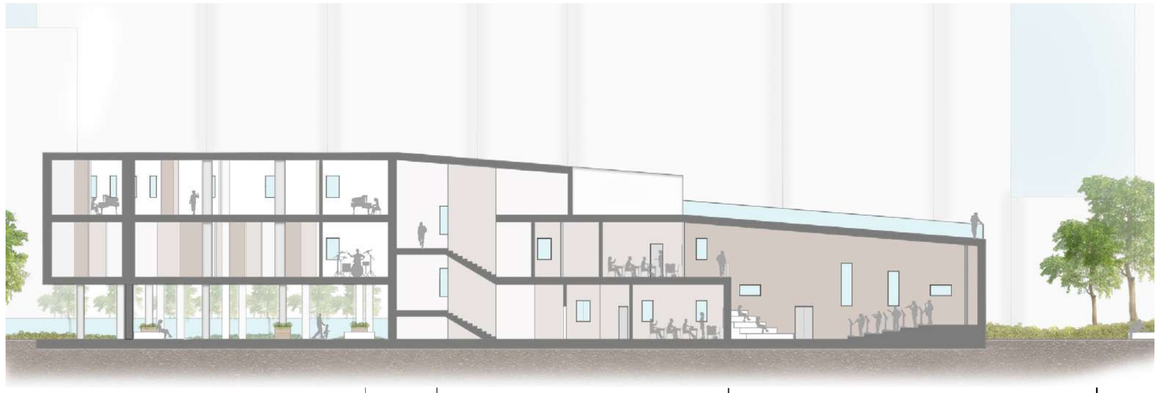


2.Openings in the shape towards the main attractors



3. Emptying of volumes, connections, reconnections





SECTION AA’

0 5 25 50m

1. Concert Hall
2. Music classrooms
3. Office
4. Toilets
5. Deposits
6. Common area
7. Multimedia rooms
8. Toilets
9. Office
10. Bar
11. Bicycle lane
12. Park



GROUND FLOOR PLAN

0 4 10 20m



SECTION BB’

