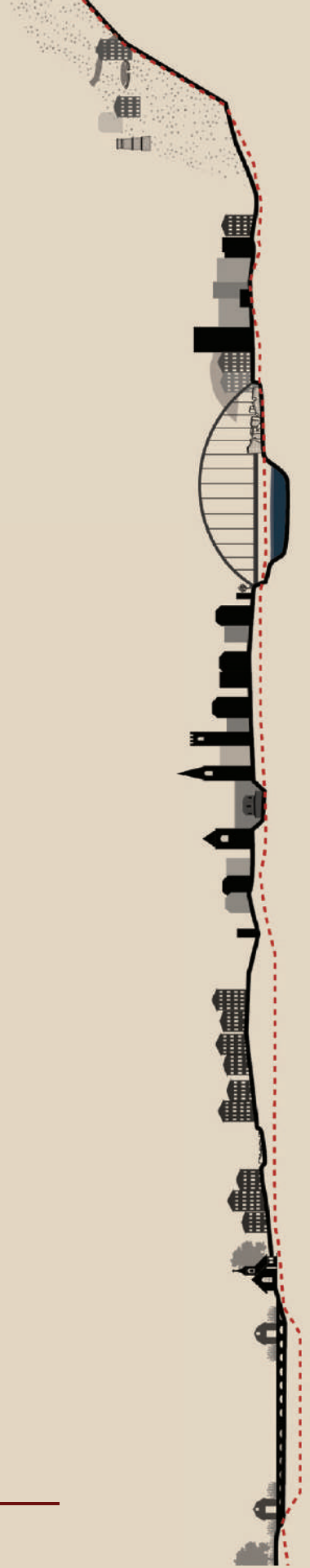


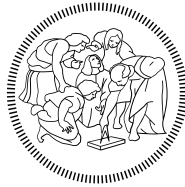
SHIFTING ALBENGA

READING AND TRANSFORMING THE LANDSCAPE



SHIFTING ALBENGA

READING AND TRANSFORMING THE LANDSCAPE



POLITECNICO
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2025/2026

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Note: Chapters 1 to 4 were produced in collaboration with the research team; Chapter 5 was produced independently by the author.

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Abstract

Located in Liguria, Albenga has undergone significant spatial transformations shaped by its historical and environmental relationship with the Centa River. Over time, this relationship has influenced the city's urban structure, infrastructure, and landscape configuration, while also generating conditions of fragmentation and hydraulic vulnerability. Alongside the river, the presence and ongoing transformation of the railway infrastructure have further contributed to spatial discontinuities, reinforcing physical and functional divisions within the urban fabric.

This thesis investigates Albenga's valley as a dynamic territorial system, focusing on the intrinsic connection between the city, the river, and its infrastructural layers. Through a multiscale analysis of landscape, topography, and urban development, the research identifies the structural elements that have shaped the city and the critical tensions that define its present condition.

Based on this reading, the project proposes adaptive landscape strategies aimed at reconfiguring the relationship between urban fabric, fluvial space, and infrastructure. By rethinking topography, spatial continuity, and the transformation of the railway corridor, the thesis outlines a framework for future interventions that can become an opportunity for reconnection and ecological resilience.

Rather than separating the city from its natural and infrastructural dynamics, the proposal positions the river as a structuring element capable of guiding integrated and adaptable development.

Abstract

Situata in Liguria, Albenga ha attraversato nel tempo significative trasformazioni spaziali, profondamente influenzate dalla sua relazione storica e ambientale con il fiume Centa. Tale relazione ha modellato la struttura urbana, le infrastrutture e la configurazione paesaggistica della città, generando al contempo condizioni di frammentazione e vulnerabilità idraulica. Accanto al sistema fluviale, la presenza e la trasformazione della linea ferroviaria hanno ulteriormente contribuito a produrre discontinuità spaziali, rafforzando divisioni fisiche e funzionali all'interno del tessuto urbano.

La tesi indaga la valle di Albenga come sistema territoriale dinamico, concentrandosi sulla connessione intrinseca tra città, fiume e infrastrutture. Attraverso una lettura multiscalare del paesaggio, della topografia e degli strati di sviluppo urbano, la ricerca individua gli elementi strutturali che hanno definito la crescita della città e le tensioni critiche che ne caratterizzano la condizione attuale.

A partire da questa analisi, il progetto propone strategie paesaggistiche adattive volte a riconfigurare il rapporto tra tessuto urbano, spazio fluviale e infrastrutture. Ripensando la topografia, la continuità spaziale e la trasformazione del corridoio ferroviario, la tesi delinea un quadro di interventi futuri che possono costituire un'opportunità di riconnessione territoriale e resilienza ecologica.

Piuttosto che separare la città dalle sue dinamiche naturali e infrastrutturali, la proposta individua nel fiume l'elemento strutturante capace di guidare uno sviluppo integrato, sostenibile e adattivo.

Introduction



Fig 01. A general view to Gallinara Island [Photography]. Note. Own work

Located in Liguria, Albenga is a small city whose history and spatial development have been deeply shaped by its relationship with the Centa River. The starting point of this research was precisely this relationship: a river that, over time, changed its course and altered not only the physical structure of the territory but also the way the city expanded and organized itself. Understanding how this displacement left traces in the historical layout and in the present landscape became the foundation of the project.

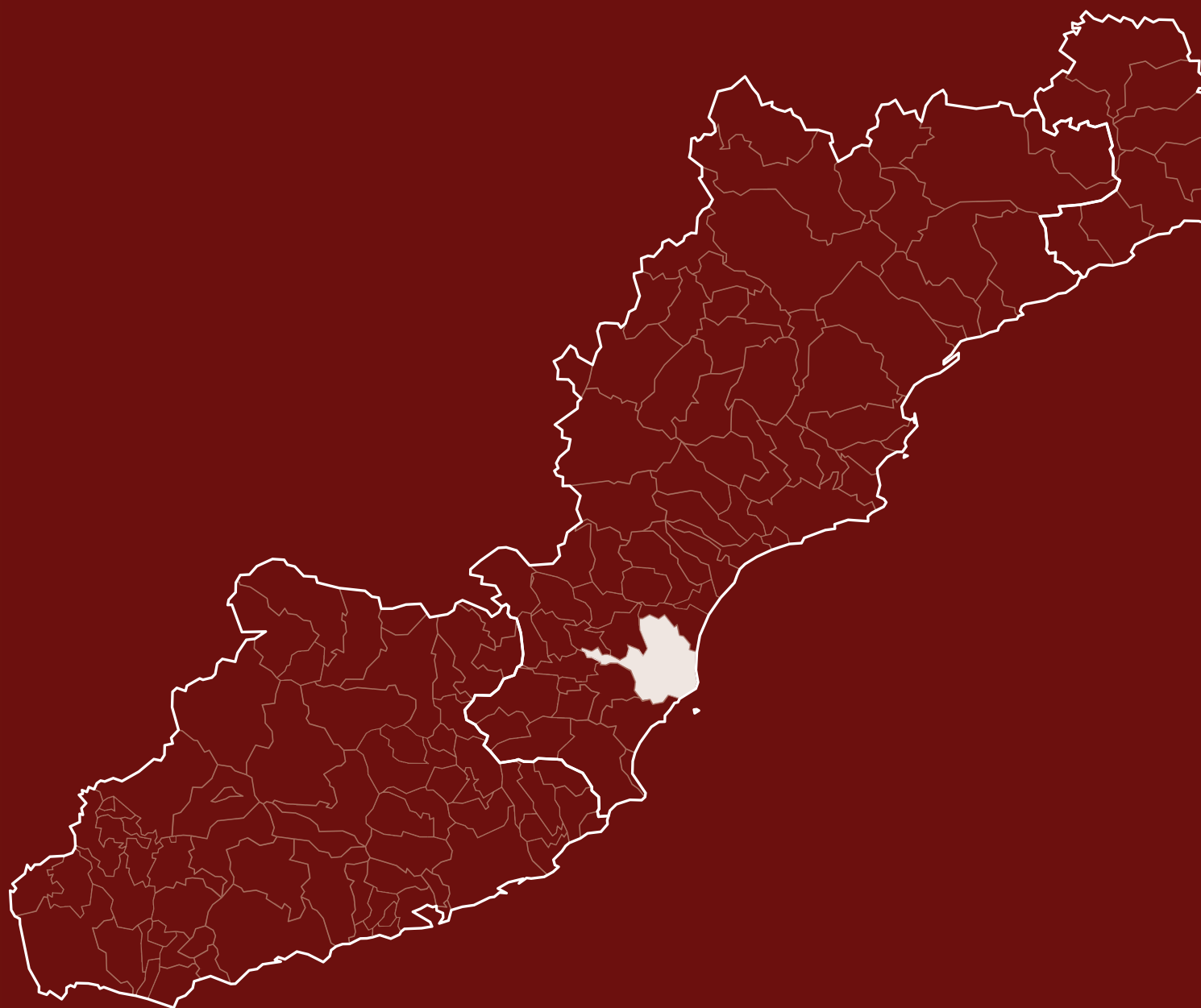
At first, the focus was mainly historical and archaeological. However, visiting the site revealed that Albenga is not only a layered landscape of the past, but a living city shaped by current spatial tensions. Despite its small size, the city feels fragmented. On one side lies the historic center and residential areas; on the other, the coastal strip, largely defined by tourism and private camping areas. This separation is reinforced by infrastructure, particularly the elevated railway and the current train station, which act as physical and perceptual barriers within the urban fabric.

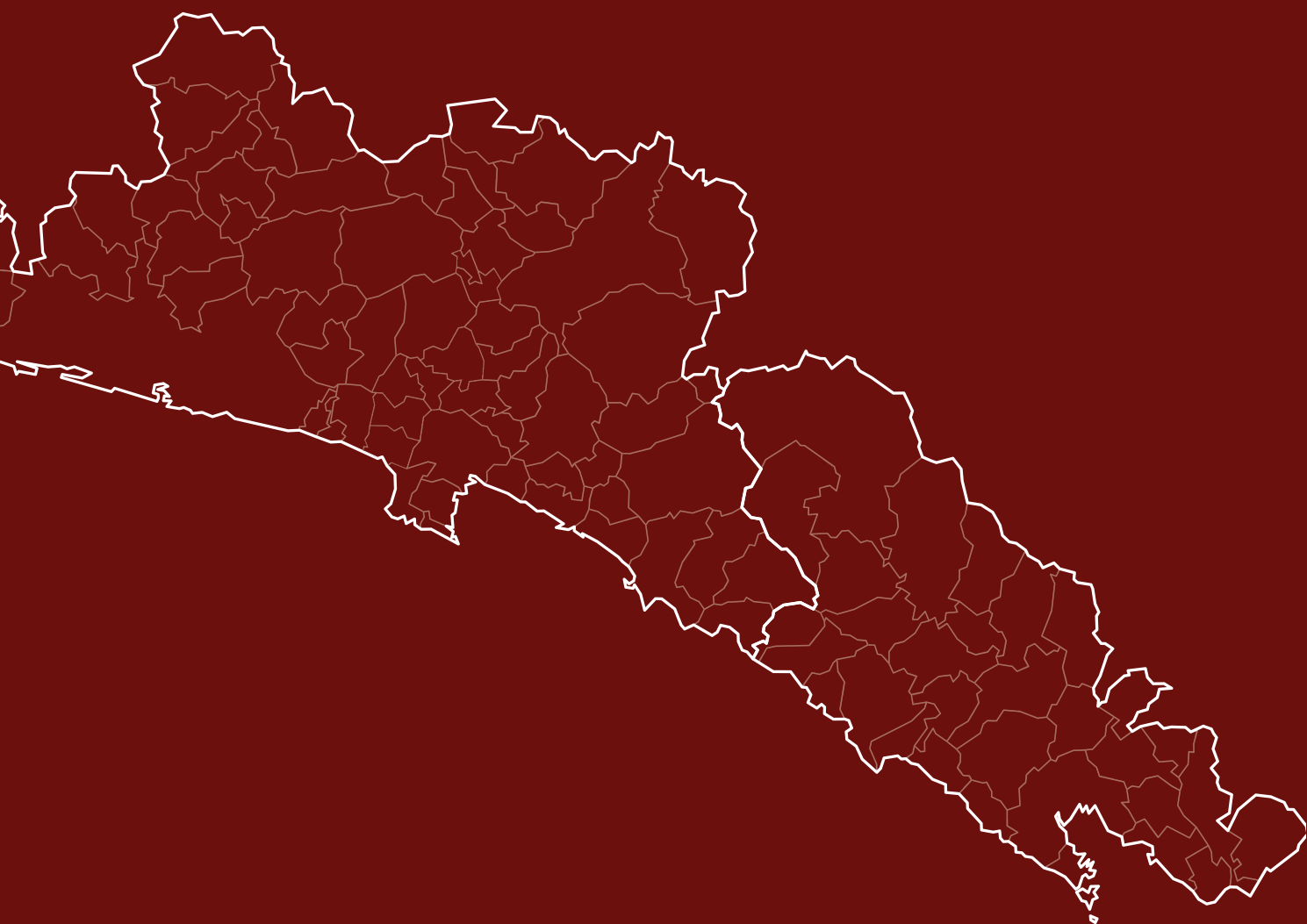
At the same time, the existing Municipal Urban Plan proposes relocating the railway line inland, towards Bastia. This potential transformation opens a significant opportunity: the existing railway corridor could become a large open space within the city. Such a change represents a critical moment. If not carefully addressed, it may intensify fragmentation; yet it also holds the potential to reconnect separated areas and strengthen the public space system.

Through a multiscale reading — from the river basin to its mouth — the research analyzes the ecological, geological, and infrastructural structure of the valley. It identifies key points where urban development, flood risk, and spatial discontinuity intersect. Particular attention is given to the river mouth and the camping areas, where hydraulic vulnerability, tourism pressure, and the lack of accessible public space for residents converge.

This thesis takes a clear position: the river should regain space, and the city should adapt to its dynamics rather than attempt to rigidly control them. From this perspective, landscape is understood as infrastructure — a tool capable of connecting ecological processes, urban systems, and social life. The project proposes adaptive strategies that redefine the relationship between city, river, and railway infrastructure, promoting coexistence, spatial continuity, and a more resilient territorial identity in the face of future transformations.

01





CHARACTER OF ALBENGA'S LANDSCAPE

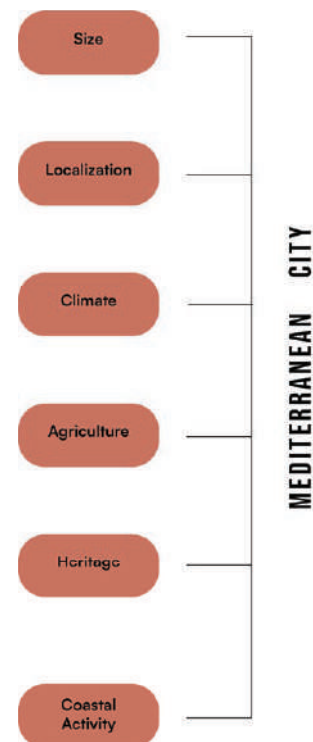


Fig 02. Cinque Terre. [Photography], Note. Hurtado, A.Laura

Character of the Mediterranean City

Cities along the Mediterranean coast, despite their cultural and spatial diversity, tend to share some characteristics that help explain their current form and evolution. These shared traits allow Mediterranean cities to be read as part of a broader territorial system, characterized by climate, geography, production, and practices.

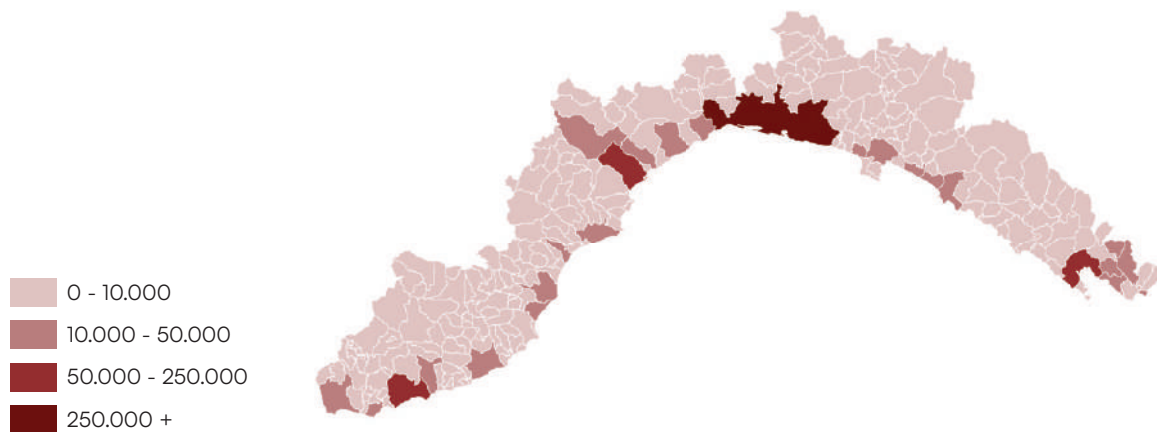
Following the methodology proposed in Med-Coast AgroCities by Giorgia Tucci (Tucci), this study approaches the Ligurian landscape through the analysis of six key factors. These criteria provide a framework to understand how Mediterranean coastal cities, particularly in Liguria, have developed between natural constraints and infrastructural networks.



Character of the Mediterranean City

Size

Map 01. Number of inhabitants in Liguria by Municipality



Small and mediums sized cities

The size of a city can be defined through several indicators, including population density, number of inhabitants, and the physical extent of the urban area. Together, these factors can help to explain scale as well as patterns of growth and urban dynamics. As noted by G. Tucci, there is no universally accepted definition of what constitutes a small or medium-sized city. However, within this framework, a small city can be understood as having between 10,000 and 50,000 inhabitants, while a medium-sized city typically ranges from 50,000 to 250,000 inhabitants. Cities exceeding this threshold are generally considered large metropolitan centers.

In the case of Liguria, the region has a population of around 1,509,908 inhabitants by 2025, distributed across 234 municipalities. Among these, only 25 municipalities can be classified as cities based on having more than 10,000 inhabitants (Figure1). Notably, Liguria contains just one major city, Genoa, the region capital, which is the only municipality exceeding 250,000 inhabitants. This demographic structure highlights the predominance of small and medium-sized cities within the regional urban system.

Character of the Mediterranean City

Localization

Map 02. Map of terrain elevation Liguria



Between the mountain and the sea

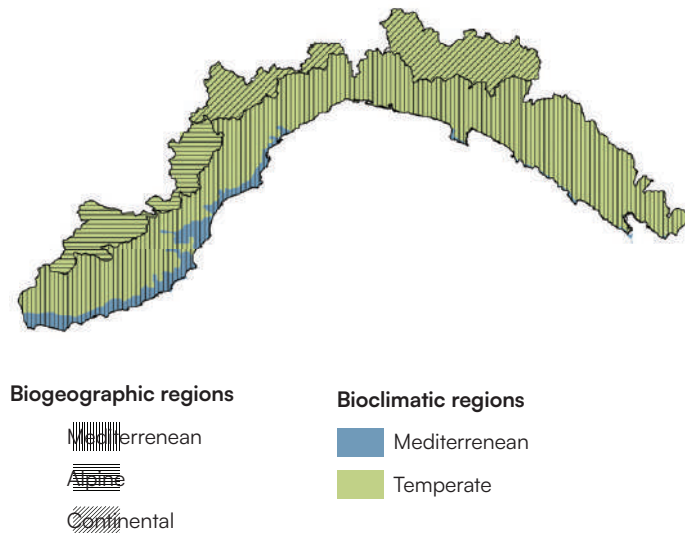
Liguria is located along the Mediterranean Sea in northwestern Italy, bordering France to the west. The region is defined by a narrow and elongated geography, where the Ligurian Sea meets the Alps and the Apennines in a compact territory.

This proximity between sea and mountains is one of Liguria's most noticeable characteristics. The high topographic contrast produces a landscape with strong physical constraints, shaping settlement, infrastructure, and urban form. It is precisely this difference, between coastal openness and inland steepness, that structures Liguria's territorial identity.

Character of the Mediterranean City

Climate

Map 03. Biogeographic and Bioclimatic regions in Liguria



Mediterranean bioclimates

The mountains and the sea not only are a territorial base but they are also base of the climate of Liguria, which is divided mainly in this topographic division, in Liguria we can find both Mediterranean and Temperate Bioclimates, as defined by Rivas-Martínez. Along the Ligurian coast, especially near towns like Albenga, Finale Ligure, or Imperia, the climate is typically Mediterranean. Instead move inland, into the Ligurian hills and the Apennine mountains, and the climate shifts to temperate.

Mediterranean:

- Winters are mild, and rarely very cold.
- Summers are warm and dry — it hardly rains between June and August.
- Rain falls mostly in autumn and spring, often with short but intense showers.
- Vegetation includes evergreen trees and shrubs such as holm oak, cork oak, olive trees, and many aromatic plants like rosemary and thyme.
- It's a landscape that looks green all year, but it survives on limited summer water and mild sea breezes.

Temperate:

- Winters are colder and you can sometimes get frost or snow in the higher valleys.
- Rain falls through most of the year, not just in certain seasons.
- Summers are cooler and more humid than on the coast.
- Vegetation changes — you find forests of oak, chestnut, and beech trees instead of evergreen scrub.
- Streams and small rivers stay active all year because it rains regularly.

Character of the Mediterranean City

Agriculture

Agriculture Industry in Liguria represents around 0,9% of the region's value and 1,3% of workers employment, which makes it below the average of the country's numbers (Banca d'Italia, 2024). Despite not being among Italy's most agricultural regions, Liguria is still recognized for variety of its products either food or wine that are recognized with a value that depends on either on their territory (DOP or IGP) or for its tradition to create it (STG) (Fundazione Qualivita, 2025).

DOP — Protected Designation of Origin

This label means that the product is entirely produced, processed, and prepared in a specific region using traditional methods. The quality and characteristics of the product depend directly on its geographic environment, including local know-how, climate, and natural resources.

Wine

- Golfo del Tugullio-Portofino DOP
- Colline di Levante DOP
- Pornassio DOP
- Val Polèvera DOP
- Colli di Luni DOP
- Riviera Liguria di Ponente DOP
- Cinque Terre e Cinque Terre Sciacchetrà DOP
- Rosses di Dolceaqua DOP

Food

- Basilico Genovese DOP
- Riviera Ligure DOP — Olio EVO

IGP — Protected Geographical Indication

This label means that at least one stage of production, processing, or preparation takes place in the region. The link to the geographic area is weaker than for DOP, but still important for reputation, tradition, or specific qualities.

Wine

- Terrazze dell'Imperiese IGP
- Liguria di Levante IGP
- Colline del Genovesato IGP
- Colline Savonesi IGP

Food

- Vitelloni Piemontesi Coscia IGP
- Focaccia di Recco con Formaggio IGP
- Acciughe Sotto Sale del Mar Ligure IGP
- Olive Taggiasche Liguri IGP

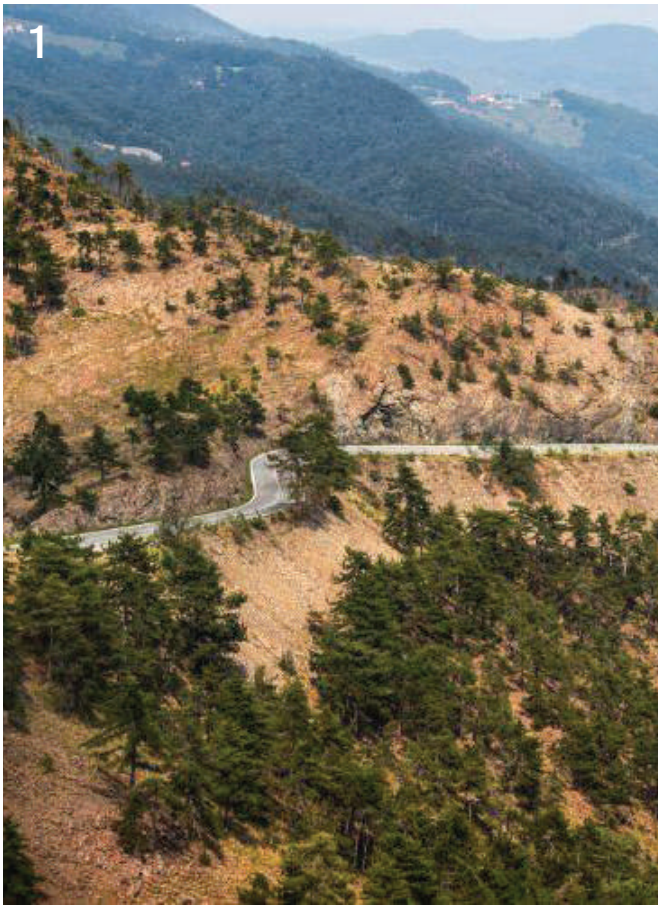


Fig O3. Views of the Monte Beigua Natural Park. [Photography], By Borgato, Elisa 2022, Visit Italy



Fig O5. Palaces of the Rolli . [Photography], By Zan, Luca. <https://lucazan.com/>



Fig O4. Cinque Terre. [Photography], Note, Hurtado, A. Laura

Character of the Mediterranean City

Heritage

Natural and cultural heritage recognized by UNESCO

One of the bases to understand the territory is the presence of heritage either cultural or natural. Liguria is a site full of vegetation thanks to the bioclimates that are present in it, thanks to its topography, it is also home of big number of historical traces dated to even before Roman times. Inside the list of this places loaded with tradition there is 3 that to the date are included in the list of UNESCO of places with natural, cultural or both heritage which are: Porto Venere, Cinque Terre and the Islands (Palmaria, Tino and Tinetto), Genova: le Strade Nuove and the system of the Palazzi dei Rolli and Beigua Natural Geopark.

1. **Beigua UNESCO Global Geopark:** registered in the UNESCO Global Geoparks list since 2015: Between the mountain and the sea this territory is characterized by its exceptional geological heritage, which has been crucial to rebuild the geological history of Italy, and to comprehend the evolution of the Alpine and Apennine chains (Ministero della Cultura Italia 2025).
2. **Genoa: Le Strade Nuove and the system of the Palazzi dei Rolli:** Inscribed on the World Heritage List as a Cultural Heritage Site since 2006:

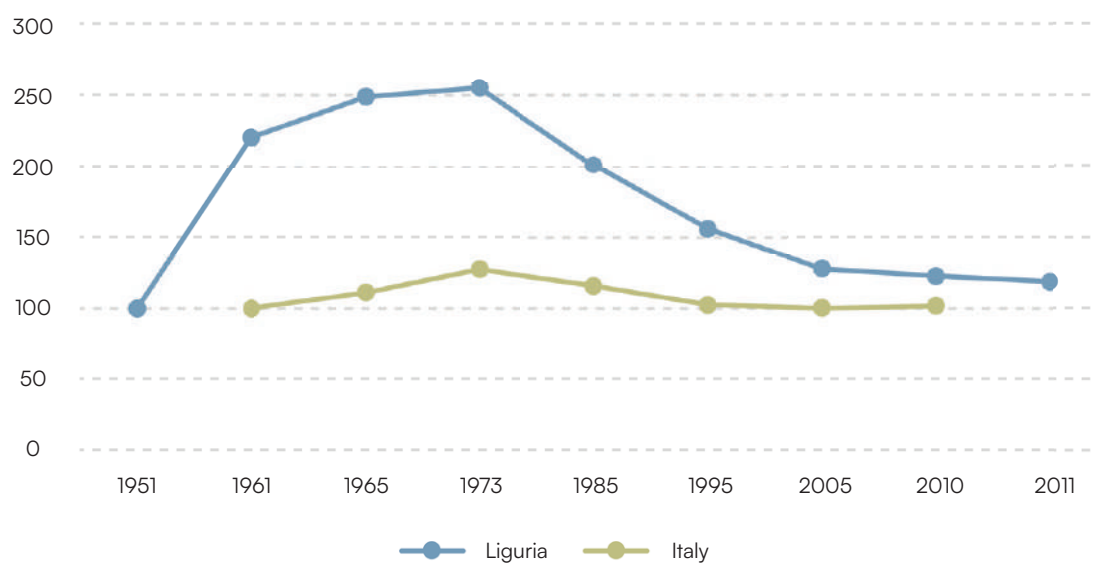
The site represents the first example in Europe of an urban development project parcelled out by a public authority within a unitary framework and associated to a particular system of 'public lodging' in private residences, as decreed by the Senate in 1576 (UNESCO 2025).

3. **Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto):** Inscribed on the World Heritage List as a Cultural Landscape since 1997: The Ligurian coast between Cinque Terre and Portovenere is a cultural landscape of great scenic and cultural value. The layout and disposition of the small towns and the shaping of the surrounding landscape, overcoming the disadvantages of a steep, uneven terrain, encapsulate the continuous history of human settlement in this region over the past millennium (UNESCO 2025).

Character of the Mediterranean City

Coastal Activity

Chart 01. Impact of tourism in Liguria through the decades



The impact of tourism

Tourism plays a central role in Liguria's economy and stands as one of the region's most strategic productive sectors. The combination of coastal geography, mild climate, historical towns, and cultural heritage has long positioned Liguria as a major destination for both domestic and international tourism.

Tourism contributes significantly to regional value and employment, specifically through accommodation, food services, transport, and a wide network of small and medium-sized businesses linked to visitor spending. Compared to

other Italian regions, Liguria shows a relatively high dependence on tourism-related activities, especially within the broader framework of the blue economy.

The rise of tourism was not abrupt but developed progressively, reaching a high phase during the late 1970s and 1980s. Improvements in transport infrastructure, increased household income, and the expansion of seaside tourism led to rapid growth in tourist arrivals and accommodation capacity.

Coastal municipalities, in particular, experienced intensive development of hotels, holiday residences, and supporting services.

This tourism boom consolidated tourism as a structural pillar of Liguria's economy, shaping land use, employment patterns, and development trajectories that continue to influence the region today.



Fig 07. Tourism in Amalfi Coast. [Photography]. Note. Hurtado, A.Laura



Fig 06. Tourism in Italy. [Photography]. Note. By Check Yeti

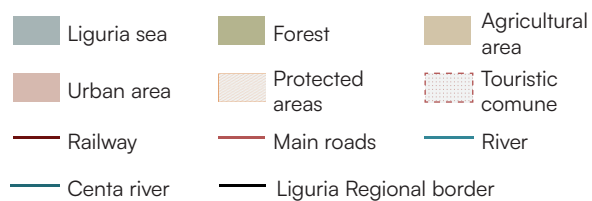
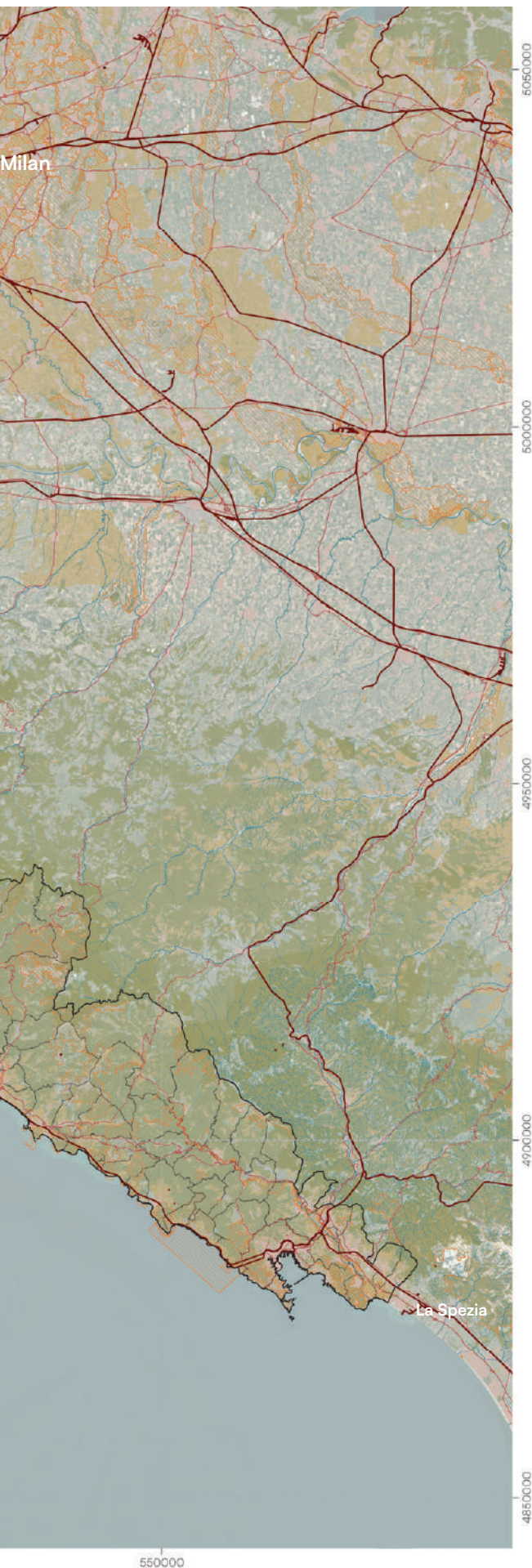


An overview in the Liguria region

The Liguria region occupies a strategic geographical position between France and the Ligurian Sea, serving as a natural corridor between the Mediterranean coast and the industrial centers of northern Italy, such as Turin and Milan. This connection, supported by an extensive network of highways and railways, has fostered not only economic and commercial exchanges but also the growth of tourism, making Liguria one of Italy's most visited coastal regions. The accessibility from major northern cities has encouraged the development of seasonal housing, coastal resorts, and cultural routes, strengthening the region's socio-economic profile.

However, the same railway infrastructure that connects Liguria to the rest of the country also poses challenges: as observed in the map, the main railway line runs parallel and very close to the coastline, often creating a division within the urban fabric of many cities, including Albenga, and limiting urban expansion toward the sea.

The region's topography is marked by steep mountains that descend abruptly toward the coast, creating a landscape rich in forests, rivers, and streams. These ecological features, while defining Liguria's character also make it highly vulnerable to flooding and landslides, especially during heavy rainfall. The hydrogeological fragility of the territory highlights the importance of protected natural areas, which not only preserve biodiversity but also play a fundamental role in mitigating erosion and regulating water flow.



0 10 20km

Map 04. Regional context of Liguria



Fig 08. Albenga city centre. [Photography], Note. By Hurtado, A.Laura

Territorial Scale: Albenga's plain

With a general understanding of Liguria and Mediterranean cities, and following the same methodology to understand cities in this places, now we go into a deeper study focused mainly in the city of Albenga, in the Province of Savona.

Albenga is a city in the coast of Liguria, characterized by the topics we discussed previously, size and change of use by tourism, a climate and topography defined by the encounter of mountains and sea, and the remarkable presence of the river Centa, which defines its development,

along with these its high value of heritage and agriculture that are part of its landscape makes it a clear example of a typical Mediterranean city.

In this section we will make an in-depth study of Albenga through the characteristics of a Mediterranean city, understanding better the city and how it is structured, and how this has shaped the city and its surroundings.

Territorial Scale
Albenga's plain

Size

According to the criteria previously outlined by Tucci, Albenga can be classified as a small city. In 2024, it had a population of just over 23,500 inhabitants (Tuttitalia.com, s.d.). This classification helps to better understand the city's dynamics, particularly how population movement and residents' origins influence its social and urban structure.

Over recent decades, Albenga has shown a relatively stable demographic trend, with no significant population growth or decline. The majority of its residents are Italian; however, there is also a noticeable presence of foreign inhabitants, mainly from other European countries and from Africa. This demographic composition reflects a city that is largely stable, yet slowly becoming more diverse.

Chart 02. Albenga's population growth in the last 20 years.

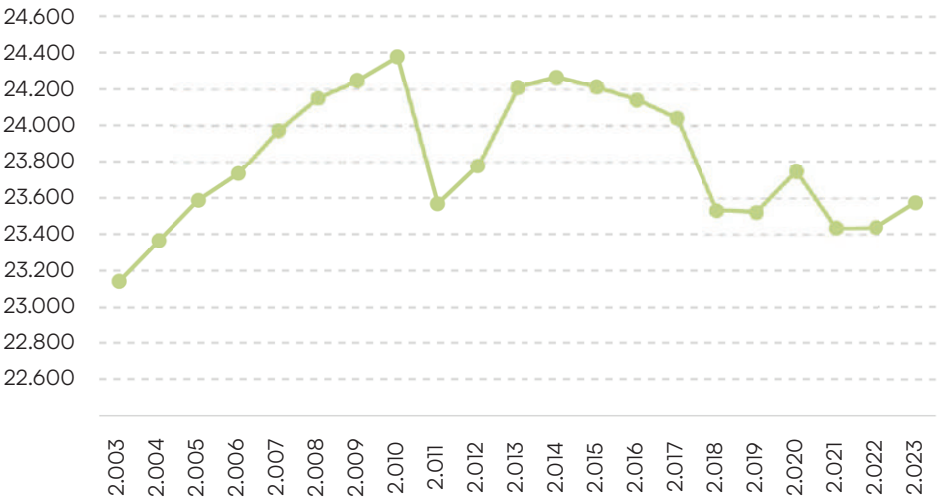


Chart 03. Residents origin in Albenga

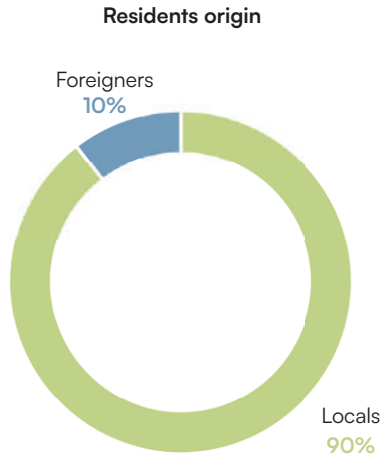
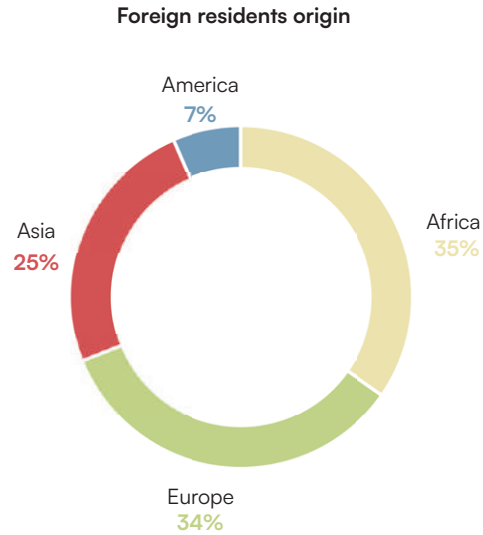


Chart 05. Origin of foreign residents in Albenga



Population data indicate that migration inflows are consistently slightly higher than outflows. Although the numbers remain modest, this pattern suggests a slow but steady process of growth. Over the last twenty years, more than 60% of new residents have come from foreign countries, contributing to a gradual diversification of the city's social fabric. This change has begun to influence both how the city is perceived and how it is experienced on a daily basis, a dynamic that will be explored further in later sections.

seasonal visitors and temporary residents alters the interaction between locals and newcomers, and likely influences the way the urban fabric has developed, as well as the spatial distribution of different population groups.

Although overall demographic growth remains limited, these migration patterns point to a gradual transformation. Albenga's urban and social structure appears to be slowly adapting to new forms of occupation, use, and mobility, reinforcing its character as a small but dynamic coastal city.

Rather than expanding through permanent population growth, Albenga has developed mainly as a tourist destination. This condition does not significantly affect the number of registered inhabitants, but it strongly shapes everyday life and social relations. The presence of

Chart 04. Albenga's migration movement in the last 20 years.

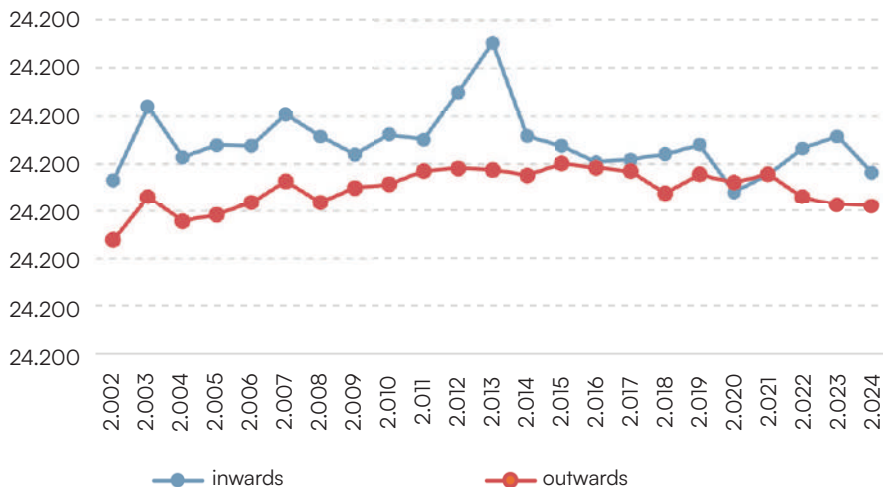
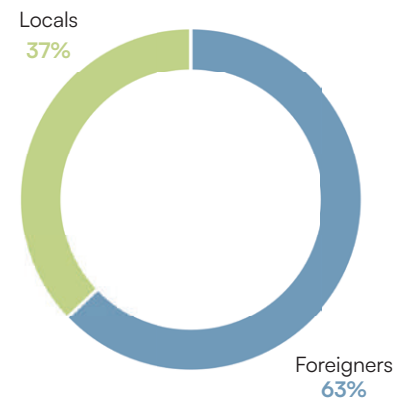


Chart 06. Origin of migrants inwards in Albenga



Territorial Scale Albenga's plain

Localization

River, Plain, and Flood Vulnerability

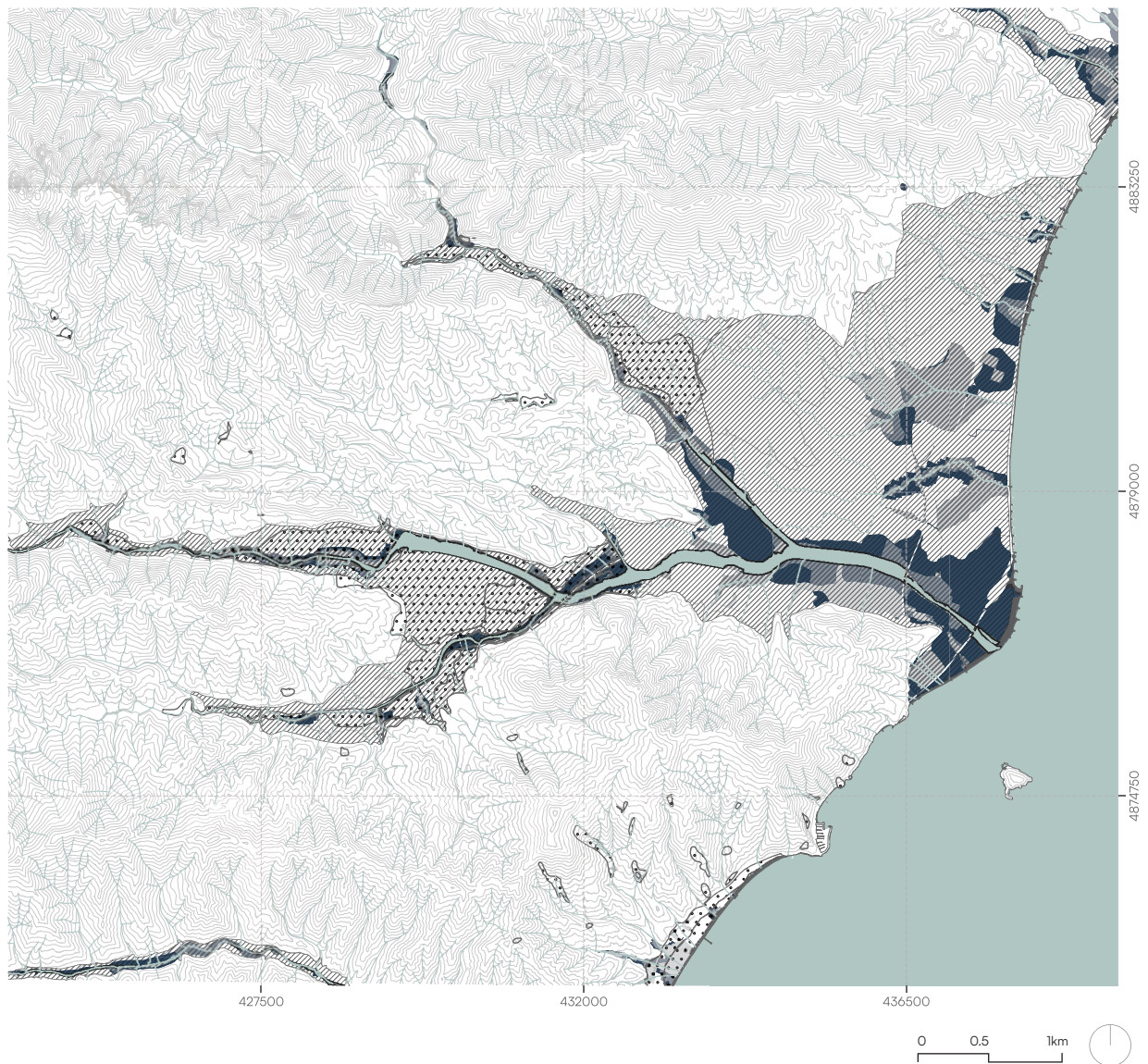
Understanding how Albenga functions today requires a close reading of its terrain and water systems. This section focuses on the geological structure of the Albenga plain and on the Centa River as the main agent shaping both the landscape and the city's spatial dynamics. By examining the composition of the land and the behavior of water over time, this analysis highlights how past transformations, particularly changes in the river's course, continue to influence present-day conditions. The section concludes with the interpretation of flood-risk and watershed maps, which reveal the areas most exposed to environmental vulnerability and the broader territorial processes at play.

tense rainfall and high-discharge events.

This geological condition explains both the fertility of the plain and its fragility. The same porosity that supports agricultural productivity also increases vulnerability to flooding and ground instability. Reading these geographical maps therefore allows an initial understanding of how risk and productivity are closely intertwined in Albenga, setting the foundation for interpreting the river's historical and contemporary role.

Albenga's territorial configuration is deeply shaped by the Centa River system, which defines both the city's productive landscape and its exposure to environmental risk. The flood-risk map shows that the river flows through low-lying areas composed mainly of unconsolidated and highly porous materials. These soils are especially sensitive to water saturation during in-

Map 05. Flood risk analysis



Flood risk Analysis

The flood-risk map highlights areas along the Centa River and the coastline that are exposed to frequent inundation, particularly under 50- and 100-year return period scenarios. These zones often coincide with geologically unstable soils, increasing the likelihood of erosion and ground failure during flood events.

Gentle slopes across the plain allow floodwaters to spread laterally, while higher and more consolidated geological units show lower susceptibility. The map clearly demonstrates how geological conditions directly influence flood behavior, identifying the river corridor as a critical space where risk management and territorial planning must converge.

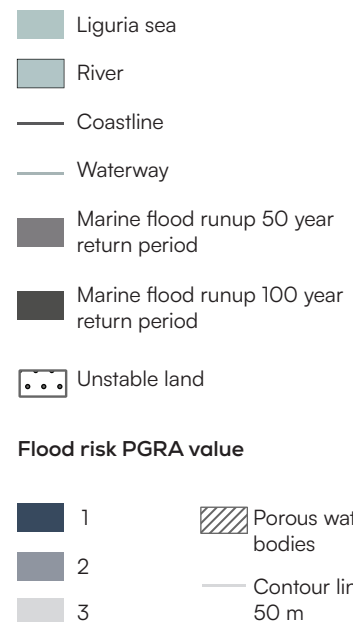




Fig 09. "The Centa as a source of life for the community". Pag 20. Croce Bianca. (2007). Albenga: Un Secolo di Storia (1900–2000)

The Centa river in History

The Centa River is a unique watercourse within the Ligurian context. It was formed by the confluence of the Arroscia and Neva streams at Leca di Albenga, historically known as Caput Centae. This confluence did not occur naturally but resulted from a deliberate hydraulic intervention between the late 12th and early 13th centuries. The outcome was a short river, only three kilometers long, whose impact on Albenga's territorial development has been disproportionate to its size.

By the mid-13th century, the current river course was fully consolidated. Several scholars suggest that this intervention was also driven by the political and strategic interests of the Genoese Republic, aimed at controlling Albenga's ancient port. The redirection of the river triggered progressive sedimentation across the plain, lead-

ing to the gradual silting of the harbor and the weakening of the city's maritime role. This process profoundly altered Albenga's relationship with the sea and marked a long-term shift in its economic and spatial orientation.

Despite its limited length, the Centa drains a vast watershed of approximately 429 km², fed by complex Alpine and Apennine valleys. Over time, the river became a critical resource, reinforcing Albenga's territorial autonomy. During the Early Modern period, it supported agricultural productivity and early industries, supplying water to mills and tanneries across the plain. At the same time, it remained a constant source of risk, with recurrent floods shaping both land management practices and urban development.



Fig 10. " Washerwomen in the Centa River during 1920-1930 ", Pag 40. Albenga di un tempo. Vol 1 Simoncini. G (1987)



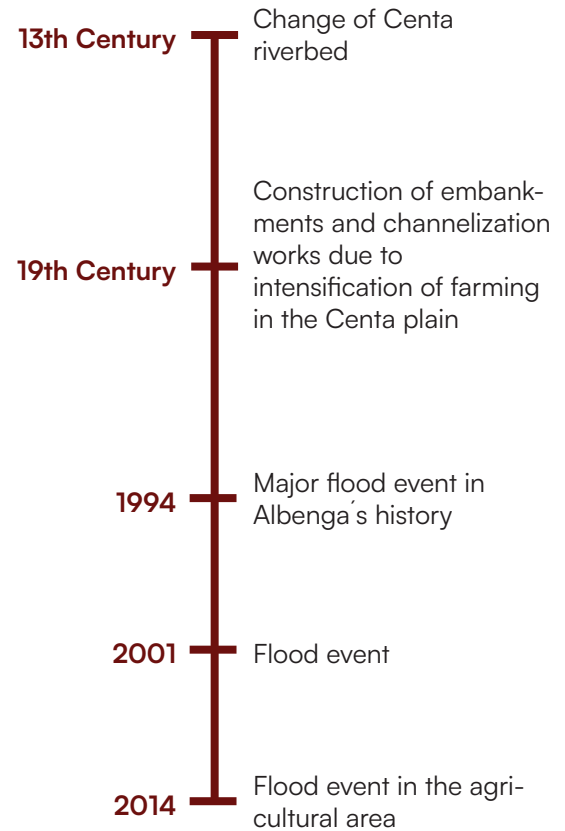
Fig 11. " Albenga by the Centa River in 1900 ", Pag 34. Albenga di un tempo. Vol 1 Simoncini. G (1987)



Fig 12. "1994 Catastrophe the Centa flooding.



Fig 13. "2014. Flooding of the Centa".



Flooding trough history

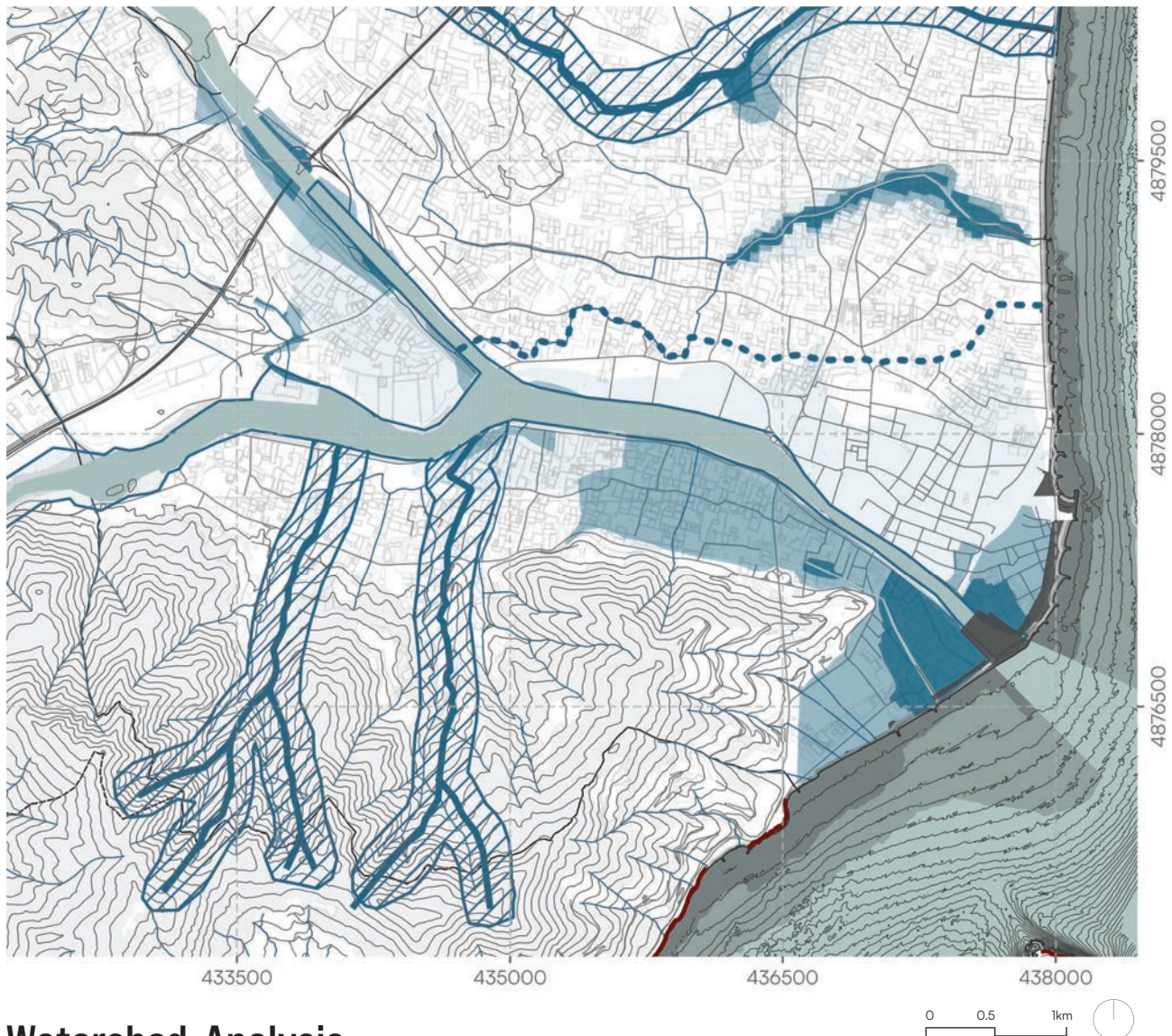
Around the 19th and 20th centuries, urban expansion and the construction of embankments progressively constrained the river, reducing its natural mobility without eliminating flood hazards. Major flood events, such as those in 1994 and the early 2000s, demonstrated the limits of purely infrastructural control. Prior to these events, the Centa maintained a close relationship with everyday life, serving recreational and domestic uses, as documented in historical pictures.

The flood of November 5, 1994 marked a turning point for the river history. An intense and prolonged rainfall caused the river to overflow, inundating streets, damaging infrastructure, and exposing the vulnerability of the Albengan territory.

This event triggered widespread debate on risk management and reshaped the perception of the river.

Since then, flood mitigation measures, ranging from reinforced embankments and dredging to monitoring systems and land-use regulation, have been implemented. More recently, attention has shifted toward ecological approaches, recognizing the Centa as both a source of risk and a fragile system essential to Albenga's sustainable future.

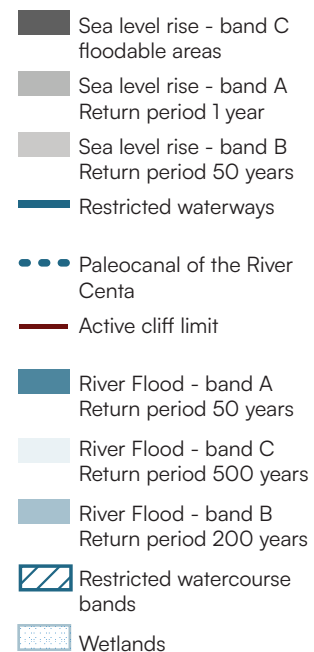
Map 06. Flood risk analysis



Watershed Analysis

At a broader local scale, the watershed risk map helps to have more understanding of the surface runoff dynamics. Drainage networks, riverbeds, and constrained waterways define flow paths that rapidly take rainfall toward urban areas. In areas characterized by steep slopes and high landslide susceptibility, intense precipitation accelerates soil erosion and sediment transportation, reducing the hydraulic capacity of canals and further increasing flood risk.

Wetlands and low-gradient sectors function as temporary water storage areas; however, their buffering capacity turns limited during extreme events. In coastal and nearshore areas, the projected sea-level rise further restricts water discharge, generating backwater effects that increase both the frequency and duration of floodings. Put together, runoff dynamics, erosion processes, and coastal conditions underline the necessity of flood management strategies from upstream areas to the river's coastal outlets.



Territorial Scale

Albenga's plain

Climate

Phytoclimatic zones

Phytoclimatic zones are biogeographical units defined by a combination of climatic parameters, such as mean annual temperature, thermal range, and precipitation regime, closely associated with specific plant communities. Understanding these zones is fundamental for identifying potential natural vegetation and for developing conservation strategies, forest management plans, and ecological restoration frameworks.

In Italy, the most widely used phytoclimatic classification is that developed by Pavari (1916–1951), which divides the national territory into five main zones: Lauretum, Castanetum, Fagetum, Pinetum, and Alpinetum. Within Liguria, three of these zones are particularly relevant and directly influence Albenga's territory.

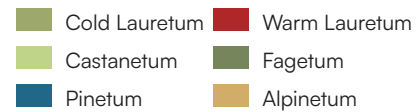
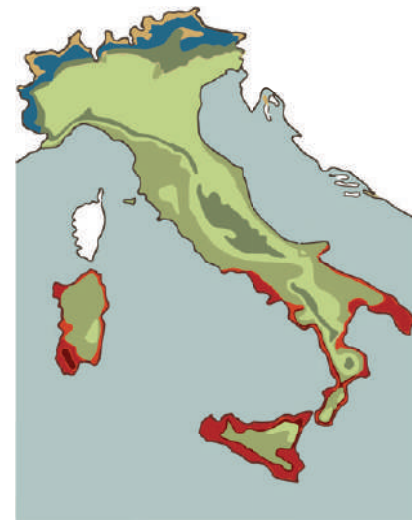
1. Lauretum (warm or mild Mediterranean zone) This zone is characterized by dry summers, mild winters, and temperatures that allow thermophilous species to thrive. It supports typical Mediterranean vegetation such as *Laurus nobilis*, olive groves, holm oak (*Quercus ilex*), cypress, and other sclerophyllous formations. In Liguria,

the Lauretum dominates the coastal strip, especially in the Riviera di Ponente and the Riviera di Levante.

2. Castanetum (temperate sub-Mediterranean zone) Located in hilly and pre-mountain areas, this zone represents the ecological transition from the coastal belt toward the interior mountains. It features intermediate temperatures and higher seasonal humidity, favoring chestnut forests (*Castanea sativa*), deciduous oaks, and mixed woodland formations. In Liguria, the Castanetum is mainly distributed across the slopes and inland hills, where increasing altitude gradually modifies vegetation composition.

3. Fagetum (mountain zone) Defined by cooler and more humid climatic conditions and higher annual precipitation, this zone is dominated by beech forests (*Fagus sylvatica*) and montane conifer species. In Liguria, the Fagetum is restricted to the higher elevations of the Ligurian Apennines.

Map 07. Italian Phytoclimatic zones



Map 08. Land use map



Land use map

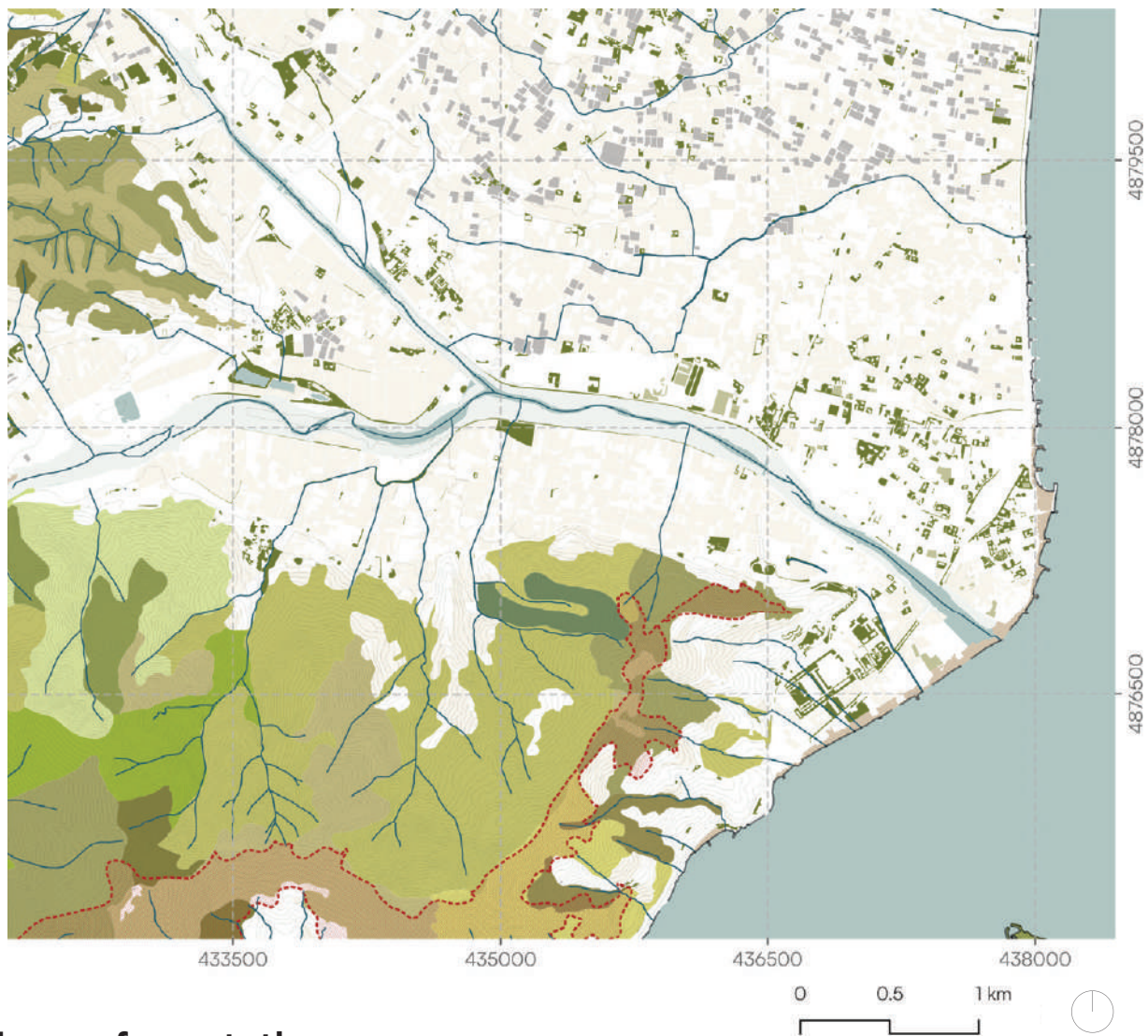
This map shows that Albenga is framed by surrounding mountain chains characterized by extensive coniferous forests, composed of species such as pine, fir, larch, and spruce. These ecosystems provide essential habitats for specialized fauna, explaining the presence of large, protected areas in the region.

At the same time, the territory includes broad zones of **thermophilic and sclerophyllous vegetation**, adapted to heat and seasonal drought and typical of the Lauretum phytoclimatic zone. The spatial distribution of forest types closely follows climatic and altitudinal gradients, reinforcing the relationship

between vegetation patterns and environmental conditions.

The agricultural plain represents a significant interruption within this ecological system. Its intensive land use fragments green areas, disrupts ecological corridors, and reduces habitat connectivity. A similar pattern appears within the urban fabric, where limited and unevenly distributed green spaces further constrain ecological continuity.

Map 09. Types of vegetation



Types of vegetation

From Coastal Scrub to Mountain Forests

The vegetation map of Albenga reveals a highly diverse ecological landscape with Peri-urban and mountainous areas with dense forest, particularly along the hills and ridges surrounding the Centa Valley. Areas such as Monte Bignone are home of pine forests and acidophilic oak woodlands, crossed with patches of Mediterranean scrub.

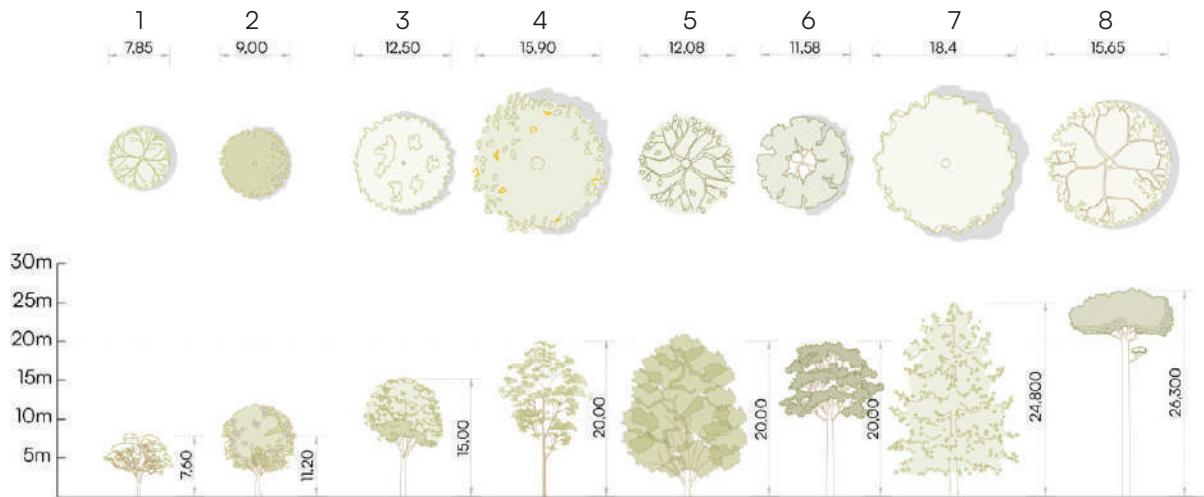
Closer to the coast, prevails the vegetation typical of the Lauretum, with thermophilic and sclerophyllous species adapted to dry summers and nutrient-poor soils. More towards

inland and upward, start to appear denser forest communities, combining mixed deciduous forests with coniferous sectors. This transition reflects an ecological gradient closely linked to altitude and moisture availability.

At the center of the territory, the agricultural plain stands out as a heavily transformed area, where cultivation patterns interrupt ecological continuity between peripheral forest systems.

- | | |
|--|--|
|  Pioneer horticultural scrub |  Pioneer horticultural scrub |
|  Ostrietus mesoxerofilo with scots pine |  Ostrietus mesoxerofilo with scots pine |
|  Thermophilous ostrich grove |  High scrub with arbutus and heather |
|  Shrubland with Coriaria Myrtifolia |  Coastal aleppo pine forest |
|  Coastal maritime pine forest |  Riparian polar grove |
|  Acidophilous oak forest with heather arborea |  Robinia |
|  Crossing paths for species in open environment |  Robinia sermonium |
| |  Urban green areas |

Large trees



- 1 **Olivo** - Olea Europea
- 2 **South European flowering ash** - Fraxinus Ornus
- 3 **Italian oak** - Quercus Pubescens
- 4 **European chestnut** - Castanea sativa

- 5 **Holm oak** - Quercus Ilex
- 6 **Maritime pine**- Pinus pinaster
- 7 **Austrian Oak**- Quercus cerris
- 8 **Stone pine**-Pinus pinea

Large Shrubs / Small Trees



- 1 **Myrtle**- Myrtus communis
- 2 **Filaria**- Phillyrea angustifolia
- 3 **Strawberry tree**- Arbutus unedo

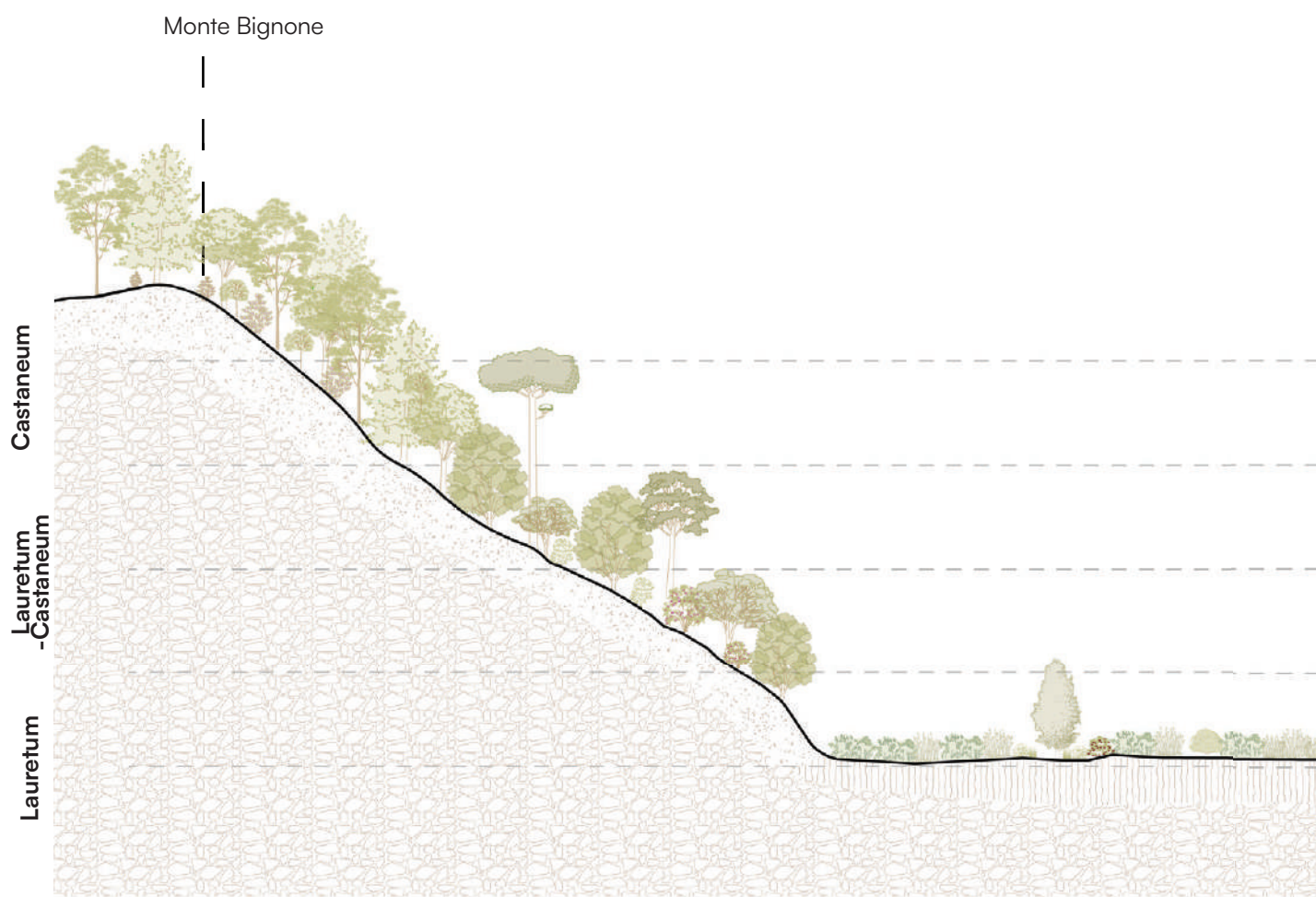
- 4 **Tree heath**- Erica arborea
- 5 **Lentisk**- Pistacia lentiscus

Shrubby And Low Bushes



- 1 **Mediterranean false brome** - Brachypodium retusum
- 2 **Rosmarin**- Rosmarinus officinali
- 3 **Thyme**- Thymus vulgaris
- 4 **Lavander**- Lavandula angustifolia

- 5 **Purple Cistus** - Cistus monspeliensis
- 6 **Curry plant**- Helichrysum italicum
- 7 **Grey-leaved cistus**- Cistus albidus
- 8 **White asphodel**-Asphodelus albu
- 9 **Cade**- Juniperus oxycedrus



Fauna present in Albenga

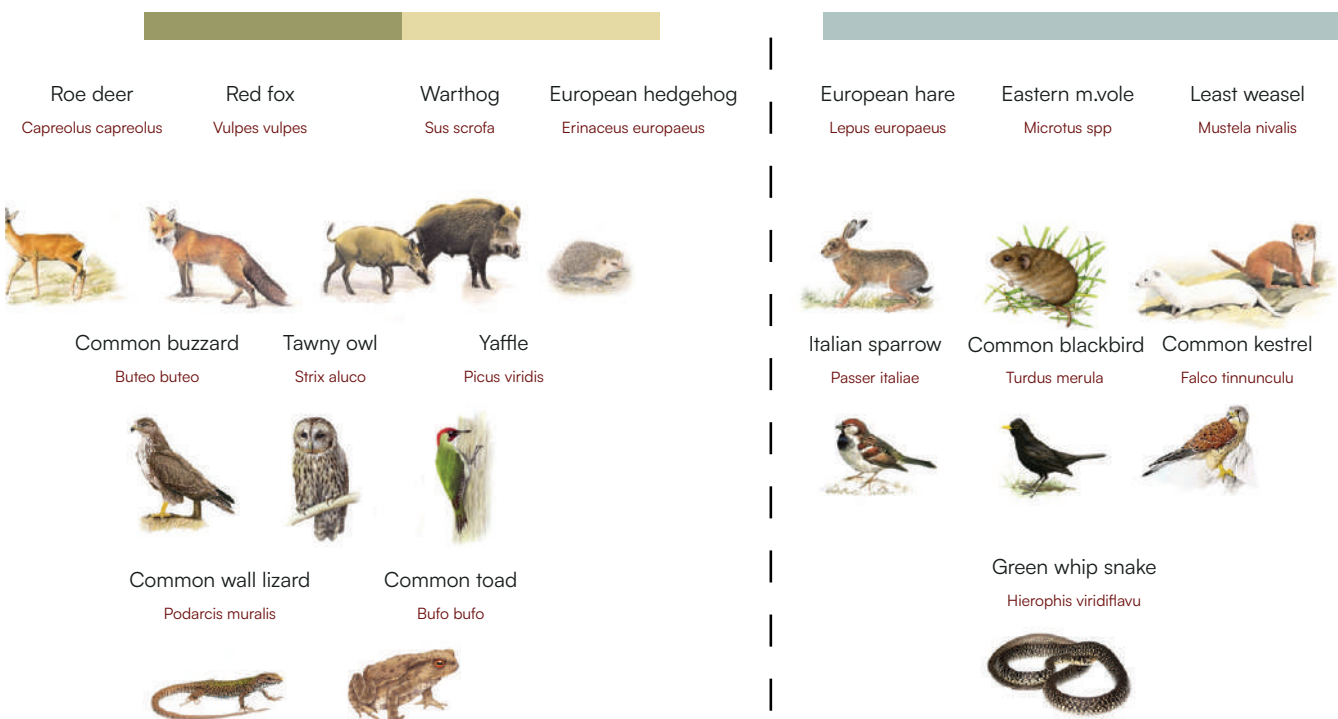
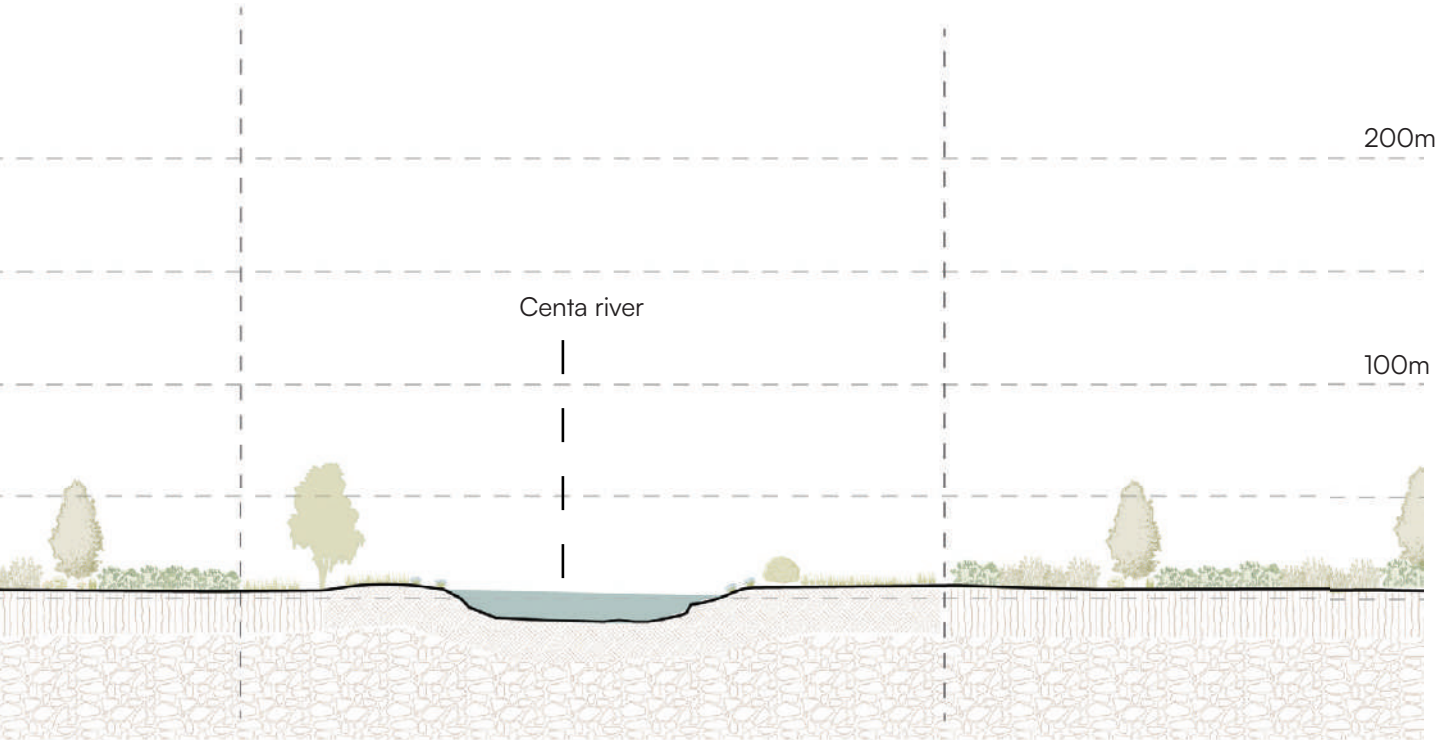
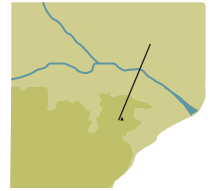


Fig 14. "Species found in Albenga Phytoclimates ". Note. Ecological diagram elaborated by the author. The figure includes photographic and illustrated material from multiple sources .See Refer- ences for full image credits.



Riparian zone

Lauretum



Albenga is located along the coastal belt of the Riviera di Ponente, placing most of its territory within the Lauretum zone and its associated mild Mediterranean climate. However, higher elevations, such as Monte Bignone and surrounding hillside settlements, lie within the transition between Lauretum and Castanetum, where cooler temperatures and increased humidity gradually modify vegetation and habitat conditions.

These environmental gradients, combined with human activities, influence not only vegetation patterns but also the distribution of fauna across the territory. Albenga occupies a strategic ecological position within the Ligurian coastal plain, where the Alpine, Apennine system meets the Mediterranean environment. This convergence generates a diverse scope of ecosystems that support a wide range of species, including amphibians, reptiles, small mammals, birds, and freshwater fauna,

Territorial Scale Albenga's plain

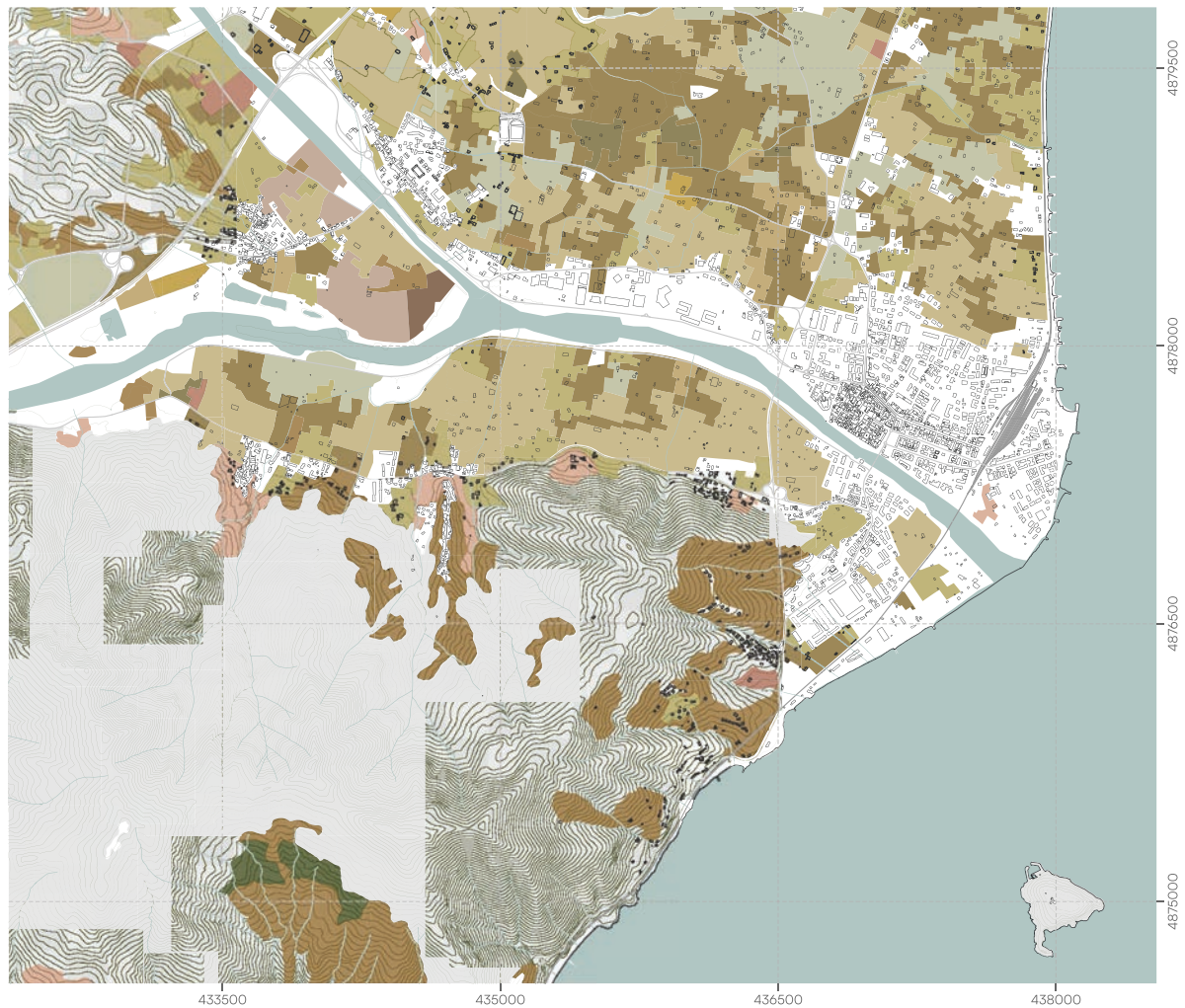
Agriculture

Agriculture in Albenga constitutes a highly specialized and economically strategic sector, rooted in a long-standing agricultural tradition and supported by the fertile plain and favorable microclimatic conditions of the area. The local productive system is primarily oriented toward intensive horticultural cultivation, with a strong focus on aromatic and medicinal plants, flowers, and vegetables, organized through key actors such as Albenga Plant and the cooperative L'Ortofrutticola di Albenga, which has historically structured agricultural production in the region. (L'Ortofrutticola Società Agricola Cooperativa 2025) Phyto-climatic zones in Albenga



Fig 15. Agricultural tradition in Albeng [Photography]. Note. From Liguria food (2018). The "rebirth" of the Albenga plain.

Map 10. Agricultural conditions



Agricultural conditions

The map highlights the strong presence of agricultural land surrounding Albenga's urban area, emphasizing the close relationship between the city and its rural context. The landscape is predominantly characterized by intensive agriculture, with a significant concentration of crops grown in greenhouses and under protective coverings, particularly within the alluvial plain.

Irrigated arable land and outdoor horticultural crops are widely distributed, benefiting from fertile soils and water availability linked to the Centa River. Permanent crops such as olive groves and vineyards appear in more fragmented parcels,

often in transitional zones between cultivated land and natural areas. Mixed cultivation systems and agroforestry areas contribute to the diversity of the agricultural landscape.

Overall, Albenga's agricultural system reflects a combination of modern intensive practices and traditional cultivation patterns, shaping both the territorial structure and ecological balance of the plain.

- Agroforestry areas
- Permanent annual crops
- Agriculture crops with natural spaces presence
- Outdoor crops in greenhouses
- Crops in greenhouses
- Olive groves
- Outdoor crops in greenhouses
- Arable land in non irrigated areas
- Crops in greenhouses
- Simply arable land in irrigated areas
- Outdoor horticultural crops
- Complex cultivation and particle systems
- Vineyards
- Nurseries
- Mixed vineyards and olive groves

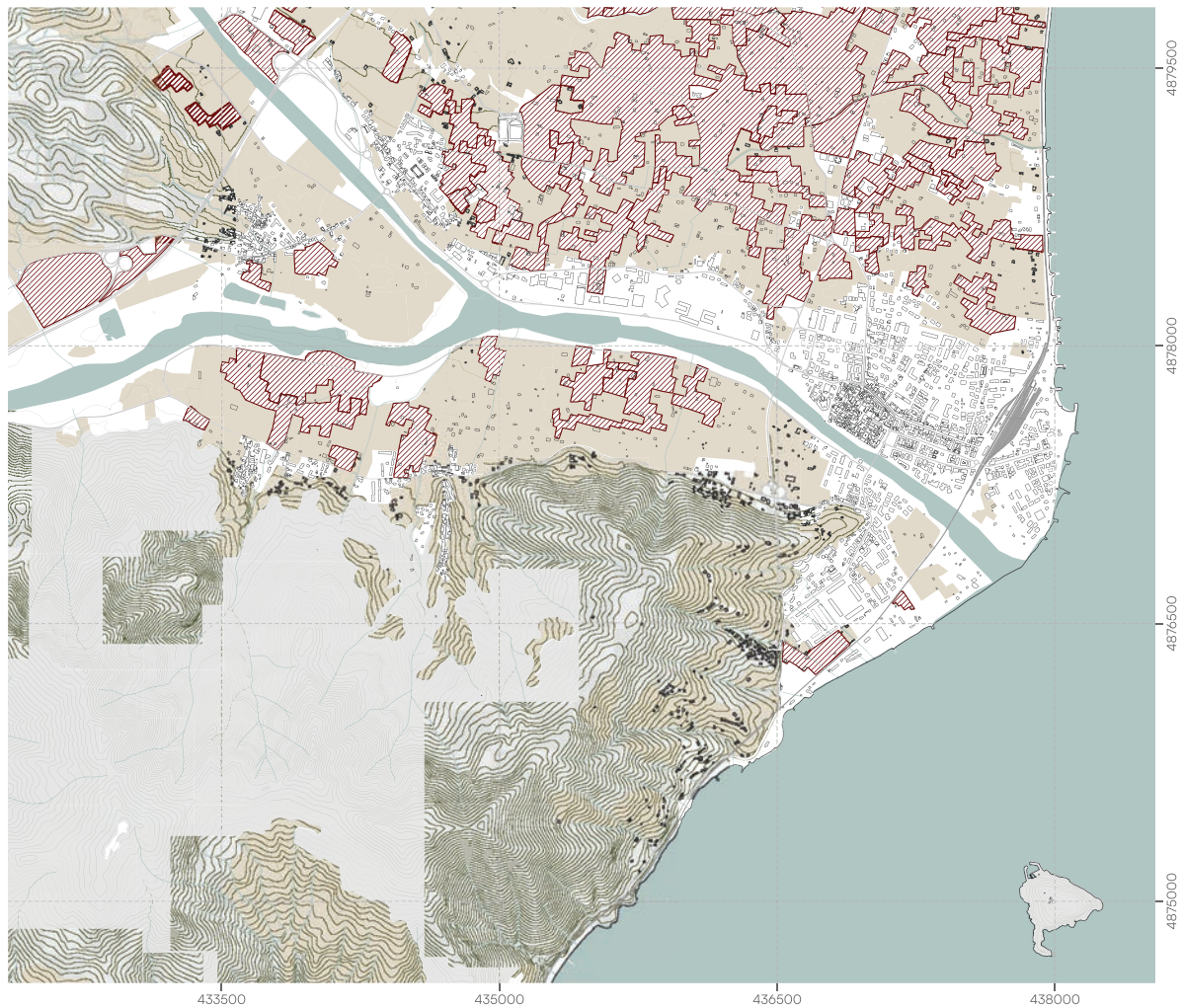


Fig 16. Floriculture in Albenga. [Photography], Note. From Liguria food (2018). The "rebirth" of the Albenga plain.



Fig 17. Agricultural landscape in Albenga[Photography], Note. By Hurtado. A.Laura

Map 11. Soil permeability



Soil permeability

The map reveals a landscape dominated by greenhouse-based cultivation, reflecting a technologically advanced and high-value agricultural model. While this system ensures productivity and economic efficiency, the extensive presence of covered surfaces significantly limits soil permeability, contributing to the artificialization of the agricultural plain and altering natural hydrological processes.

This condition underscores the need to balance agricultural intensification with environmental and territorial sustainability within urban and landscape planning frameworks.

Additionally to green houses, one of the most used methodologies of cultivation in Albenga are plastic covered horticulture, creating a landscape of impermeable surfaces connected that are home to different pot crop productions

- Non Permeable agricultural area
- Plastic-covered or closed intensive horticulture
- Open agricultural area
- River

Territorial Scale Albenga's plain

Heritage

One of the main components shaping Albenga's identity is its deep and continuous relationship with history. The city hosts a rich constellation of archaeological remains and urban traces that testify to successive phases of occupation, from Roman foundations to medieval consolidation, from shifting coastlines to rapid modern expansion. These layers reveal not only the physical transformation of the city, but also the evolving relationship between landscape, infrastructure, and settlement.