0 5 25 50m



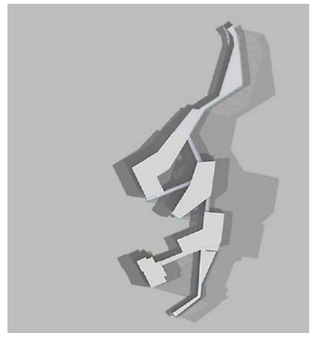
VISION 1



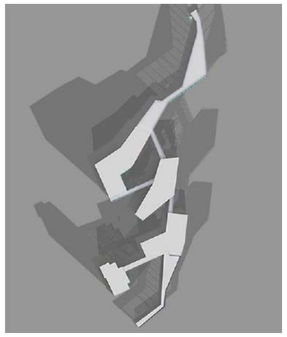
VISION 2



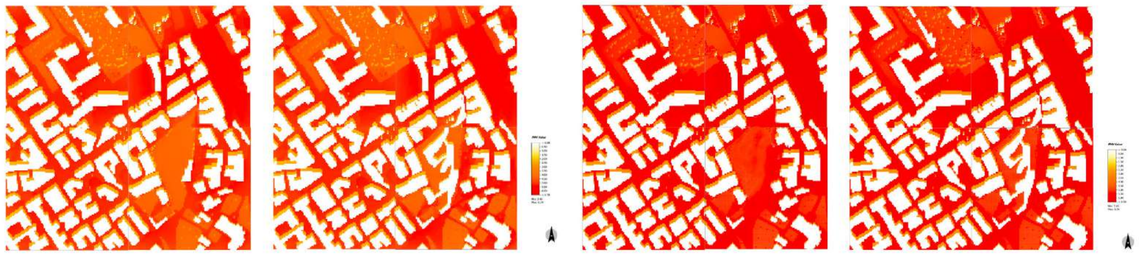
VISION 3



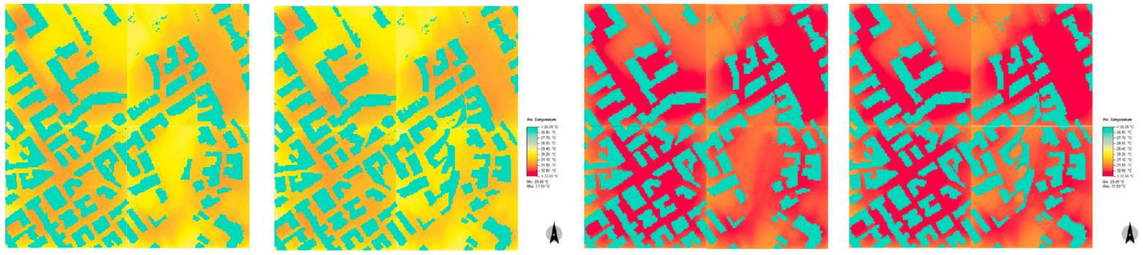
summer solstice | *21 june*



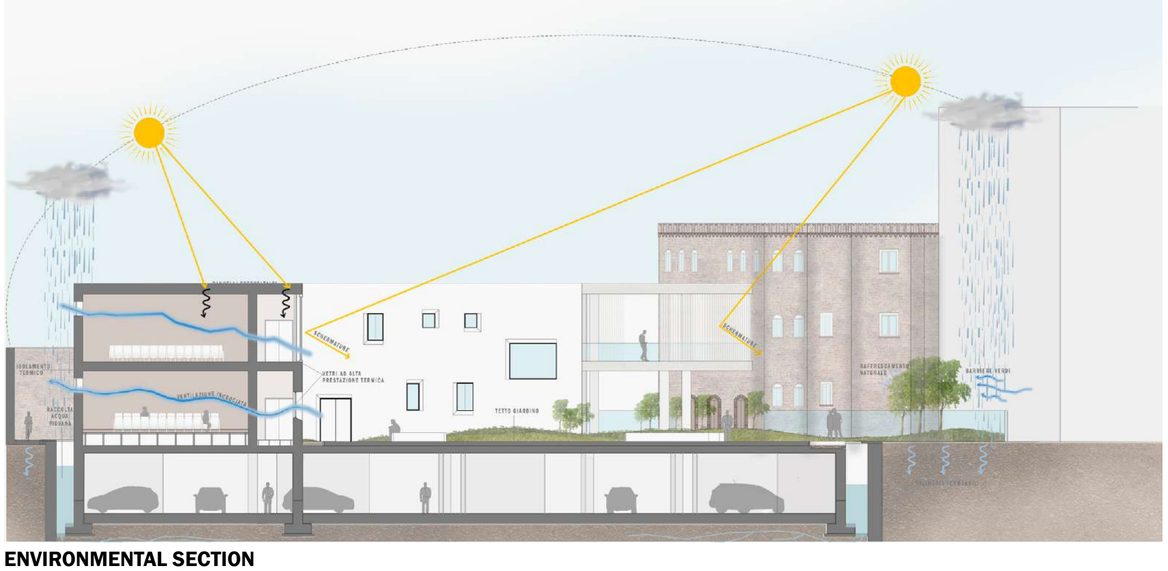
winter solstice | *21 december*



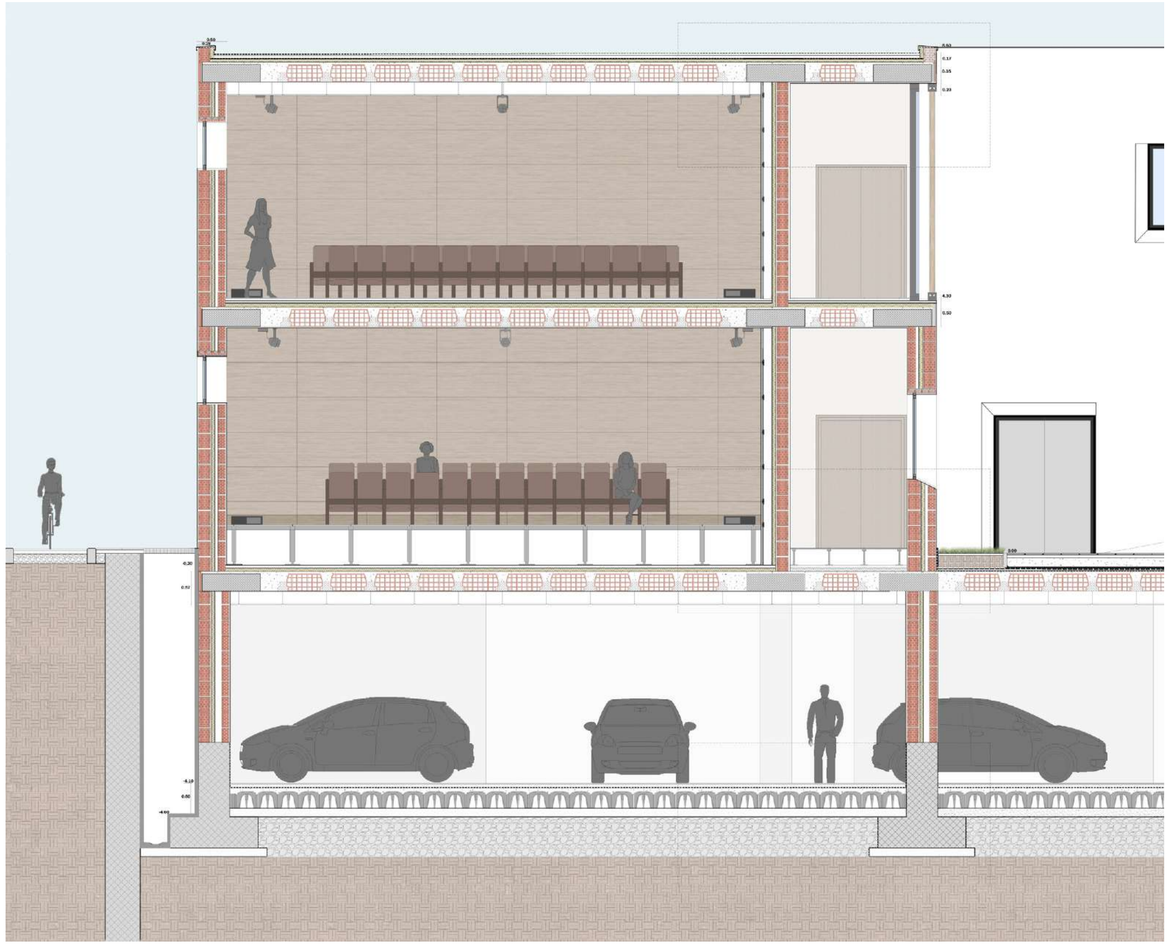
PMV | Predicted Mean Vote



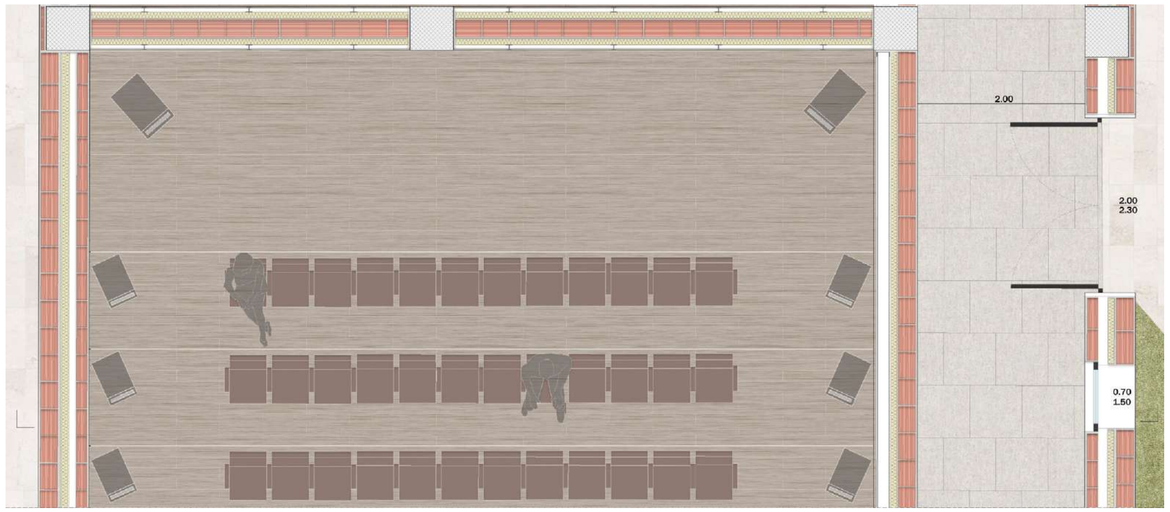
POT| Air temperature



ENVIRONMENTAL SECTION



1. Upper horizontal closure:
brick slab with reinforced concrete joists prefabricated, insulation in rigid rock wool panels, screed and waterproofing membrane.
2. Lower horizontal closure:
brick slab with reinforced concrete joists prefabricated, insulation in rigid rock wool panels, screed and floating flooring in stoneware on a steel substructure.
3. Upper underground floor horizontal closure (green):
brick slab with prefabricated reinforced concrete joists, root-proof waterproofing covering, drainage layer in expanded clay, polyethylene membrane and cultivation substrate.
4. Upper underground floor horizontal closure (paved):
brick-concrete floor with reinforced concrete joists prefabricated, concrete separation curb, concrete filling, screed and porcelain stoneware flooring.
5. External vertical closure:
masonry in double layer of bricks with insulation in rigid rock wool panels and internal cavity



PLAN AND SECTION OF MULTIMEDIA BUILDING AND PUBLIC SPACE SCALE 1:50

PORTICI ADVANCED DESIGN STUDIO

GIULIA TALAMO - IN THE MIDDLE

URBAN GROWHT SYSTEM

A CROSS STREET OF ACTIVITIES FOR THE COMMUNITY

In the middle of Portici, in between the old and the new town, one of the most important systems of connection is via Gaetano Poli. Strongly downhill, the road is lined by recent residential parks and historical buildings that create a connection between two realities. On one side there are street vendors that crowd the road, on the other, calm alleys and unpredictable hidden places in a city so densely built. In this way, one may stumble across gardens of residences almost completely forgotten and glimpses of small courts from which unknown roads breach out. What mostly hits lays in the fact that in a city so poor of spaces like Portici there are so many private gardens and areas included by private access streets, almost as leftovers of the furious process of embedding that characterizes this urban reality. Other than searching new open spaces not only occupied by streets and the few squares, it seems necessary to find a way to insert new services in the vacant areas. In this case, the first step was a reflection on the market activities that are run in this neighborhood, to then arrive to other kinds of services already partially available and to increase. Using the vast area that hosts the market, a counseling center and play areas for sports and kids are fit in, given the presence of a kinder garden in the immediate vicinity.

Program

sport fafcilities, playground, medical facility, market

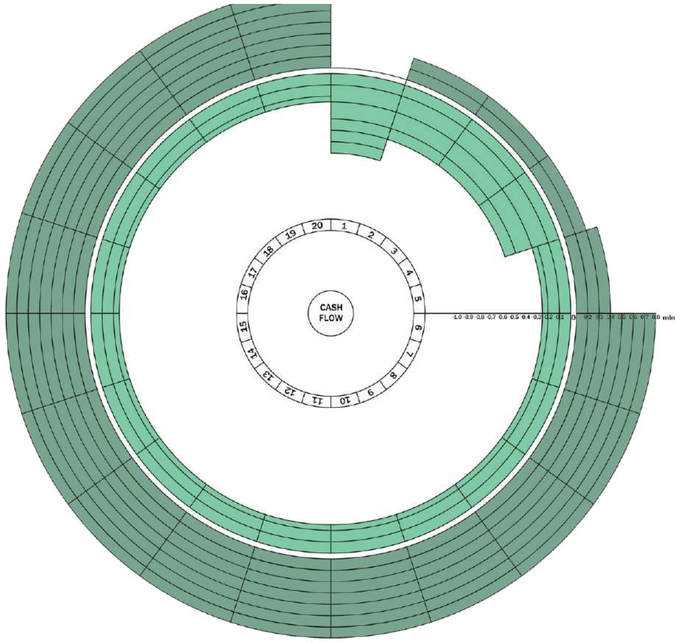
Covered area	137432m²
Uncovered area	2233m²
Floors above ground	2
Built volume	10284m³
Estimated cost	€2059125

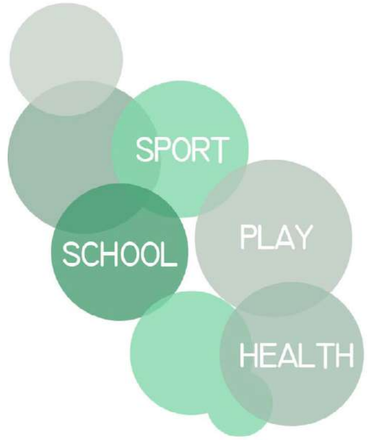


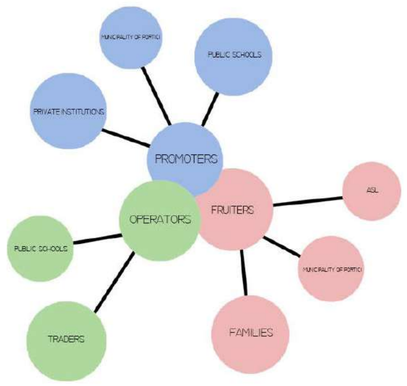
From the analysis of the characteristics of the area, it seems quite evident that it holds a commercial vocation. At the same time a strong disparity between population density and number of services is perceived.



The less densely populated census unit is the one chosen to host the making of the project. The functions are included considering the ones that are already partially present on the territory and the ones the hood is lacking. All the activities are centered on the functioning of the community, mostly those dedicated to the children regarding sport and play time. Some of these activities can work independently in the afternoon, when schooltime is over. The project includes an increase of the green areas, almost all the trees are to be saved, except for the ones that represent a risk. The driving force of this melting pot of activities is the market, that contains spaces to host the street sellers and other shared stands to offer a multitude of utilizations.







CASH FLOW

The playroom is the first activity that comes into operation, as it is to build in only a year. Its building doesn't need the construction of new structures, because it's situated on the ground floor of one of the condos of the residential park and characterized by little covered surface.



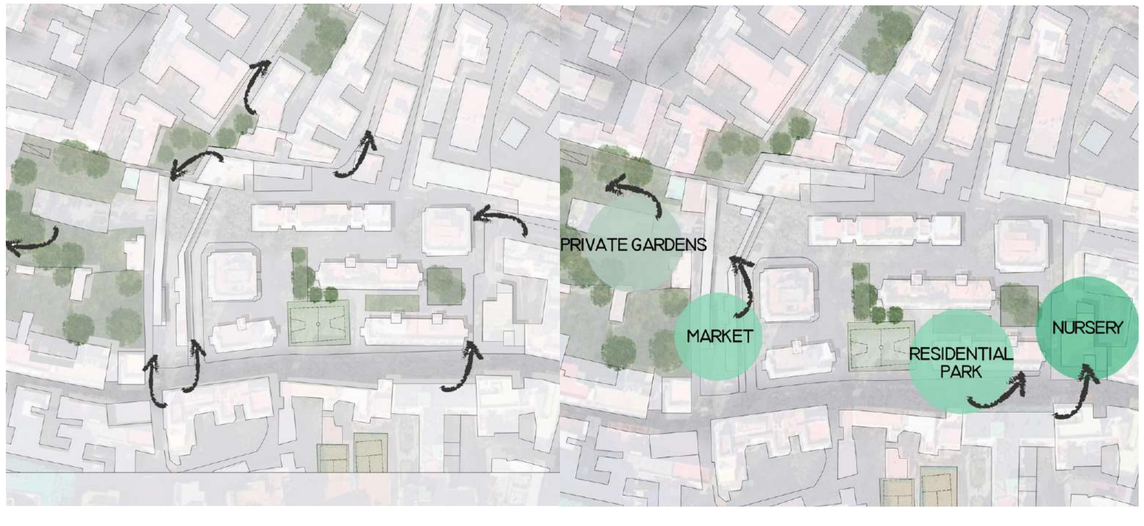
PORTICI'S PARK THE PROJECT IN THE CONTEXT