This section offers a concise reading of Albenga's heritage through two complementary lenses. First, a diachronic analysis traces the city's development across key historical periods, using maps and spatial evidence to understand how Albenga has been shaped over time. Second, a synchronic analysis focuses on what remains visible today, highlighting how historical distances, particularly between the city, the coastline, and the Centa River, have radically changed. Finally, a selection of archaeological sites is presented, emphasizing their current conditions and their role within the contemporary landscape

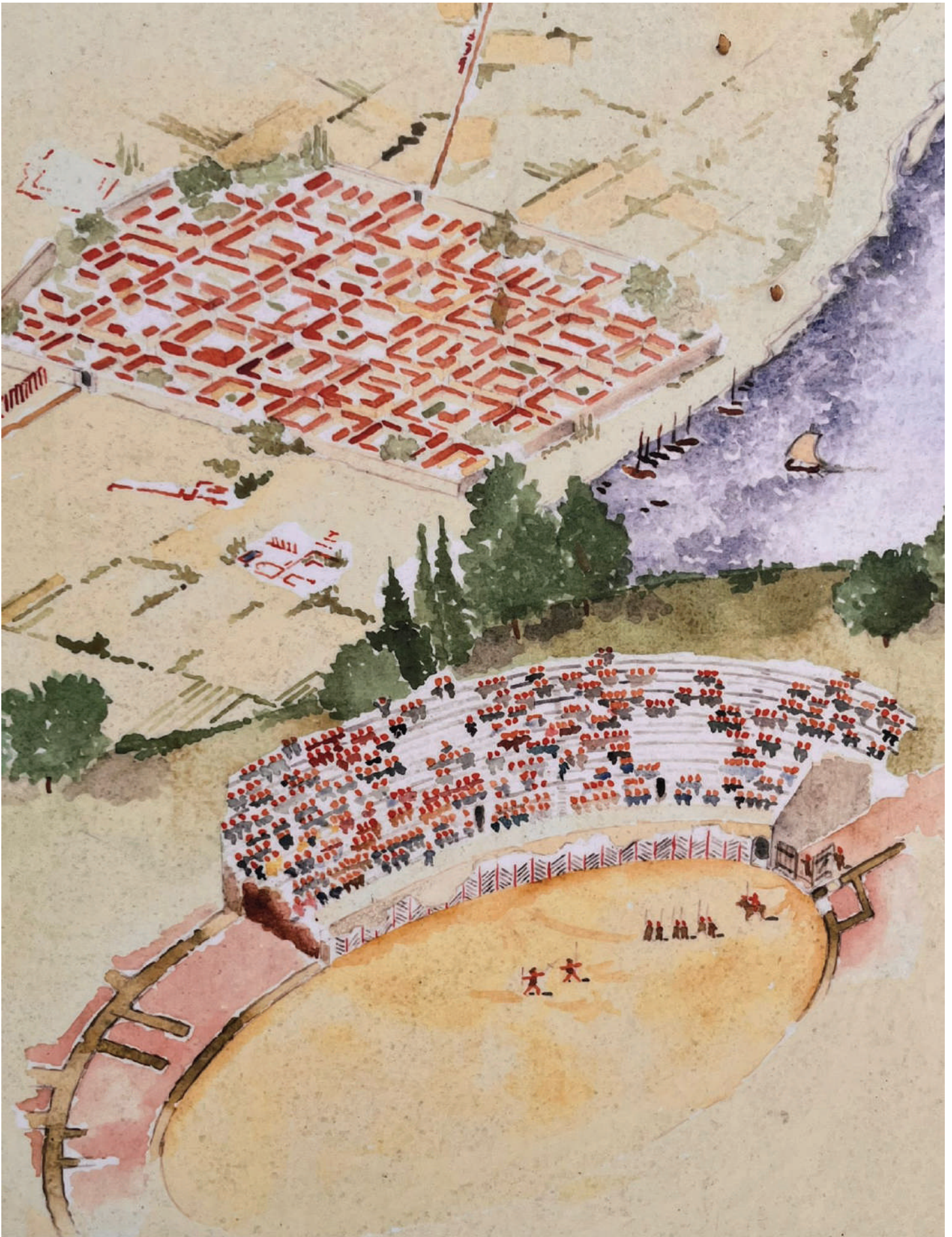
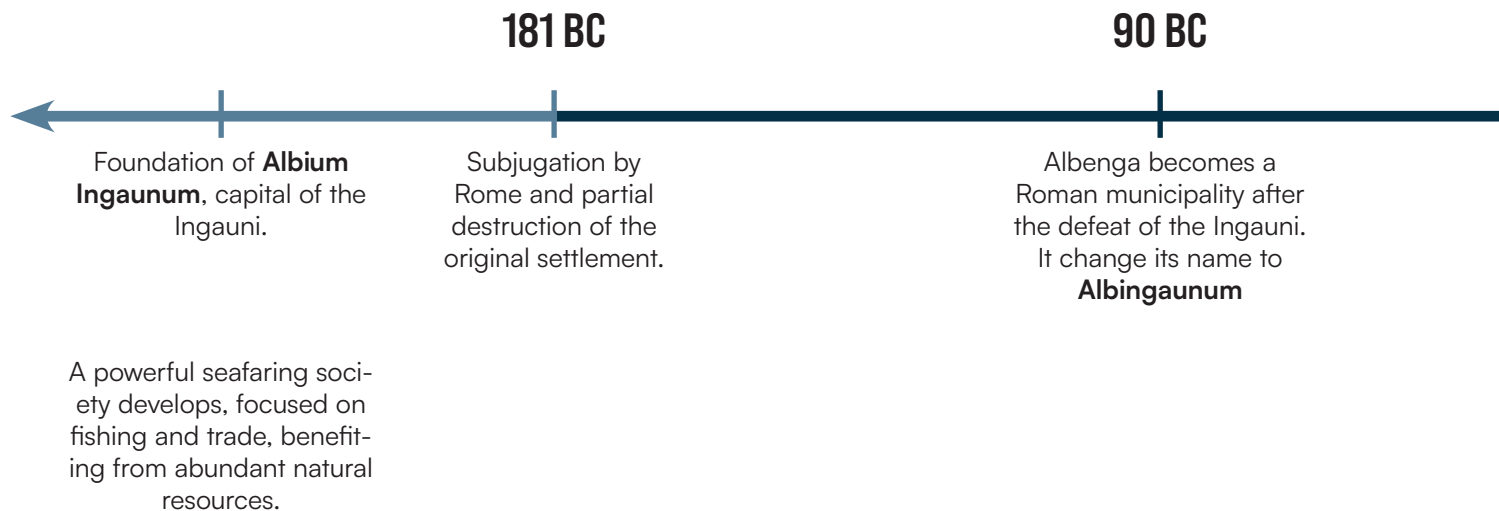


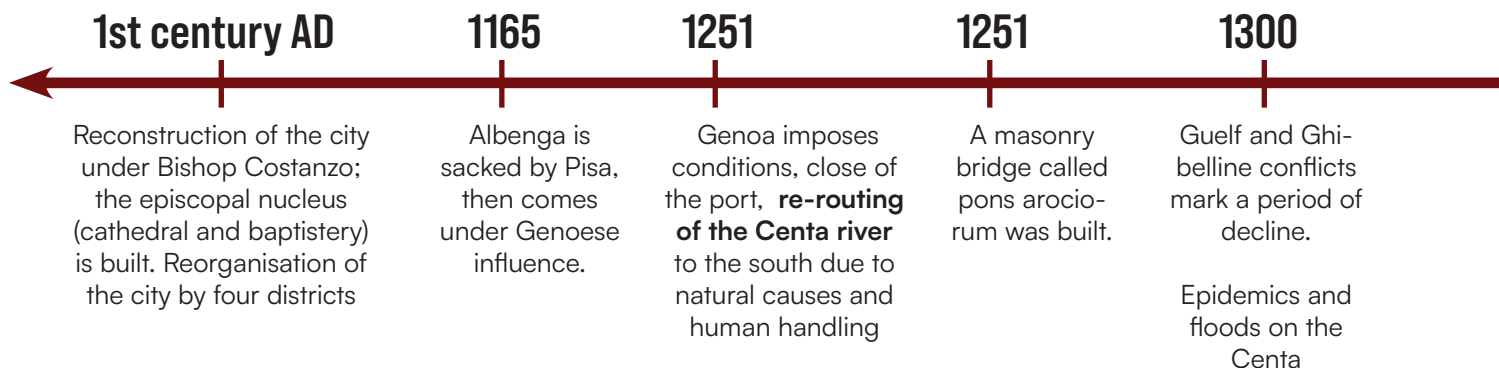
Fig 18. Albenga during roman time[Painting]. Note. By Landi S (2003)

Historical timeline Albenga 's Development

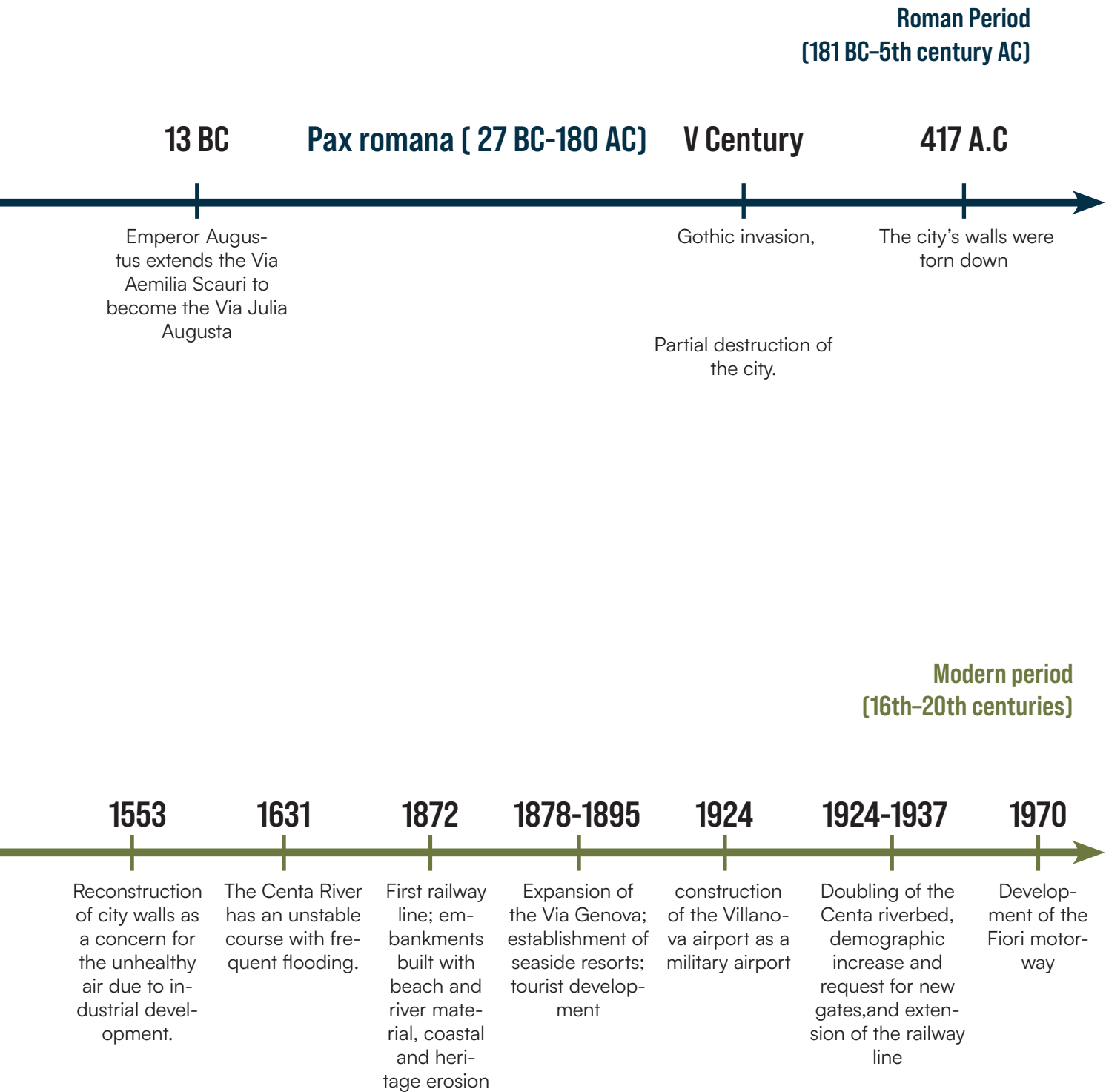
Pre-Roman Period (6th–4th centuries BC)

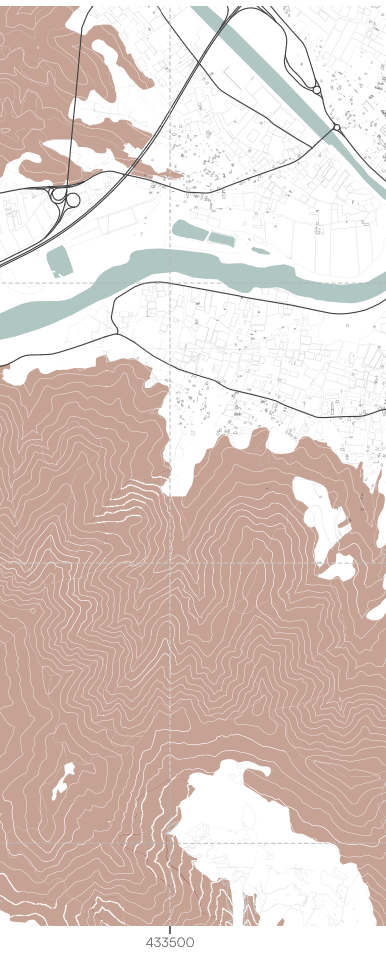
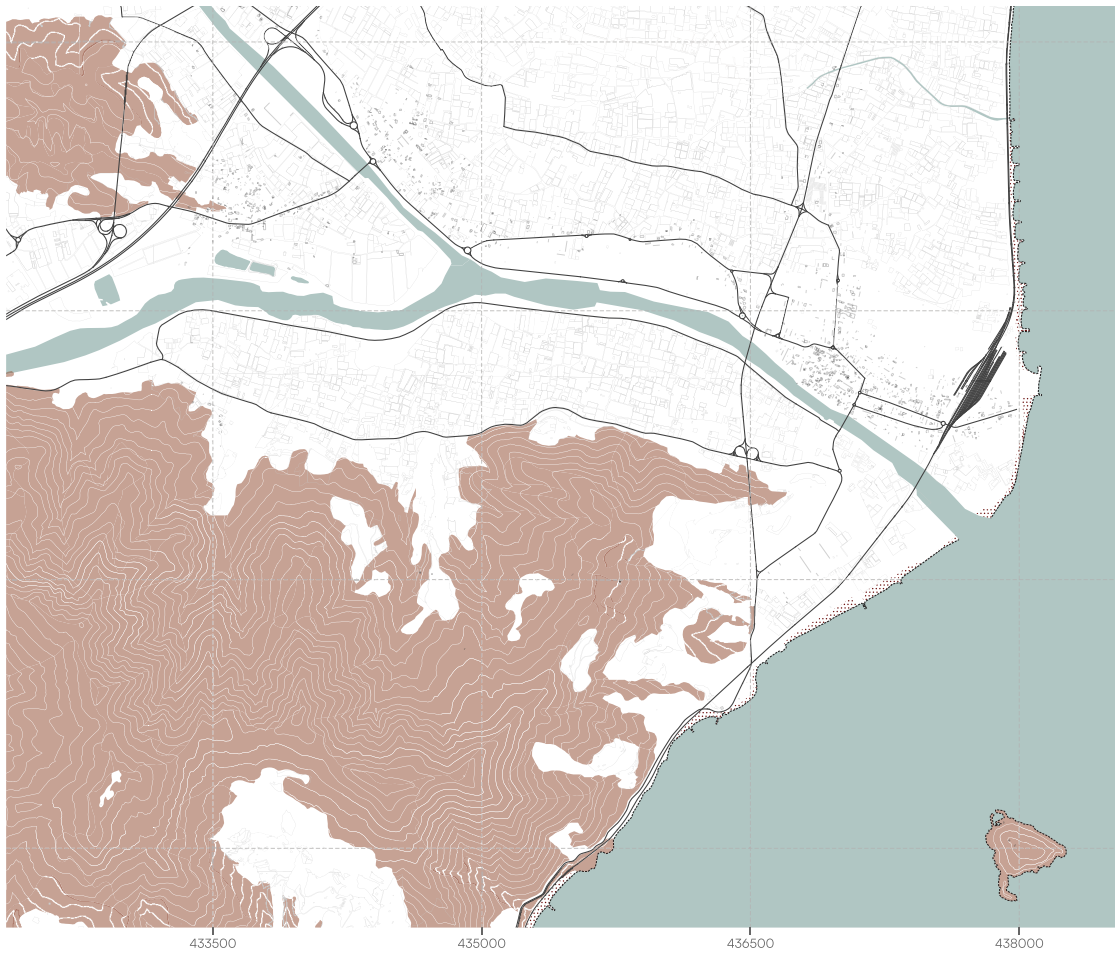
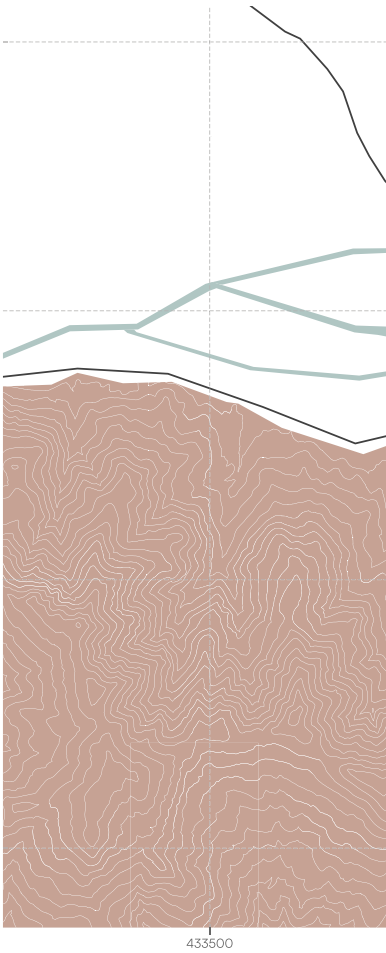
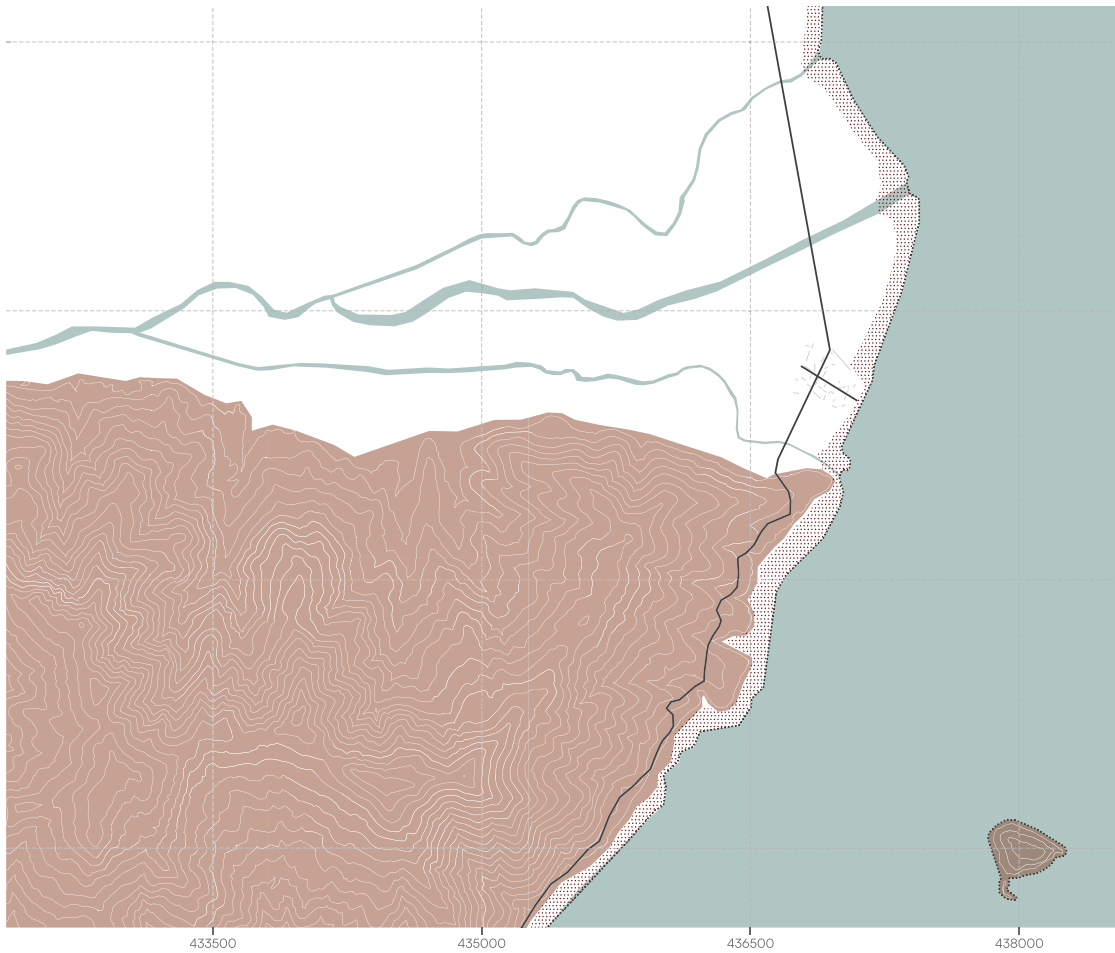


Middle ages (5th–15th centuries)

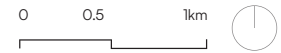


The whole plain was intensively cultivated and rural centres were organised during the 11th and 12th centuries





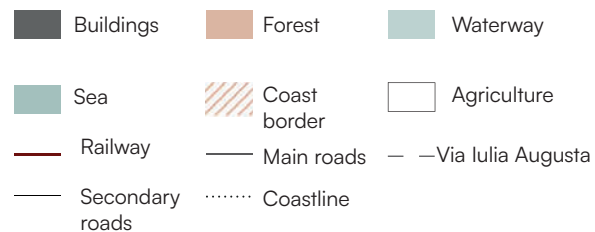
Diachronic map



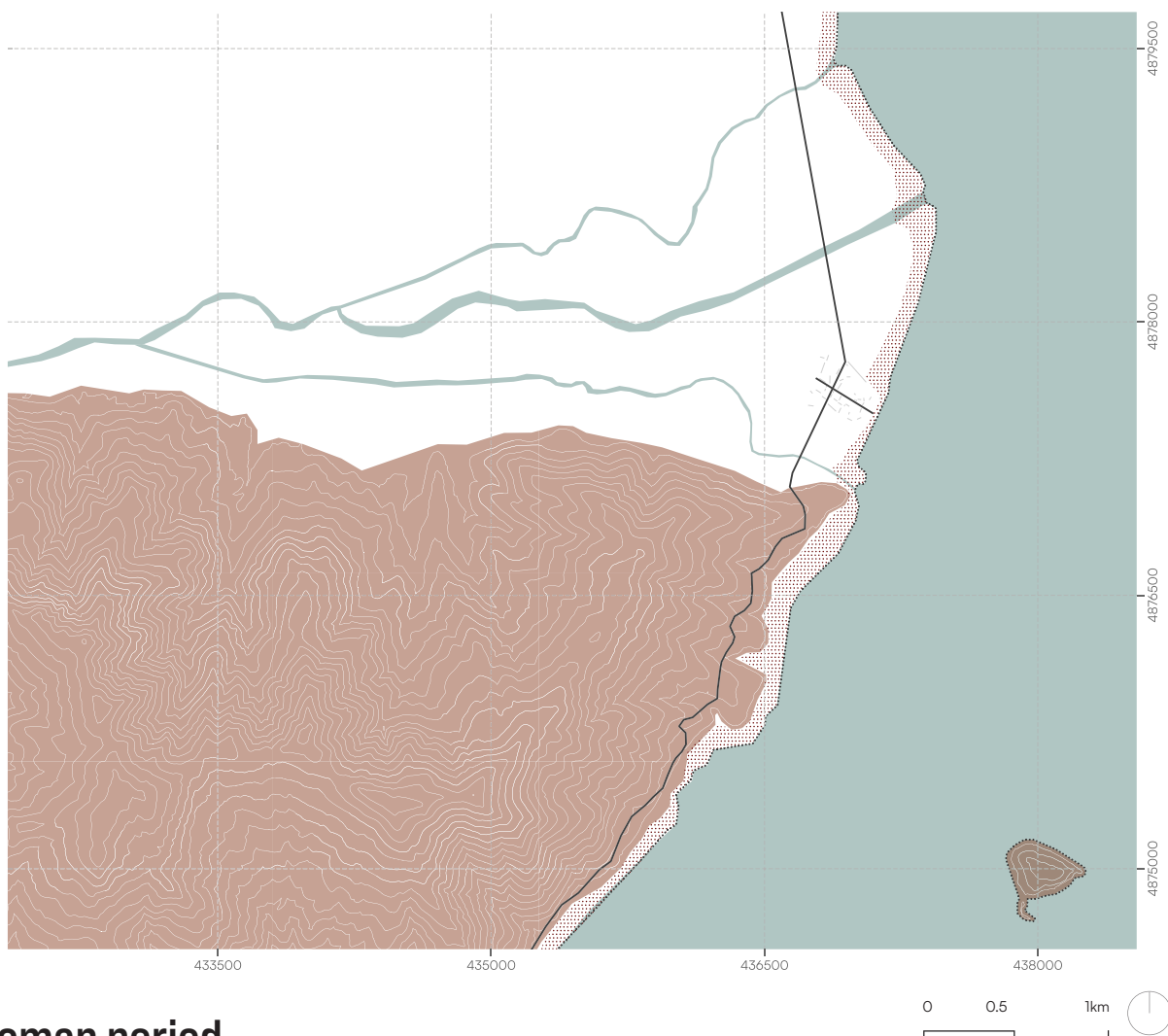
The selection of four historical moments, Roman, Medieval, Military (1940s), and Tourism Boom (1980s), reflects their decisive influence on Albenga's urban and landscape structure. Through the comparison of historical and contemporary maps, these phases emerge as moments of profound transformation, during which the city expanded, shifted, or reoriented itself, often without fully integrating earlier spatial logics.

The Roman period established the foundational geometry of the territory through the Via Julia Augusta and an orthogonal urban layout. The Medieval era introduced a dense and fortified urban core, redefining circulation patterns and reinforcing the separation between city and countryside. The military phase of the 1940s added strategic infrastructures that altered mobility systems and reshaped the coastline. Finally, the tourism boom of the 1980s accelerated coastal urbanization and the transformation of agricultural land, producing a clear fragmentation between the historic city and new developments oriented toward the sea. Read together, these moments reveal a city shaped by successive layers of intervention, each responding to specific socio-political and economic pressures.

This diachronic reading highlights not only Albenga's evolving identity, but also the recurring lack of continuity between phases, where new developments often replaced or disregarded previous structures. Recognizing these ruptures is essential for the landscape project. Understanding how historical layers coexist, or fail to do so, allows for strategies that reconnect fragmented urban fabrics, revalue ecological and agricultural systems, and guide future transformations in continuity with the deeper temporal narrative of Albenga's territory.



Map 12. Historical map, Albenga in Roman times



Roman period

[181 BC–5th century AC]

The integration of Albenga, then Albiun Ingaunum, into the Roman Republic began in 181 BCE, following the defeat of the Ingauni by Lucius Aemilius Paullus. The city became a municipium, initiating a gradual but decisive process of Romanization. This process was reinforced in 89 BCE with the granting of *ius Latii*, and completed in 45 BCE with full Roman citizenship, fully incorporating Albingaunum into the administrative framework of Roman Italy.

It was structured by two main axes: the *Cardo Maximus* (today's Via Medaglie d'Oro) and the *Decumanus Maximus* (aligned with Via D'Aste and Via Ricci). These axes generated a regular grid organizing public and private spaces, derived from Roman military planning models.

- Forest
- Beach
- River
- Sea
- Building
- Roads
- Coastline

The urban fabric was reorganized according to Roman orthogonal planning principles. A fortified *castrum* defined the walled city, struc-

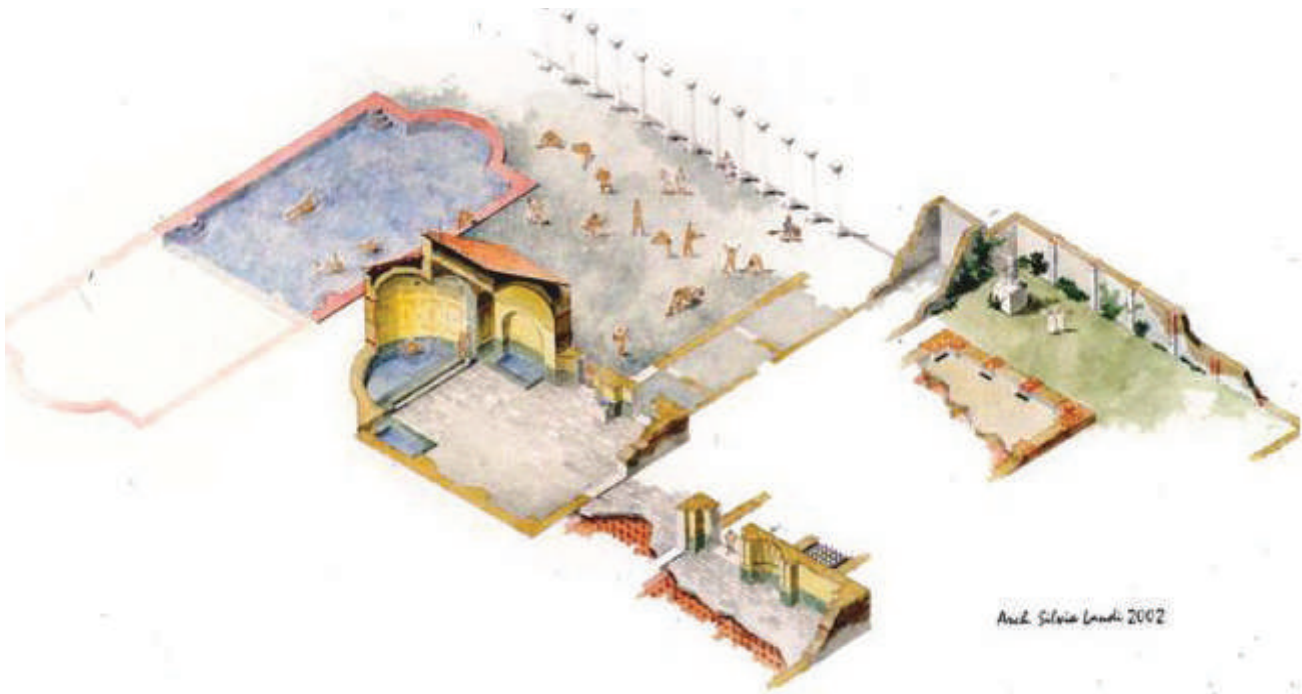


Fig 19. Roman thermes, Silvia Landi 2002". (Source: [https://www.pps.org/ reference/grplaceat/](https://www.pps.org/reference/grplaceat/))

In 13 BCE, Emperor Augustus extended the Via Aemilia Scauri into the Via Julia Augusta, reinforcing Albenga's role as a strategic node within the Roman road network connecting northern Italy to Gaul. This infrastructural development supported a phase of intense urbanization, marked by the construction of a fluvial port on the Centa River, a forum, an amphitheater, baths, aqueducts, necropolises, and port facilities.

By the 5th century CE, Gothic invasions led to partial destruction. The reconstruction of the city walls in 417 CE reflects attempts to restore resilience amid instability. Archaeological stratification shows that centuries of sedimentation raised ground levels by several meters, leaving many Roman remains more than six meters below today's surface—an enduring material record of the city's layered history.

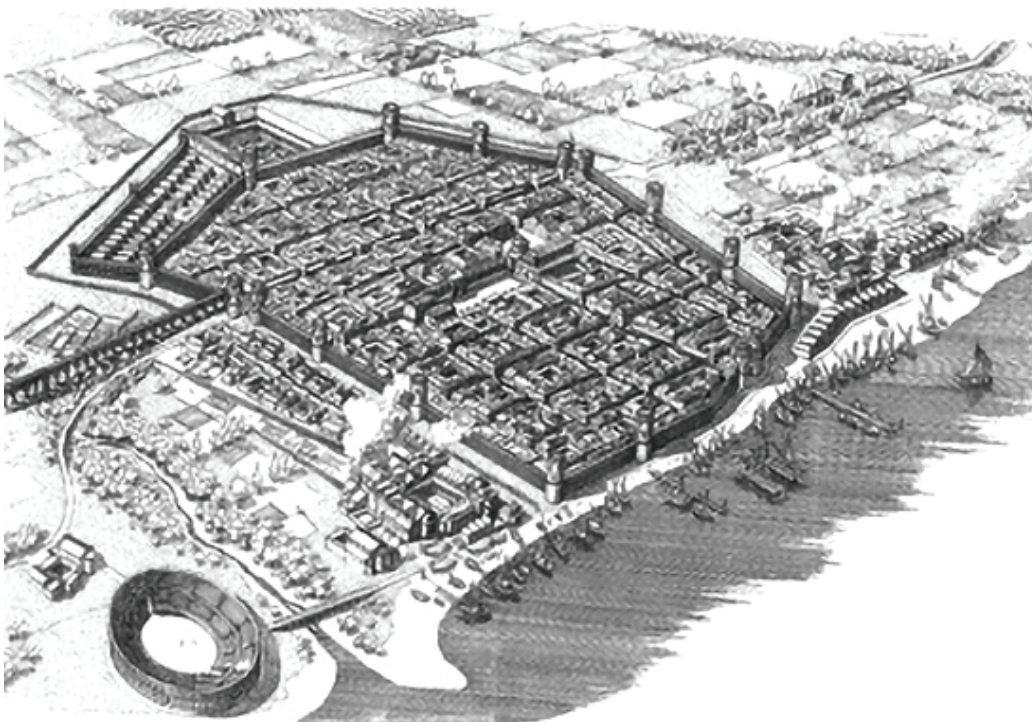
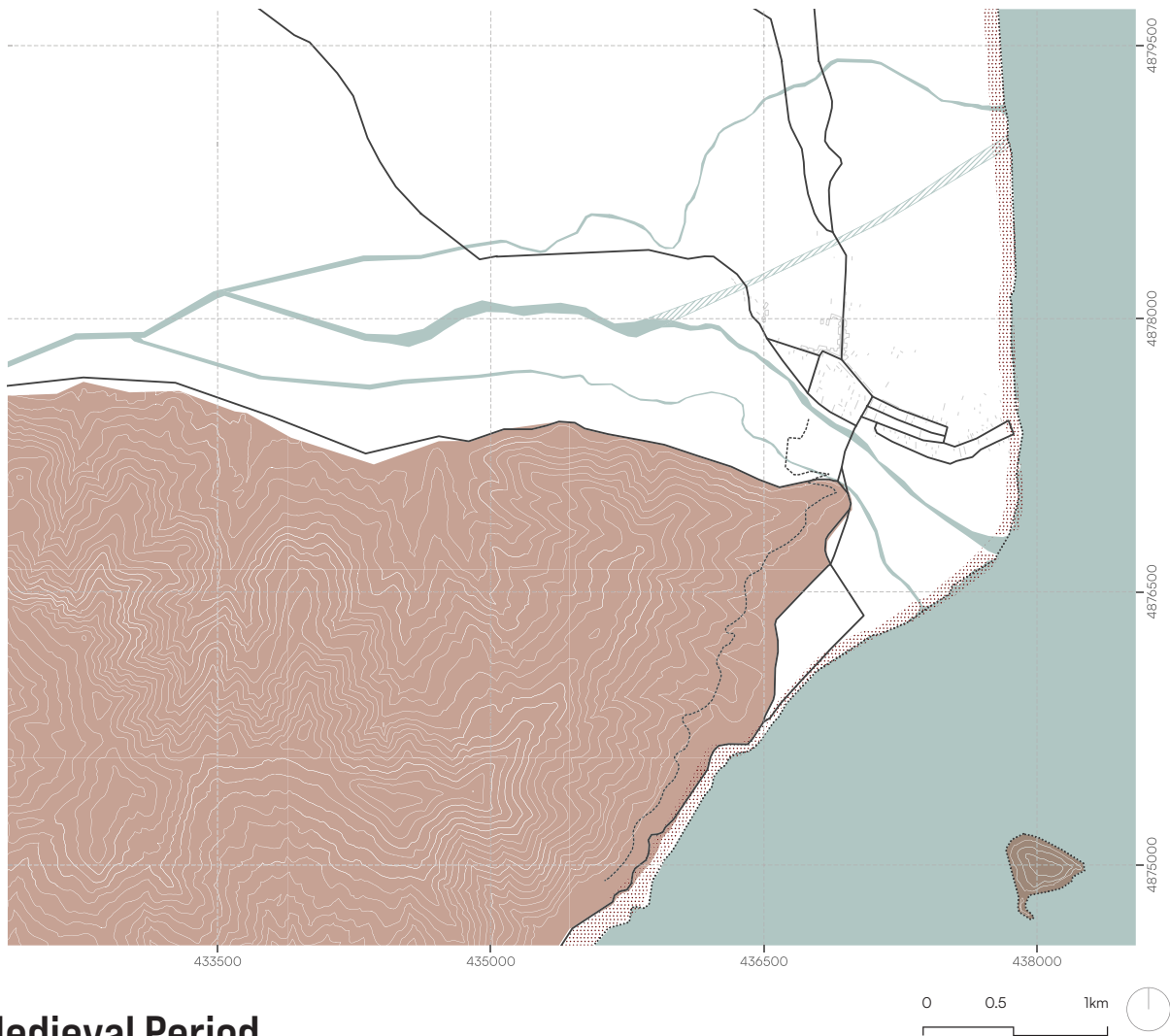


Fig 20. The ancient Albingaunum. (Source: <https://www.romanoimpero.com/2020/05/albingaunum-albenga-liguria.html>)

Map 13. Historical map, Albenga in Medieval times



Medieval Period

[5th–15th centuries AC]

Between Late Antiquity and the Middle Ages, Albenga underwent a major transformation driven largely by changes in the Cventa River's course. Until the 13th century, the river flowed east of the city, supporting a port at Vadino that connected Albenga directly to the sea. Progressive westward shifts, caused by sedimentation and reinforced by artificial channels serving early industries, led to the silting and eventual disappearance of the port.

As the Centa came into contact with the western city walls, recurrent floods and alluvial deposits raised ground levels and buried earlier layers. Albenga gradually shifted from a maritime hub to a predominantly agricultural city, while the river evolved from a productive asset into a constant threat.

- Forest
- Beach
- River
- Sea
- Building
- Roads
- Coastline

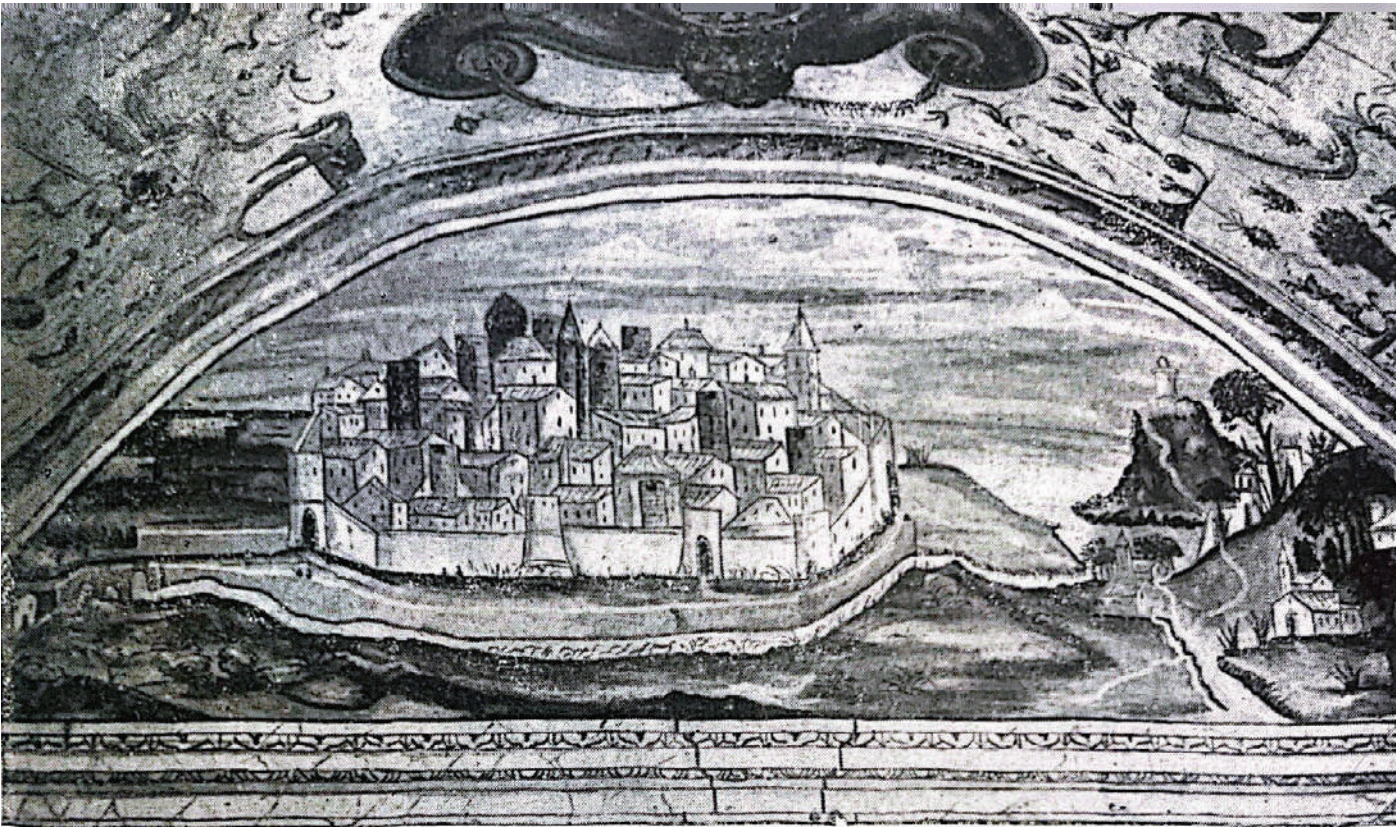


Fig 21. Albenga by the end of XVI century Lamboglia, N. (1983). Albenga romana e medioevale. Istituto Internazionale di Studi Liguri.

Between the 11th and 13th centuries, the city consolidated within its Roman perimeter and was divided into four districts, Torlaro, Santa Maria, San Siro, and Sant'Eulalia, organized around Piazza San Michele, which replaced the Roman forum as the civic center. Towers, walls, and gates gave Albenga the fortified, vertical character typical of medieval communal cities. While agricultural expansion and early industrial activities supported growth, environmental vulnerability and political instability led to decline from the 14th century onward.



Fig 22. Albenga lithography C. Monte. (Source: Tra Centa e Roia 2005)

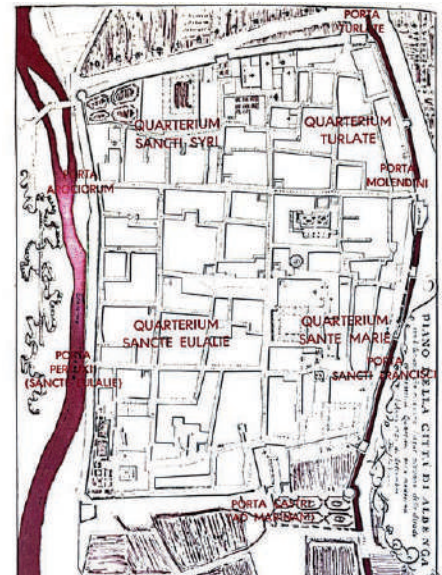
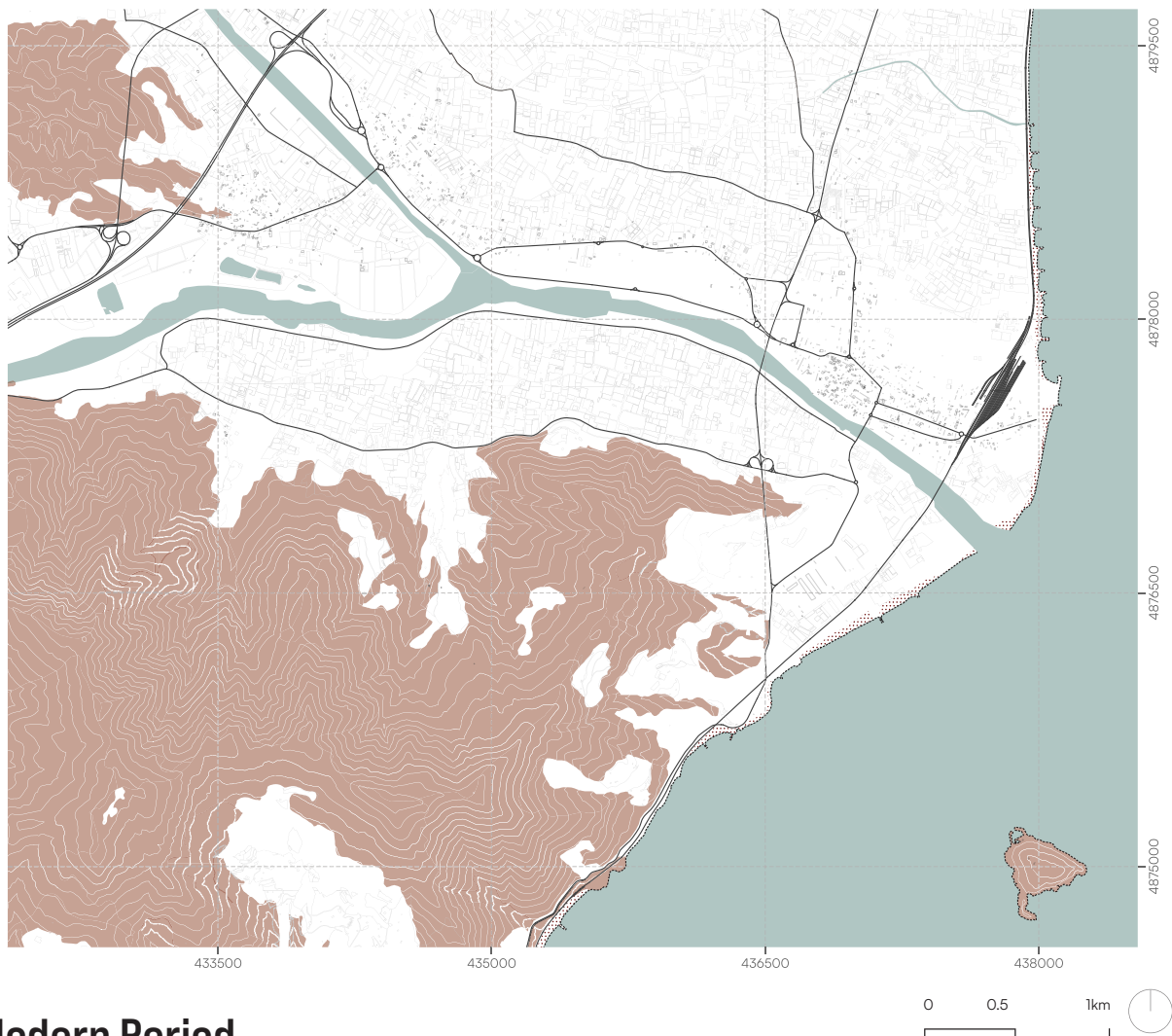


Fig 23. Old Albenga's plan by Matteo Vinzoni during 1750 Lamboglia, N. (1983). Albenga romana e medioevale. Istituto Internazionale di Studi Liguri.

Map 14. Historical map, Albenga in Modern times



Modern Period

[16th AC–20th centuries AC]

From the Early Modern period, Albenga's development was influenced by environmental instability and territorial management. Between the 16th and 18th centuries there was an agricultural reorganization and recurrent floodings of the Centa River that shaped the alluvial plain, where hydraulic interventions, such as Matteo Vinzoni's plan of 1751, attempted to control an unstable river system that progressively raised ground levels by approximately four meters compared to the Roman era. Despite stabilization by the late 18th century, floodings remained a persistent risk.

During the 19th century, Albenga experienced significant administrative and infrastructural transformations. After becoming a provincial capital in 1814 and later being reduced to an administrative district in 1863, the introduction of the railway in 1872 marked a decisive shift. Railway embankments built with river and coastal materials contributed to erosion, while the expansion of the Genoa railway line between 1878 and 1895 fostered tourism and the development of seaside resorts. These changes were interrupted by the 1887 earthquake, which damaged parts of the historic center.

- Forest
- Beach
- River
- Sea
- Building
- Roads
- Coastline



Fig 24. Albenga's urban expansion during the 19th century (Source: Wikipedia)

In the early 20th century, growth and infrastructural expansion intensified interventions along the Centa River, that included canal regulation between 1910 and 1937. The construction of the Villanova military airport in 1924 and the expansion of railway infrastructure, culminating in the opening of the new Albenga station in 1937, reinforced the city's strategic role.