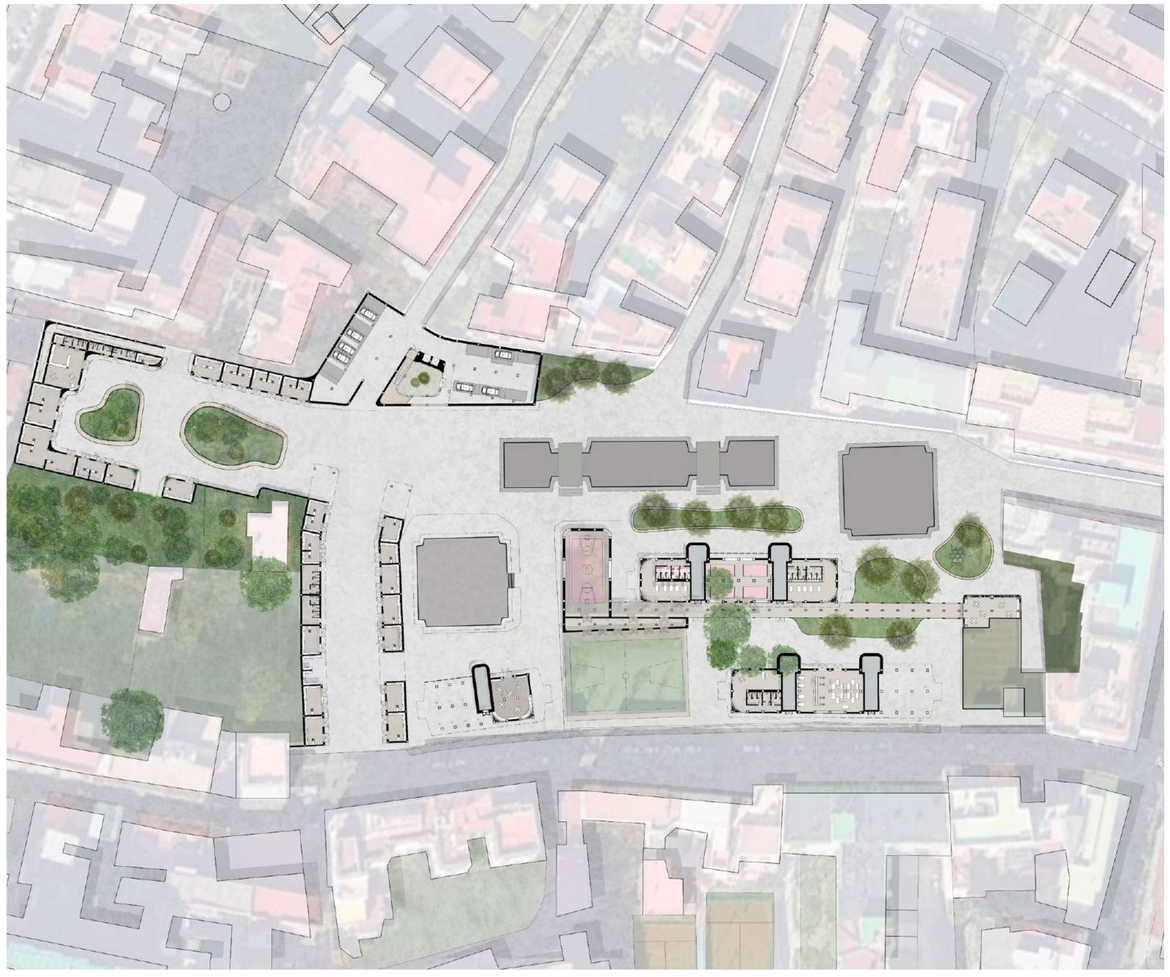


CURRENT STATE MORPHOLOGICAL READING URBAN ANALYSIS

0 20 50 100m

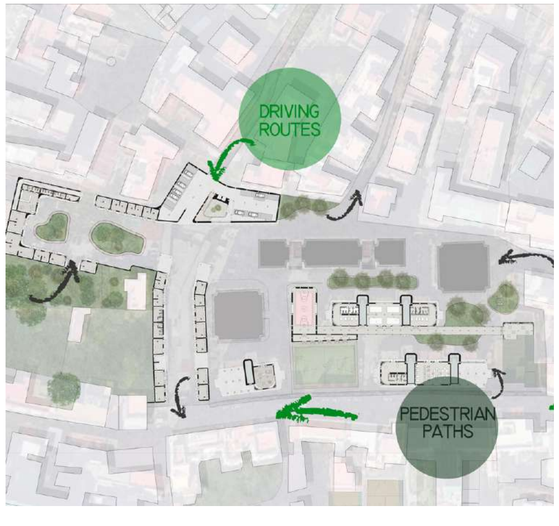


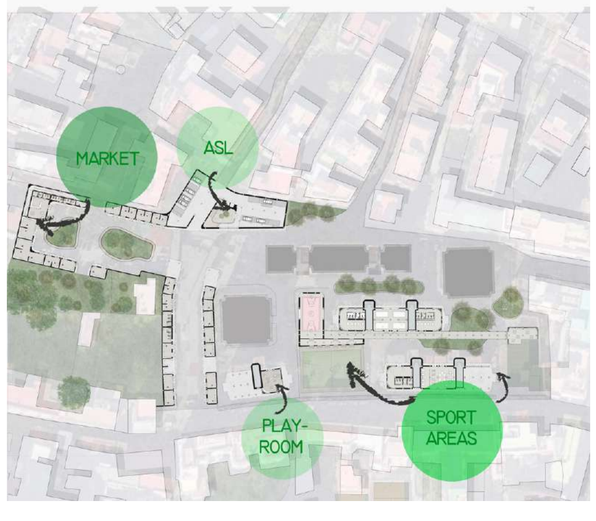
CLOSED PATHS - EXISTING SERVICES



DESIGN PROPOSAL

0 20 50 100m

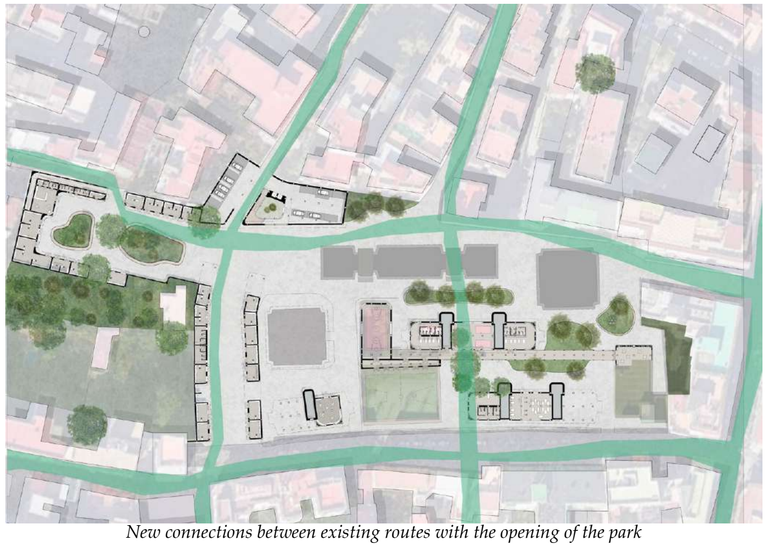




OPENING OF CLOSED ROUTES BETWEEN PRIVATE PROPERTIES - INCREASE OF THE EXISTING SERVICES

The project springs from a study on the existing functions, as well as the charateristics of the area, particularly of its paths and the conditions of the buildings.

It is quite evident that the existing paths are in the most part private and often impractical, and this determines a reclusion of this area of the hood until via Guglielmo Marconi. The new paths cross some of the planned buildings, such as the one that hosts the ASL, which overtakes the street and includes a small parking lot for the workers. To build this part of the project and the one including the market makes it necessary to tear down the shacks made of sheet metal in order to replace them with small structures with steel structures. Even though there is quite enough room to build, the choice was to create as little new covered surface and to use spaces that are already present and scarcely used, as the first floor of the condos. A common thread in the design of all the buildings is the alternating use of curves and broken lines that resonate and connects with the showy stairwells of the existing buildings. The one hosting the ASL is structured on two floors, the lower containing the partially underground parking lot. The construction rotates as a fan around a small court, generating a small garden that provides light for the glazed ramp that conducts on the second and main floor. A more regular ramp connects the two floors of the market, in which the second floor hosts a coffee bar with a terrace. Aiming to merge these new constructions with the ones already present, the coatings are chosen to be as plain as possible using gres and polycarbonate in light shades that become the non-breaking element among the different parts of the project. The regular spaces under the condos find a break within the rounded edges of the tanks containing bushes and other plants. A similar system is used inside the aisle that connects the kinder garden with the other buildings. Among the new constructions there is one that works as a gym for the kids. A common leitmotiv is the presence of seats obtained in the walls' thickness.



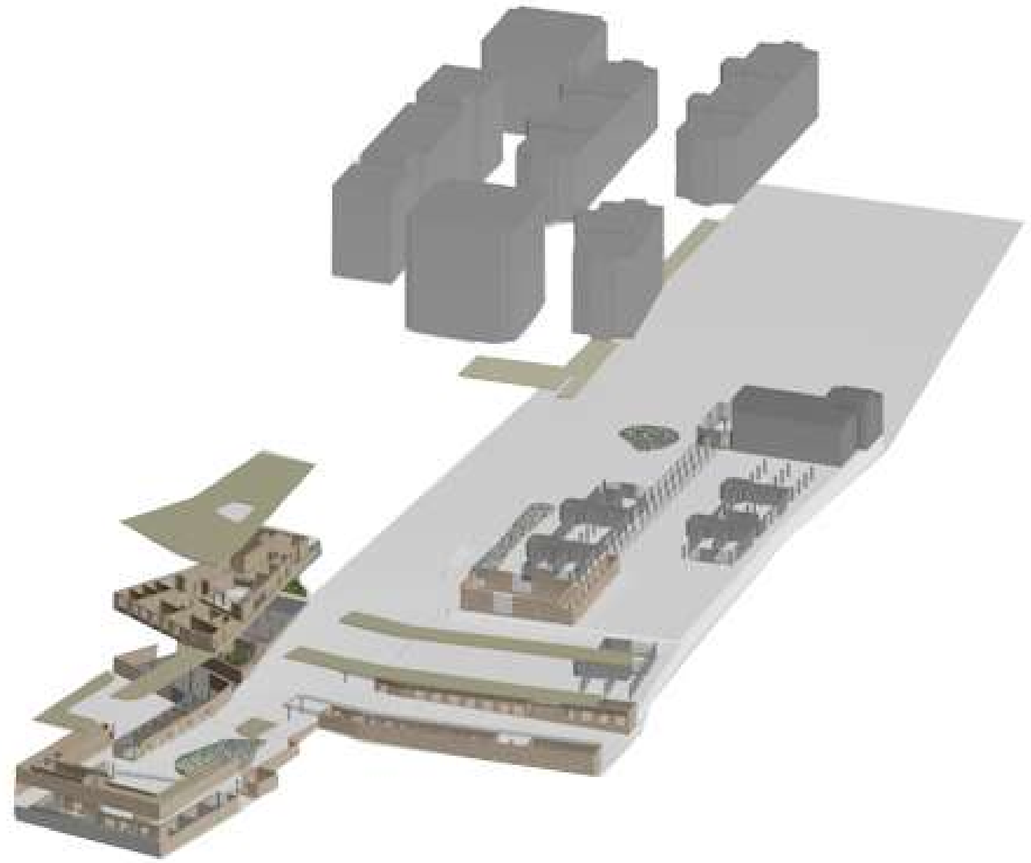
New connections between existing routes with the opening of the park