During the Fascist period, Albenga became part of the militarized coastal defense system of Li-

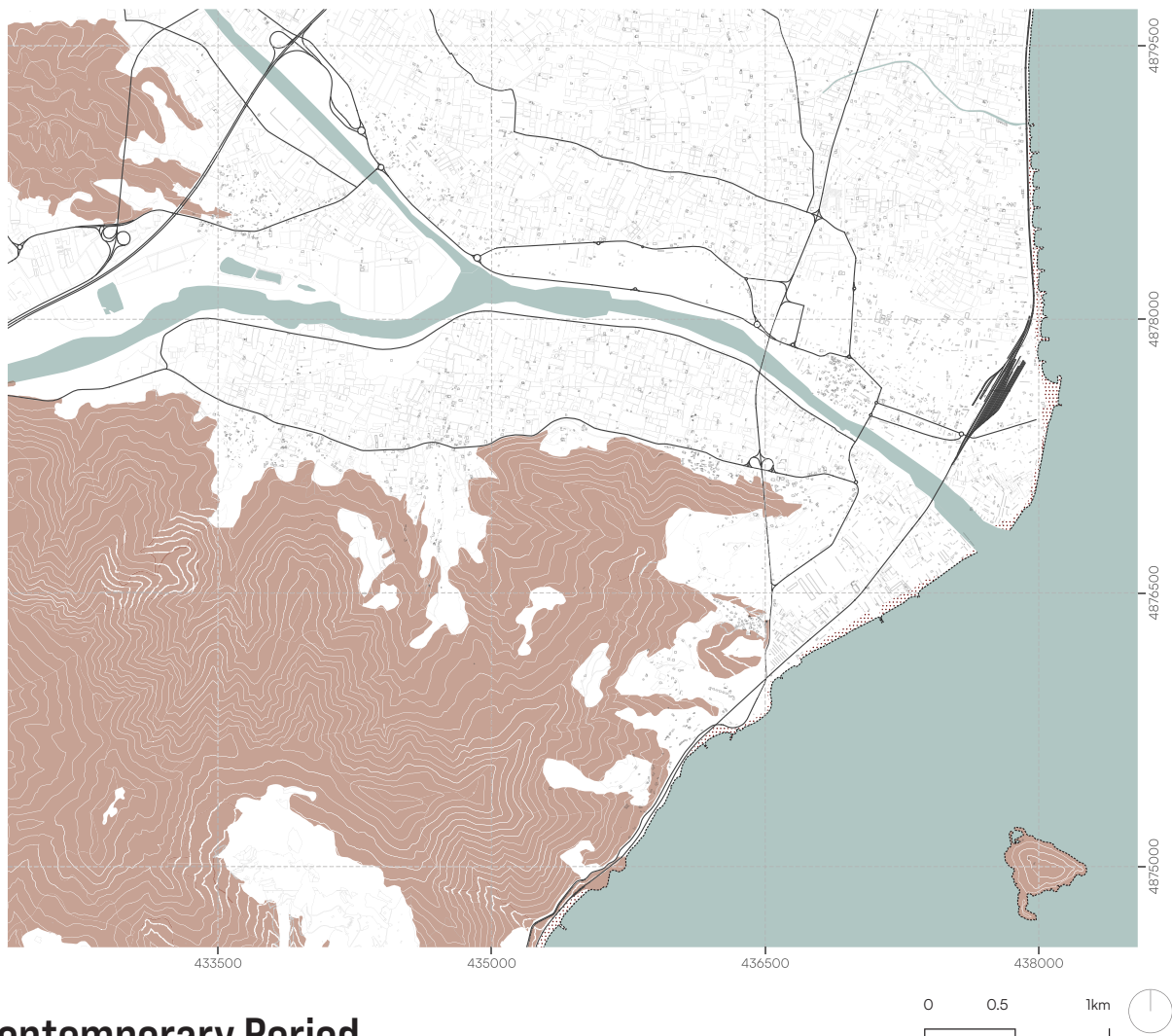
guria, leaving a lasting imprint on its urban form and landscape.

Overall, Albenga's modern evolution reflects a continuous interaction between environmental dynamics, infrastructure development, and political control (Ricci.). These dynamics defined a regular grid system that organized both public and private spaces, following the standard Roman model of city planning derived from military camps.



Fig 25. Military training at the Caserma Neve (Source: Trucioli 2021)

Map 15. Historical map, Albenga in the contemporary times



Contemporary Period

[5th–15th centuries AC]

After World War II, Albenga entered a new phase marked by mass tourism. This phase redefined the city's identity and permanently altered its relationship with land, water, and heritage.

Between the 1950s and 1970s, rapid urban expansion transformed agricultural fields near the Centa, into residential and touristic developments. As described by Giorgia Tucci (2018), the city shifted from an agricultural-industrial economy toward tourism-oriented growth.

The coastline was urbanized with hotels and second homes, while hydraulic containment projects redefined the Centa River's banks. Albenga's cultural landscape was transformed, from a militarized territory into a destination combining a preserved medieval center with a coastal strip converted into an economic resource.

- Forest
- Beach
- River
- Sea
- Building
- Roads
- Coastline

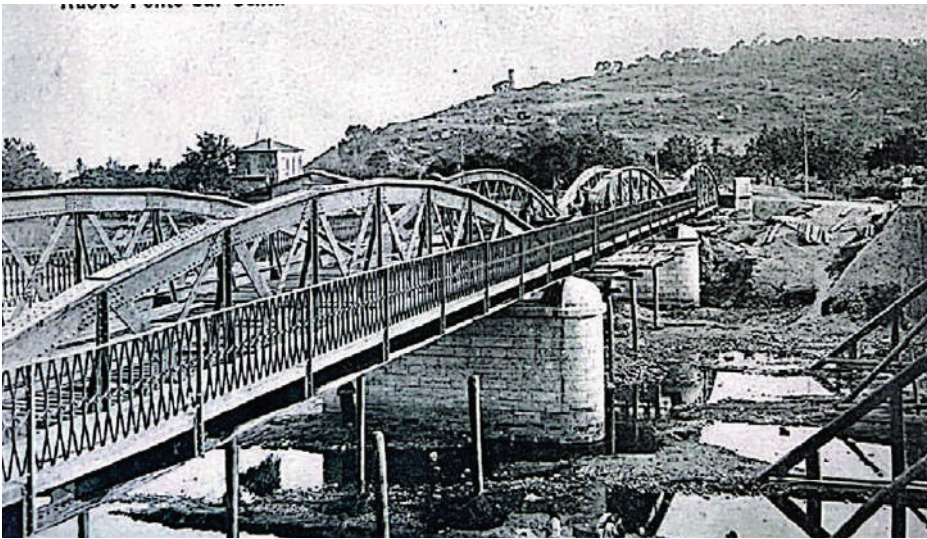


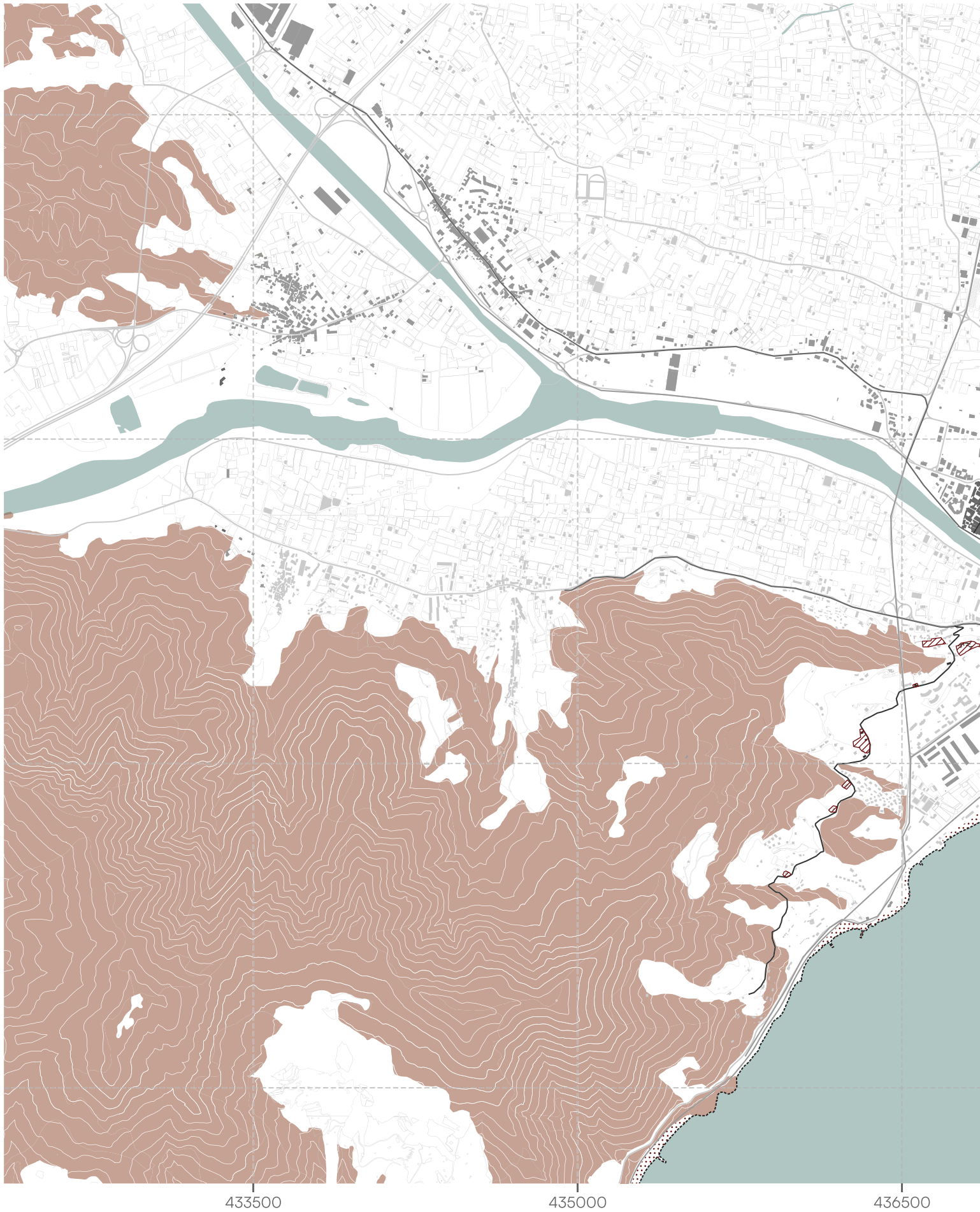
Fig 26. Building of Ponte rosso 1994



Fig 27. Albenga's beach during the 70's



Fig 28. Panoramic view of Albenga



Synchronic map

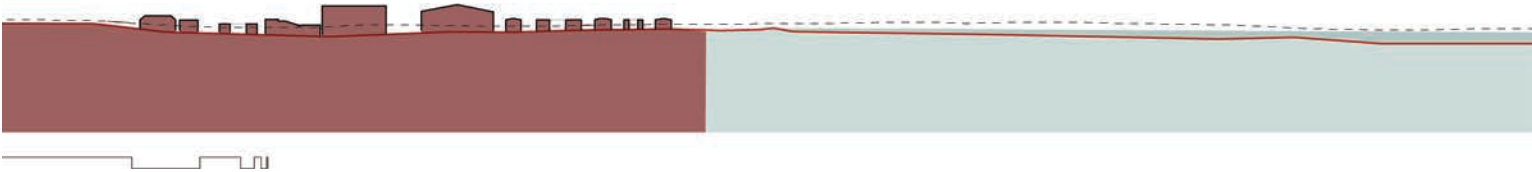


Today, Albenga presents a landscape where historical distances have been radically altered. The city, once directly connected to the sea through the Centa River, is now physically separated from the coastline by infrastructure and post-war urban expansion. Similarly, the river, formerly a port and later a defensive boundary, has been channelized and distanced from daily urban life. What remains is a city whose historical core, agricultural plain, river system, and coast co-exist but rarely interact. This spatial disconnection defines Albenga's contemporary condition and frames the need to reinterpret heritage as an active component of the present landscape rather than a static remnant of the past.



- | | |
|-----------------|---------------------|
| Roman buildings | Medieval buildings |
| 1940s buildings | 1980s buildings |
| Agriculture | Archeological zones |
| Forest | River |
| Sea | Coastline |
| Beach | Railway |
| Roman roads | Medieval roads |
| 1940s roads | 1980s roads |
| Contour lines | |

Section A - Roman era



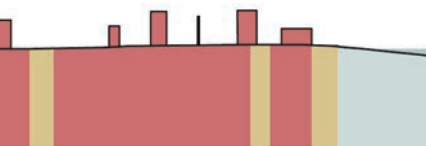
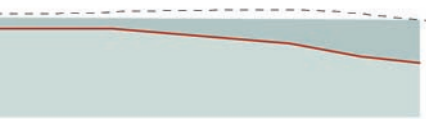
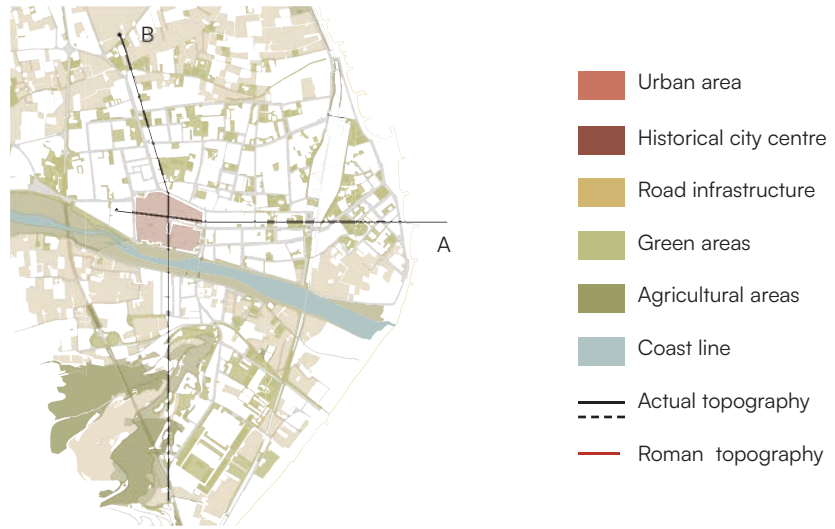
Section A - Contemporary



Topographic difference by era Section A



Topographic changes through the decades



As discussed before, the evolution of Albenga's territorial development has been profoundly shaped by the transformation of the Centa River. This change did not only influence the city's economic trajectory, but also produced deep and lasting topographical alterations. The historical modification of the river's course led to the progressive deposition of large quantities of alluvial material and sediment, particularly in the areas immediately south of the historic core.

Over the centuries, these deposits accumulated gradually, causing a significant rise in ground levels across the plain, especially toward the coast and the river's mouth. As a result, the historic center of Albenga now sits at a markedly different level compared to its original condition. This vertical displacement is still clearly visible today in key architectural and archaeological elements. The Baptistery, for example, and the Cathedral of San Michele Arcangelo

are located below the current street level, approximately three meters lower, revealing the extent to which sedimentation has reshaped the city's surface over time.

With this change, the history of Albenga is now divided into different levels and times, where archeological remainings have been discovered to be under city level, as shown as traces of what existed before, as is the case for example of the Thermals, that we rediscover after several years under remaining of other buildings through intervention to expand the city.

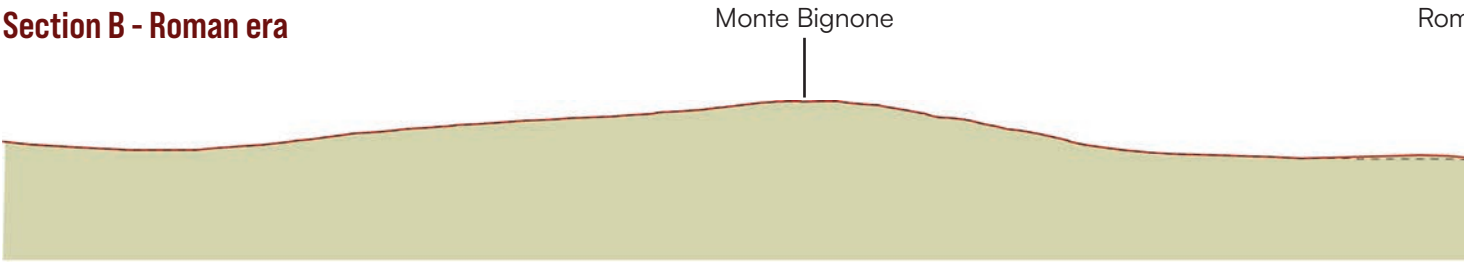
A similar transformation can happen in relation to the sea. Originally, the coastline was directly at the edge of the historic city, allowing Albenga to function as a maritime center closely connected to its port. Today instead, due to sedimentation

processes by the Centa River, the shoreline has progressively moved seaward, receding now nearly one kilometer from its original position. This shift has made possible the expansion the Albenga we know today onto land that was once part of the coastal and fluvial environment, fundamentally altering the relationship between the city, the river, and the sea.

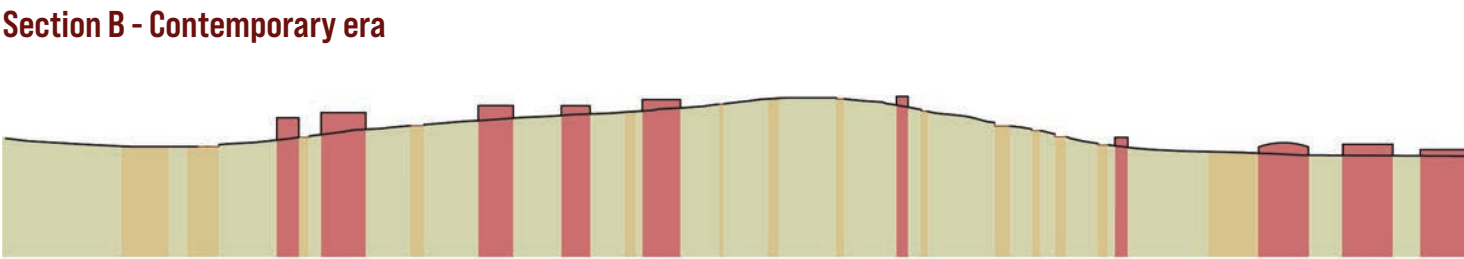
both visible and buried, allows for a deeper understanding of how natural processes and human interventions have jointly shaped its heritage and spatial identity.

These changes in level and distance are not merely geological phenomena; they constitute a physical record of Albenga’s historical evolution. Reading the city through its stratifications,

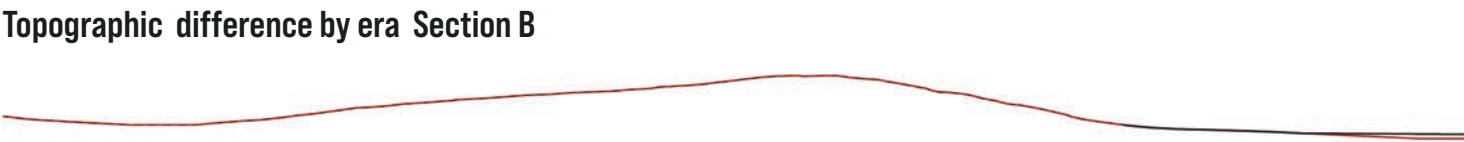
Section B - Roman era



Section B - Contemporary era

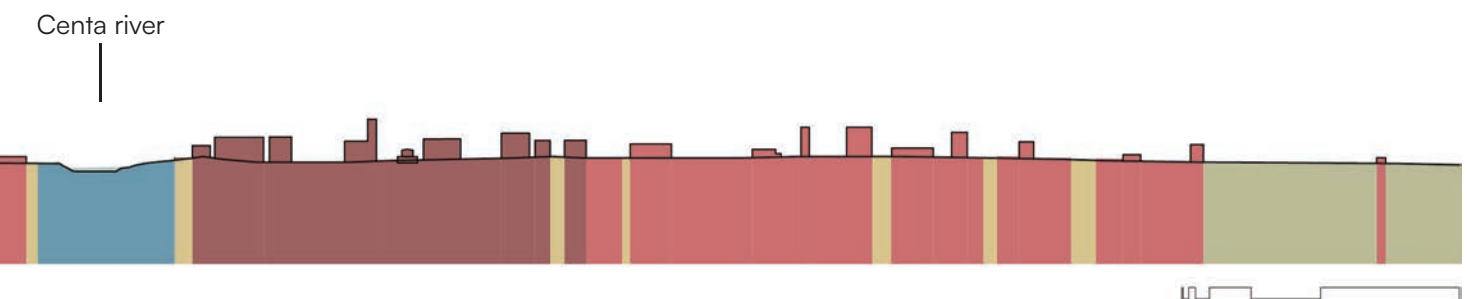
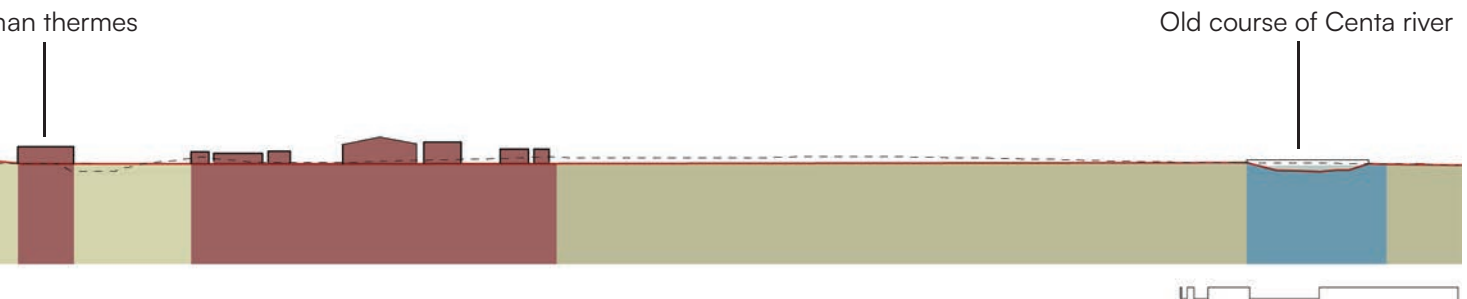


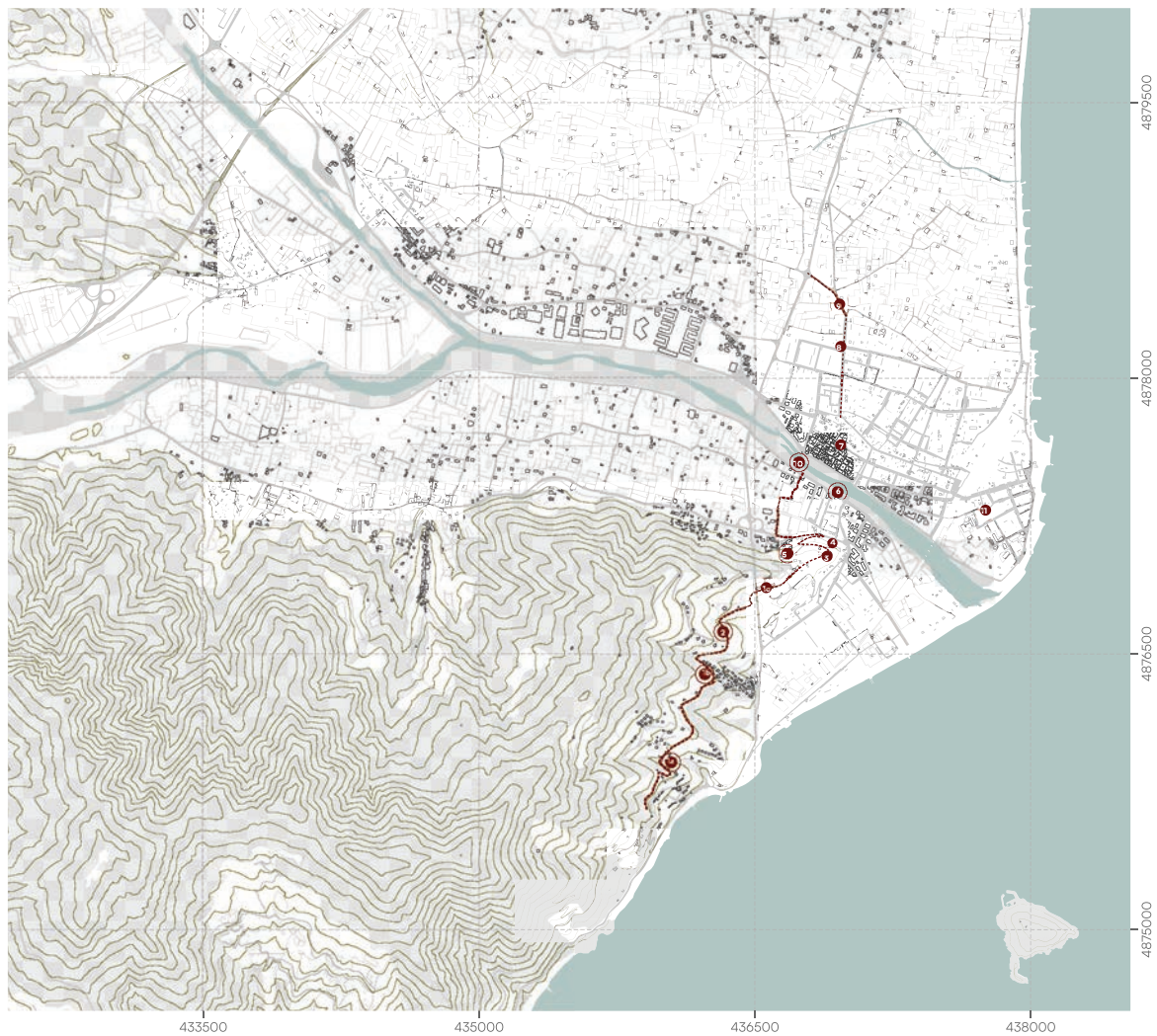
Topographic difference by era Section B



04. Longitudinal section of Albengas transformation

Topographic changes through the decades





Albenga's Archeological heritage nowadays

During Albenga's Roman Republic period, the urban fabric of Albenga was redefined according to the principles of Roman orthogonal planning. the Cardo Maximus, and the Decumanus Maximus, these axes defined a regular grid system that organized both public and private spaces, following the standard Roman model of city planning derived from military camps.

With this organization in mind, extending the direction of the Cardo, Albenga is home of a number of ar-

cheological findings, that showcase the history and change of landscape of the city, and that today become one of the cities most valuable attractions, since they are an example of organization and perseverance in time.

1. Meridional necropoli
2. Via Giulia Augusta
3. Il Pilone romano
4. Roman amphitheater
5. San Calocero
6. Roman thermes
7. Storical city centre
8. Early Christian Basilica of San Vittore
9. Ponte lungo
10. Ruins roman acquaduct
11. Genoese fortress in Albenga
12. Gallinara Island



Fig 29. Meridional necropoli

The Roman necropolis of Albingaunum developed along the Via Julia Augusta, following the typical Roman concept of the “city of the dead” is located outside the urban perimeter. Two necropolis areas existed to the north and south of the city, with funerary enclosures, monumental tombs, and a rare columbarium dating to the 1st century AD. Although many structures were lost due to agriculture and later urban expansion, several monuments and road segments remain visible, preserving the spatial relationship between tombs and infrastructure.



Fig 30. Via Julia Augusta

Built between 13 and 12 BCE, the Via Julia Augusta symbolized Roman control over the Maritime Alps, connecting Albenga to broader imperial routes. Lined with monuments and tombs, it transformed the landscape into a ceremonial corridor between mountains and sea. Today, the route extends approximately six kilometers between Albenga and Alassio and functions as a pedestrian and cycling path. Along it are funerary monuments, the amphitheater, Il Pilone, and the San Calocero complex, offering strong visual connections to Gallinara Island and the surrounding landscape.



Fig 31. Il pilone romano

Il Pilone is a 2nd-century CE funerary monument located in Albenga’s northern necropolis, facing Gallinara Island. Although its dedication remains unknown, it likely commemorated a high-ranking Roman citizen. Partially destroyed in 1944, it remains the best-preserved monument of its type in the city. Its visibility and symbolic value make it a key landmark for reconnecting Albenga’s Roman heritage with contemporary public space, especially through links with nearby archaeological sites.

4



Fig 32. Old roman Amphitheater

The Roman amphitheater of Albenga, built in the 2nd century AD, was an elliptical structure for public spectacles. It was strategically located on elevated ground south of the plain, near Monte Bignone, the Centa River, and the Via Iulia Augusta, allowing visual control over the city and its surroundings. Abandoned in the 5th century AD due to economic and religious changes, it was later reused as an extramural burial area, reflecting the late-antique transformation of Albenga's urban landscape.

5



Fig 33. San Calocero

The archaeological complex of San Calocero is located on the northern slope of Monte San Martino, an area historically associated with funerary practices. Roman necropolis remains made it a suitable site for early Christian worship.

In the 5th century, the first cathedral was built here. Later, the complex became a Benedictine monastery, functioning as a female convent until 1593. Progressive abandonment led to its burial and eventual rediscovery during excavations in 1934.

6



Fig 34. Roman thermes

Discovered in 2001 during river works, Albenga's Roman baths extend over approximately 60 meters and include a natatio and a sequence of bathing rooms. Originally located near the coastline, the complex now lies within the bed of the Centa River.

Built on unstable alluvial soil using wooden pile foundations, the baths remained in use until the early 5th century CE. Later, the site was repurposed for Christian worship, with successive churches constructed above the Roman remains.



Fig 35. Historical city centre

Albenga's historic center reflects the city's medieval consolidation between the 11th and 13th centuries. Enclosed within its Roman perimeter, the city was divided into four districts, Torlaro, Santa Maria, San Siro, and Sant'Eulalia, organized around Piazza San Michele rather than the ancient forum. Towers and gates defined a fortified urban image, with main entrances aligned along Roman axes. The medieval city shifted its center of gravity inland, expressing power and prestige through verticality while maintaining connections to the hinterland and the sea.



Fig 36. San Vittore

A short distance south of Ponte Lungo lie the remains of the Early Christian Basilica of San Vittore, discovered between 1955 and 1956 and dated to the 4th—5th centuries CE. The site also contains remains of the Imperial Roman necropolis, illustrating the continuity of funerary practices. The basilica lies approximately two meters below street level, enclosed and not fully accessible to the public. Despite its historical importance, the site shows signs of neglect, with uncontrolled vegetation surrounding the remains.



Fig 37. Pontelungo

Located at the northern exit of the city along Via Aurelia, Ponte Lungo consists of the remains of a Roman bridge approximately 150 meters long with ten arches, marking the original course of the Centa River. In medieval times, it functioned as a significant city entrance, prompting the construction of a monastery and sanctuary nearby. Today, the structure remains partially buried and runs parallel to a major road. Although its structural form is still legible, it is in a state of deterioration, surrounded by religious buildings and small agricultural plots.

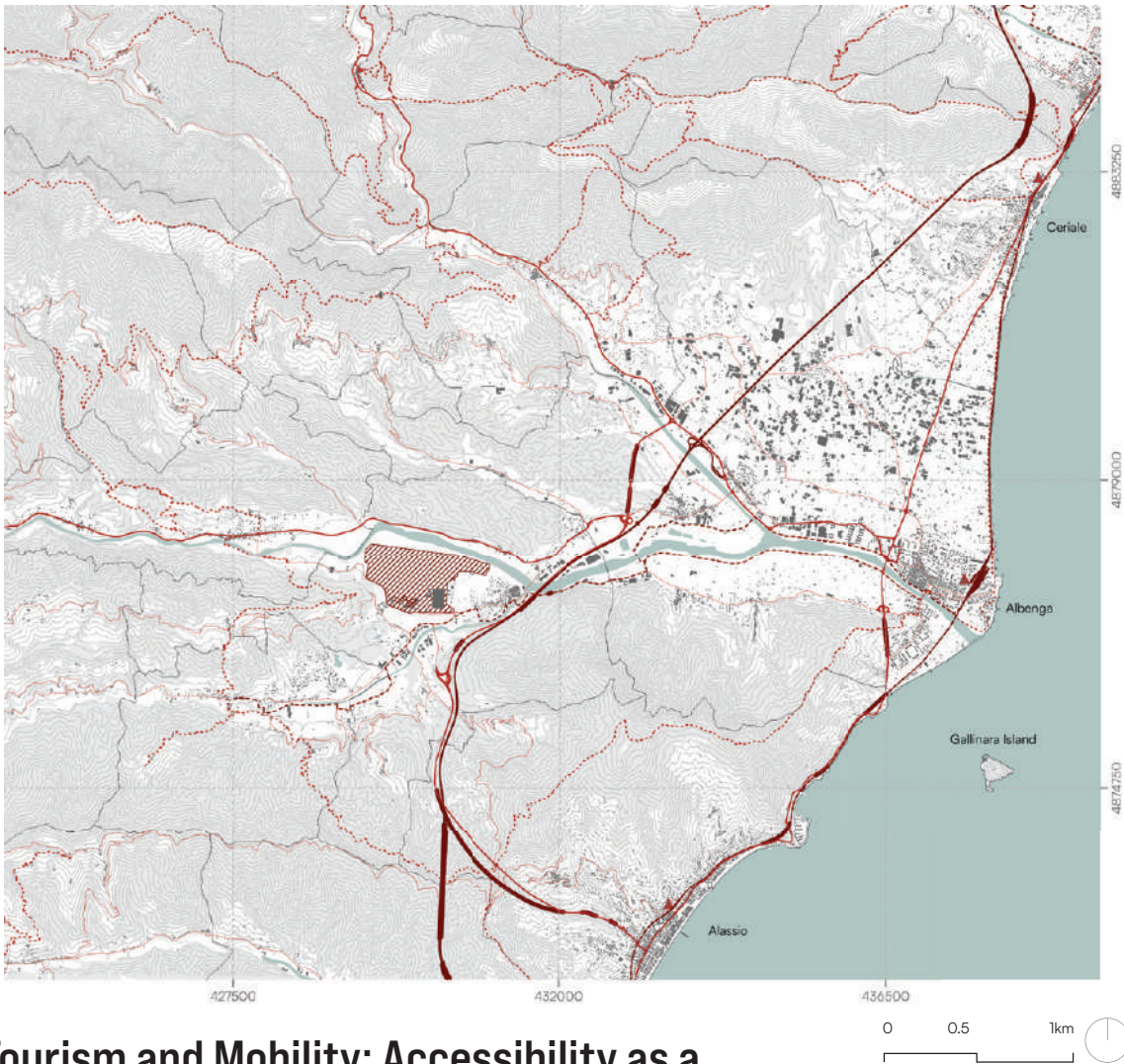
Territorial Scale
Albenga's plain

Coastal activity

Tourism, Mobility, and Urban Fragmentation

Albenga displays many of the defining characteristics of a Mediterranean coastal city. Its geographic position, combined with its accessibility from major urban centers in northern Italy, has allowed it to remain relevant as a tourist and holiday destination over time. The city benefits from a strategic location along the Ligurian coast, supported by a multimodal mobility system that includes road, rail, and air connections. Tourism in Albenga is therefore not an isolated phenomenon, but the result of long-standing infrastructural choices that have shaped both coastal life and the urban structure.

Map 18. Main transportation network territorial map Albenga



Tourism and Mobility: Accessibility as a Key Asset

Tourism plays a significant role in Albenga's local economy and identity. Over the years, data shows that approximately 70% of tourists visiting the city originate from within Italy, highlighting the importance of domestic tourism. This pattern is closely linked to Albenga's accessibility, particularly its direct connections with major cities such as Turin and Milan. These connections make the city especially attractive during the summer season, when coastal destinations become key leisure spaces for residents of northern Italy.

Road mobility remains one of the main access options, allowing flexible travel from inland regions. In addition, Albenga is served by the Riviera Airport,

which remains active and operational as of 2025. Although primarily dedicated to general aviation (private jets, light aircraft, and testing operations for Piaggio Aerospace) the airport reinforces Albenga's strategic position along the Ligurian coast, close to the French border. While not a mass-tourism airport, its presence strengthens the city's regional connectivity and supports higher-end and international mobility. Together, these mobility options reinforce Albenga's role as an accessible coastal destination, where tourism is closely tied to the ease of movement between inland metropolitan areas and the seaside.

-  Blue infrastructure
-  Buildings
-  Administrative borders
-  Tunnels
-  Airport
-  Train station
-  Bus stops
-  Railways
-  Motorways
-  Primary roads
-  Secondary roads
-  Tertiary roads
-  Cycleways

The Railway: History, Tourism, and Urban Transformation



Fig 38. May 1915, First arrivals to Albenga from Genoa



Fig 39. Albenga railway station in 1920



Fig 40. Albenga train from the beach

One of the most decisive elements in Albenga's tourist development is its connection to the Ligurian coastal railway. The city lies along the Ferrovia delle Riviera, also known as the Ligurian railway, conceived in the 19th century as a continuous strategic axis running along the coast. Today, this line forms part of the Tyrrhenian railway corridor and remains one of Italy's most important railway infrastructures, serving both regional and long-distance traffic from Ventimiglia, at the French border, to Massa in Tuscany.

Throughout the 20th century, the railway underwent multiple phases of duplication and realignment. Coastal sections were gradually doubled starting in the early 1900s, with major works carried out between the 1920s and the 1970s, particularly around Genoa and Savona. These interventions improved efficiency and capacity, reinforcing the railway's role in supporting tourism along the Ligurian Riviera. Modernization works continue today, including projects affecting the Albenga area, as outlined in the Piano Urbanistico Comunale of 2015, which will be discussed in later sections.

While the railway has been a powerful driver of tourism, offering scenic travel close to the sea and direct access to coastal towns, it has also had profound spatial consequences. In Albenga, as in other Ligurian cities such as Imperia and Sanremo, the positioning of the railway near the coast has contributed to a physical and functional division within the urban fabric.

Camping Areas and Coastal Fragmentation

In Albenga, this infrastructural division intersects with a specific tourist phenomenon: camping. The city's coastline is characterized by the strong presence of camping areas, which occupy a significant portion of the coastal strip. Two main types of camping structures can be identified.

On one hand, there are compact camping sites composed of small cabins and lightweight structures located close to the sea, equipped with internal facilities and services for tourists. On the other hand, there are larger areas dedicated to trailers and motorhomes. These are not limited exclusively to the immediate coastline but extend further inland, including parking-based camping areas that host a high number of foreign visitors.

Despite their differences, both types share a common characteristic: they are privately managed spaces that, through local regulations, occupy large stretches of the coastal zone. As a result, public access to the beach becomes fragmented, limited, and often physically disconnected from the historic center and residential areas of the city.

This condition reinforces an already existing division produced by the railway. On one side of the tracks lie the historic center and consolidated residential areas; on the other, a tourist-oriented urban fabric dominated by holiday apartments, seasonal uses, and camping infrastructures. The coastline thus becomes less a shared civic space and more a specialized, privatized landscape shaped by tourism.



Fig 42. Panoramic view of Gallinara Island



Fig 41. Albenga Seafront





Fig 43 Panoramic view of Albenga's Coastline

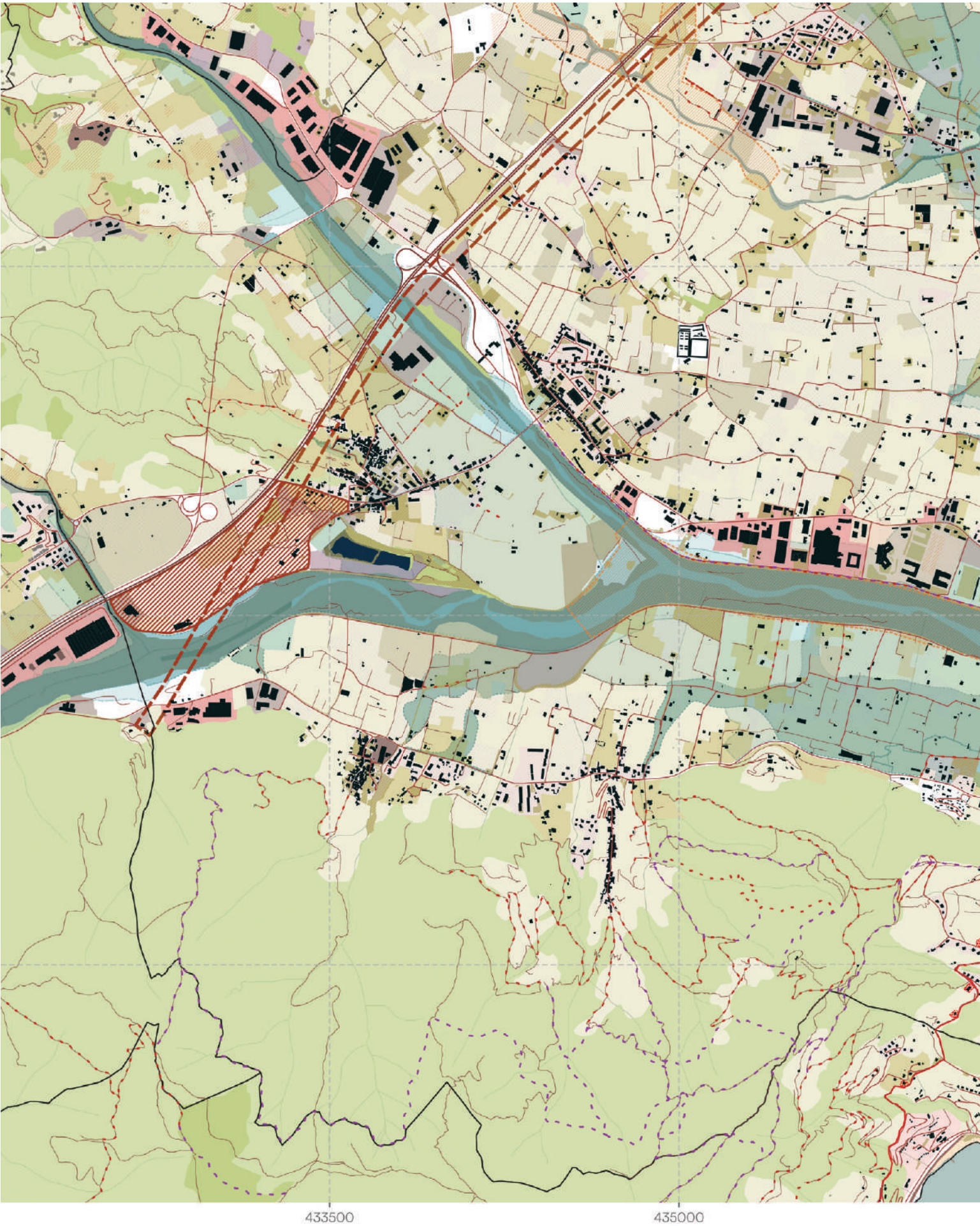




Fig 44. Roman thermae over the Centa River

The territorial development of Albenga is shaped by the interaction between physical structures, infrastructure systems, and historical dynamics that have guided the evolution of its urban morphology. Among the most influential elements stand two large-scale territorial axes: the Centa River and the railway line. Both operate as longitudinal infrastructures that not only organize the territory but also condition the location of activities, urban expansion, and the degree of fragmentation between different landscape units

A close reading of the map reveals that the most consolidated urban growth has occurred toward the south, where the alluvial plain offers geomorphological conditions particularly favorable for human settlement. This sector is characterized by a more continuous and dense urban fabric, with a clear predominance of residential uses structured in compact blocks. Within these blocks, the urban layout incorporates green spaces that function as environmental breathing areas, creating small nodes of vegetation embedded within the built environment.

In contrast, the expansion toward the west and southwest, in the direction of Monte Bignone, assumes a more dispersed and fragmented configuration. The presence of slopes, agricultural terraces, and the ecological significance of the mountain—an area of high environmental value within the Ligurian context—limit densification and encourage more open settlement patterns. This zone operates simultaneously as an ecological boundary and a natural limit to urban growth, generating a marked landscape transition between the city and the mountainous system.

Albenga's historic center stands out clearly on the map as a compact core, recognizable by its regular morphology and strong spatial cohesion.

This nucleus functions as the generating structure of the urban order, around which later expansions have organized themselves. Its presence embodies the per-

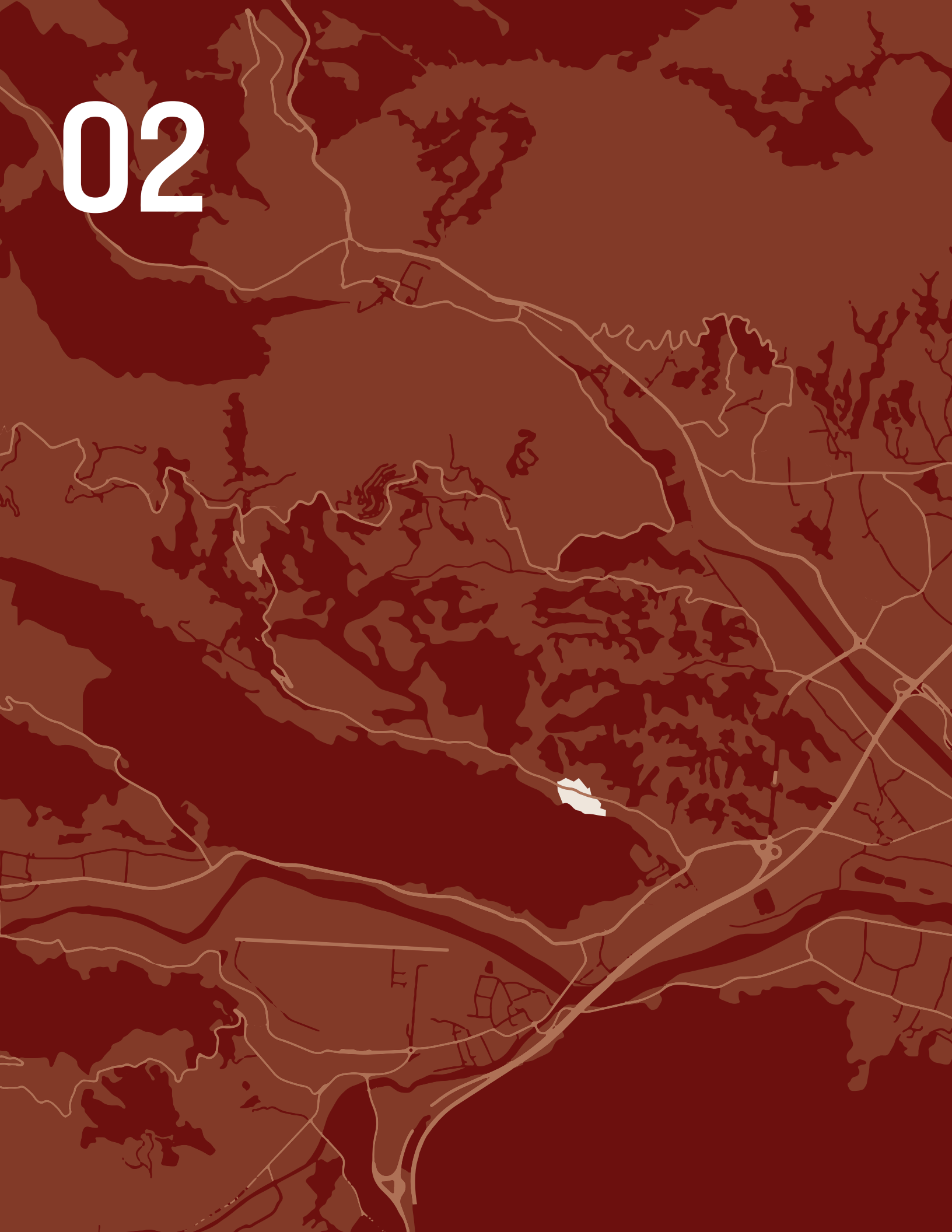
sistence of the walled medieval city and its role as a functional, patrimonial, and symbolic centrality within the contemporary urban system.