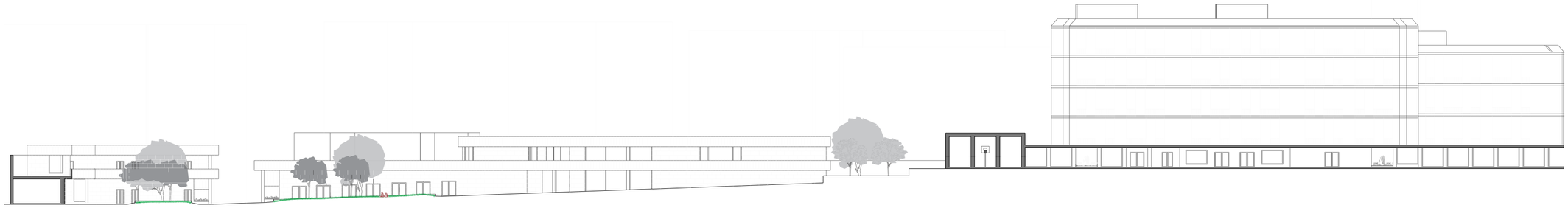


Spazi ricavati ai piani terra dei condomini del parco



Removed and replaced buildings





SECTION A

0 10 25 50m



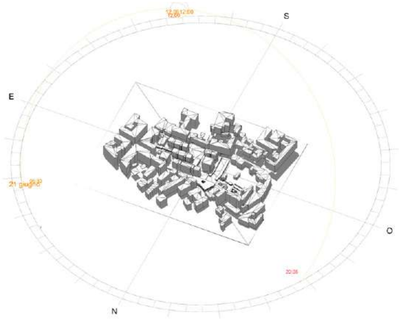
TYPOLOGICAL GROUND FLOOR - MARKET AND PLAYGROUND

0 10 25 50m

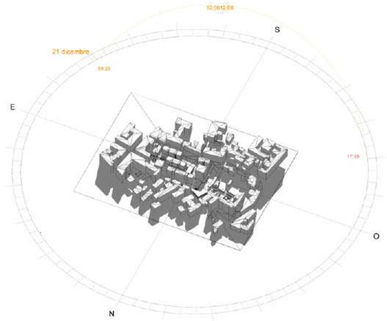


TYPOLOGICAL GROUND FLOOR - SPORT AREAS

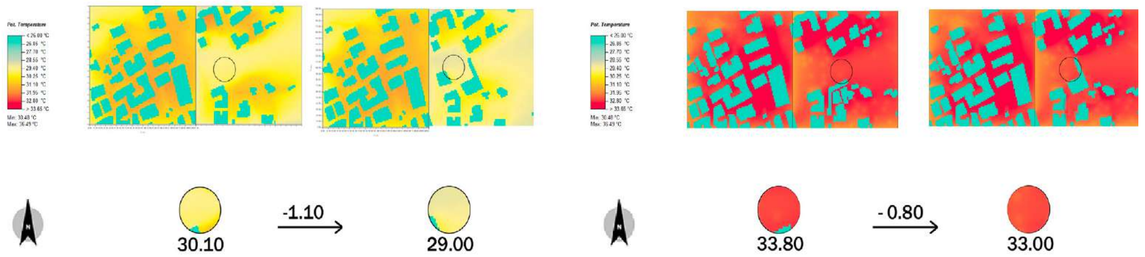
0 10 25 50m



Summer solstice | *21 June*

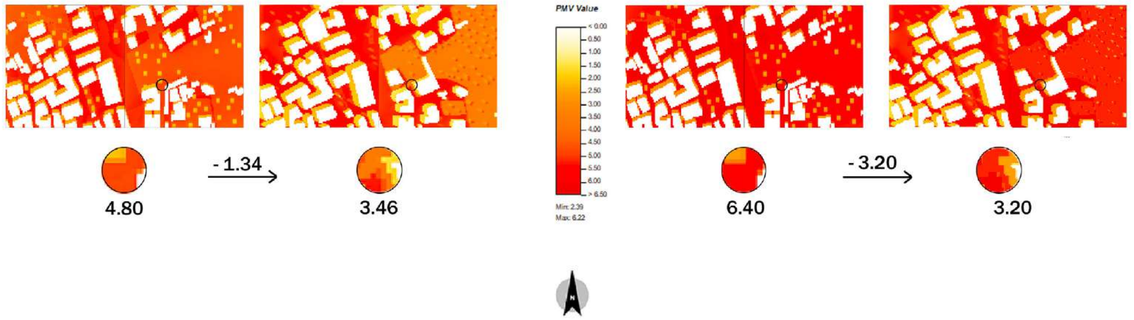


Winter solstice | *21 December*

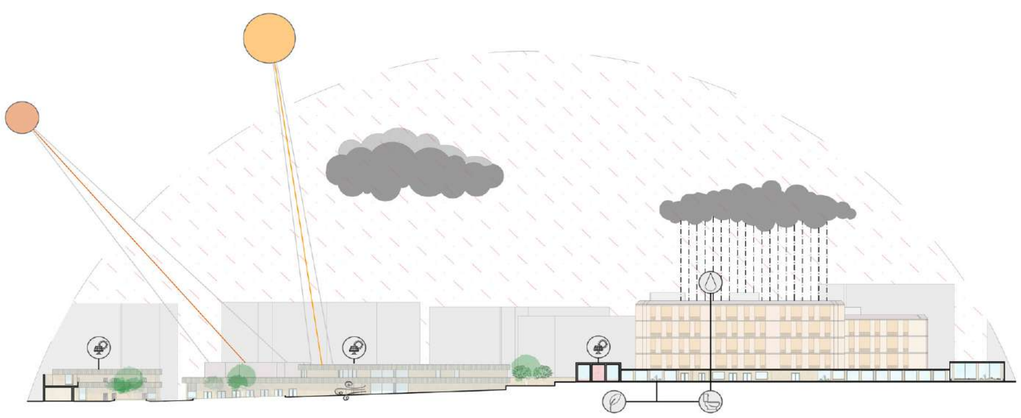


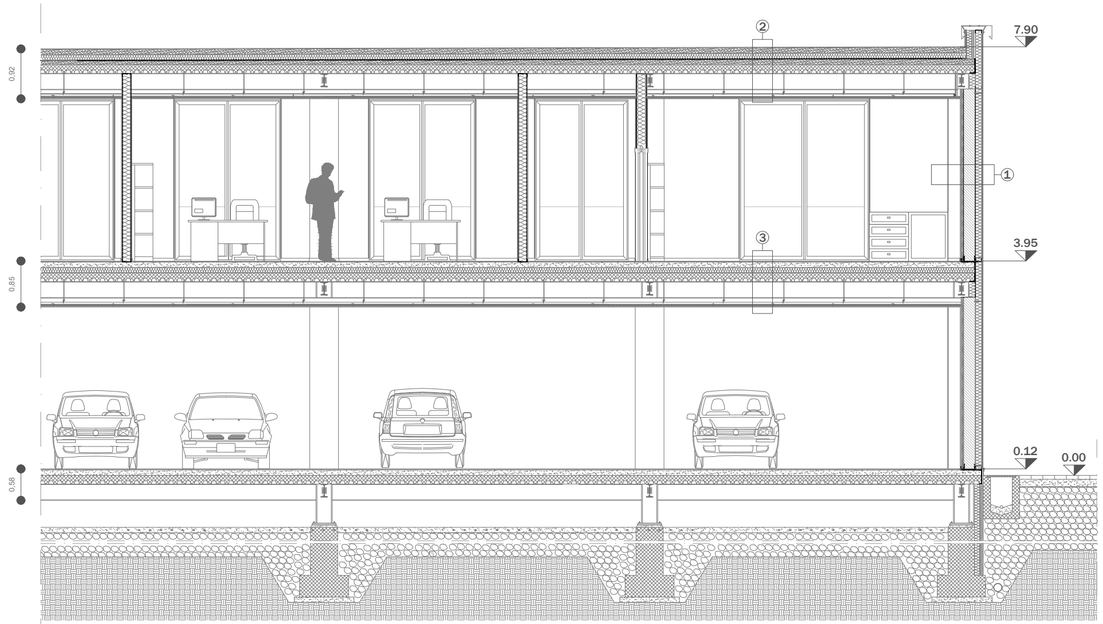
PMV | Thermal sensation index

Stato di fatto | Stato di progetto | Stato di fatto 2050 | Stato di progetto 2050



POT| Air temperature





Outer wall

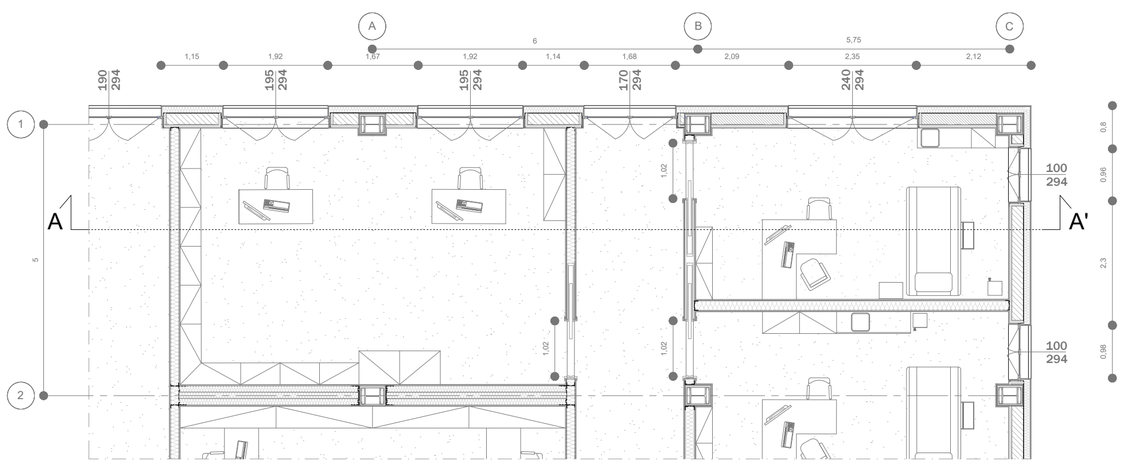
1. External covering in stoneware
2. Layer of glue
3. Wood fiber insulation
4. Waterproof case
5. Laminated wood panels
6. Wood fiber insulation
7. Internal plaster

Roof slab

1. Outdoor floor in stoneware
2. Malta
3. Lightening screed
4. EPS polystyrene insulation
5. Sheath
6. Slope screed
7. Steel structured slab

First floor slab

1. Resin flooring
2. Lightening screed
3. EPS polystyrene insulation
4. Sheath
5. Steel structured slab



PLAN AND SECTION OF BUILDING AND PUBLIC SPACES SCALE 1: 100



Lucio De Crescenzo

Salvatore Della Corte

Davide Galleri









Alessia Giordano

Luca Pasquale Marseglia

Alessandra Morelli



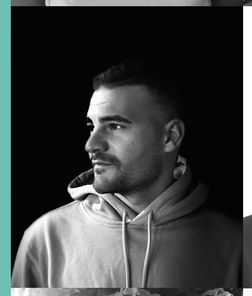


Mafalda Pastore

Antonia Sodano

Sara Tedesco







Claudio Cappiello

Carlo Cioffi

Antonio Leone

Giulio Montefoschi











Valentina Pignata

Alessia Rocca

Mariarosa Sarracco





Marialisa Scotto Rosato

Cristina Acquaviva

Antonietta Ametrano



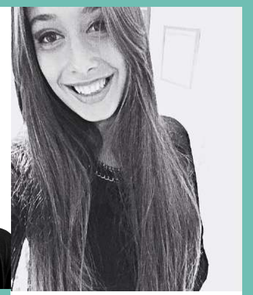


Davide Andrea Cutolo

Alessio Pazzanese

Federica Zanniello









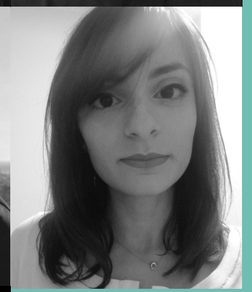
Clara Vitiello

Pasquale Biancardi

Davide Bianco







Benzo Ciullo

Paola Ferraioli

Luca Ruocchio

Angela Tufano







Luca Battista

Massimiliano Buonaiuto

Dario Colella







Liliana Coppola

Antonio Corcione

Marta Parente

Sara Pasquariello













Francesca Picarelli

Alessia Scarcella

Giulia Talamo

URBAN AND ARCHITECTURAL DESIGN

Pasquale Miano

with *con*

Adriana Bernieri

Francesca Coppolino

During the Advanced Design Studio 2018-2019 of the Master's Program, architectural and urban design have played the role of coordinating and summarizing the different points of view and disciplinary contributions, engaging on the theme of Castel Volturno, through the rethinking of its own characters and the interactions that distinguish its territory.
The architectural project moves from the identification of an urban theme, recognized and studied in terms of its spatial relations. The current condition of the places, although often in a sate of abandonment and degradation, has been addressed with the tools of the architectural and urban project, identifying the existing city as the basis material of the project. On these elements, such as for example the beach, the pine forest, the neglected vacation homes, the ponds, the dynamics of the students' individual projects have been settled, through which multiple correlations were established among new grafts, connection elements and the existing reimagined within a new scenario. It has been a wide-ranging work that, subsequently, was gradually focused on some nodes of the whole system, identifiable architectures, developed at scale and level of detail. In this sense, reasoning on forms and uses has been very much explored, aiming at offering prospective for reversing the existing equilibrium, without claiming to determine a new overall situation of a definitive type. The final restitution is a complex design framework in which operating not with macro-interventions but through the systematic and capillary action of the urban and architectural project.

URBAN PLANNING

Laura Lieto

The course of Urban Planning has been focused on urban regeneration strategies in extremely fragmented and segregated contexts and severely compromised natural environments.
To contribute to the overall program of the Design Studio, this class takes empirical research as the back-bone of the planning activity, addressing students' work from an in-depth practical immersion in the study area to further, more theoretical investigation about how design and planning can make a difference in critical places such as Castel Volturno.
The course is based on early-stage fieldwork inspired by transect methodology, in which students are confronted with the complexity of the place and are compelled to progressively build local knowledge using techniques such as sketched interviews, surveys, photography and - most importantly - their own bodily experience in traveling through places.
The main goals of the planning course is developing critical local knowledge to build planning strategies that are context-sensitive and possibly open to incorporate different processes and scales, ranging from local to trans-national processes of urban and social transformation.

APPRAISAL AND EVALUATION

Giuliano Poli

The course of Economics and Environmental Appraisal aimed to provide students with methodological approaches and operational tools to develop a Decision Support System (SSD) which - taking into account multi-dimensional indicators for assessing and monitoring the state of environmental, economic and social resources – has been addressed to researching of main criticalities and potentials within the investigation context in order to support the construction of a short, medium and long term strategic vision linked to the actions and project objectives. A mapping of the main Stakeholders – which are directly or indirectly interested in the planned transformations - has been, subsequently, carried out in order to hypothesize a management model for buildings and designed urban spaces, according to their prevailing functions. A financial feasibility report has been, therefore, drawn as tool to assess the level of risk of investments for realization and management of the various urban transformation interventions, through the identification of the Net Present Value (NPV) and the Internal Rate of Return (TIR). In conclusion, the final project phase has been assessed through an economic point of view due to the "Bill of Quantities" and the "Economic Framework", highlighting respectively the main expenditure items for building of project components and the related phases for its construction, in order to determine the total cost and the unit cost of different interventions.