The surrounding territory is defined by extensive agricultural areas, which constitute one of the most significant components of Albenga's landscape. These productive surfaces—located mainly to the north and west—form a continuous rural matrix that encloses the city and establishes a strong relationship between agricultural activity and urban settlement. Within this matrix, small clusters of buildings and a network of secondary roads connect dispersed nuclei and agricultural operations.

Finally, the peripheral location of commercial areas—visible as larger-scale clusters situated in the transitional fringe between the compact urban fabric and the agricultural territory—reveals a pattern common to medium-sized cities: the externalization of activities related to mobility, exchange, and logistics. These areas act as intermediary spaces between the urban and rural realms, both articulating and creating tension in the relationship between the two systems.

Taken together, the map reveals a territory in which ecological structure, infrastructure, and urban history have generated a complex morphology. Urban growth is not homogeneous but instead emerges from the interaction between natural constraints, economic dynamics, and planning decisions.

02



A stylized map of a coastal region, possibly a river delta or a coastal plain, rendered in a dark red color. The map features a complex network of roads and a prominent river system. The roads are depicted as thin, light-colored lines, while the river is shown as a thicker, darker line. The map is set against a solid dark red background. The text "CRITICAL DESCRIPTION OF THE LANDSCAPE" is overlaid on the bottom right of the map.

CRITICAL DESCRIPTION OF THE LANDSCAPE



Fig 45. Albenga skyline. [Photography], Note. By Hurtado, A.Laura

Understanding of Albenga's structure

Continuing the study of Albenga, and after gaining a clearer understanding of its main characteristics, this chapter moves toward a more critical reading of the city and its urban structure. Rather than describing what the city is, the intention here is to explore how it works and how its different parts relate to one another.

The analysis focuses especially on public space, understood as a key element in shaping everyday life and urban identity. To guide this study, a conceptual framework is introduced to define what makes a public space meaningful and how different types of spaces can be recognized and evaluated. At the same time, the Municipal Urban Plan serves as an important reference, helping to situate current transformations within a broader strategic vision and to identify areas where change is more evident.

The chapter also incorporates the study of urban cross-sections, which allow for a more tangible understanding of the city's structure and its evolution over time. These sections, together with observations made during the site visit, support a classification of the different public spaces encountered, linking spatial form with lived experience.

Overall, the aim is to build a clear and grounded picture of Albenga as it functions today, highlighting both its strengths and its challenges. This reading becomes the foundation for reflecting on how the city might respond to future demands while preserving its spatial and cultural identity.

Theoretical framework

Quality of Public space

The concept of public space has gained central importance in contemporary urban studies due to its role in sustainability, social cohesion, and quality of life. According to UN-Habitat, public space encompasses all areas of public ownership that are accessible, inclusive, and open to the entire population without profit motives, constituting an essential element for the equitable and healthy functioning of cities.

Along the same lines, the Project for Public Spaces (PPS) emphasizes that well-designed public spaces should promote diverse uses, be active, safe, comfortable, and respond to the needs of the communities that inhabit them.

In terms of urban planning, both approaches agree that high-quality public spaces not only facilitate social interaction but also contribute significantly to environmental sustainability and



Fig 46. Daily life in Albenga [Photography]. Note. By Echeverria Jose Luis

The Place Diagram

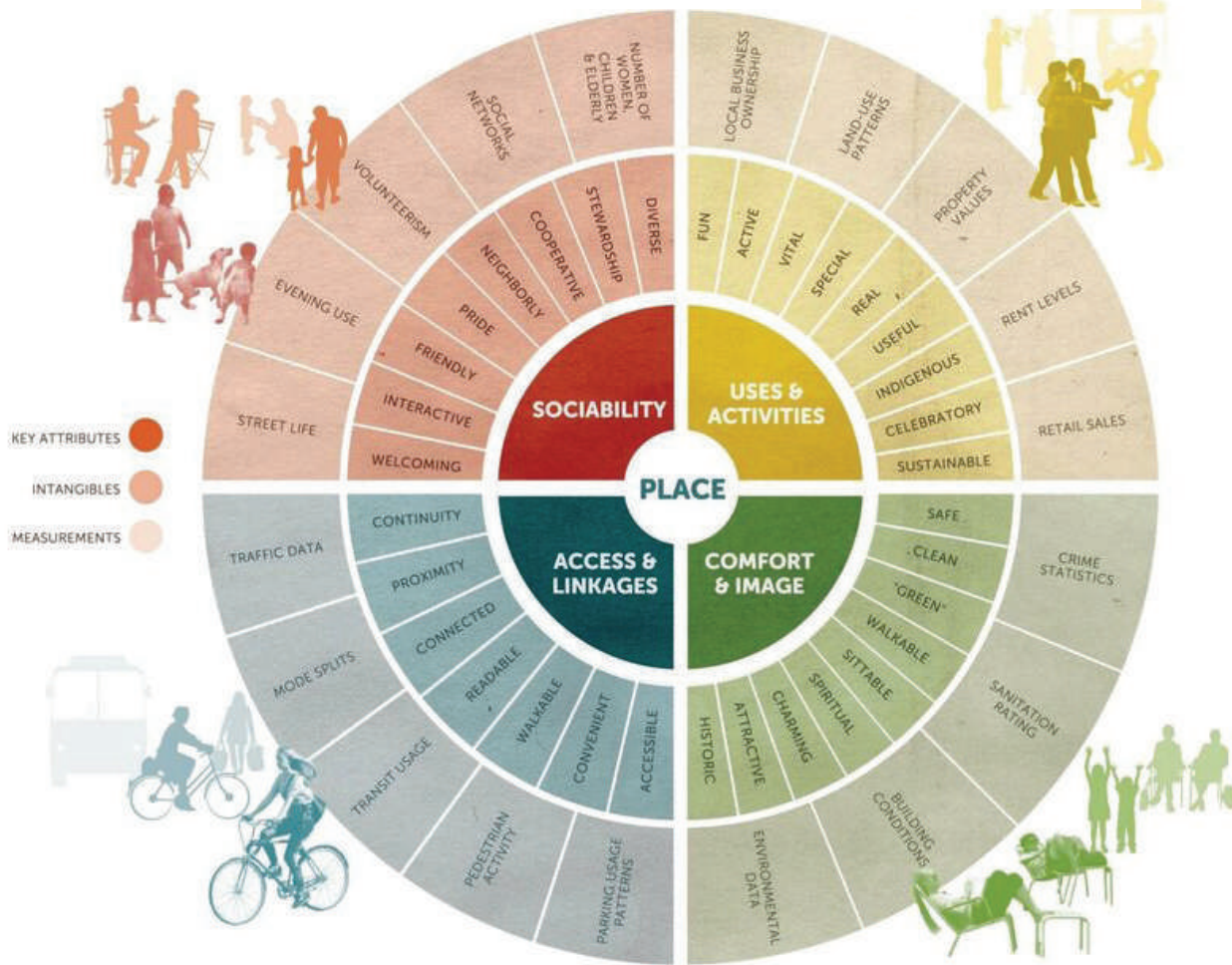


Fig 47. The Place Diagram "Qualities of a Great Public Space". (Source: <https://www.pps.org/reference/grplacefeat/>)

collective well-being. From a social perspective, these spaces enable inclusion and equity by offering meeting points for people of different ages, genders, cultural backgrounds, and socioeconomic levels. They also host cultural practices, urban rituals, and community activities that strengthen local identity, collective memory, and a sense of belonging. The latter is reinforced when spaces feature appropriate design conditions—activity, lighting, maintenance, and accessibility—that increase the perception of safety and encourage community ownership.

From an environmental perspective, public space is a key component of urban green infrastructure. Parks, natural corridors, and open systems contribute to climate change mitigation by absorbing water, reducing flood risks, regulating temperature, and improving air quality. Likewise, the presence of pedestrian and cycling networks

within these spaces promotes sustainable mobility, reducing dependence on automobiles and, consequently, pollutant emissions.

Within the framework of this project, a combination of the criteria proposed by UN-Habitat in its "Public Space Site-Specific Assessment" and the qualitative dimensions developed by Project for Public Spaces is used in order to analyse the different public spaces around Piacenza based in our personal experience in the site. This integration allows for a more comprehensive evaluation of public space quality, articulating social, spatial, functional, and environmental parameters to understand its current performance and future potential within the urban fabric. With this in mind, the selected criteria to assess public space quality are: Use and Users, Accessibility, Amenities and Urban Furniture, Comfort and Safety and Green Environment.



Fig 48. Bryant Park [Photography], Note. By Fund for a better waterfront.



Fig 49. Super Kilen, Copenhagen, Denmark, BIG Architects. [Photography], Note. By big.dk

Use and Users

A good public space is, above all, an inclusive space. According to UN-Habitat (2015), these places must be accessible, safe, and equitable for all people, regardless of age, gender, culture, or other social conditions. According to Project for Public Spaces (2000), the quality of a public space is reflected in its ability to attract a diversity of users and enable meaningful activities that respond to the real needs of the community.

In this regard, the uses and activities that take place in public spaces should be based on a deep understanding of the aspirations, interests, and lifestyles of their inhabitants. This helps strengthen community empowerment and fosters a sense of belonging and social rootedness (UN-Habitat, 2015). Likewise, a high-quality public space should allow for a variety of planned and unplanned uses, capable of adapting to changing social dynamics and being flexibly appropriated by the local community. As PPS notes, urban vitality arises when spaces allow for “multiple activities, coexisting and evolving over time” (Project for Public Spaces, 2000).

Accessibility

A quality public space must be physically and visually accessible to all people. According to UN-Habitat (2015), accessibility is an essential component for ensuring equitable cities, as it allows people with different abilities, ages, and socioeconomic conditions to fully participate in urban life. This implies designing continuous, safe, and universal pathways, as well as ensuring clear connections to pedestrian, cycling, and public transport systems.

According to Project for Public Spaces (2000), the best public spaces are those well-integrated into their urban surroundings, functioning as nodes within the city network and allowing a natural flow of people. Good accessibility not only enhances daily use but also strengthens territorial cohesion and reduces spatial segregation, as people must be able to move through public space and spend time there with dignity and confidence.

Amenities and Urban Furniture

Amenities and urban furniture are fundamental elements for ensuring functionality, accessibility, and quality of experience in public spaces. According to UN-Habitat (2015), adequate equipment ensures that the space can be used comfortably, inclusively, and safely by people of all ages, genders, and abilities. This includes benches, efficient lighting, shaded areas, water fountains, clear signage, trash bins, bicycle parking, and accessible surfaces that facilitate universal mobility.

Project for Public Spaces (2000) highlights that the distribution, ergonomics, and durability of furniture should respond to real usage patterns, promoting spontaneous activities, social encounters, and extended stays. Well-designed and properly located furniture can encourage interaction among users, enhance space vitality, and reinforce perceived safety. Moreover, the state of maintenance and aesthetic quality of amenities directly influences the sense of belonging, as a well-cared-for environment conveys respect, community value, and trust.

Thus, amenities and furniture not only serve operational functions but also play a key role in promoting inclusion, equity, and sustainability. When integrated strategically and sensitively to local needs, they help create more welcoming, functional, and socially cohesive public spaces.



Fig 50. Superblock of Sant Antoni, Barcelona, Leku Studio. [Photography], Note. By Archdaily



Fig 51. All colors Sidewalk, Zoom Urbanismo Architects + LAO Engenharia and Designh [Photography], Note. By www.archdaily.comdkArchdaily

Comfort and Safety

Comfort and the sense of safety are determining factors for a public space to be frequented and appropriated by the community. UN-Habitat (2015) highlights the importance of providing adequate environmental conditions, including shade, furniture, lighting, and quality materials that ensure a pleasant and safe experience. Comfort can be affected by variables such as smell, sound, view, and physical conditions, which ultimately define a place's identity.

PPS (2000) states that people tend to stay in spaces where they feel protected from traffic, violence, and adverse weather conditions. The perception of safety, reinforced by visibility, continuous activity, and maintenance of the space, helps build social trust and promotes regular use of the place, benefiting both urban life and collective well-being.



Fig 52. New York Highline [Photography]. Note. By . Claire Takacs

Green environment

A quality public space should balance ecological infrastructure with a system of amenities and furniture that meets users' needs and strengthens urban resilience. According to UN-Habitat (2015), incorporating green areas and natural elements is essential for improving the microclimate, purifying air, mitigating noise pollution, and reducing the heat island effect, as well as playing a key role in water management through infiltration and flood prevention. This green infrastructure, when strategically integrated, not only provides environmental benefits but also contributes to psychological well-being by offering spaces for rest, contemplation, and connection with nature.

Additionally, Project for Public Spaces (2000) emphasizes that the presence of diverse and accessible vegetation, along with appropriate furniture—benches, lighting, shading, drinking fountains, playgrounds, and flexible equipment—enhances comfort, safety, and user retention.

These amenities promote social interactions and strengthen community ownership by providing dignified conditions for gathering, leisure, and coexistence.

Thus, integrating the green environment with a functional system of furniture and amenities not only enriches the aesthetic dimension of public space but also enhances its social, ecological, and cultural value. A design that combines nature, comfort, and functionality creates more inclusive, resilient environments capable of accommodating the diverse forms of use that emerge in contemporary urban life.



Fig 53. Albenga City centre . [Photography]. Note. By Guagliardo, M

Theoretical framework

Piano urbanistico comunale

Regulatory urban plans reveal a city's ambitions. They define its development strategies, identify areas of transformation, and frame the spatial logic behind new settlements and infrastructures. For this study, the Piano Urbanistico Comunale (P.U.C.) of 2015 serves as the main reference to understand the challenges Albenga currently faces, the potential areas for intervention, and the parts of the plan that invite reinterpretation or updating.

Our analysis focuses especially on the areas of transformation, zones designated for new settlements that, up to today, have remained unimplemented; areas whose development was optional; and others that have recently been subjected to new strategic visions. One of the most significant findings emerging from the P.U.C. is the relocation of the railway line and, consequently, of Albenga's train station.



Fig 54. Regional train [Photography], Note, D'Abbiero E(2014), <https://trainspo.com/photo/62609/>

1

The Railway Question: A Historic Line Facing Contemporary Limits

Since the nineteenth century, Liguria has been crossed by the coastal railway line, the Ferrovia delle Riviera/Ligure. This historic infrastructure follows the edge of the sea, stitching together the entire region through its maritime landscapes, and connecting Liguria not only internally but also internationally.

ities:

- creating wider infrastructural connections,
- enabling future expansions, and
- linking nearby inland towns that today remain disconnected from the rail network.

However, this same coastal placement has become a structural limitation. The existing line offers little room for expansion, upgrades, or the addition of new tracks, constraints that now hinder the region's mobility needs and long-term development.

Yet this opportunity also introduces a set of complex spatial questions, particularly concerning the increased distance between the city center and the future station.

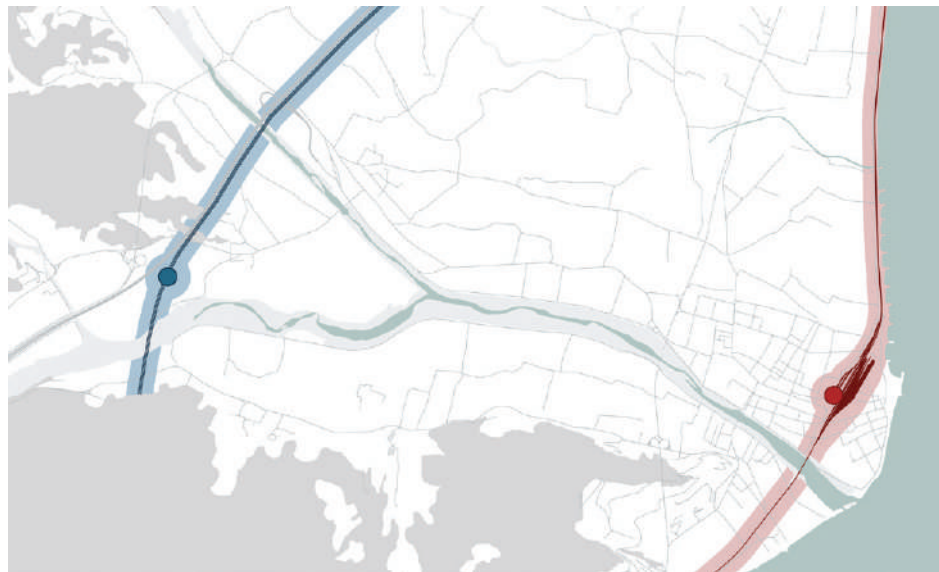
Recognizing Albenga's strategic potential, the P.U.C. proposes to move the railway inland, together with its station. This shift aims to unlock new possibil-

2

A New Station, New Conditions

Although the new station lacks a definitive site, it is estimated to be located approximately 5.4 km inland (in blue in the map below), in the municipality of Bastia. This relocation would affect land currently used for agricultural production and sports facilities, raising concerns regarding land consumption, environmental impacts, and shifts in local mobility patterns.

Simultaneously, the P.U.C. addresses the future of the current railway station area. In line with contemporary European strategies, the plan imagines transforming it into a central urban park, repurposing the existing tracks as a coastal cycling route (in red in the map below). This approach opens the door to a new relationship between Albenga and its seafront, reshaping an infrastructural barrier into a connective public space.



05. Existing railway infrastructure Vs projected location

3

Cultural and Environmental Priorities

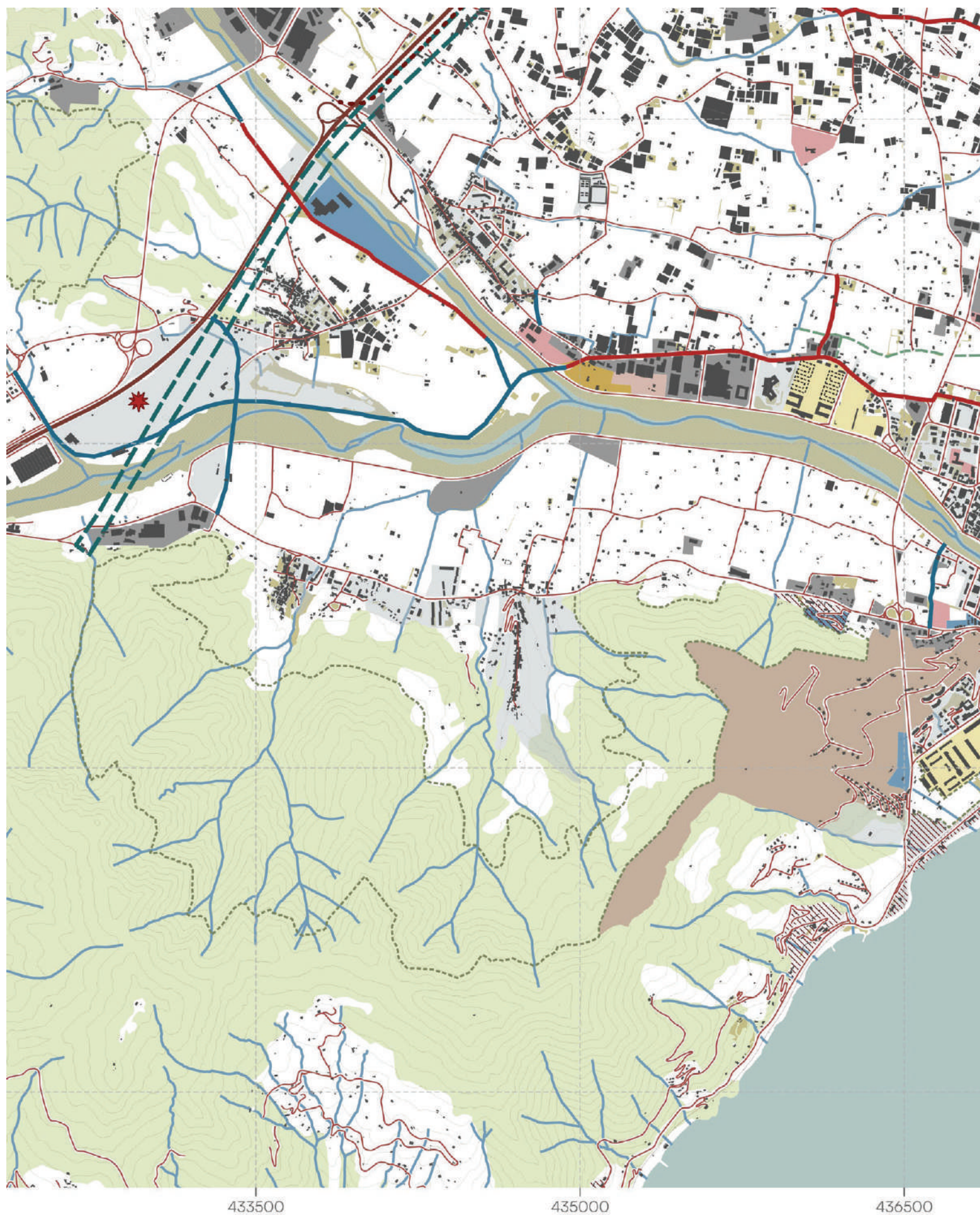
The P.U.C. places considerable emphasis on the need to enhance Albenga's archaeological and historical landscape. From the Via Julia Augusta to Ponte Lungo, through the Roman road system, the plan envisions a network of cultural corridors that reconnect fragments of Albenga's heritage into a continuous narrative across the city.

central role. The improvement of road networks, and the transformation of currently enclosed or canalized watercourses, have gained particular importance when considered in relation to the new railway strategy. Open channels, drainage improvements, and the reuse of water for irrigation are presented as crucial tools to increase the city's resilience to flooding—an issue consistently linked to the dynamics of the Centa River.

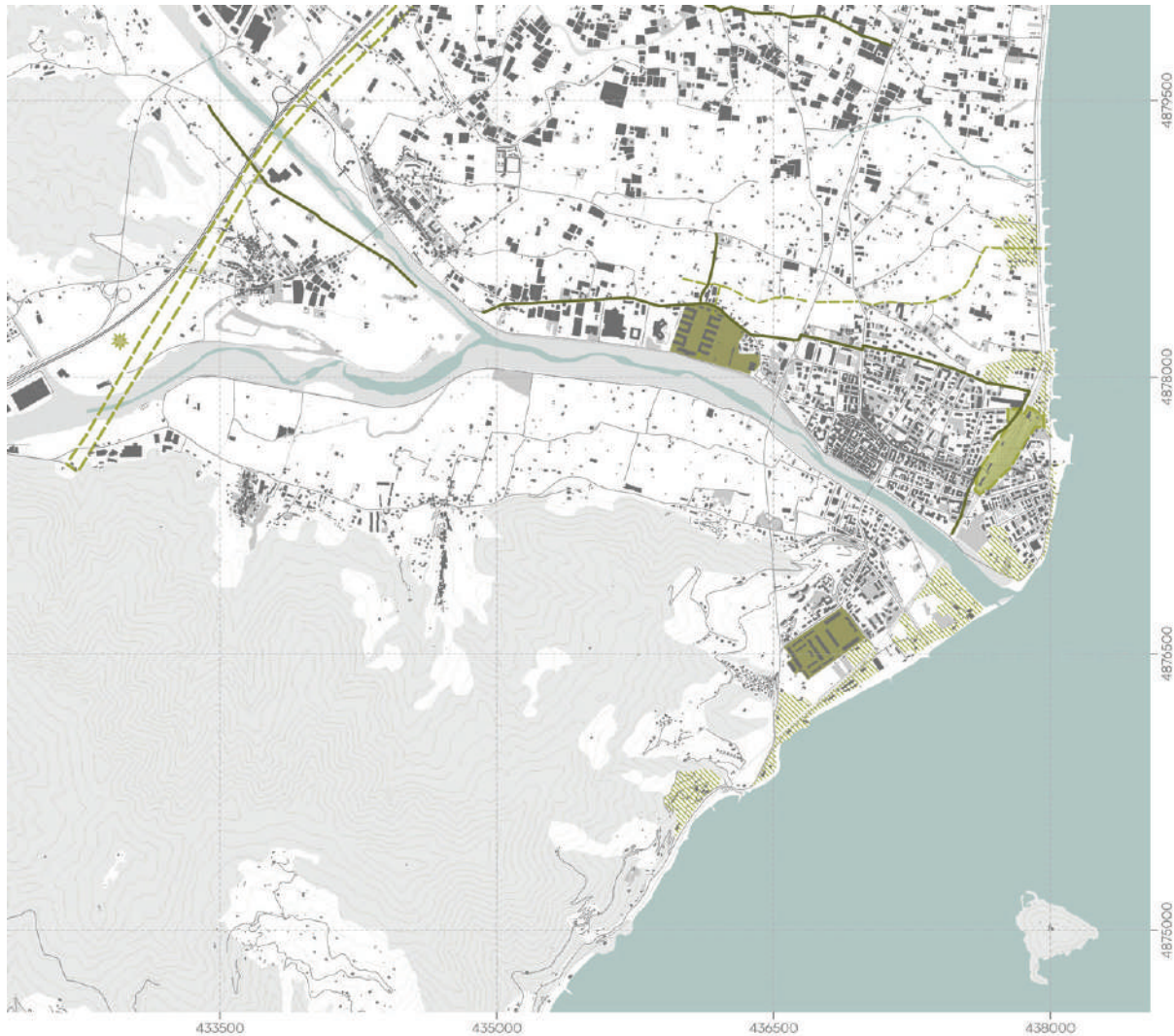
Infrastructure interventions also play a



06. Archeological axis of Albenga



Map 21. Agreements on the PUC



Piano Urbanistico Comunale (Pros)

Pros

-  New proposals
-  New development railway line
-  Request for variations to PGR
-  Road network to be upgraded
-  Railway area of transformation
-  Military areas
-  Opening canals
-  Camp areas transformation

Gray infrastructure

-  Buildings
-  Building Traces
-  Agricultural fields
-  Railway

Blue infrastructure

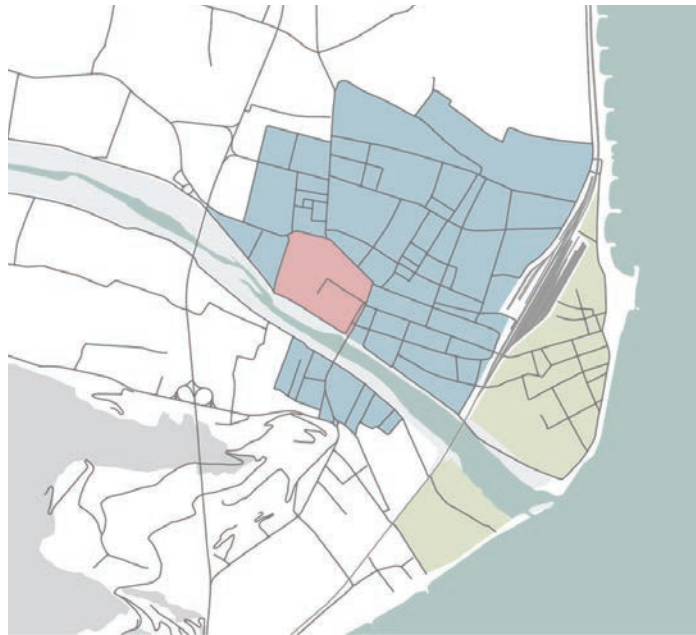
-  River
-  Ligurian sea
-  Agricultural fields
-  Railway

Green infrastructure

-  Green areas
-  Pastures and uncultivated land
-  Forest

07. Perceived urban fragmentation of Albenga's urban fabric

During the site visit and through discussions with the inhabitants of Albenga, a clear spatial fragmentation between different social groups was identified. This fragmentation is reinforced by physical infrastructures and natural barriers, including the railway, the walls of the historic center, and the Centa River. In red we find the core and city center, surrounded by a more residential development and lastly separated through the railway is highlighted in green the touristic development.



The P.U.C. includes several promising strategies that align with an integrated vision for Albenga's future. Among the most significant:

Relocation of the railway line and station

This intervention directly addresses Albenga's historical spatial fragmentation. The current station acts as a barrier, dividing the city. Relocating it inland opens the possibility of reconnecting neighborhoods and redefining mobility patterns. And its new location, apart from being in land, allows to give access to other settlements close to Albenga.

Redesign and adaptation of road infrastructure

With the relocation of the station, the need for efficient and well-connected mobility routes becomes essential. New road profiles and connections are crucial to support the city's expanded geography

Reactivation of former military areas

Several military zones sit at highly strategic points within Albenga. Their transformation into civic or mixed-use spaces could generate new centralities and foster urban regeneration

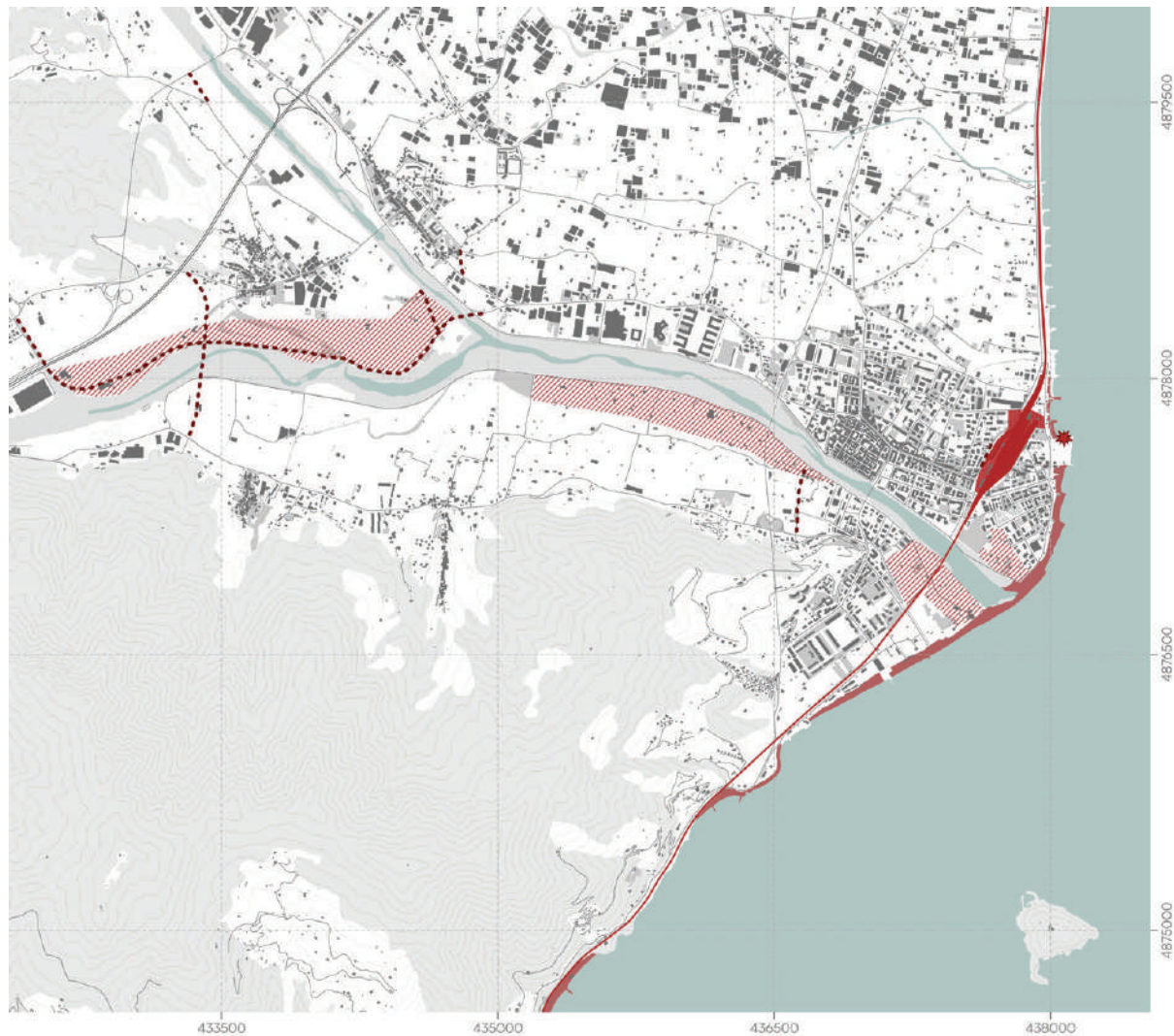
Transformation of current camping areas

These areas today function as segregated enclaves disconnected from the city's dynamics. Their transformation represents an important step toward a more inclusive and accessible coastline.

Opening of channels and improved water management

The plan proposes strategies related to open watercourses, drainage, and irrigation. These interventions are essential for addressing flood risks and ensuring long-term environmental resilience.

Map 22. Disagreements on the PUC



Piano Urbanistico Comunale (Cons)

Cons

-  New proposals
-  Areas of interest
-  Beach of private use
-  Railway area of transformation
-  Projected roads
-  Pedestrian zone

Gray infrastructure

-  Buildings
-  Building Traces
-  Agricultural fields
-  Railway

Blue infrastructure

-  River
-  Ligurian sea
-  Agricultural fields
-  Railway

Green infrastructure

-  Green areas
-  Pastures and uncultivated land
-  Forest

While the P.U.C. lays out important strategies, several aspects require deeper reflection or alternative approaches:

Transformation areas near the river

Many of the designated transformation sites lie close to the Centa River. Considering Albenga's history of floods, these areas demand more detailed hydraulic strategies and a more cautious development approach.

Transformation of the current station into a park

Although the concept is compelling, its implementation will be crucial to Albenga's future. This area should be treated as a major urban project, supported by strong design strategies and community-oriented planning. This also connected with limiting the transformation of the railway into a cyclepath.

The proposal for a new port:

Although there is advantages in the repercussion of the port, is to consider the physical repercussions that would have introduce a port near the city, specially taking into consideration de size of the city.

Undefined strategy for the coastline

Despite its importance, the coastal area lacks a clear and comprehensive proposal in the P.U.C. Issues of public access, spatial continuity, and the coexistence of private beach concessions and camping areas remain unresolved

Projected new roads, especially around Bastia

While new infrastructure is necessary, the proposed road designs should be better integrated with the urban fabric, considering scale, landscape, and multimodal mobility.



Fig 55. Camping Gallinara [Photography]. Note. campeggio villaggi <https://www.campeggiovillaggi.it/de/stadt/ligurien/savona/albenga/campingplaetze/r7p9c3958>

Site visit

Albenga's Critical Perception

The perception of a place is fundamental to understanding the dynamics that unfold within it, as well as the sense of appropriation and belonging associated with space. As Plato suggested, “space can shape our feelings,” highlighting the close relationship between the built environment and human experience. For this reason, a site visit was essential to our analytical process, allowing us to examine Albenga through direct, embodied perception rather than abstract observation.

temporal choice was intentional, as it allowed us to observe how intensified activity transforms both spatial use and urban experience.

This section therefore aims to reflect on how Albenga is lived and perceived from a pedestrian perspective and through the lens of the tourist, emphasizing the experiential dimension of the city and its public spaces.

In this case, the city was visited during one of its most dynamic periods, August, when tourism reaches its peak, as described in Chapter 1. This

Urban Perception of Albenga



Fig 56. Arrival to Albenga [Photography], Note.By Jose Luis Echevarria



Fig 57. Historical centre [Photography], Note.By Laura A Hurtado

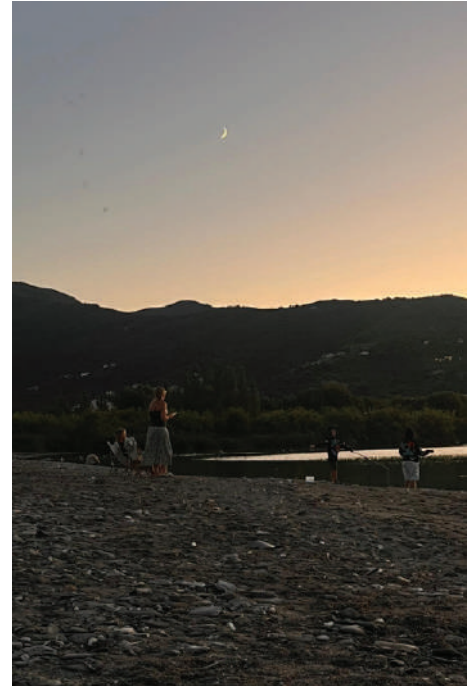


Fig 58. Centa river during a sunset [Photography], Note.By Daniela Pico

Albenga is a city highly visited during the summer due to its proximity to major urban centers such as Milan and Turin. Its family-oriented character and relatively affordable prices, compared to other coastal cities like Alassio or San Remo, make it an attractive seasonal destination. However, this tourist condition has had a direct impact on the city's urban development and on how public space is experienced.

The first impression upon arriving in Albenga by train is significant from an urban perspective. The station exit opens directly onto a large parking area, lacking a clear arrival sequence or transitional spaces for waiting, meeting, or orientation. This condition is paradoxical considering that Albenga is a small and walkable city. As one moves through the urban fabric, it becomes evident that recent urban expansion driven by tourism has prioritized car-oriented infrastructure over pedestrian experience.

The historic center remains enclosed within its ancient walls, which once served a defensive purpose. Crossing these gates produces a strong perceptual rupture: narrow cobbled streets, large palaces, and irregular paths evoke a medieval atmosphere that reinforces the city's historical identity. However, during the morning and midday hours, these spaces appear largely empty. Urban life seems to shift toward the beach, revealing a lack of everyday vitality in the historic center outside specific time frames

Chapter 2

Despite its rich cultural heritage, many of Alben-ga's historical assets remain largely invisible to visitors. Institutions such as the 'Museo Ingauno' house valuable archaeological collections dating back to Roman times, yet local residents report limited tourist interest. The rise of camping sites and enclosed tourist complexes has fostered a pattern in which visitors remain isolated, reducing interaction with the historic city and its cultural infrastructure.

This lack of integration is also evident in the archaeological system, which appears fragmented and disconnected. Sites of high historical value, such as the ruins of San Vittore, are poorly maintained and difficult to access, limiting their potential as meaningful urban spaces. Similarly, the Centa River has become an overlooked element within the urban structure. While flood-protection walls are necessary, they severely restrict physical and visual access to the river, weakening its role as a public and landscape asset.

Crossing the red bridge, the Roman baths emerge as a point of visual interest. Pedestrians frequently stop to observe the ruins and the river's fauna; however, the absence of designed spaces for staying or contemplation turns this experience into a brief pause rather than sustained engagement. This condition repeats along the



Fig 59. A walk through Pontelungo [Photography], Note.By Laura Andrea Hurtado

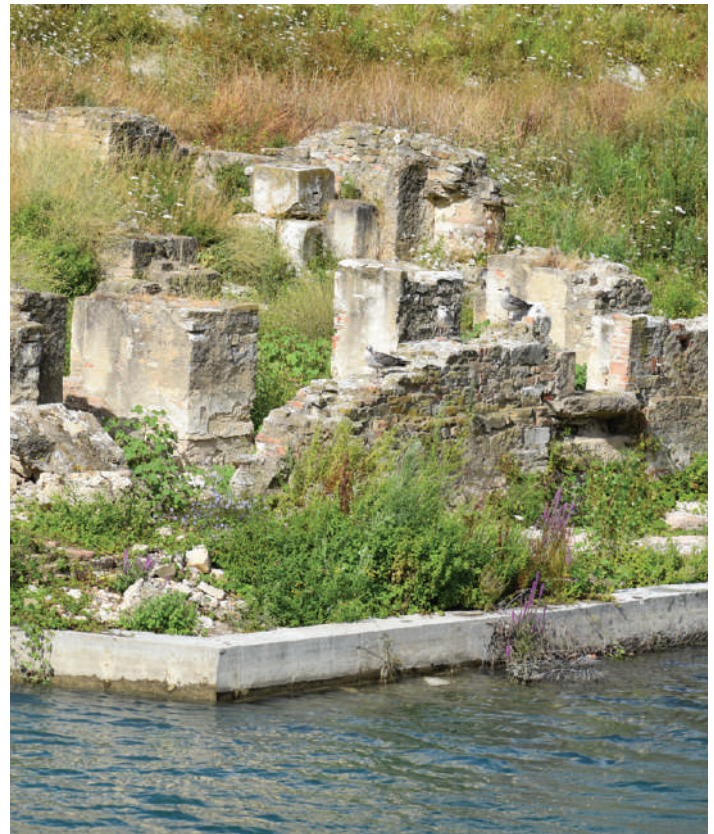


Fig 60. Roman thermes over the Centa river [Photography] Note.By Laura Andrea Hurtado



Fig 61. Centa river during a sunset [Photography], Note.By Laura Andrea Hurtado

Via Julia Augusta, whose access is poorly legible and unsafe due to proximity to high-speed traffic. Although signage indicates the presence of Roman remains, fences and private properties generate uncertainty and discourage exploration.

Once on the Via Julia Augusta, the perception changes significantly. Unlike the historic center, this path is actively used by cyclists, runners, families, and walkers seeking contact with nature. Panoramic views of the Albenga plain, the sea, and Gallinara Island, combined with the presence of Roman ruins, create an atmosphere of calm and contemplation. Nevertheless, the lack of viewpoints, resting areas, and designed spaces of permanence limits its potential as a cultural and landscape infrastructure.

Returning toward the beach reveals one of the city's most significant elements of urban fragmentation: the railway infrastructure. A long embankment cuts across the city longitudinally, allowing only eight crossings toward the sea. These crossings, mostly narrow, dark tunnels shared with vehicles, produce a strong sense of insecurity and reinforce the division between two distinct urban realities. On the seaside, the city adopts a completely different character, dominated by parking areas, tourist-oriented businesses, and a car-centered urban layout.



Fig 62. Centa river during a sunset [Photography], Note.By Daniela Pico

Access to the beach highlights another critical issue: the privatization of public space. Most of the coastline is occupied by private beach clubs, managed usually by the camping sites nearby, severely limiting free public access. The few public access points are distant from the city center and overcrowded during peak tourist seasons. The coexistence of saturated public areas and large empty private beaches exposes an unequal management of the coastal edge. Additionally, unsafe behaviors—such as children climbing railway embankments to reach the beach—underscore the lack of safe and continuous connections.

Finally, the mouth of the Centa River presents a contrasting atmosphere. Here, the environment feels calmer and more authentic: families fishing, children playing in the water, and young people gathering informally. This space reveals Albenga's potential to reconcile nature and urban life, tourism and local use. The experience invites reflection on how the city might reconnect its fragmented elements, reclaim its public spaces, and reintegrate the river and landscape as structuring components of a more inclusive and accessible urban environment.