PROGETTAZIONE ARCHITETTONICA E URBANA

Nel Laboratorio finale del quinto anno del Corso di Laurea Magistrale 5UE 2018-2019, la Progettazione architettonica e urbana ha svolto il ruolo di coordinamento e di sintesi dei differenti punti di vista e apporti disciplinari, impegnandosi sul tema di Castel Volturno, attraverso il ripensamento dei suoi stessi caratteri e delle interazioni che lo contraddistinguono.
Il progetto di architettura muove dall'individuazione di un tema urbano, riconosciuto e studiato sotto il profilo dei rapporti territoriali e spaziali. La condizione attuale dei luoghi, pur spesso in condizione di abbandono e degrado, è stata affrontata con gli strumenti del progetto architettonico e urbano, individuando la città esistente come il materiale base del progetto. Su questo materiale, la spiaggia, la pineta, le case di vacanza in stato di abbandono, i laghetti, si è innestata la dinamica dei singoli progetti degli studenti, attraverso la quale si sono stabilite correlazioni multiple tra nuovi elementi di innesto e di connessione e il preesistente rimesso in campo. Si è trattato di un lavoro ad ampio raggio che, successivamente, si è gradualmente concentrato su alcuni nodi del sistema, architetture identificabili, sviluppati alla scala e al livello di approfondimento di maggiore dettaglio del progetto architettonico. I ragionamenti sulla forma e sugli usi diventano in questo senso molto approfonditi, con l'obiettivo di offrire prospettive di ribaltamento degli equilibri esistenti, senza la pretesa di determinare una nuova situazione complessiva di tipo definitivo: la restituzione finale è un quadro progettuale complesso, in cui si opera non per macro-interventi ma attraverso un'azione sistematica e capillare del progetto urbano e architettonico.

PROGETTAZIONE URBANISTICA

Il corso di Progettazione Urbanistica si è focalizzato sulle strategie di rigenerazione urbana in contesti estremamente frammentati e segregati e in ambienti naturali gravemente compromessi.
Per contribuire al programma generale del Laboratorio di Progettazione, questo corso ha inteso la ricerca empirica come la spina dorsale dell'attività di progettazione, indirizzando il lavoro degli studenti a partire da un'immersione reale e approfondita nell'area di studio a un'ulteriore indagine più teorica su come il progetto e la pianificazione possono fare la differenza in luoghi critici come Castel Volturno.
Il corso si basa su un lavoro sul campo in fase iniziale ispirato alla metodologia del transetto, in cui gli studenti si confrontano con la complessità del luogo e sono costretti a costruire progressivamente la conoscenza locale utilizzando tecniche come interviste disegnate, sondaggi, fotografie e, soprattutto, la propria esperienza corporea nel viaggiare attraverso i luoghi.
Gli obiettivi principali del corso sono lo sviluppo di conoscenze locali critiche nell'ottica di costruire strategie di pianificazione che siano sensibili al contesto e possibilmente aperte a incorporare diversi processi e scale, da quelli locali a quelli transnazionali di trasformazione urbana e sociale.

ECONOMIA ED ESTIMO AMBIENTALE

Il corso di Economia ed Estimo Ambientale è stato indirizzato a fornire agli studenti approcci metodologici e strumenti operativi per sviluppare un Sistema di Supporto alle Decisioni che - tenendo conto di indicatori multidimensionali per la valutazione e il monitoraggio dello stato delle risorse ambientali, economiche e sociali – ha consentito di rilevare criticità e potenzialità nel contesto di indagine, al fine di supportare la costruzione di una visione strategica di breve, medio e lungo termine legata alle azioni e agli obiettivi del progetto. In seguito, è stata effettuata una mappatura dei principali Stakeholder, direttamente o indirettamente interessati alle trasformazioni messe in campo, al fine di ipotizzare un modello di gestione degli edifici e degli spazi urbani progettati, a seconda delle loro funzioni prevalenti. È stata, pertanto, redatta una relazione di fattibilità finanziaria quale strumento per valutare il livello di rischio degli investimenti per la realizzazione e la gestione dei vari interventi di trasformazione urbana, attraverso l'individuazione del Valore Attuale Netto (VAN) e del Tasso di Rendimento Interno (TIR). In conclusione, la fase finale del progetto è stata valutata dal punto di vista economico grazie al "Computo metrico estimativo" e al "Quadro economico", evidenziando rispettivamente le principali voci di spesa per la realizzazione delle componenti del progetto e le relative fasi di realizzazione, al fine di determinare il costo totale ed il costo unitario dei diversi interventi.

TECHNIQUES OF CONSTRUCTION

Attilio De Martino

The integrated course of Construction Techniques has been articulated through three main phases: frontal lessons, collective exercises and reviews.
During the first part of the course, the construction work as a whole has been introduced; some fundamental themes from the point of view of the structures and their behaviors have been explored, addressing the attention to the specific design case studies of the students. In particular, materials resistances, performance requirements, security aspects as well as regulations have been investigated according to the functions and uses chosen during the design phase process.
A very important part of the course schedule has been dedicated to the wind and earthquake actions, to the buildings response possibilities and the correct structural design approach to these phenomena. Particularly, foundations systems have been studied in depth, considering the fragile and delicate territory of Castel Volturno which presents a very high groundwater system.
In the second part, the course has been characterized both by single reviews and choral discussions about the individual project cases, following their development or way of conception so that even those who did not have elements to submit would listen and participate in the solutions of the various cases proposed. This approach demonstrates that there is no unique structural solution for an architectural proposal, but more a wide range of possibilities among which one can be chosen through a coherent investigation between shape, details, materials and structures specific behaviors.

TECHNICS OF ENVIRONMENTAL CONTROL

Fabrizio Ascione

with *con*

Margherita Mastellone

The modular course of "Technics of Environmental Control" - after previous studies of thermodynamics, heat transfer and psychrometry, with particular reference to the course of "Applied Thermodynamics, Heat Transfer for Buildings" and "Architectural Technology" - investigated all issues concerning the macro - topic of the energy efficiency in the construction sector, in the framework of the legislative and regulatory acts, as presently in force or established for the next years. Starting from necessary thermal comfort requirements for both the indoor and urban environments, and in particular by fulfilling traditional and adaptive thermo-hygrometric requirements of comfort, the students, during theoretical lessons, in-depth meetings and individual reviews, tried to design buildings characterized by high-quality standards, by taking into account energy efficiency and environmental preservation, with reference to all involved systems, from the single component of the thermal envelope to the architecture as a whole. The students' evaluations concerned critical issues and energy-efficient solutions by pressing all levers connected to energy demand and conversion in buildings, with a view to the microclimatic control, by including the design of the building envelope, bioclimatic architecture solutions, heating systems, air conditioning equipment, conversion from renewable energy sources. The projects aimed at solving potential critical issues, just during their development, by looking - with sensitivity towards mandatory environmental issues - at the nearly zero-energy building standard, already in force for all buildings. The laboratory has contributed, together with previous teachings and other integrated courses, to direct the architectural and urban design towards an irreplaceable objective of limitation of energy demand and climate-changing emissions, for an indispensable low-carbon future that necessarily involves, in light of the enormous environmental footprint of buildings, the energy sustainability in the architectural design.

DETAILED DESIGN OF ARCHITECTURE

Eduardo Bassolino

The Executive Planning of Architecture course pursued the objective of developing a process of phases and elaborations in the field of Architectural Technology and Environmental Design that would allow students to consciously carry out those aspects related to construction and to the processes that regulate the construction phases of the architectural buildings, as well as compliance with the regulatory aspects of construction, energy efficiency and the ecological footprint of building processes. This occurred through the definition of integrated technical solutions between buildings and open spaces capable to develop in students a conscious approach in defining the technical-design choices that are capable of contributing to the reduction of environmental impact and CO2 emissions in the whole life cycle of the buildings. An approach to the project of architecture and open spaces that wanted to compare with those issues related to the modification of the built urban environment and the impact that the construction sector had on the environment and on the occurrence of climate change, in particular on the analysis of the phenomena affecting our cities, such as the increase in urban temperatures and on intervention strategies to reduce their impact, mitigate their effects, and at the same time to implement regenerative adaptive design actions.