Fig 63. Centa river during a sunset [Photography], Note.By Daniela Pico



Fig 64. Centa river during a sunset [Photography], Note.By Daniela Pico



Fig 66. Centa river during a sunset [Photography], Note.By Daniela Pico



Fig 65. Centa river during a sunset [Photography], Note.By Daniela Pico

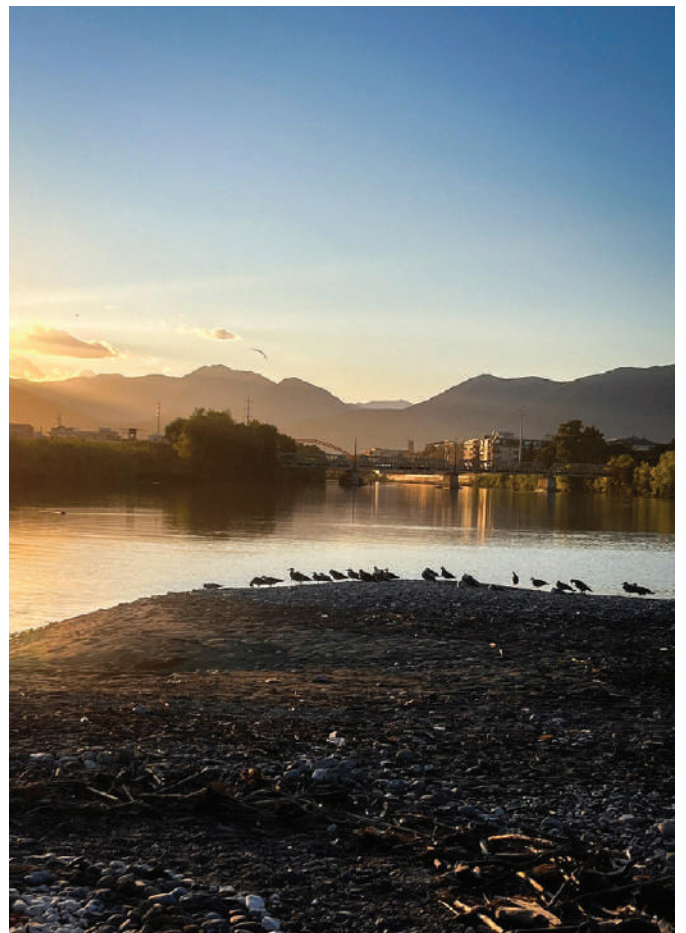
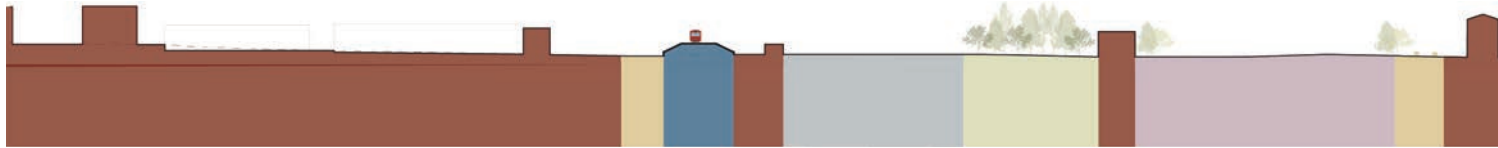


Fig 67. Centa daily life [Photography], Note.By Daniela Pico

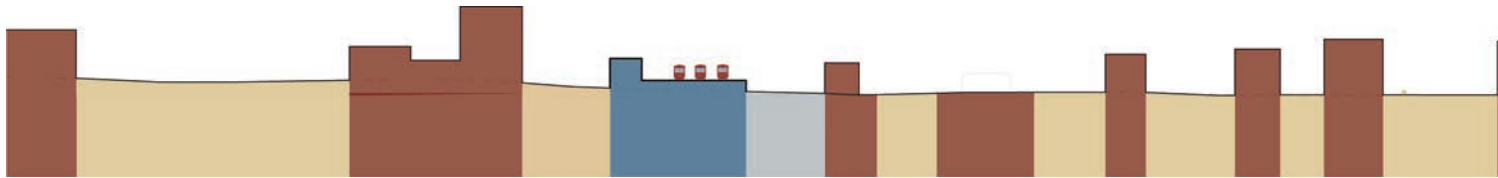
Understanding Albenga's Urban dynamics



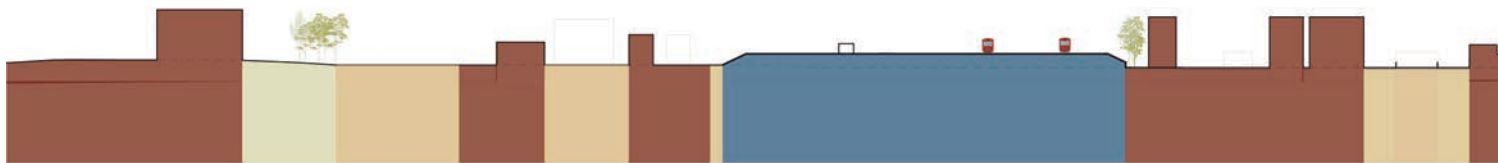
Section A



Section B



Section C



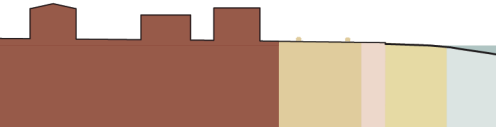
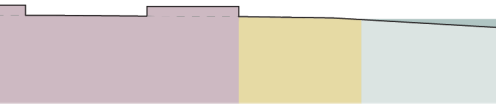
Section D



Section E



Section F

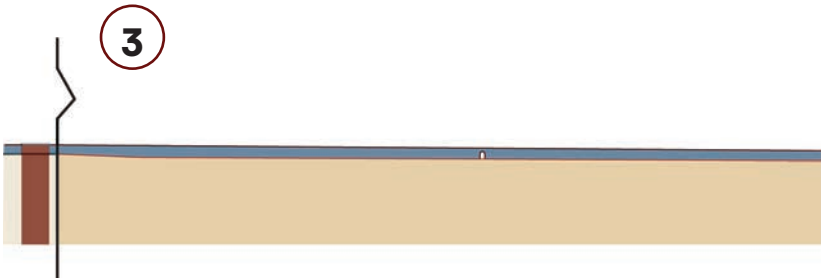
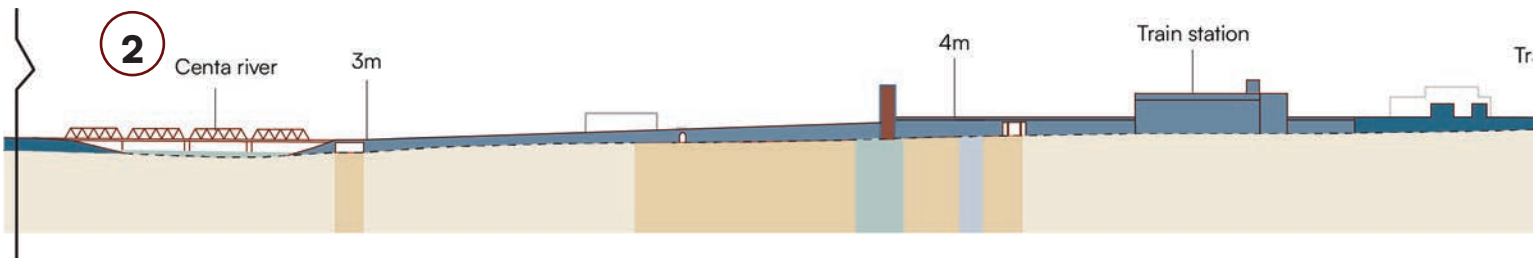
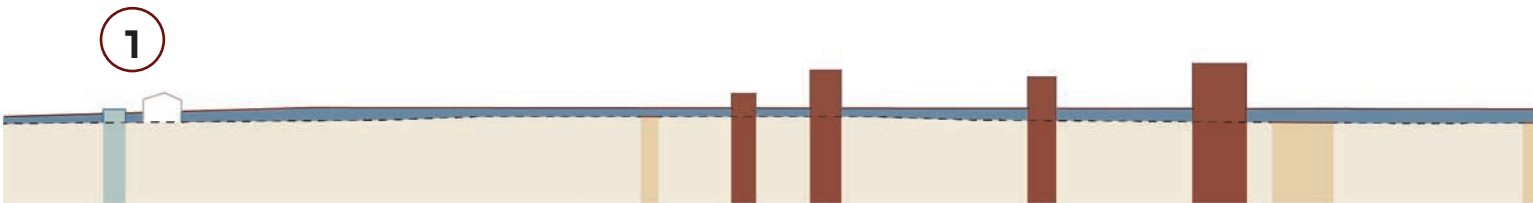


The analysis of the urban sections clearly reveals how the railway infrastructure functions as a major fragmenting element within Albenga's urban fabric. While the width of the railway corridor remains relatively narrow at the points of entry and exit from the city, it expands significantly within the central area, reaching widths of up to 30 meters. This spatial enlargement intensifies its role as a barrier, interrupting continuity between urban sectors and reinforcing physical and perceptual separation across the city.

From the perspective of Kevin Lynch's theory, the railway can be understood as a dominant edge: a linear element that, rather than organizing or structuring urban experience, acts as a hard boundary that limits permeability and weakens legibility. Instead of facilitating orientation or connection, this edge disrupts the continuity of paths and reduces the possibility of fluid movement between the historic center, the newer urban areas, and the coastal front.



- Green areas
- Buildings
- Street
- Railway

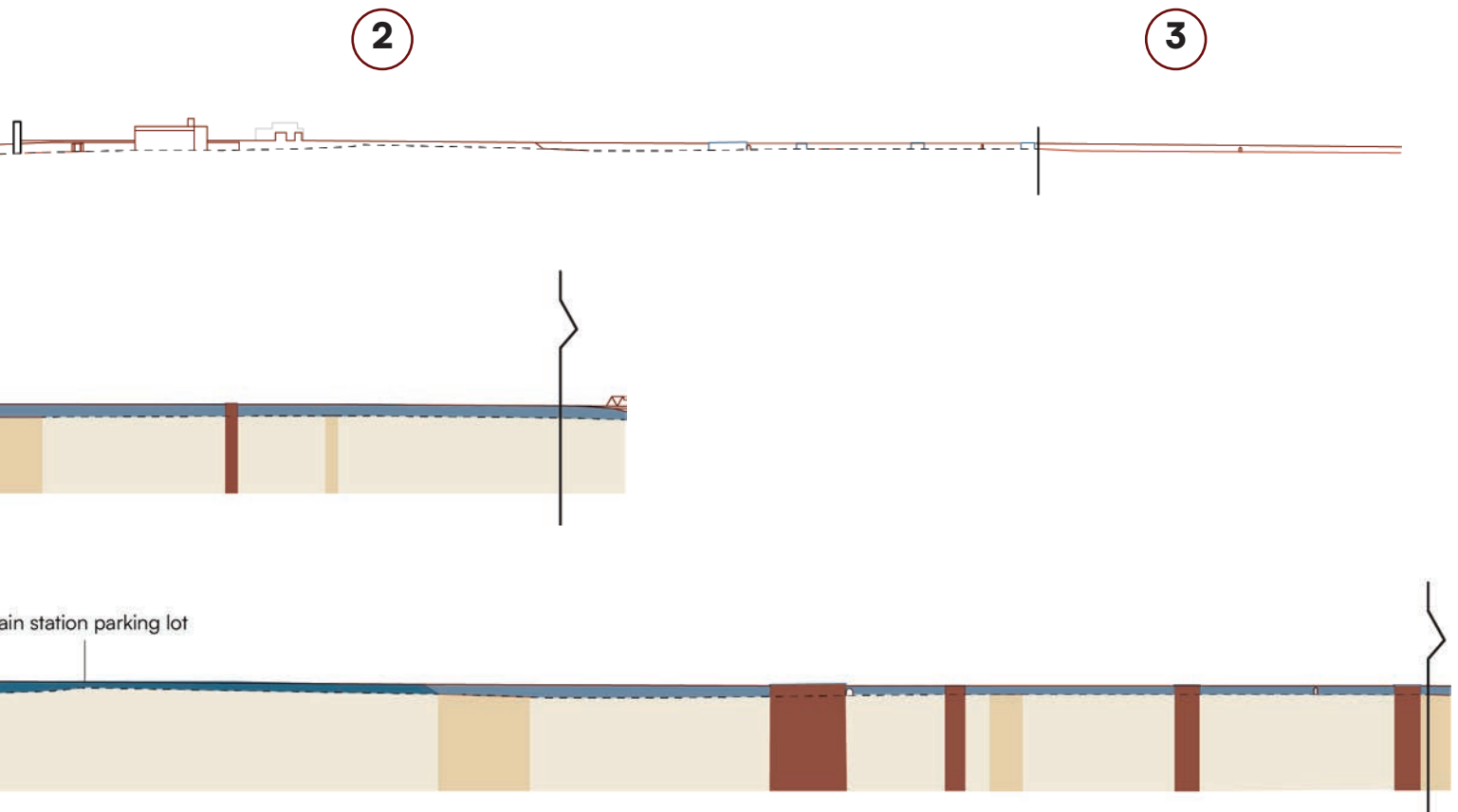


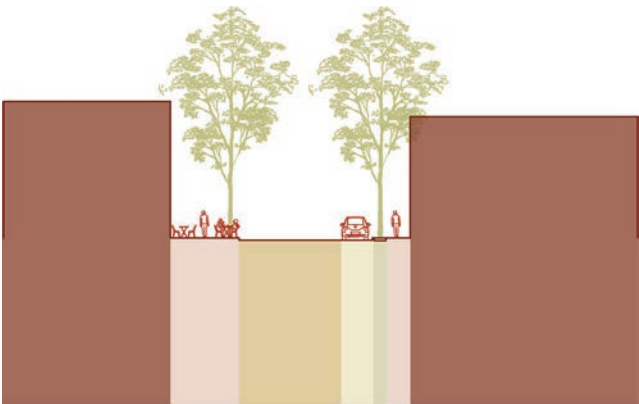
10. Longitudina sections of Albengas structure

This condition invites a critical reflection on the transformative potential of the railway corridor. Rethinking its configuration—whether through total preservation, partial integration, or selective removal—could unlock new opportunities for enhancing urban life and spatial cohesion in Albenga. Such interventions would need to balance infrastructural functionality with the city's long-term urban growth and social integration.

ing and residual open spaces that weaken the urban fabric. These underutilized areas represent a latent opportunity to introduce green spaces and pedestrian-oriented environments that could reconnect the city to the extensive ecological network surrounding it. In this sense, transforming car-dominated voids into ecological and social connectors could help shift Albenga from a fragmented urban system toward a more continuous, legible, and human-scaled city.

At the same time, the transects highlight a broader issue within the contemporary urban expansion of Albenga: the predominance of automobile-oriented planning. Large portions of the new city are occupied by surface park-

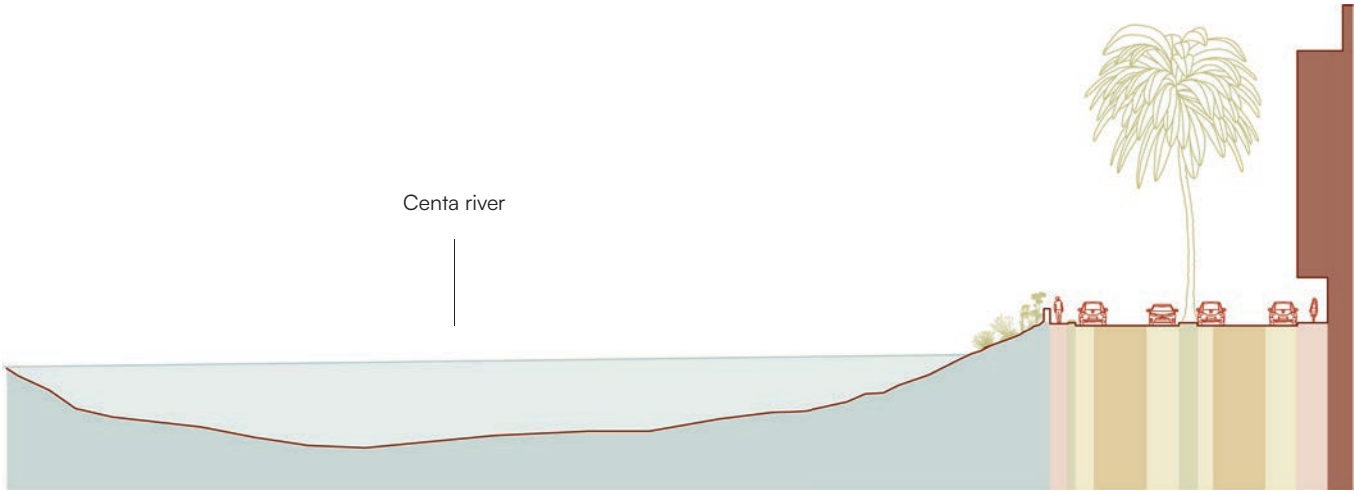




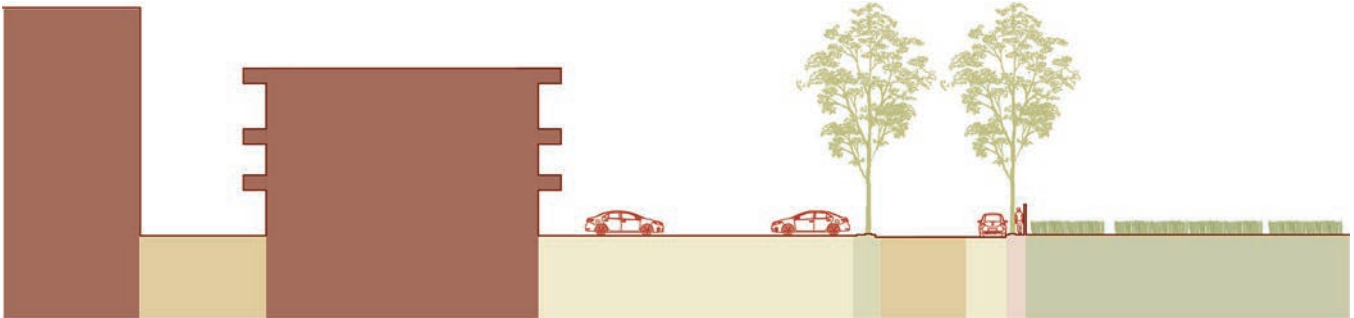
Section A- Viale dei Mille



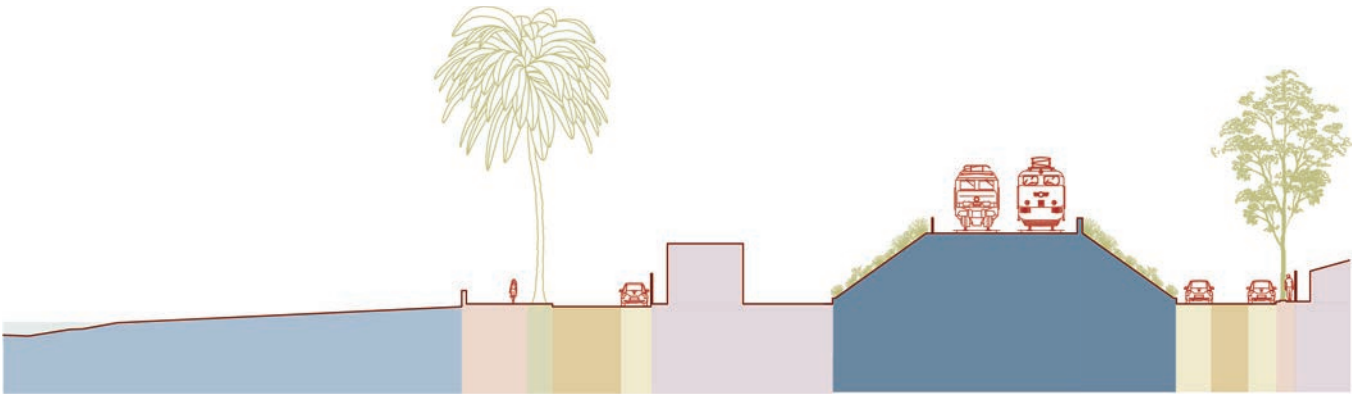
- Green areas
- Buildings
- Parking lot
- Street
- Sidewalk
- Agriculture
- Camping
- Railway



Section B- Lungo Centa



Section C- Viale 8 Marzo



Section D- Viale Ernesto Che Guevara

Albenga's Walkability and accesability



Fig 68. Lungo Centa [Photography], Note.By Daniela Pico



Fig 69. A walk through Ponte rosso [Photography],
Note.By Daniela Pico



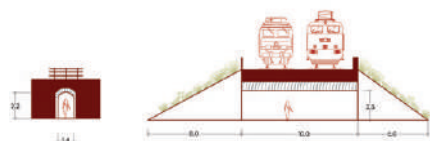
Fig 70. Lungocenta Passway [Photography], Note.By Daniela Pico

During the site visit to Albenga it was noticeable that even though the city is walkable in terms of size and proximity to different facilities, a wide percentage of the city space is dedicated to parking lots and to car mobility, and pedestrian accessibility has a feel of second thought. According to Project for Public Spaces (2000), the people should enjoy their movement though the city with safe and comfortable spaces. However, Albenga ends up having a feeling of discontinuity in the sidewalks and crossings, that force users to share the paths with vehicles at high speed, that translates into an experience far from relaxing and safe.

Additionally, streets such as Via Otto Marzo, one of the main paths that connect the city with the sea, becomes a challenging walk, mainly because space and trees lining the street, located in the middle of the pavement, reducing available space for pedestrians. Meanwhile, on roads such as the Sea front, the pavement is much wider and more comfortable, with shops at various points, but the trees are limited to palm trees that do not provide enough shade to keep pedestrians cool on hot summer days.

This makes a reflection on how to transform the city into a more sustainable model where pedestrians and cyclists are the protagonists of space and not cars, giving a new use of roads, that in low season end up being underused, since the number of motorized vehicles is not the same as in summer.

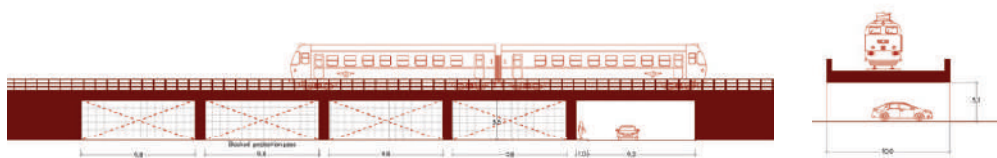
1



Security ● ● ● ● ○

Comfort ● ● ○ ○ ○

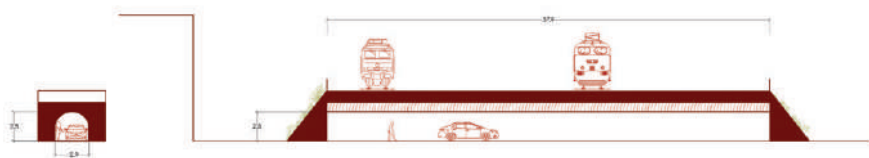
2



Security ● ● ○ ○ ○

Comfort ● ○ ○ ○ ○

3



Security ● ● ● ○ ○

Comfort ● ● ○ ○ ○

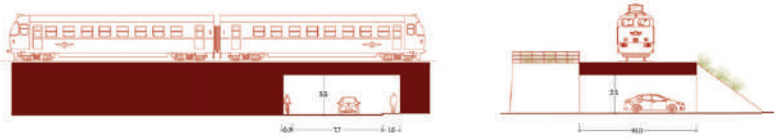
4



Security ● ● ● ● ○

Comfort ● ● ● ● ○

5



Security ● ● ○ ○ ○

Comfort ● ● ○ ○ ○

Albenga's Perception as a commuter

Through on-site observation in Albenga, it became evident that the railway infrastructure represents one of the most significant agents of spatial fragmentation within the city. Rather than functioning as a connective element, the railway acts as a physical and symbolic barrier that disrupts both the landscape and everyday urban dynamics. In several sections, the tracks are elevated between 3 and 4 meters above ground level, requiring embankments and retaining walls that severely obstruct continuous pedestrian movement toward the seafront and weaken the relationship between the historic center and the coastal area.

Although eight crossings exist along the railway line connecting the historic core to the waterfront, these passages are largely inadequate. Their narrow dimensions, poor visibility, and shared use by pedestrians and vehicles reveal a clear lack of human-centered design. In several cases, as shown in Fig. __, pedestrians are forced to navigate confined tunnels alongside vehicular traffic, generating conditions of insecurity and discomfort. These issues are further exacerbated at night by insufficient lighting, which reinforces the perception of danger and discourages pedestrian use.

This infrastructural configuration exposes a fundamental contradiction in Albenga's urban structure: despite its compact size and theoretical walkability, the city prioritizes vehicular circulation over pedestrian accessibility and urban continuity. The railway, combined with significant level differences, contributes to socio-spatial segregation by directing tourists almost exclusively toward the maritime front while confining local residents to the historic center. As reported by inhabitants, this spatial polarization limits interaction between visitors and the historic fabric, undermining the cultural and economic vitality of the old town and reinforcing a fragmented urban experience.



Fig 71. Tunnel [Photography], Note.By Jose Luis Echevarria



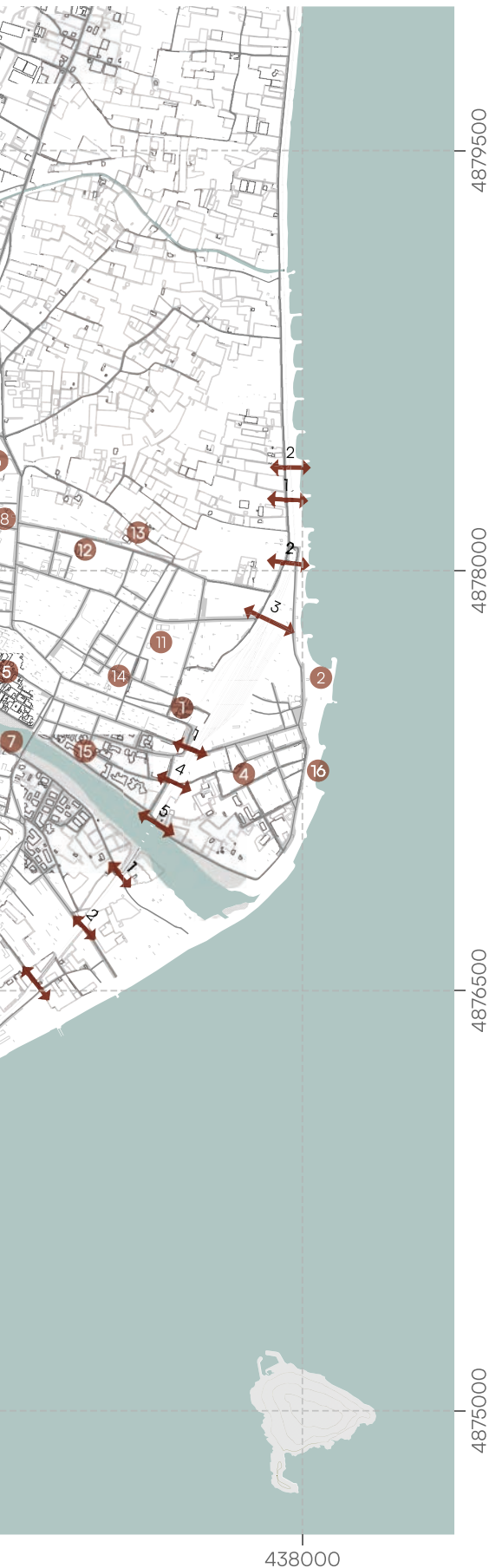
Fig 72. Lungocenta Underpass [Photography], Note.By Daniela Pico



Qualificacion of Albenga's Public space



Luego de comprender los diferentes criterios que hacen un espacio publico un lugar de calidad. Decidimos evaluar distintas areas que nosotros consideramos criticas en Albenga



1. Albenga's Train station
2. Piazza Fabrizio De André Albenga
3. Via Giulia Augusta
4. Piazza Europa
5. Albenga's historical City centre
6. Ponte lungo
7. Albenga's Roman Thermes
8. Basilica di San Vittore
9. Commercial area viale Martiri della Foce
10. Spiaggia San Michele
11. Piazza Enzo Tortora
12. Parco viale Otto Marzo
13. Viale dei Mille
14. Viale Lungo Centa-Crocce Bianca
15. Lungo mare- Cristoforo Colombo
16. Viale Otto Marzo

Perception quality of Albenga's Public space



Albenga's Train station

Use and user	● ● ○ ○ ○
Accessibility	● ● ● ● ○
Ammenities & Furniture	● ○ ○ ○ ○
Comfort and safety	● ● ○ ○ ○
Green environment	● ○ ○ ○ ○

Albenga's train station has a central location, which makes it highly accessible in terms of mobility. However, upon exiting the station, users are immediately confronted with a large parking area. There are no defined waiting spaces, public amenities, or a welcoming arrival sequence, resulting in a poor first impression of the city.



Piazza Fabrizio De André Albenga

Use and user	● ● ● ● ○
Accessibility	● ● ● ○ ○
Ammenities & Furniture	● ● ● ○ ○
Comfort and safety	● ● ○ ○ ○
Green environment	● ○ ○ ○ ○

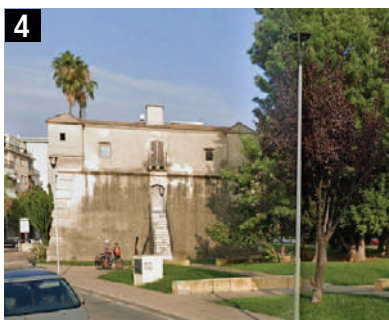
This plaza functions as a residual space within the urban fabric. It is poorly connected to the historic center, although it maintains a stronger relationship with the waterfront. Despite its large dimensions, it offers few areas for staying, limited vegetation for shade and comfort, and insufficient lighting, which negatively affects safety.



Via Giulia Augusta

Use and user	● ● ● ● ○
Accessibility	● ● ● ○ ○
Ammenities & Furniture	● ● ● ○ ○
Comfort and safety	● ● ● ● ○
Green environment	● ● ● ● ●

The entrance to this trail is not clearly visible and is uncomfortable to access due to the need to cross several high-traffic roads. Nevertheless, the route supports activities such as hiking, cycling, and historical learning. Given its views, the inclusion of rest areas and viewpoints would enhance users' connection with the surrounding landscape.



Piazza Europa

Use and user	● ● ● ● ○
Accessibility	● ● ● ● ○
Ammenities & Furniture	● ● ● ● ○
Comfort and safety	● ● ● ● ○
Green environment	● ● ● ● ○

This plaza is strategically located between the waterfront and the historic center. It accommodates a variety of activities, attracting diverse users. While it includes abundant urban furniture, much of it is in poor condition. Lighting is insufficient, and changes in level make the space inaccessible for people with disabilities.

5



Albenga's historical City centre

Use and user



Accessibility



Ammenities & Furniture



Comfort and safety



Green environment



The historic center supports a wide range of activities throughout the day, making it an active social and meeting point in the city. However, accessibility for people with disabilities remains limited. While some urban furniture exists, most seating and amenities are privately owned.

6



Ponte lungo

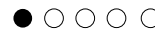
Use and user



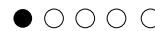
Accessibility



Ammenities & Furniture



Comfort and safety



Green environment



The bridge is in very poor condition, making it unsafe for pedestrians. It is disconnected from the urban fabric and heavily polluted. Poor lighting further contributes to discomfort and a sense of insecurity, discouraging pedestrian use.

7



Albenga's Thermes

Use and user



Accessibility



Ammenities & Furniture



Comfort and safety



Green environment



The baths are an important and interesting point of observation, but viewpoints are very limited. Surrounding furniture is poorly maintained and oriented away from the ruins, facing nearby buildings instead. Vegetation is overgrown and unmanaged, and the information point lacks visibility.

8



Basilica di San Vittore

Use and user



Accessibility



Ammenities & Furniture



Comfort and safety



Green environment



The ruins of San Vittore are not accessible from all sides and suffer from poor maintenance, pollution, and inadequate lighting. These conditions reduce public interest and engagement. There is a lack of surrounding public space and furniture that would allow users to interact meaningfully with the site.



Commercial area viale Martiri della Foce

Use and user	● ● ○ ○ ○
Accessibility	● ● ● ● ○
Ammenities & Furniture	● ● ○ ○ ○
Comfort and safety	● ● ○ ○ ○
Green environment	● ● ● ○ ○

The street has adequate dimensions for pedestrians and cyclists; however, its proximity to a fast-moving road limits its activity and creates a sense of insecurity. Vegetation is present but does not provide sufficient shade, causing discomfort during summer months. There are few areas for stopping or resting or creating a connection with the Centa river.



Spiaggia San Michele

Use and user	● ● ○ ○ ○
Accessibility	● ● ○ ○ ○
Ammenities & Furniture	● ○ ○ ○ ○
Comfort and safety	● ● ○ ○ ○
Green environment	● ● ○ ○ ○

The beach reflects a common pattern found in many cities: extensive privatization limits public access and reduces available space. Located far from the historic center, it becomes overcrowded during peak tourist seasons and lacks vegetation that could provide shade and improve comfort.



Piazza Enzo Tortora

Use and user	● ● ● ● ○
Accessibility	● ● ● ● ○
Ammenities & Furniture	● ● ● ○ ○
Comfort and safety	● ● ● ● ○
Green environment	● ● ● ○ ○

Although located away from the historic center, this plaza attracts diverse users thanks to its sports facilities, playgrounds, and capacity to host public events. This flexibility is a strength. While it includes sports and play equipment, its resting areas and tree coverage could be improved.



Parco viale Otto Marzo

Use and user	● ● ○ ○ ○
Accessibility	● ● ● ○ ○
Ammenities & Furniture	● ○ ○ ○ ○
Comfort and safety	● ● ● ○ ○
Green environment	● ● ● ○ ○

This park is located far from the city center but within a highly residential area. It has generous green spaces but lacks furniture and pathways, limiting its use mainly to dog walking. Some lighting is present, but it is insufficient to ensure safety at night.

Critical Description of the Landscape

Qualification of road connectivity



Viale dei Mille

Use and user	● ● ● ○ ○
Accessibility	● ● ● ● ○
Ammenities & Furniture	● ● ● ○ ○
Comfort and safety	● ● ● ● ○
Green environment	● ● ● ● ○

This street that connects the train station with the city centre does not include a dedicated bike lane and has limited urban furniture, though lighting is adequate. While relatively narrow, it benefits from tree coverage and active ground-floor commercial uses, which increase pedestrian comfort and perceived safety.



Viale Lungo Centa-Crocce Bianca

Use and user	● ● ○ ○ ○
Accessibility	● ● ○ ○ ○
Ammenities & Furniture	● ○ ○ ○ ○
Comfort and safety	● ● ○ ○ ○
Green environment	● ● ● ○ ○

This street is in poor condition, making walking uncomfortable. Existing furniture is damaged, and low activity levels contribute to a strong sense of insecurity. Vegetation is abundant but unmanaged, reinforcing the perception of a neglect space. It limits the connection with the Centa River



Lungo mare- Cristoforo Colombo

Use and user	● ● ● ● ○
Accessibility	● ● ● ● ○
Ammenities & Furniture	● ● ● ● ○
Comfort and safety	● ● ● ● ○
Green environment	● ● ● ○ ○

The generous dimensions of the Lungomare make it an ideal space for walking. It offers ample furniture and commercial activity near the central area. Although tree-lined, the vegetation does not provide sufficient shade during summer, limiting pedestrian comfort.



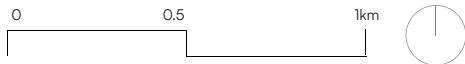
Viale Otto Marzo

Use and user	● ● ● ○ ○
Accessibility	● ● ● ○ ○
Ammenities & Furniture	● ● ● ○ ○
Comfort and safety	● ● ● ○ ○
Green environment	● ● ● ● ●

One of the defining qualities of this street is its abundant tree coverage, making it one of the greenest streets in Albenga. However, sidewalks are very narrow, reducing walkability. In addition, insufficient lighting creates a perception of insecurity at night.



Critical map Albenga's Perception



- Historical path of the Centa river
- Critical points
- Critical roads
- Via Julia Augusta
- Crossing points
- Urban areas of transformation
- Parking lots
- Building traces
- Railway
- Agricultural fields

Infrastructure

- Buildings
- New development railway line
- Liguria sea
- Centa river
- Road area
- Riverbed
- Forest
- Contour lines

Map 24. Critical map and interpretation

The critical map aims to illustrate the critical aspects of the site from an interpretative perspective developed through direct observation and analysis. This reading emerged from the site visit, during which we engaged with local residents, tourists, and professionals familiar with the area. Their insights, combined with the interpretation of the P.U.C. (Piano Urbanistico Comunale), informed a more grounded understanding of the spatial dynamics at play. The PUC emphasizes the need to strengthen Albenga's relationship with its coastal front, the Centa River, and its historical and infrastructural corridors through strategies focused on ecological restoration, improved mobility, and urban regeneration (Albenga e Urbanistica, 2015).

Building on these principles, the critical map identifies and spatializes areas where strategic ambitions intersect with existing vulnerabilities and opportunities. By highlighting critical road infrastructures, heritage axes such as Via Julia Augusta, sensitive agricultural land, river-edge conditions, and key crossing points, the map reveals the structural tensions described in the

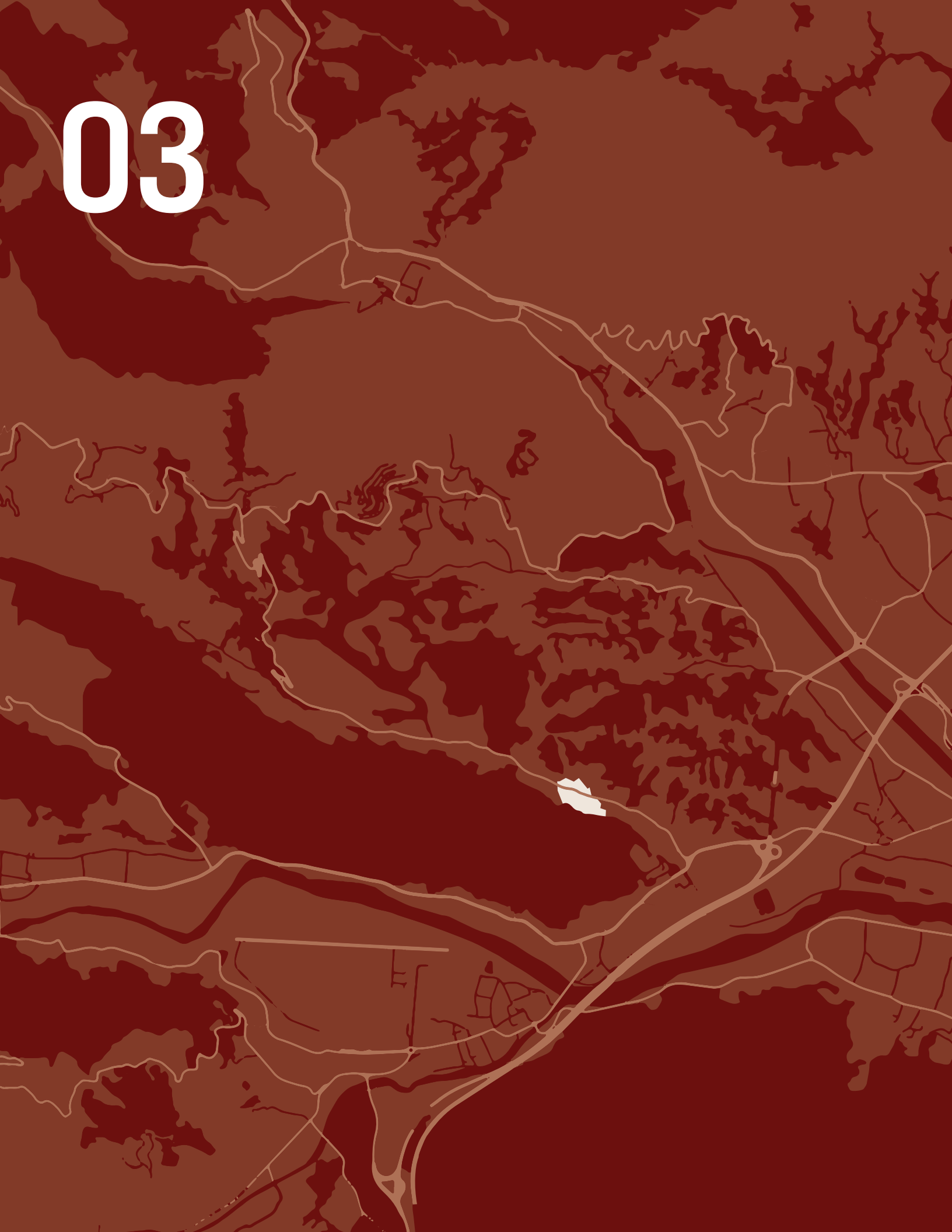
PUC. These include the contrast between urban expansion and environmental fragility, between mobility congestion and the potential for soft mobility networks, and between valuable cultural assets and the pressures of surrounding urban development.

Through this diagrammatic approach, the map translates the strategic intentions of the PUC into a clear territorial framework. It identifies priority areas where future landscape and urban interventions could reinforce ecological continuity, improve accessibility, and better integrate Albenga's coastal, historical, and river systems. Ultimately, the network of open and public spaces emerges not only as a tool to enhance quality of life, but also as a key element in improving mobility, connectivity, and the overall functioning of the city, synthesizing analysis and strategy into a coherent vision for Albenga's landscape.



Fig 73. River Centa [Photography], Note.By Laura Hurtado

03





THE CULTURE OF DESIGN



Fig 74. Albenga skyline. [Photography]. Note. By Hurtado, A.Laura

References and understandings

The following chapter presents a selection of reference projects that inform the development of this proposal. These are not understood as direct models to be replicated in Albenga, nor as exact solutions to its specific conditions. Instead, they are examined as strategic precedents that address challenges comparable in nature, even if different in scale, context, or urban structure.

Each case study is approached as a source of methodological insight. The focus is placed less on their formal outcomes and more on the strategies they employ: how they respond to environmental fragility, how they reconnect fragmented urban systems, how they activate public space, or how they prioritize certain uses and social dynamics. By analyzing the processes, design principles, and spatial operations behind these interventions, it becomes possible to extract adaptable lessons rather than fixed formulas.

These references help to frame a coherent line of action for Albenga. They offer examples of how complex urban conditions can be addressed through layered strategies, where landscape, infrastructure, heritage, and mobility are understood as interconnected systems rather than isolated elements. In this sense, the cases serve as conceptual and operational tools, guiding decision-making and clarifying which types of interventions and activities could be prioritized within the local context.

Ultimately, this chapter builds a bridge between analysis and proposal. By reflecting on how other cities have approached similar tensions, it becomes possible to position the project within a broader disciplinary conversation, while still responding specifically and critically to the realities of Albenga.

Zeist Station square

Arcadis Landscape architecture and urbanism

Location	Zeist, Netherlands
Year	2020
Size	5 hectares
Keywords	Infrastructure, Sustainability, Multimodal mobility



The project emerges as a renewal of the former railway station that has connected Driebergen-Rijsenburg and Zeist since 1844. Due to increasing traffic volumes, spatial overcapacity, and frequent congestion that created hazardous conditions for users, the need for intervention became evident. As a response, the station's renovation was initiated in 2015 under the design of Arcadis.

The project was conceived with sustainability as its guiding principle, shaping both its spatial organization and infrastructural strategies. One of the key design decisions was the introduction of an elevated railway track, allowing for a smoother and more continuous transition

between infrastructure and landscape. Beneath this elevated structure, a wide underpass was designed to ensure safe and balanced movement for cyclists, pedestrians, cars, and buses.

This integrated solution significantly improves mobility and safety while enhancing the overall quality of life for residents. At the same time, the project enables the creation of an efficient public transport interchange, offering an effective response to the high volume of passengers and contributing to a more resilient and well-coordinated mobility system.



Fig 75. Zeist Station square [Rendering], Note.By Arcadis

Strategies

1 Water management and energy efficiency

The station incorporates water collection systems that capture runoff from roadsides and horizontal surfaces such as roofs. A green sedum system plays a key role in water retention, drainage, and infiltration, reducing surface runoff and improving environmental performance. Lighting and technical installations are designed using innovative and energy-efficient solutions, contributing to lower energy consumption and long-term sustainability.

2 Accessibility and multimodal mobility

To ensure high levels of accessibility and safety, the station uses an underpass to organize traffic flows. Dedicated cycling routes and a bicycle parking facility are integrated into the design, encouraging sustainable mobility. Large public squares and clearly defined paths facilitate smooth pedestrian movement, while a bus terminal supports public transport. Additionally, more than 600 parking spaces accommodate private vehicles, reinforcing the station's role as a multimodal transport hub.

3 Landscape integration and ecological balance

The elevated station design allows the surrounding landscape to be visually and physically integrated into the infrastructure. Large groups of robust trees follow the main circulation routes leading to the central square, reinforcing ecological continuity and creating a sense of environmental balance between built form and natural elements.

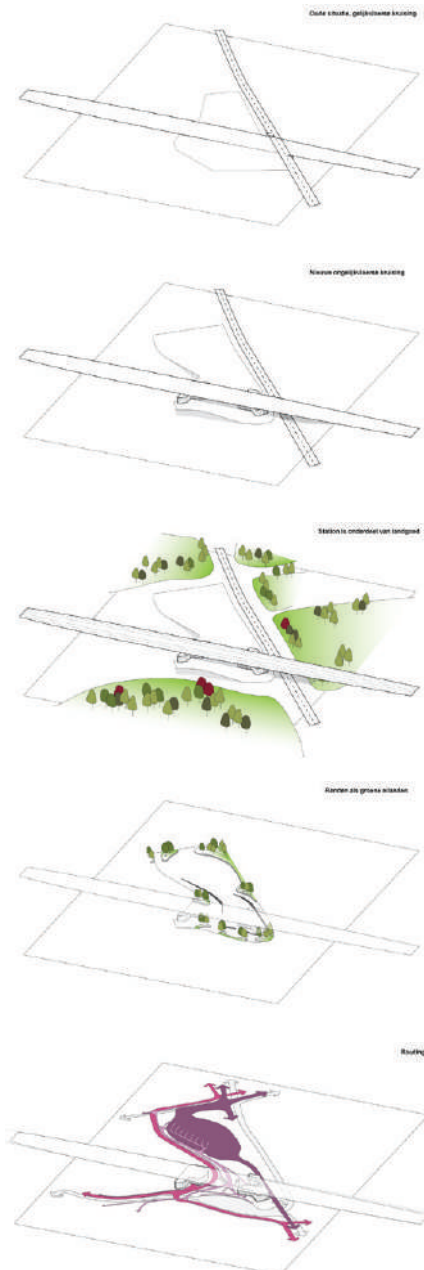


Fig 76. Zeist square concept. [Diagram] Note.By Arcadis



Fig 77. Zeist square masterplan [Plan]. Note.By Arcadis

Promenade Plantée

Jacques Vergely & Philippe Mathieux- René Dumont

Location	Paris, France
Year	1990
Size	4.5 kilometers
Keywords	Infrastructure, Preservation, Revitalization



The project known as the Promenade Plantée (or Coulée Verte René-Dumont) runs through Paris’s 12th arrondissement, extending for approximately 4.5 km, with an average width of 9 meters, and rising up to 9 meters above street level.

In the 1970s, the City of Paris commissioned the Paris Urban Planning Workshop (Atelier Parisien d’Urbanisme) to evaluate the future of the abandoned infrastructure of the former railway line. Two main hypotheses emerged: either demolish the viaduct and replace it with new ground-level development, or preserve the structure and transform it into an elevated pedestrian

promenade.

Given the close proximity of surrounding buildings and the greater economic feasibility of reuse, the city opted for preservation. In 1983, the municipality launched the redevelopment project with the aim of revitalizing the area. The former railway station was converted into an exhibition space, while the viaduct’s arches were restored and adapted to accommodate commercial spaces and housing, establishing a new urban layer that integrates infrastructure, public space, and everyday life.