TECNICA DELLE COSTRUZIONI

Il corso integrato di Tecnica delle Costruzioni è stato articolato attraverso tre fasi principali: lezioni frontali, esercitazioni collettive e correzioni.
Nella prima parte del corso è stata presentata l'opera costruttiva nel suo complesso; sono stati approfonditi alcuni temi fondamentali dal punto di vista delle strutture e dei loro comportamenti, rivolgendo l'attenzione ai casi studio progettuali specifici degli studenti. In particolare sono state indagate le resistenze dei materiali, i requisiti prestazionali, gli aspetti di sicurezza nonché le normative in funzione delle funzioni e degli usi scelti in fase di progettazione.
Una parte molto importante del programma del corso è stata dedicata alle azioni del vento e del terremoto, alle possibilità di risposta degli edifici e al corretto approccio strutturale a questi fenomeni. In particolare, sono stati approfonditi i sistemi di fondazione, considerando il fragile e delicato territorio di Castel Volturno che presenta un sistema idrico di falda molto elevato.
Nella seconda parte, il corso è stato caratterizzato sia da singole revisioni che da discussioni collettive sui singoli casi progettuali, seguendone lo sviluppo o il concepimento in modo che anche chi non avesse elementi da sottoporre ascoltasse e partecipasse alle soluzioni del vari casi proposti. Questo approccio dimostra che non esiste un'unica soluzione strutturale per una proposta architettonica, ma piuttosto un'ampia gamma di possibilità tra cui scegliere attraverso un'indagine coerente tra forme, dettagli, materiali e comportamenti specifici delle strutture.

TECNICA DEL CONTROLLO AMBIENTALE

Il modulo di Tecnica del Controllo Ambientale - dopo i precedenti studi di termodinamica, scambio termico e psicrometria, con particolare riferimento a Fisica Tecnica Ambientale e Tecnologia dell'Architettura – ha approfondito le tematiche dell'efficienza energetica in edilizia, tenendo conto del quadro legislativo e normativo vigente. Partendo dai necessari requisiti di comfort in ambiente indoor ed urbano, ed in particolare perseguendo requisiti di benessere termo-igrometrico tradizionale e adattativo, gli allievi, durante lezioni teoriche, incontri di approfondimento e revisioni individuali, si sono cimentati nella ricerca di elevati standard di qualità energetica ed ambientale, con riferimento a tutti i sistemi coinvolti, dal singolo componente di involucro edilizio sino all'architettura nel suo complesso. Le elaborazioni degli allievi hanno riguardato criticità e soluzioni di efficienza energetica con riferimento a tutte le leve connesse a domanda e conversione di energia negli edifici, per il controllo microclimatico e l'integrazione dell'approvvigionamento da rete, includendo progettazione dell'involucro edilizio, soluzioni di architettura bioclimatica, impianti di riscaldamento, climatizzazione, sistemi di conversione da fonti rinnovabili. I progetti hanno mirato a risolvere in itinere le criticità potenziali, guardando – con sensibilità verso le cogenti questioni ambientali – allo standard di nearly zero-energy buildings, già in vigore per tutti gli edifici. Il laboratorio ha contribuito, insieme ad insegnamenti precedenti e altri corsi integrati, ad orientare la progettazione verso un irrimandabile obiettivo di contenimento di domanda energetica ed emissioni climalteranti, per un irrinunciabile futuro "low carbon" che investe necessariamente, alla luce dell'enorme impronta ambientale degli edifici, la sostenibilità energetica in architettura.

PROGETTAZIONE ESECUTIVA DELL'ARCHITETTURA

Il corso di Progettazione Esecutiva dell'Architettura ha perseguito l'obiettivo di sviluppare una processualità di fasi ed elaborati nell'ambito della Tecnologica dell'Architettura e della Progettazione Ambientale che permettesse agli allievi di portare avanti, in maniera consapevole, quegli aspetti legati alla costruzione e ai processi che la regolano le fasi di esecuzione dei manufatti architettonici, oltre che al rispetto degli aspetti normativi della costruzione, dell'efficientamento energetico e dell'impronta ecologia dei processi edilizi. Questo è avvenuto attraverso la definizione di soluzioni tecniche integrate tra edifici e spazi aperti capaci di far sviluppare negli allievi un approccio consapevole nella definizione delle scelte tecnico-progettuali che siano capaci di contribuire alla riduzione dell'impatto ambientale e delle emissioni di CO2 nell'intero ciclo di vita del manufatto. Un approccio al progetto di architettura e degli spazi aperti che si è voluto confrontare con quelle tematiche legate alla modificazione dell'ambiente urbano costruito e sull'impatto che ha avuto il settore delle costruzioni sull'ambiente e sul verificarsi dei cambiamenti climatici, ed in particolare sull'analisi dei fenomeni che colpiscono le nostre città, quale ad esempio l'aumento delle temperature urbane e sulle strategie di intervento per ridurne l'impatto, mitigarne gli effetti, ed al tempo stesso di attuare azioni di regenerative adptive design.

02 PORTICI ADVANCED DESIGN STUDIO
edited by/*a cura di* Adriana Bernieri, Francesca Coppolino

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ADS Advanced Design Studio **is a book series that collects the design experimentations results conducted in the context of the Final Design Studios within 5UE Master's Degree Course in Architecture, Department of Architecture University of Naples Federico II. The goal is to combine scientific research and methodological processes of teaching practice through the common thread of the architectural and urban design. Conceived as an opportunity for discussion in which the themes widely explored and developed during the interdisciplinary studio experience are summarized, the series proposes to investigate, through essays and contributions to be combined with the work of students, the possibility of questioning and recalibrate the traditional tools of the project by adopting a multiscale approach.**
The joint action of the different disciplines involved allows us to reflect on the "boundaries" of each of them: from technological and environmental problems to landscape design and economic evaluation, the design variables are progressively defined, proposing and tracing new disciplinary paths of unprecedented correlation. At the same time, the design action at different scales defines the contents of an architectural design in the framework of a comprehensive interpretation of complex and articulated territorial problems.
The investigated territories become the great protagonists of the design and didactic investigation, within which the specific geographical, morphological, urban and landscape peculiarities lead from time to time to the identification of the different case studies and project areas. They can be understood as demonstrative cases for the verification of general and wide-ranging theoretical positions, but more often, through an empirical and inductive dimension, as pre-text, as triggers of new potential lines of research and new scenarios for the project. In fact, the latter is always considered contextually and simultaneously as an interpretative key and an operational tool for modification through which to propose solutions to real and concrete problems and imagine new possible futures.

ADS Advanced Design Studio è una collana che raccoglie gli esiti delle sperimentazioni progettuali condotte nell'ambito del Laboratorio di Sintesi finale del Corso di Laurea Magistrale in Architettura 5UE del Dipartimento di Architettura dell'Università Federico II di Napoli. L'obiettivo è coniugare ricerca scientifica e processi metodologici della pratica didattica attraverso il filo conduttore del progetto architettonico e urbano. Pensata come un'occasione di confronto in cui si sintetizzano le tematiche ampiamente trattate e sviluppate durante l'esperienza laboratoriale di carattere interdisciplinare, la collana propone di indagare, attraverso saggi e contribuiti da affiancare al lavoro degli studenti, la possibilità di mettere in questione e ricalibrare gli strumenti tradizionali del progetto adottando un approccio multiscalare.
La coazione congiunta delle differenti discipline coinvolte consente di riflettere sui "confini" di ognuna di esse: dalle problematiche tecnologiche e ambientali alla progettazione del paesaggio e alla valutazione economica, le variabili progettuali vengono progressivamente definite, proponendo e tracciando nuovi percorsi disciplinari di inedita correlazione. Al contempo l'azione progettuale alle diverse scale definisce i contenuti di un progetto di architettura che è dentro un'interpretazione compiuta di complessi e articolati problemi territoriali.
I territori indagati diventano i grandi protagonisti dell'indagine progettuale e didattica, all'interno dei quali le specifiche peculiarità geografiche, morfologiche, urbane e paesaggistiche conducono di volta in volta all'individuazione dei differenti casi studio e delle aree di progetto. Essi possono essere intesi come casi dimostratori per la verifica di posizioni teoriche generali e di ampia portata, ma più spesso, attraverso una dimensione empirica e induttiva, come pre-testo, come inneschi di nuove potenziali linee di ricerca e nuovi scenari per il progetto. Quest'ultimo infatti è sempre considerato contestualmente e simultaneamente chiave interpretativa e strumento operativo di modificazione attraverso cui proporre soluzioni di problemi reali e concreti e immaginare nuovi futuri possibili.

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