Fig 78. Promenade Plantée [Photography], Note.By La camera verde

Fig 79. Take a promenade in Paris [Diagram], Note.By thegoodlifeFrance

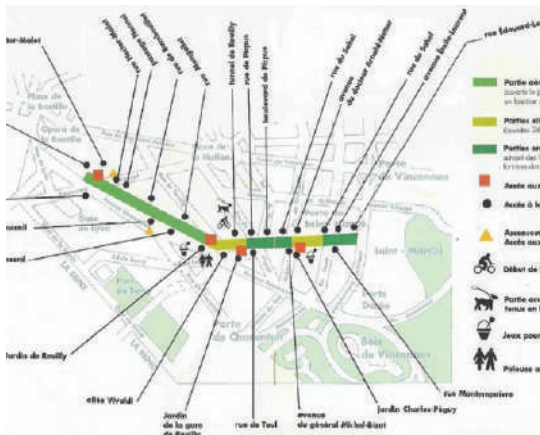
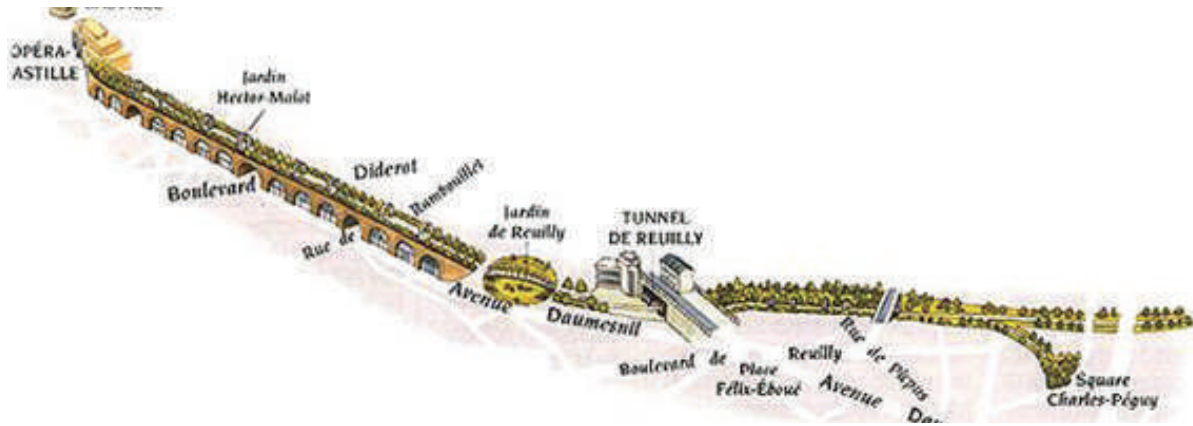


Fig 80. Promenade Plantée [Diagram], Note.By La camera verde

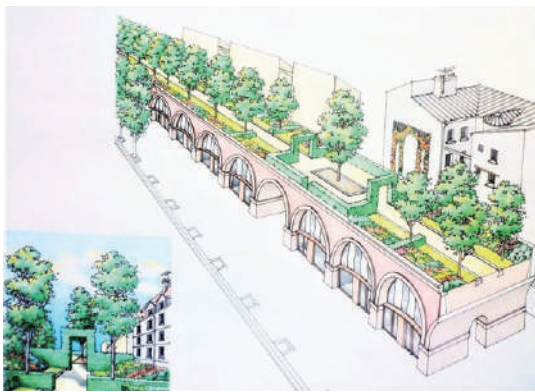


Fig 81. Park over the railway [Perspective], Note.By René Dumont



Fig 82. Gardens in Promenade Plantée [Photography], Note.By Parigionline

1 Adaptive Reuse and Heritage preservation

The project allows the recovery the historical value while creating an ecological infrastructure inside the city. The preservation and transformation of the space lead a sustainable development of cities. On the other hand, the study and readaptation of the old facades allow to continue the heritage of this important element in the city

2 Integration of Public Space and Local Economy

Beneath the elevated walkway, the historic brick arches of the Viaduc des Arts were restored and repurposed into artisan workshops, galleries, cafés, and boutiques, enlivening the street level with commercial and cultural activity. This dual function public park above and economic corridor below supports local enterprise while enriching the city's social fabric, promoting both cultural continuity and economic revitalisation through the varied uses according to different users and ensuring the flexibility of the space.

3 Ecological and Landscape Diversity

The design prioritises green infrastructure and ecological richness by preserving and introducing diverse vegetation along the promenade, ranging from planted gardens on the viaduct to spontaneous growth preserved in former railway tunnels. Special zones "Enclosed gardens" were created following the same layout but with different themes, generating different atmospheres. This layered landscape approach enhances biodiversity, improves microclimatic conditions, and creates varied spatial experiences that integrate nature into the dense urban context.

Seguin Island Gardens

Michel Desvigne Paysagiste

Location	Boulogne-Billancourt, France
Year	2015 — Ongoing
Size	4.35 ha
Keywords	Infrastructure, Adaptative reuse, Revitalization



Île Seguin, located on the Seine River in Boulogne-Billancourt, was once home to the iconic Renault automobile factory, one of the largest industrial complexes in France and a symbol of the country’s twentieth-century industrial development. Following the factory’s closure in 1992, the island became a vast post-industrial site awaiting a new identity. Rather than erasing this history, Michel Desvigne reinterprets the former industrial landscape through a contemporary landscape framework that preserves its spatial memory.

Instead of reconstructing the industrial structures, the project translates their logic into rhythm, geometry and vegetation. Tree alignments, open meadows, gentle topography and a sequence of connected public spaces organize movement while maintaining the site’s historical legibility. The park becomes part of a larger metropolitan landscape system, reconnecting the Seine River, surrounding neighbourhoods and new public institutions through a coherent network of public spaces. The result is a landscape that transforms industrial heritage into a resilient ecological and civic infrastructure for the future.

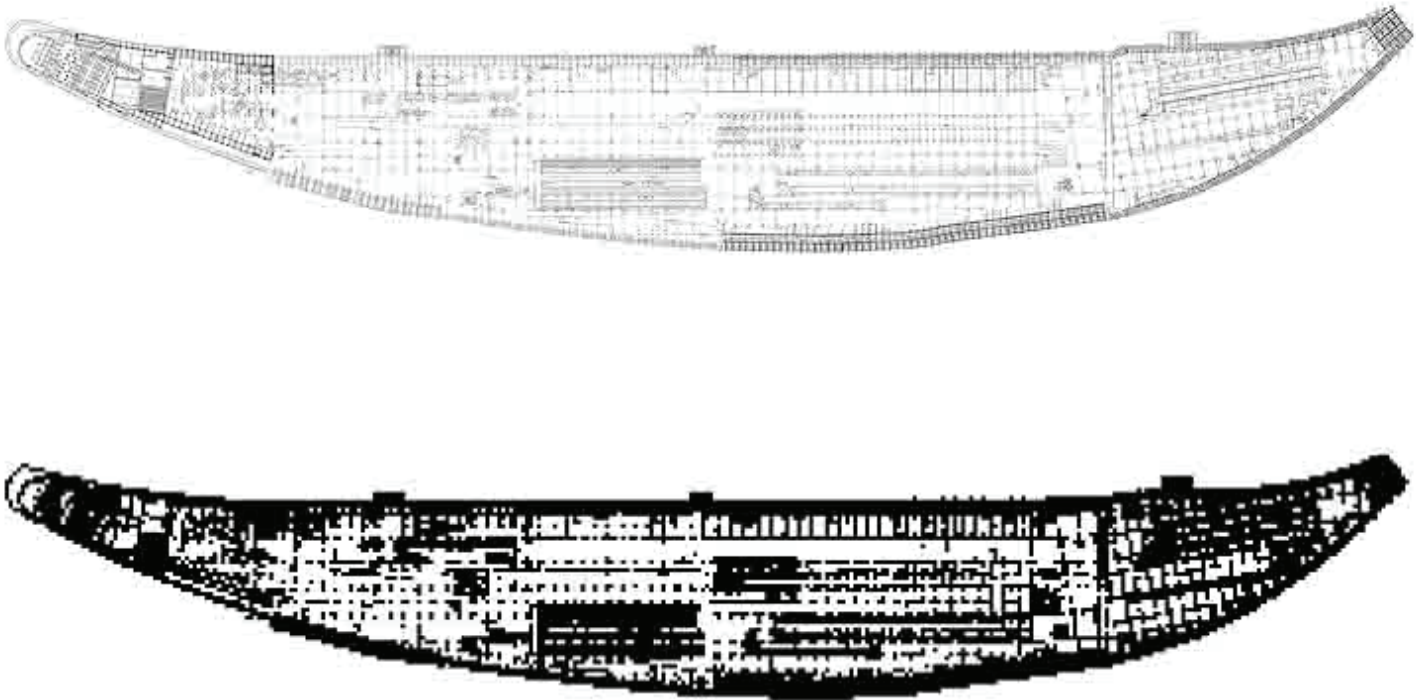


Fig 83. Ile seguin Schema [Diagram], Note.By Michel Desvigne Paysagiste

Fig 83. Landscape intervention [Photomontage], Note.By Michel Desvigne Paysagiste



Fig 85. Ile seguin Jardin preconfiguration [Aerophoto], Note.By Michel Desvigne Paysagiste

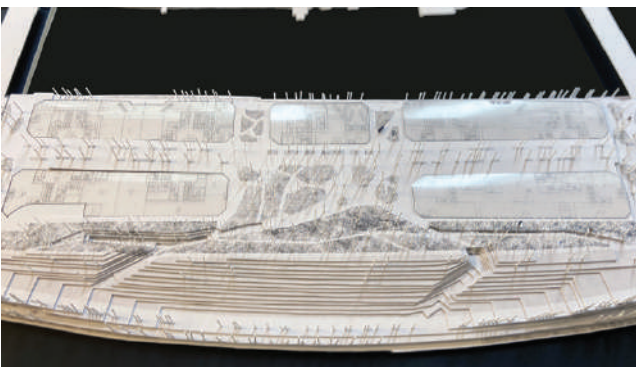


Fig 86. Topographic intervention [Model], Note.By Michel Desvigne Paysagiste



Fig 87. Learning gardens [Photography], Note.By Michel Desvigne Paysagiste

1 Landscape as Memory

Rather than reconstructing the former Renault factory, the project preserves its presence through abstraction. Geometric alignments, repeated planting patterns and spatial rhythms reinterpret the industrial structure without reproducing it literally, allowing the site's history to remain legible within a contemporary landscape.

2 Topography as Spatial Infrastructure

The park is shaped through subtle modifications of the existing terrain rather than large architectural gestures. Gentle slopes, carved pathways, bridges and open meadows organize circulation, reveal changing perspectives and connect different urban levels while maintaining the continuity of the landscape.

3 Vegetation as Urban Structure

Vegetation is used as the primary spatial framework of the project. Tree-lined promenades establish orientation and rhythm, while meadows, woodland bands and open clearings define a sequence of public rooms with different scales, atmospheres and ecological functions. Rather than acting as decoration, planting becomes the element that organizes movement, frames views and creates identity across the site.

Aalborg Waterfront

CF Møller

Location	Aalborg, Denmark
Year	2004-2022
Size	17 hectares
Keywords	Landscape, Public space, Waterfront



The Aalborg Waterfront project arises from the transformation of a former industrial harbour that for decades played a central role in the city's economic and productive life. During the 20th century, Aalborg's waterfront was dominated by port activities, warehouses, and heavy infrastructure that gradually created a physical and visual barrier between the city and the Limfjord. As industrial functions declined towards the end of the century, large areas along the waterfront were left underused, fragmented, and disconnected from everyday urban life.

In response, the municipality initiated a long-term re-generation strategy aimed at reclaiming the waterfront as a public and civic space. Designed by C.F. Møller Architects, the Aalborg Waterfront project reinterprets the former harbour landscape into a continuous urban promenade that reconnects the city with the water. The project integrates existing industrial structures, robust materials, and large-scale spatial gestures that recall the site's history, while introducing new public spaces oriented toward social life, culture, and leisure.



Fig 88. Seafront promenade [Photography]. Note. By CF Møller

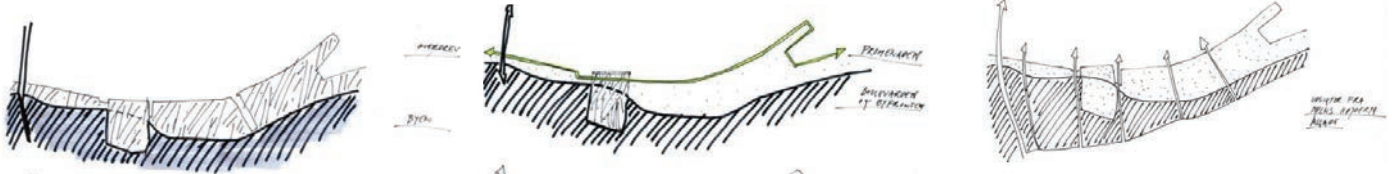


Fig 89. Aalborg Waterfront phases [Diagram], Note.By Landezine, CF Møller



Fig 90. Masterplan [Plan], Note.By CF Møller

1 Reconnecting City and Fjord

The master plan strategically links Aalborg's medieval centre with the adjacent Limfjord, transforming a previously inaccessible industrial harbour into a vibrant civic waterfront. By activating gaps in the urban fabric and establishing a continuous promenade, the project turns a neglected back-edge into an attractive public front, improving permeability and expanding visual and physical access to the water. Tree-lined boulevards, pedestrian and cycling routes, and a sequence of urban gardens ensure a robust public realm that supports daily life and diverse activities along the quay.

2 Multi-functional Public Spaces

A range of plazas, stepped terraces, and harbour promenades are integrated into the design to accommodate multiple uses throughout the year. These spaces host markets, informal sport, social gatherings, and leisure activities, from beach volleyball in summer to ice skating in winter, making the waterfront a dynamic stage for public life. Urban gardens, play landscapes, and green planting areas reinforce social interaction and promote activities for all age groups, fostering a lively and inclusive waterfront environment varied uses according to different users and ensuring the flexibility of the space.

3 Landscape Continuity and Resilience

The design uses material and spatial continuity to reinforce the connection between the city and its natural setting. A raised urban plinth unifies buildings and public spaces while providing flood protection for the city. The planting strategy uses lush green spaces and native vegetation to frame historic embankments and enhance ecological quality. Materials, such as asphalt, corten steel, concrete, and wood, reflect the raw qualities of the fjord while subtle references to water through wavy pavement patterns establish an aesthetic continuity with the maritime landscapesphere of the space across the seasons, from winter to summer.

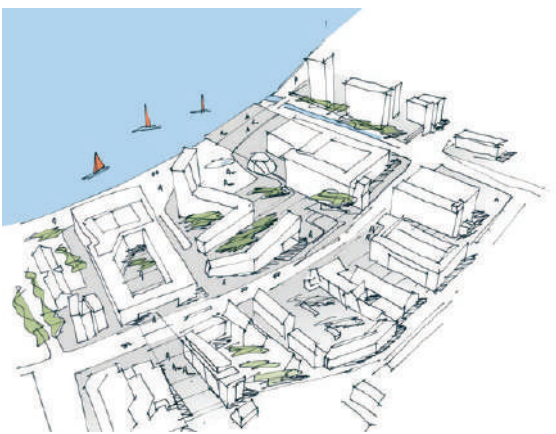


Fig 91. Urban integration [Perspective], Note.By CF Møller

Oasi del Nervia

Municipality of Ventimiglia / LDA

Location	Ventimiglia, Italia
Year	1990 / 2018
Size	60 km ²
Keywords	Naturalist Oasis and Site of Community Interest (SIC)



The Oasis del Nervia project in Ventimiglia is an environmental and urban regeneration initiative that seeks to protect a unique ecosystem at the mouth of the Nervia River, integrating it with modern sustainable mobility infrastructure.

Despite being a limited access area, it contains and merges with other structures that generate an interaction with the reserve. Is for this main reason that is taken into consideration on how to protect and interact with vulnerable spaces and enhance the fragile dynamics.

This is a protected area with around 160 botanical species found and protected in it, and represents a historical and important relation between the protecting and caring of the fauna and flora found along the river.

Inside this whole area one of the main aspects taken into account is the pedestrian and cycling bridge by architect L. Dolmetta. Enhancing this relationship between river and pedestrians.



Fig 92. Technical plan of pedestrian bridge [Plan], Note. LDA

Project core ideas

1 Renaturalization and Protection

Work is underway to safeguard more than 140 bird species (such as the kingfisher and the grey heron) and 160 plant species. Recently, grey heron nesting in the area was recorded for the first time.

3 Regeneration of degraded areas

The plan includes the restoration of the old railway yard on the right bank and the Via Dante area on the left to create new public spaces.

This project from the bigger scale to the development of the cycle path is taken into account as a reference, specially because the relation between different scales, and the development of public space project that look into connection and the fragile ecosystems of the river

2 Sustainable Mobility

The central element is the 120-meter pedestrian and cycle bridge connecting Ventimiglia and Camporosso. This infrastructure is part of the Pelagos Cycle Route, a 12-km route that promotes ecotourism.

4 Adjacent Urban Interventions

Complementary works are underway, such as the construction of a new Coop supermarket and improvements to the surrounding road network.

mouth. The delicate way that is put into the territory creates an example on how to use this ecosystems to generate spaces of protection and at the same time of relations.



Fig 93. View to pedestrian bridge [Photography], Note. LDA / A.Bosio



Fig 94. View from pedestrian bridge [Photography], Note. LDA / A.Bosio



Fig 95. Aerial view of the bridge [Photography], Note. LDA / A.Bosio



Fig 96. Cycle path connected to the bridge [Photography], Note. LDA / A.Bosio

Parco Fluviale del Trebbia

Municipality of Piacenza

Location	Piacenza, Italia
Year	2009
Size	30 km
Keywords	Flooding, protection, terraces, path, river



The intervention developed along the Borgotrebbia sector of the Parco Regionale Fluviale del Trebbia can be understood as a landscape strategy that negotiates the relationship between urban edge and fluvial dynamics through topography. In this area, the transition from the city of Piacenza to the riverbed is not resolved through rigid containment, but through a system of gently modeled embankments, floodable terraces, and adaptive paths that accommodate seasonal variations in water level. The project does not oppose flooding; instead, it spatializes it. The topography becomes a mediating device that absorbs hydrological fluctuation while simultaneously supporting public use.

Particularly in Borgotrebbia, the floodable terraces operate as transitional grounds between stable urban fabric and the mutable river landscape. These terraces allow the river to expand during peak flows while maintaining elevated circulation routes for pedestrians and cyclists. The cycling and walking paths are carefully positioned along higher natural or constructed terraces, ensuring continuity of movement even when lower areas are temporarily inundated. This layered section—city, terrace, riverbed—offers a compelling reference for projects that seek to transform infrastructural or topographic limits into inhabitable gradients rather than hard boundaries.



Fig 97. Cycle / pedestrian path Borgotrebbia [Photography],
Note. by Daniela Pico



Fig 98. Aerial view, terraced cycle pedestrian path [Plan], Note. by Own work

1 Topography as flood-adaptive infrastructure

In Borgotrebbe, the landscape is shaped to work with the river's natural regime. Floodable terraces are not residual spaces but deliberate design elements that manage water through sectional variation. The difference in levels creates a hierarchy of use: lower terraces accept periodic inundation, while upper paths remain accessible and structurally stable. This approach demonstrates how modeling the ground can simultaneously address hydraulic performance and public space quality.

3 The urban-river threshold as a gradient, not a border

Rather than defining a sharp boundary between the built environment and the river, the project establishes a transitional landscape composed of slopes, terraces, vegetation, and open surfaces. This gradient condition reduces the perception of division and allows the edge condition to become spatially productive. Such an approach is particularly relevant in contexts where infrastructure or elevation differences currently function as urban barriers.

2 Layered circulation integrated with terrain

The cycling and pedestrian routes are embedded within the natural terraces rather than imposed onto a flat surface. By aligning circulation with higher topographic lines, the project ensures usability across seasonal changes. Movement becomes part of the landscape structure, reinforcing continuity between urban and fluvial systems.

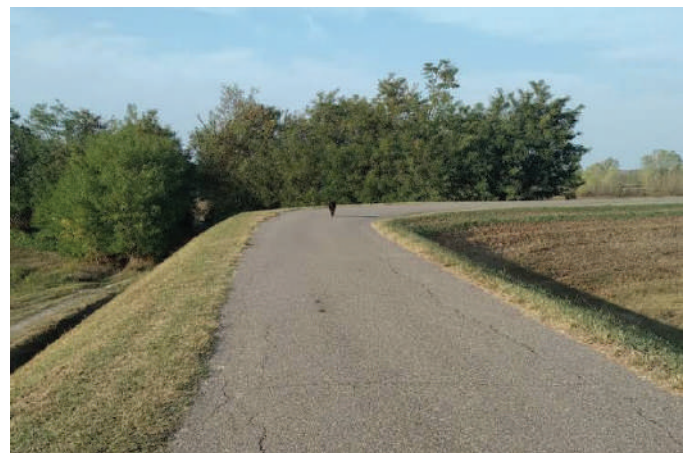


Fig 99. Cycle / pedestrian path Borgotrebbe [Photography], Note. by Mattia Pignatelli Verardi Google pictures

Parco della pace

PAN Associati

Location	Vicenza, Italia
Year	2025
Size	650.000 sqm
Keywords	Flooding, ecotones, earth-works, ecological continuity



Parco della Pace transforms a former airport into a multifunctional ecological infrastructure where hydrology, biodiversity, and public space are integrated into a single landscape system. Through extensive earthworks, a network of canals, wetlands, and floodable areas manages stormwater naturally while creating diverse habitats and ecological transitions.

The project combines environmental restoration with recreation, culture, and slow mobility, demonstrating how nature-based solutions can simultaneously address climate adaptation and urban regeneration. Its approach to shaping topography, restoring ecological processes, and designing a landscape that performs multiple functions strongly resonates with The Centa Trace, where water, productive landscapes, and public space are similarly conceived as a continuous and resilient territorial system.



Fig 100. Build landscape - the mirador [Photography]. Note. by PAN Associati

Project core ideas

1 Floodable Landscape

Water is treated as a design framework rather than a constraint, using floodable basins and wetlands to naturally retain, store, and regulate stormwater while increasing the landscape's resilience to climate change.

3 Adaptive Earthworks

Topography is strategically reshaped through cut-and-fill operations to generate new hydrological systems, create elevated viewpoints, and define a multifunctional landscape where ecological, rec-

2 Ecotonal Transitions

A sequence of interconnected habitats creates rich ecological gradients between land and water, enhancing biodiversity while allowing visitors to experience the landscape through gradual environmental transitions.



Fig 101. Composition details [Photography]. Note. L.Nicola Ugh

Parco marittimo

Agence Ter + PAISÀ Landscape

Location	Ravenna, Italia
Year	2024
Size	Along 35 km of Adriatic coastline
Keywords	Coastal system, resilience, accessibility, mobility, sequence.



The project idea is based on the four principles of “Revealing”, “Mending”, “Amplifying” and “Promoting”.

“Revealing” means offering a double view, immediate and close, which relates the sea, the wetlands, the river mouths and the countryside, with the tourism enhancement initiatives provided for in the development plan of the municipality.

“Mending” is to regenerate the balance interrupted in some parts of the coastal territory in the relationship between beach, dune and pine forest, re-establishing a relationship of natural balance.

“Amplifying” the potential of the territory, offering the visitor an unprecedented and surprising landscape, made up of various environments each with unique characteristics.

“Promoting” means maintaining quality tourism throughout the year, through a system of routes that allow the connection and enjoyment of coastal landscapes, offering opportunities for new activities that relate to the valleys and countryside.



Fig 102. Cycle / pedestrian path towards pine forest [Photography], Note. by PAISA'



Fig 103. Cycle / pedestrian path in dune [Photography], Note. by PAISA'



Fig 104. Cycle / pedestrian path structure [Photography], Note. by PAISA'

1 Mobility as an Ecological Design Tool

The network of pedestrian and cycling paths is conceived as more than circulation infrastructure; it becomes a landscape device that guides visitors through different ecosystems while minimizing environmental impact. Mobility reinforces ecological continuity and encourages a gradual experience of the restored coastal landscape.

2 Resilience as a Spatial Sequence

Climate adaptation is achieved through a continuous sequence of coastal landscapes, including dunes, vegetation, and public spaces that collectively respond to erosion, flooding, and changing environmental conditions. Resilience is embedded in the spatial organization rather than relying on isolated engineering interventions.

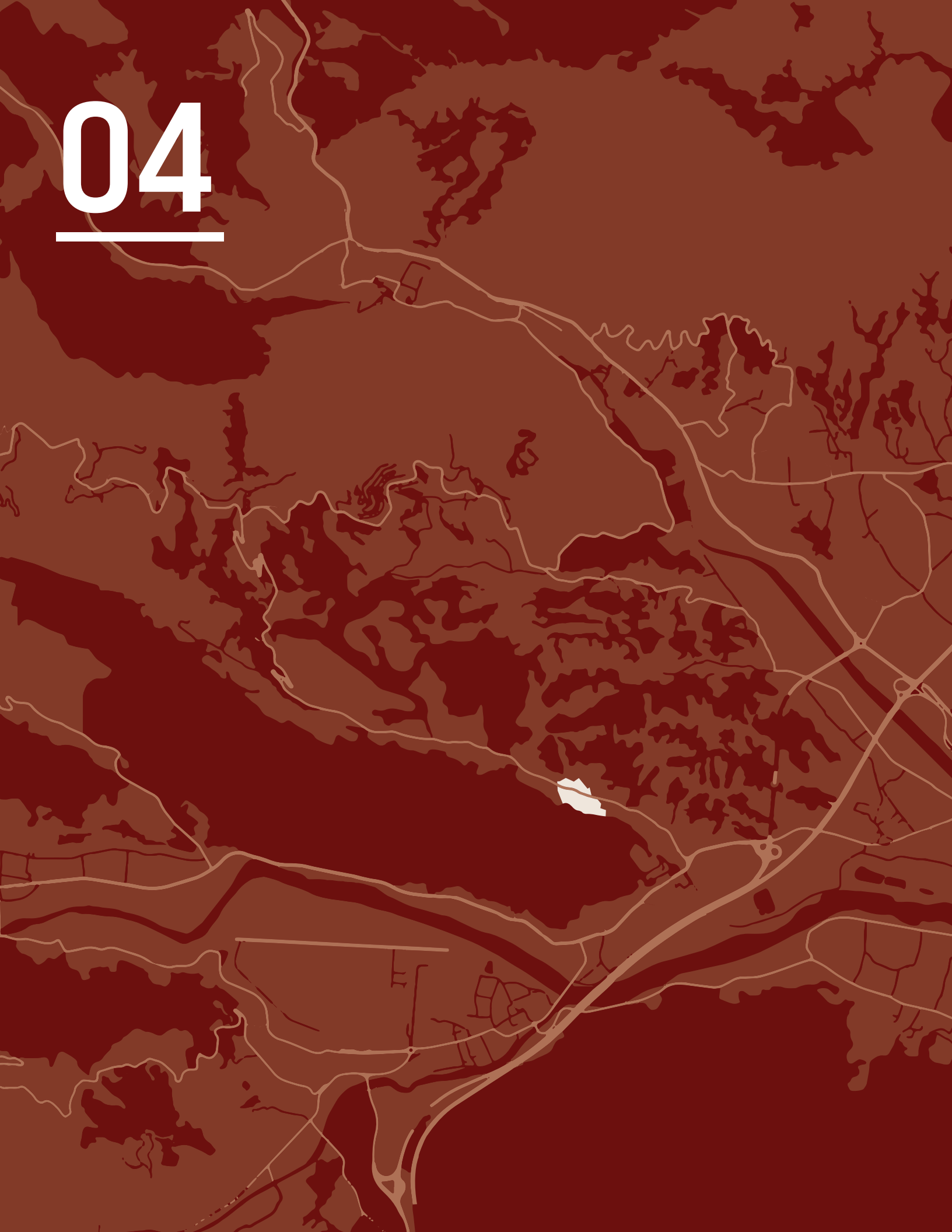
3 Design with the Dune—Pine Forest Alliance

The project works with the natural relationship between coastal dunes and Mediterranean pine forests, reinforcing their ecological interdependence to stabilize the shoreline, enhance biodiversity, and create shaded public spaces. Rather than introducing artificial landscapes, it strengthens existing coastal ecosystems.

4 A Coast for Residents and Visitors

The Maritime Park has the dual purpose of recovering the natural pine forest / dune / coastal system typical of the coast of Ravenna and of enhancement of this ecosystem so as to make it usable by the local and tourist community.

04





STRATEGY

A way to act on the city

After having a clear understanding of the shape of the city and how it has transformed during its process, as well as a clear idea of what would be the ideal to do next, there is the need to make a clear scope on how to transform the city.

We have understood that Albenga has three main factor that have been crucial to the city transformations. And is from this aspects, that the idea on how to organize the city, how to protect it and what to do in it, becomes more clear. Is here were 3 layers are born that become crucial for being able to act on the city

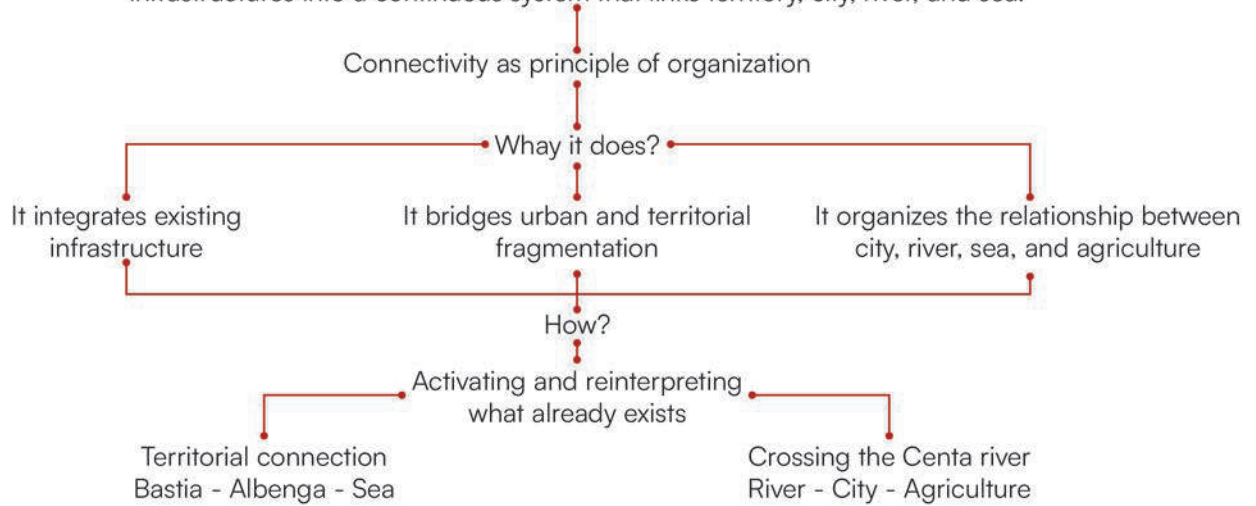
For one, we have the accessibility and the organization. *How to move around the city? How to reach the city? and What is connected with What?* For this becomes crucial to understand connection as an order to organize not only Albenga, but also the different settlements that can be found around it.

The second factor and probably the most complex, since it takes on the landscape of Albenga and how it has been transform along the years, now is proposed as a *transformation that allows to project and act on the territory and give space to ecological networks that define and protect the city.*

Lastly we have the integration of the ground and space with the city activities, the idea is to break the fragmented areas and to create spaces that help integrate and unite different activities giving continuity and access to the city to exiting and new conditions.

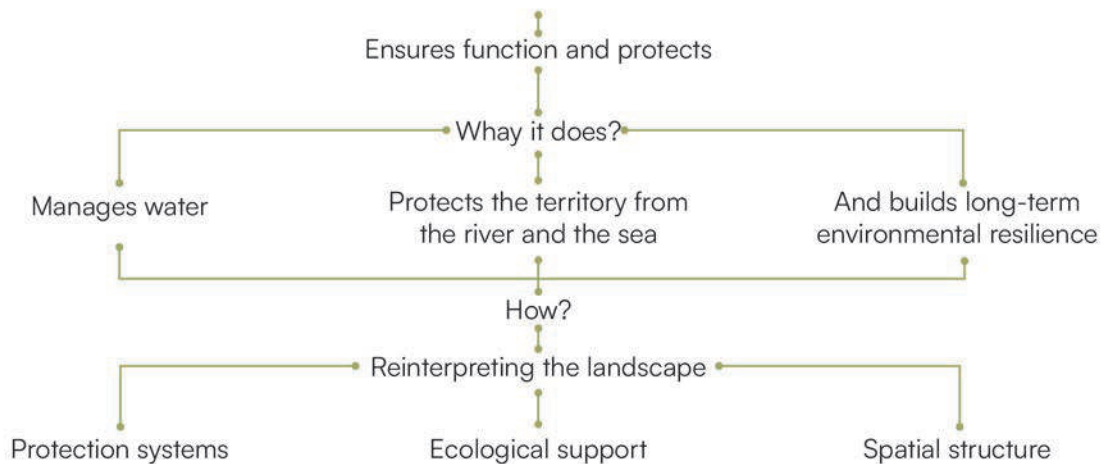
Connectivity as Structure

Connectivity as Structure defines the spatial framework of the project, transforming existing infrastructures into a continuous system that links territory, city, river, and sea.



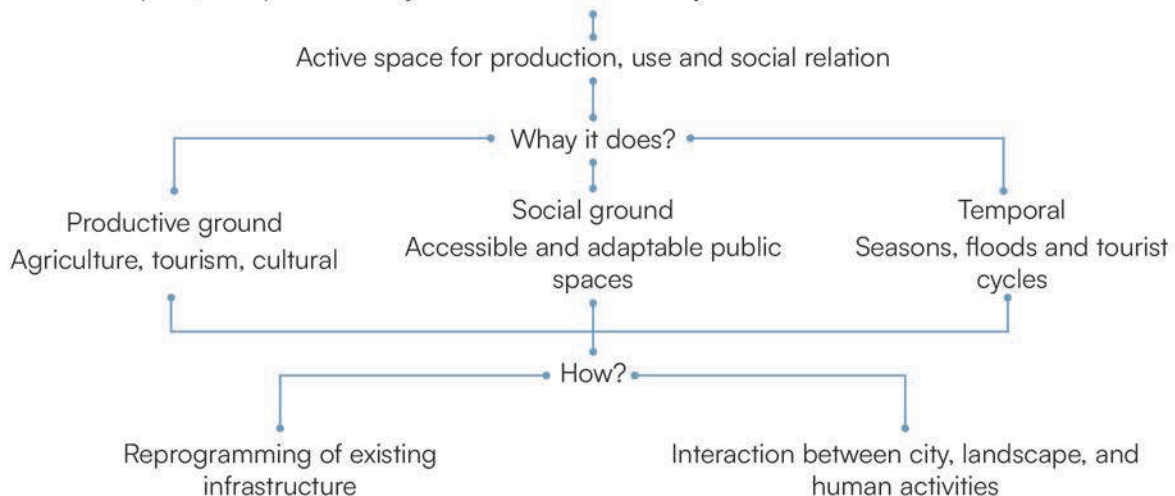
Landscape as Infrastructure

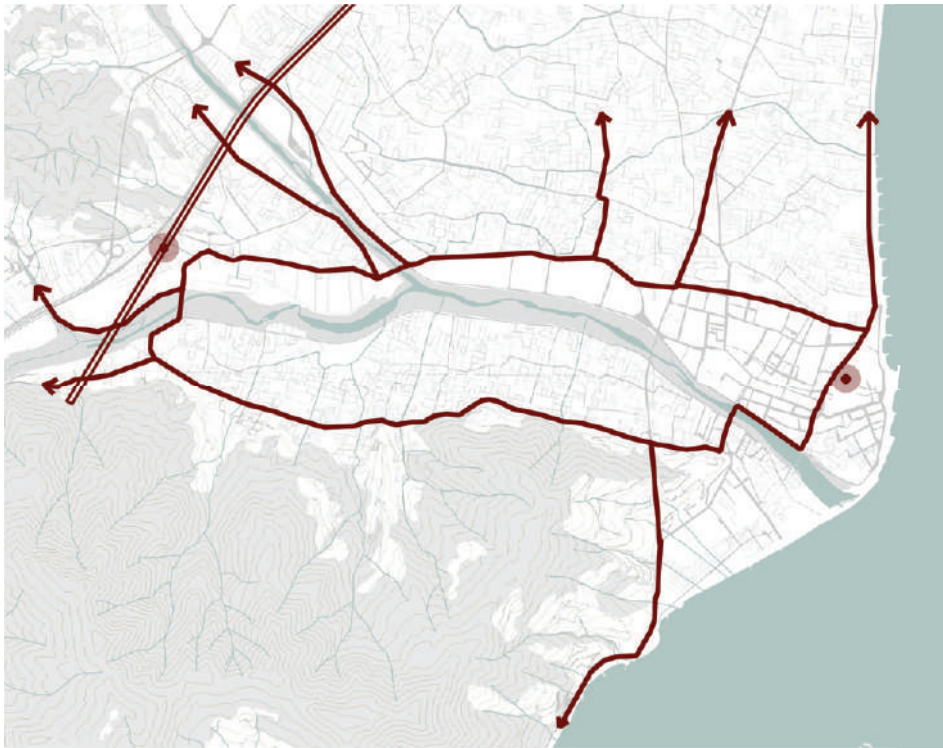
Landscape as Infrastructure redefines the river-sea territory as an adaptive system, where topography, vegetation, and water dynamics operate as a resilient infrastructural framework.



Productive and Social ground

Productive and Social Ground defines the project as a lived landscape, where adaptive uses, public space, and productive systems coexist within a dynamic river—sea environment.

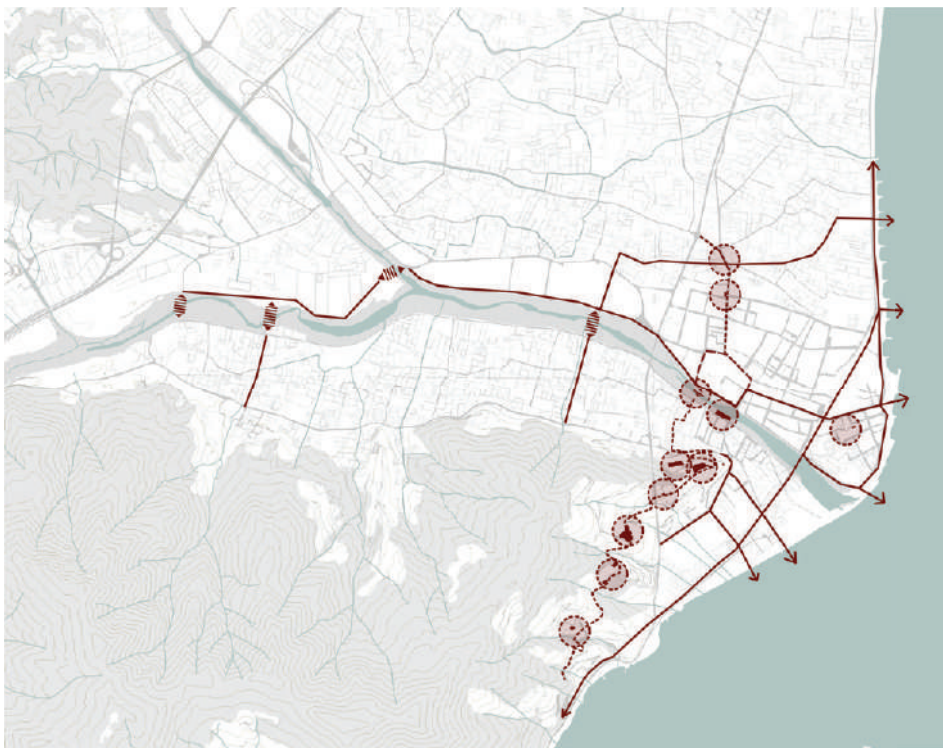




12. Intermodal network strategy

Intermodal Circuit as Urban Connector

Thinking of and Inter-modal network becomes crucial specially with the relocation of the train station to Bastia. The idea is to take into connectivity not as lineal path from one point to the other, but as a circuit that connects flows constantly and not only from Albenga to the new train station but also to the settlements that are disperse in the surrounding of the Centa river.



13. Slow mobility network strategy

Slow mobility Network as Cultural and Territorial Link

Connectivity and organizing the city, is crucial for all the level of mobility. Slow mobility for instance becomes one of the main affected with the change of the train station, so securing a network of crossing along the river and connecting it to strategic point becomes a resource to help connect in a smaller scale.



14. Landscape infrastructure strategy

Landscape as Infrastructure

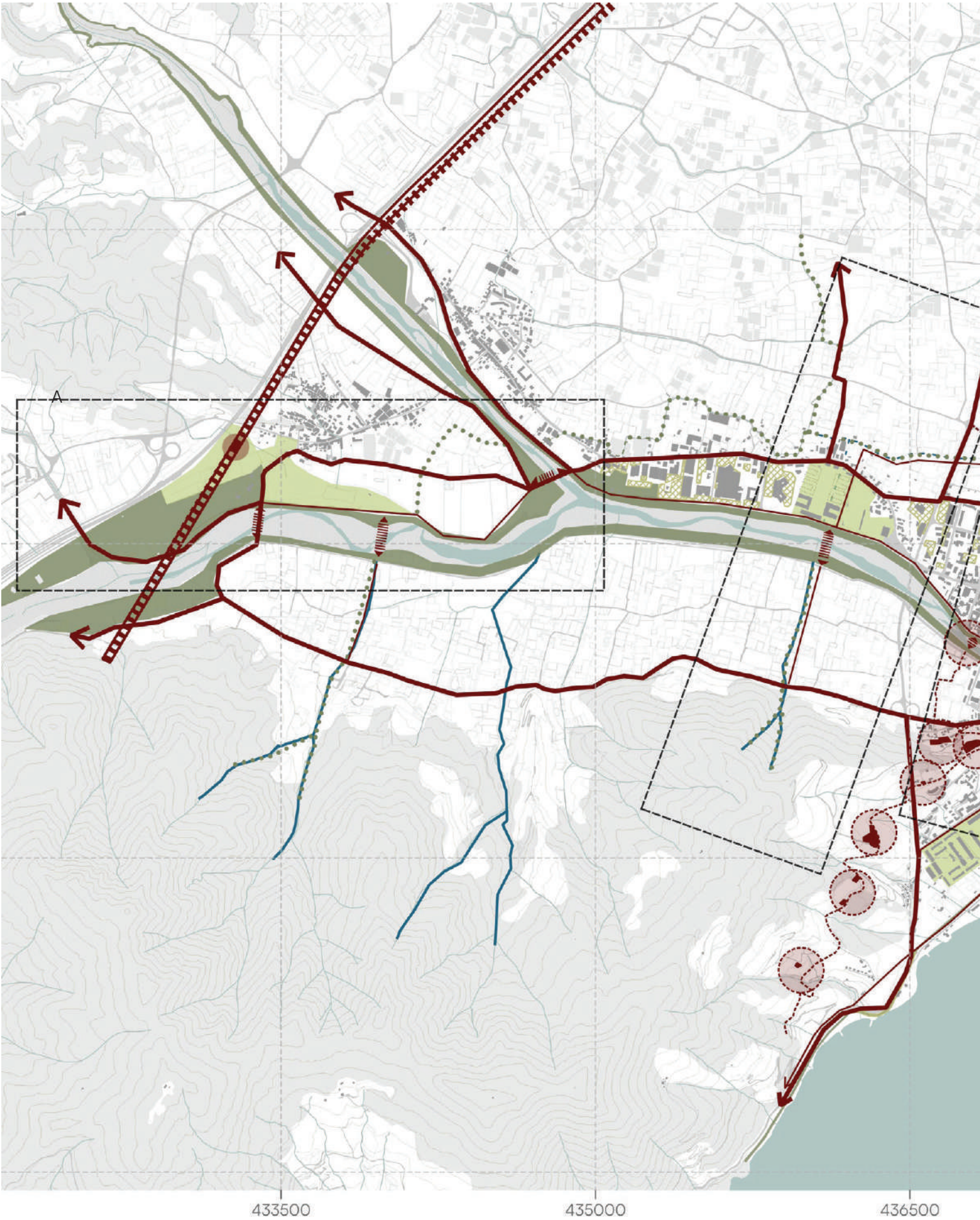
Areas along the river, have been repeatedly transformed during the years, and are home to different activities. Using landscape as infrastructure means transforming and adapting the existing to areas and use them as active landscapes that accomplish a function along the river protecting and connecting the city.



15. Territory as social ground strategy

Territory as a social ground

Finding spaces of transformation and creating new ways to relate to city to them, giving space to what exist but also activating and connecting the city's population, is what a the social ground is aiming for, a place that gathers and connects what existing and what is transformed.



General Strategy Map



--- Selected transects

Connectivity

● Old and New train station

■ New railway area

▨ New connections

— Transit intermodal network

— Slow mobility priority

Heritage

--- Via Julia Augusta

○ Archeological sites

■ Build up area

Urban transformation

... Green infiltration and ecological corridors

▨ Renegotiation of private managed open spaces

▨ Design of water sensitive open spaces

■ Urban transformation into primarily green spaces

■ Land restoration and protection

— Streams

- - - Paleoalveo Centa river to enhance

The strategy aims to create a network capable of transforming the city while anticipating the changes that will shape its future development. Through three interconnected layers, the network organizes the territory into a resilient landscape that can adapt over time as a continuous and robust structure.

To better understand how these layers operate within the territory, three transects were selected in areas where significant transformations and adaptations are expected to occur. The following pages explain in detail the specific strategy applied to each transect.



16. General Strategy map

Transect A

An Intermodal Ecological Node: Connecting Infrastructure, River, and Landscape



Transect A is located in the municipality of Bastia. It was selected to explore how the new train station could be implemented while ensuring its integration with both the existing and projected networks. Special attention is given to the mobility layer and to addressing the potential fragmentation that a railway station may generate.

The aim is to create a structure that supports mobility flows while remaining connected to the surrounding settlement, fostering proximity and continuity. Given Bastia's current distance from Albenga, strengthening this connection becomes essential.

Another key aspect of this transect is the transformation of green spaces and the ecological network. Buffer zones are introduced between infrastructures and the riverbed, promoting ecological adaptation and the regeneration of vegetation.

Intermodal Connectivity in Open Space

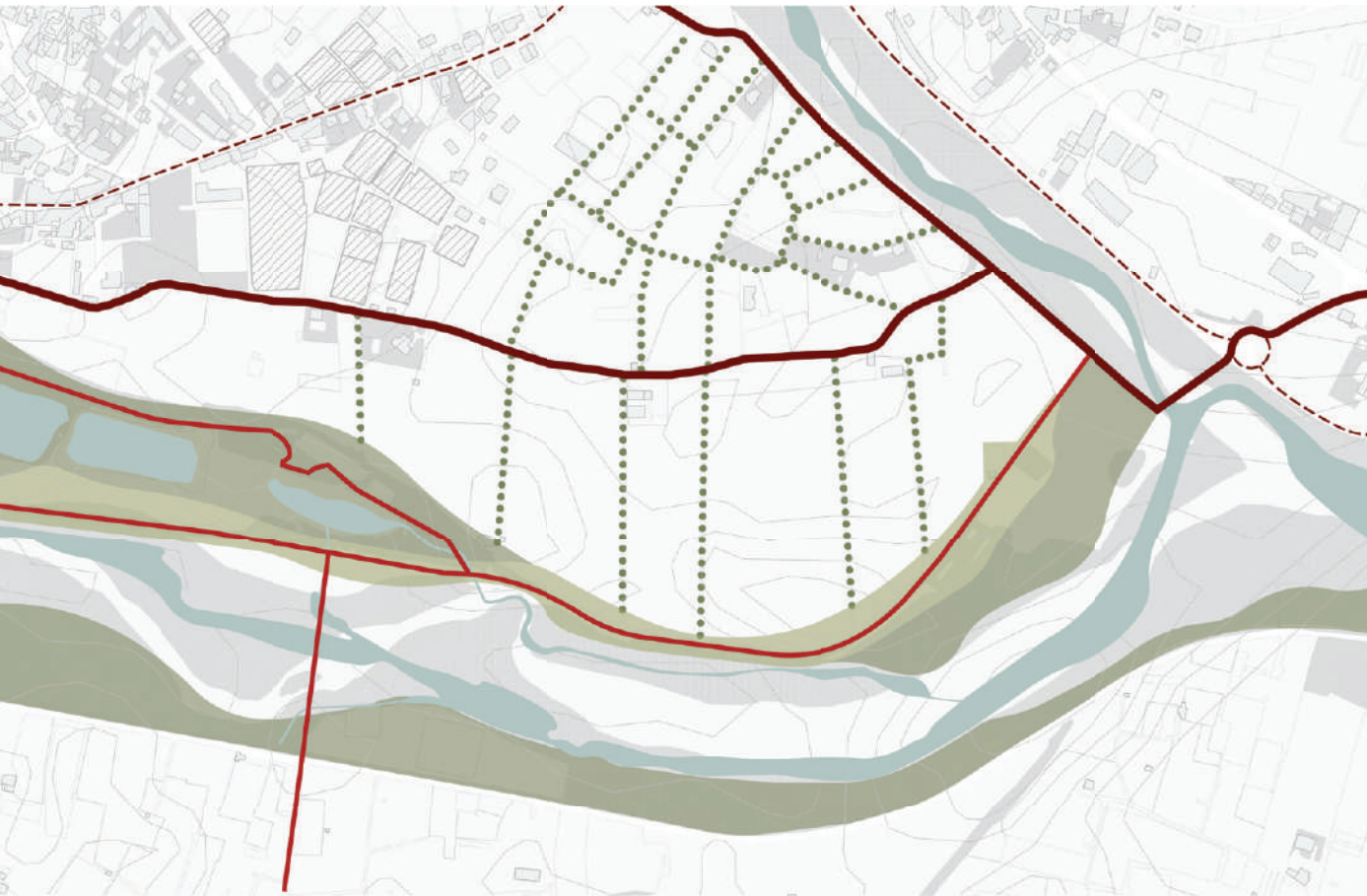


Ecological Buffer as Flood Protection



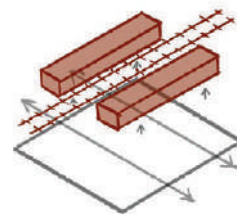
Linear Park as a Pedestrian Connector





- New road connection
- Pedestrian path
- New railway
- Intermodal station
- Main square
- New train station
- Parking and motorized mobility space

An area that was use primarily for residual collection or parking lots will become the home and space of a new train station that has the challenge of locating on a way that allows not only the city bus a whole system to connect along, allowing gathering an supporting systems.



- Linear park
- Buffer area
- Reforestation or riparian zones
- Water bodies
- ... Hedge rows

In an area constantly threatened by flooding the idea is to generate buffer areas along the river that connect to ecological corridors and that allow a slow transition from the river vegetation to landscapes that combines with infrastructures such as the railway.



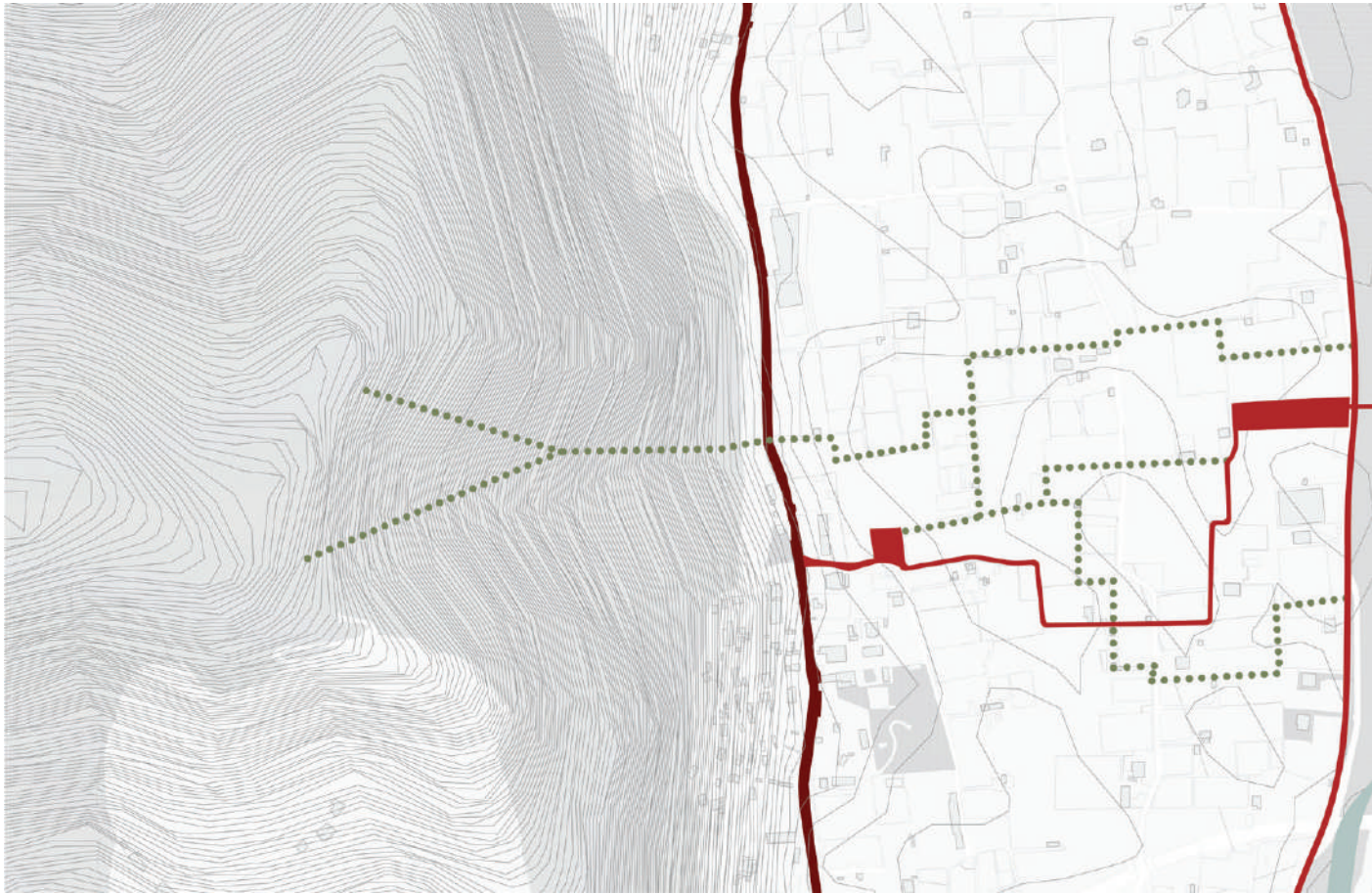
- Agricultural preservation
- Pedestrian path
- Remediation of extraction areas

Thinking on the different levels of social ground and how to interact with it aim to creating a linear park that connect with a mobility network and a train station but it is protected and coexists with the buffer and the river.



Transect B

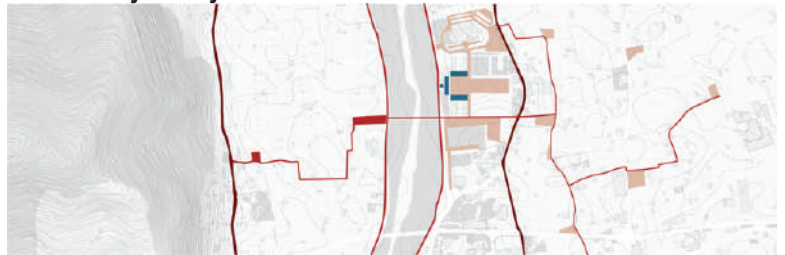
Reconnecting the Riverbanks: Adaptive Reuse as Slow mobility and Ecological Link



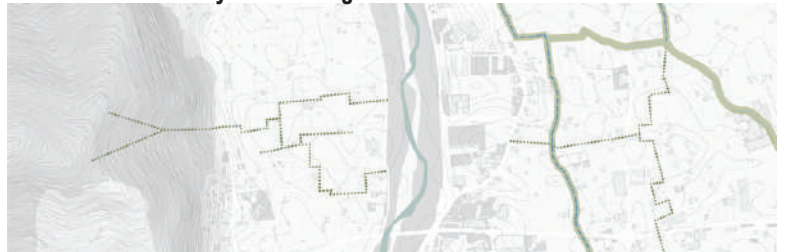
Transect B is located on the outskirts of Albenga, near an area of recent commercial development, and includes the former military base and its remaining structures. This area lies along the trajectory between Albenga and Bastia; however, access is currently highly dependent on motorized mobility, offering limited space for pedestrian and slow mobility networks.

In this transect, the main objective is to overcome the physical barrier that the river currently represents. This is addressed through the introduction of a pedestrian bridge that reconnects both sides, ensuring continuity within the mobility network and strengthening the ecological layer. In this specific area, the ecological network also works through the transformation of the agricultural landscape and its relationship with the urban fabric.

Slow mobility Priority Across the River

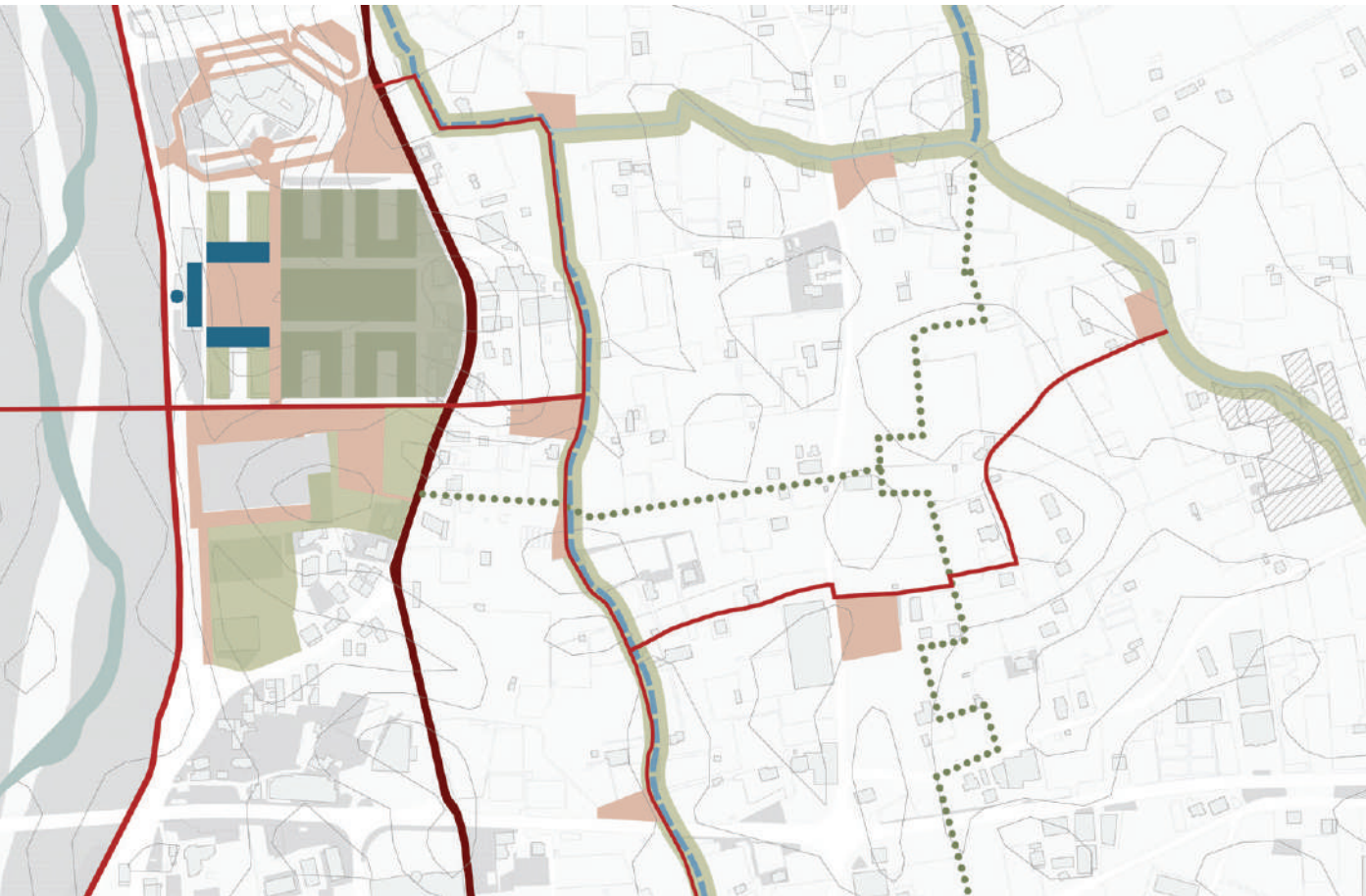


Renaturalized Military ruins Ecological Corridors



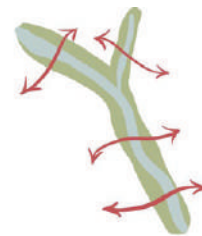
Adaptive Reuse of Military Ruins





- New road connection
- Slow mobility path
- Non permeable areas
- Adaptive reuse of existing buildings

Connecting both sides of the river is one of the biggest challenges to incorporate a network of spaces that allow to continuity of the infrastructure and that also is supported by the different areas of development in the valley of the River Centa.



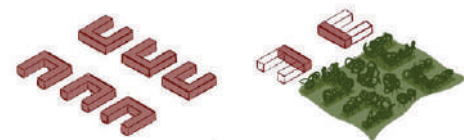
- Agricultural corridors
- Canal opening
- Ecological corridors
- Water bodies

Along the agriculture fields, indifferent of their topology, the idea is to enhance agricultural corridors with hedge rows that help to bring more vegetation variation to the field and that also help to complement the reinstitution of the previous course of the river Centa as a landscape corridor.



- Permeable areas
- Ecological succession
- Preservation of existing infrastructure

To help to secure the activation of the space, the military ruins of a previous Caserma are used. Respecting a process of natural growth of vegetation that is already existing, and giving to it space to let vegetation grow and using the buildings as infrastructures that help activate the area and adapt to the community necessities.



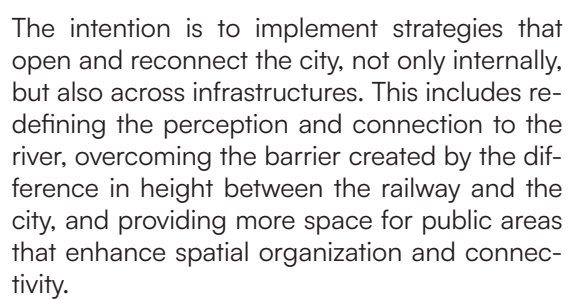
Transect C

A Connected Territorial Gradient: Levels, Water, and Continuous Movement



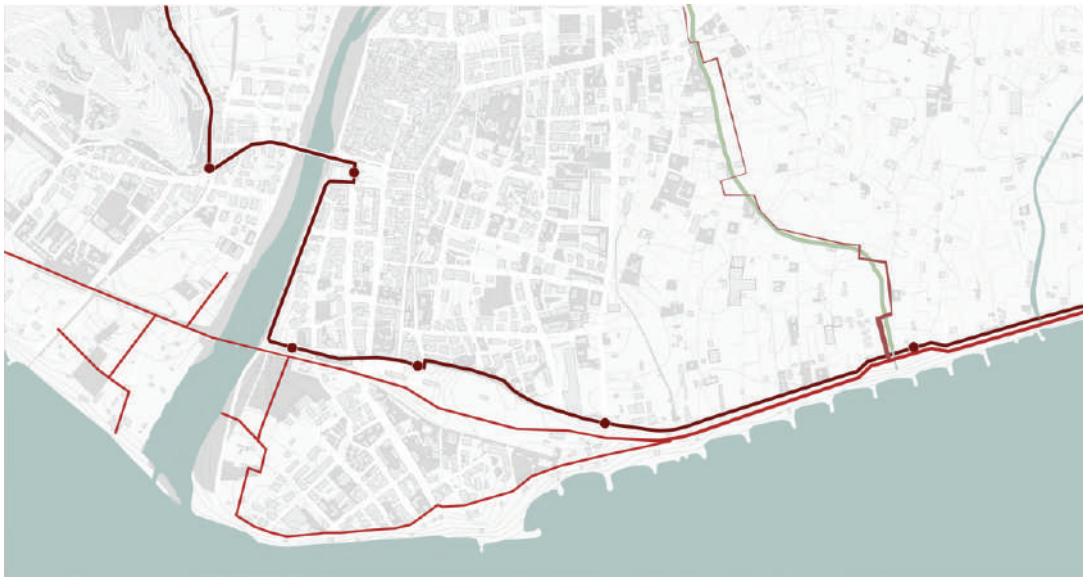
Transect C can be considered the most complex, due to the intersection of three major infrastructures that define Albenga's landscape: the Centa River, the railway infrastructure and station, and the surrounding agricultural fields. This area brings together the main factors that have shaped Albenga's historical transformation, resulting in both physical and perceived fragmentation caused by these infrastructures.

For this reason, this transect was selected for a deeper study on how landscape transformation and new adaptive strategies can positively impact the city. Within this area, three key sectors are identified as meeting points of the previously defined layers. These sectors hold significant potential to address urban fragmentation.



Chapter 4

Linear Territorial Connectivity



- New road connection
- Slow mobility
- Intermodal station

Resilient Topographic Landscape



- Level +0.00
- Level +1.50
- Level +3.00
- Level +4.50

Layered Public and Productive Spaces



- Slow mobility
- - Connections
- City reference points
- Passage Openings

The connectivity on different level carries a deeper meaning of action. Using the existing railway infrastructure and re-defining it change of level with that of the city, not as a separator but as a connector of slow mobility and separating passes but intersecting them in crucial points for the connectivity of the bigger network. The railway becomes an axis of organization and distributions of activities, landscapes a connection between the city, river and agricultural fields.

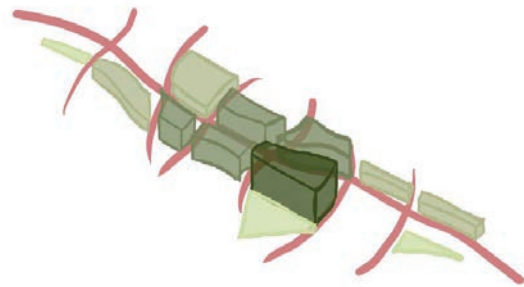


The railway would be used as passaway that interconnect level and gives the city structure.



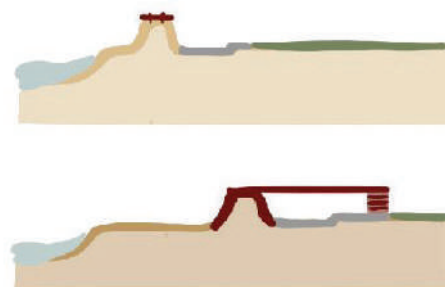
Topography and different levels of the city become a crucial point for the distribution of activities and the integration of the landscape and the city. Infrastructure landscapes meant to actively use the existing conditions and transforming them into spaces that help manage the principal problems that threaten the city.

In the are of the axisting train station, levels are usea as a mecheanism of relation and use, transforming a space previously understood as a divider to a place of connection and integration. In other part, along the river, the topography takes on a more protective role, transforming a high risk of floding to a place that coexists and lives with a living landscape.

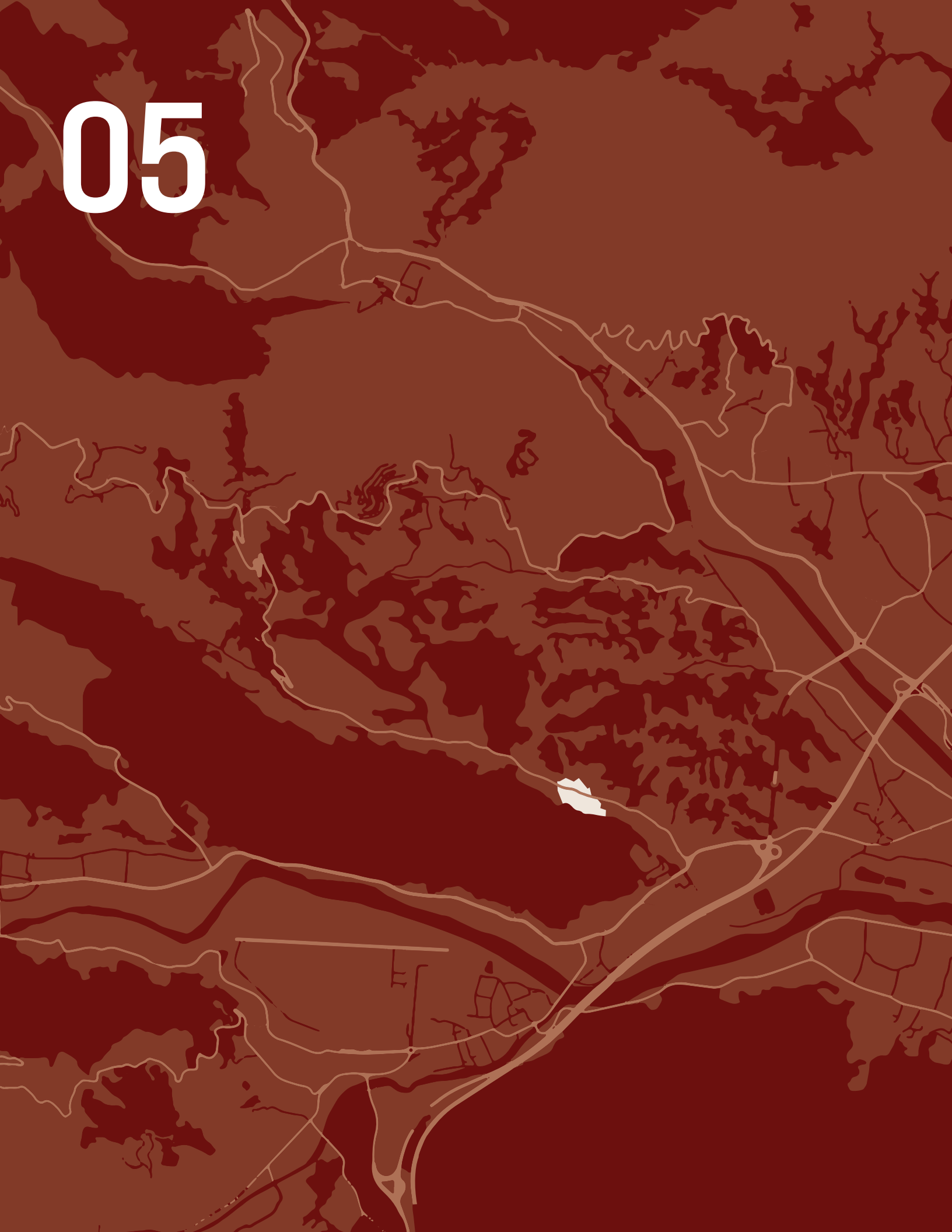


On a social ground, understand the places where the city fragments and connects become a crucial starting point. After recognizing how to break the structures and give more space for the population to interact with the space.

The main idea is to connect with the new path along the existing railway and then specially on the train station, break the level barrier to create pass-aways that allow a continuous flow between the historical city and the sea front. Also give space to the public spaces on the beach that help to connect the city but that gives back a more organize and fair use of a restricted public space.



05





PROPOSAL



Fig 105. Aerial picture of albenga [Photography]. Note By "ELSEMIGUEL" taken from google.com

The River Mouth

Among the most critical areas identified in the research is the river mouth. As previously observed, this zone represents a point of intersection between landscape and use, where natural dynamics and human occupation overlap under a latent flood risk.

restore continuity between both riverbanks and to transform the current model of occupation into one that is more coherent with the landscape. The relationship with the river and its dynamics becomes the starting point for redefining how this area can function.

The land surrounding the river has been primarily occupied by camping areas on both sides of the Centa, without fully acknowledging the vulnerability of this territory. It exemplifies how use has prevailed over landscape conditions, prioritizing occupation over ecological logic and risk awareness.

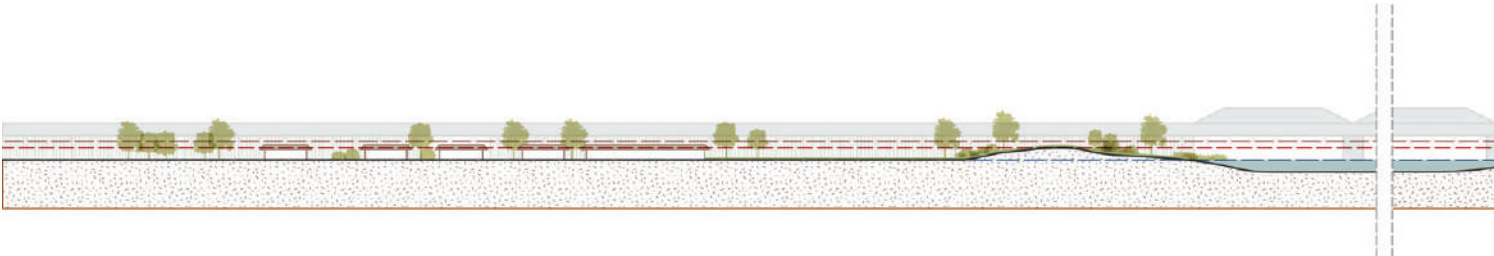
Through this proposal, the aim is to introduce design strategies that integrate connectivity, landscape, and ground into a unified system, supporting Albenga's future development while contributing to flood risk mitigation.

The first phase of the design development therefore focuses on the river mouth as a strategic site for intervention. Building upon the previously defined strategies, the project seeks to

20. River Centa mouth and existing conditions



— Sea level rise risk - - - Flood return perios 50 years - - - Flood return perios 200 years



A - Vulnerable River Edge Flood risk and exposed topography

Existing conditions

Fragmented Ground and Barriers

Today, the river mouth is largely characterized by camping areas and underused green spaces, despite being located within a flood-prone zone. The spatial organization does not reflect the hydraulic vulnerability of the site.

How can the camping areas be maintained while ensuring greater protection?

How can a city located at flood level respond to hydraulic risk?

And how can the remaining railway infrastructure become an element of connection rather than division?

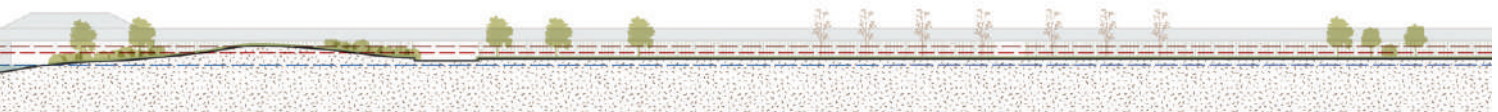
These questions guide the proposed transformation.

By overlaying flood levels, existing land use, and the presence of the railway infrastructure, it becomes possible to identify which areas are most exposed and which could potentially offer safer conditions. This reading of the existing traces allows for a clearer understanding of where protection, adaptation, or transformation is required.

This situation raises several key questions:



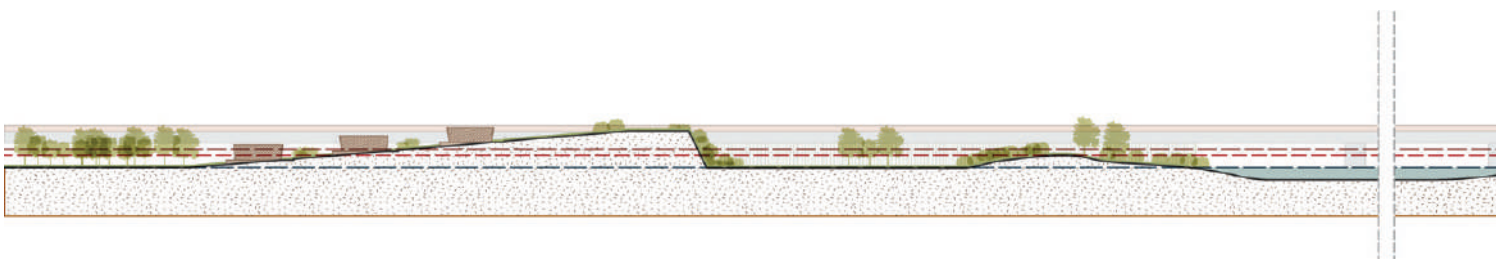
- Agriculture
- Masses of vegetation
- Camping
- Sea level risk



21. River Centa cross section existing conditions



--- Intervention close up



B - Adaptive River Edge Topography as protective landscape

Proposed transformation

Bridge, Floodable Ground and Ecological Continuity

After identifying and classifying the existing conditions, the project proposes a landscape transformation structured around three main strategies. These strategies aim to give space back to the river, encourage interaction with the landscape, and reconnect the area through the railway infrastructure.

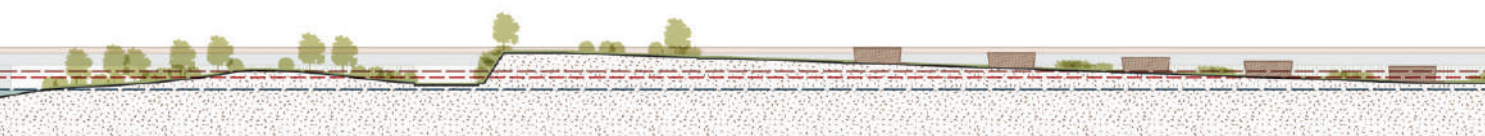
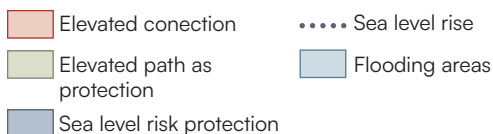
The proposal is articulated through three complementary actions:

1. The reuse of the railway infrastructure to create an elevated pedestrian connection that links both sides of the river. This structure provides continuity from the historic center toward the coastal edge, transforming a former barrier into a connector.
2. The modification of the topography in relation to the railway

level, using the ground itself as protective infrastructure. Elevated slopes and continuous surfaces respond to flood levels while reinforcing spatial continuity.

3. The identification of floodable and protected zones, allowing the river to expand during periods of high water while redefining the placement of camping areas in safer and more coherent locations.

Together, these actions establish a framework in which river, infrastructure, and ground operate as a coordinated system.



23. River Centa cross section proposal



Zones

- | | | | |
|---|---|---|--|
|  Elevated path and bridge |  Flooding and buffer areas |  Sea rise protection platforms |  Agricultural buffer zone |
|  Terraces and level protection |  Protection and ecological nodes |  Camping areas | |

Actions

- | | | |
|--|---|---|
|  Flooding protection area |  Flooding protection terrace |  Flooding buffer zones |
|  Public beach area |  Bridge |  Public park |
|  Cycle path |  Pedestrian path |  Camping areas |
|  Forest buffer zone |  Agricultural area | |

1 Elevated path and bridge

The transformed railway infrastructure now works as a cycle-able and pedestrian bridge, not only connecting at sea proximity both sides of the river, but also connecting with the extended proposal of the transformation on the train station and archaeological sites nearby.



2 Terraces and level protection

Using a change of level, the terraces are created as a pedestrian path that works as a connector with the level of the bridge but also as a topographic protection to flooding risk, separating floodable areas from the rest of the city.



3 Flooding and buffer areas

The different floodable areas created base on the existing condition, work as a buffer and changeable landscape depending on the conditions, allowing flooding to exist and have a space that can be manged and controlled.



4 Protection and ecological nodes

The existing vegetation is taken into account, to create ecological nodes that allow the permeability of the soil and that can adapt to the conditions of water existing, fomenting halophilic vegetation that cand adapt to the conditions of water in the river mouth.



5 Sea rise protection platforms

Taking into account the sea level rise, a change of level is created in areas to generate protection of the sea level, this areas aim also to be public spaces used to generate connection and protection in areas closer to the beach.



6 Camping areas

The camping has a crucial role of renegotiation on its location, and know it can be found in long slopes in the opposite sides of the river, this with a major interest on protecting and changing the way that camping, as one of Albenga's main characteristics can relate to the river in a safer and control manner.



7 Agricultural buffer zone

Leaving agricultural areas to compensate for the previous ones, also work as a buffer of flooding considering that the canal that is located in this area also is a reason of flooding tiduring rain seasons.



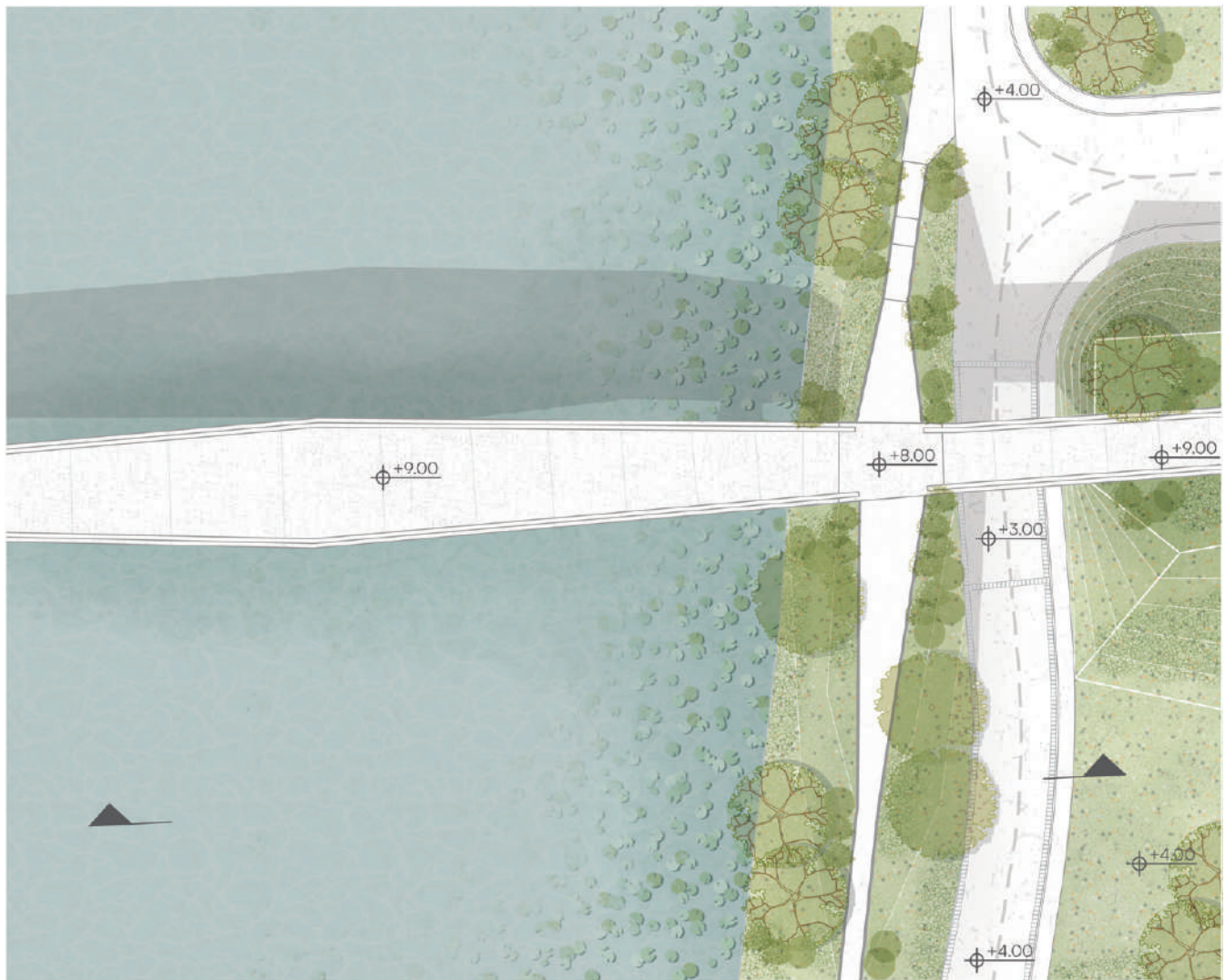
Connectivity as structure

Connectivity is understood as both strategy and structural principle of the project. The railway infrastructure, previously perceived as a barrier, becomes the organizing axis that reconnects the two riverbanks.

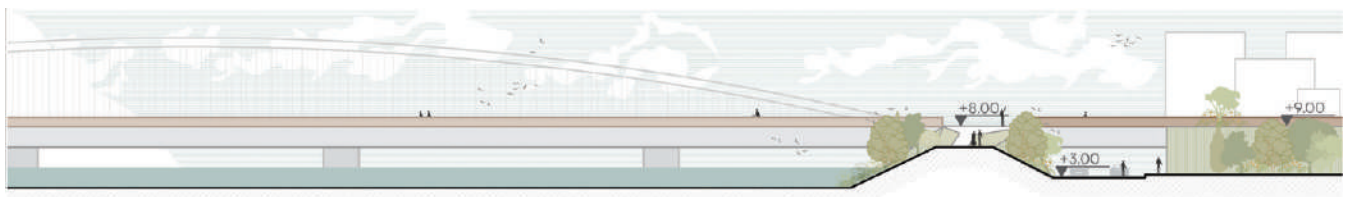
The bridge level becomes a reference plane from which new paths and connections are generated. In this way, the river mouth is no longer an isolated edge but part of a broader network of public spaces that encourage movement, encounter, and integration within the city.

Taking advantage of the existing elevation and structural traces, a light yet recognizable pedestrian structure is introduced. This intervention interacts with the landscape of Albenga while ensuring continuity between both sides.

The bridge as public continuity



25. Proposed bridge connection over Centa and to context



26. Cross section of the bridge and context

Landscape as infrastructure

The design approach begins with an understanding of the site's flood risk. Rather than resisting water through rigid barriers, the project uses topography and continuity as tools to reshape the ground and create protective landscape.

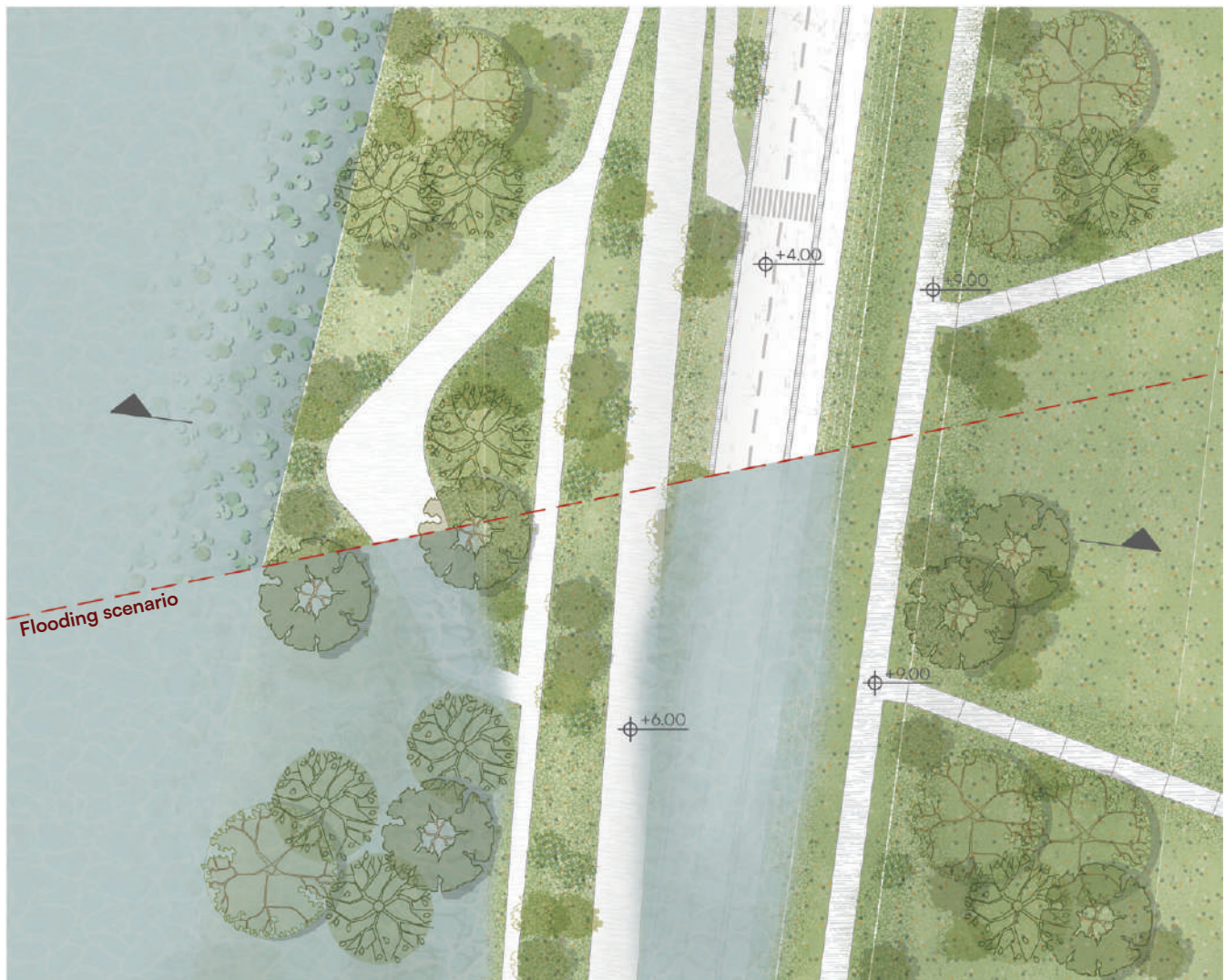
spaces can adapt to seasonal changes and support different uses throughout the year.

Three main decisions guide this strategy:

1. Extending the level of the bridge to form an elevated path that also functions as a protective embankment, responding directly to flood levels.
2. Preserving and reinforcing the existing slope as a first line of protection, ensuring its integration with the surrounding landscape through connected paths and varying heights.
3. Allowing space for the river to expand by creating floodable terraces and water-receiving areas. These flexible

The goal is to create an active landscape that both protects the city and supports the natural behavior of the river, reducing vulnerability while enhancing ecological and spatial continuity.

Adaptive and Floodable Ground



27. Plan of floodable areas, half flooded half dry



28. Cross section with lines of flooding risk

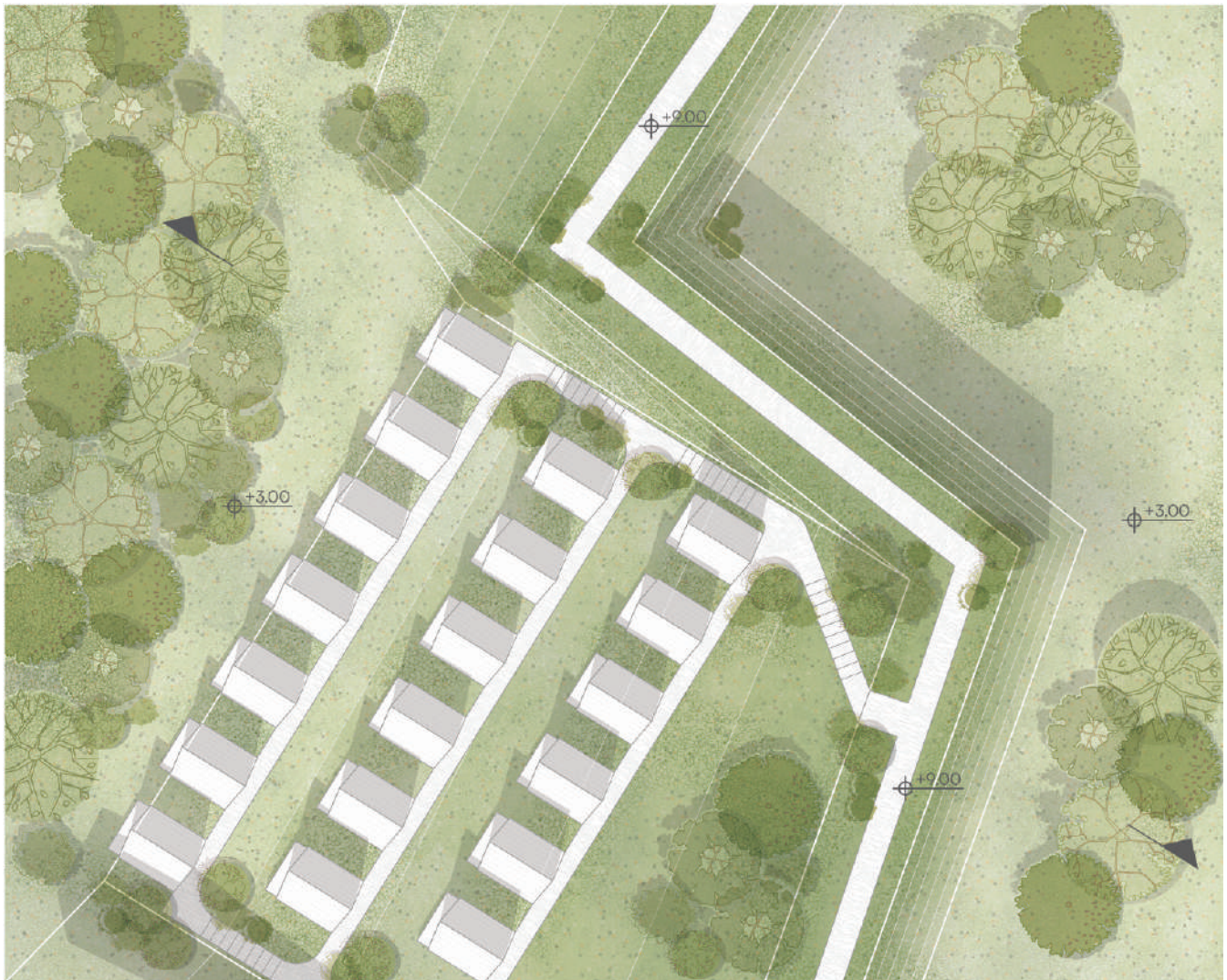
Social and productive ground

The reconfiguration of the camping areas is proposed as a response to their current exposure to risk. Rather than eliminating them, the project seeks to renegotiate their position within the landscape

By integrating the camping grounds within a protected and connected landscape, the proposal redefines their role, transforming them into elements that coexist with the river's dynamics instead of opposing them.

The camping areas are relocated toward safer zones, where the modified topography provides protection while maintaining their relationship with both the river and the sea. In this way, tourism is reconsidered not as an isolated, private system but as part of a larger territorial structure.

Reconfiguring the Camping Landscape



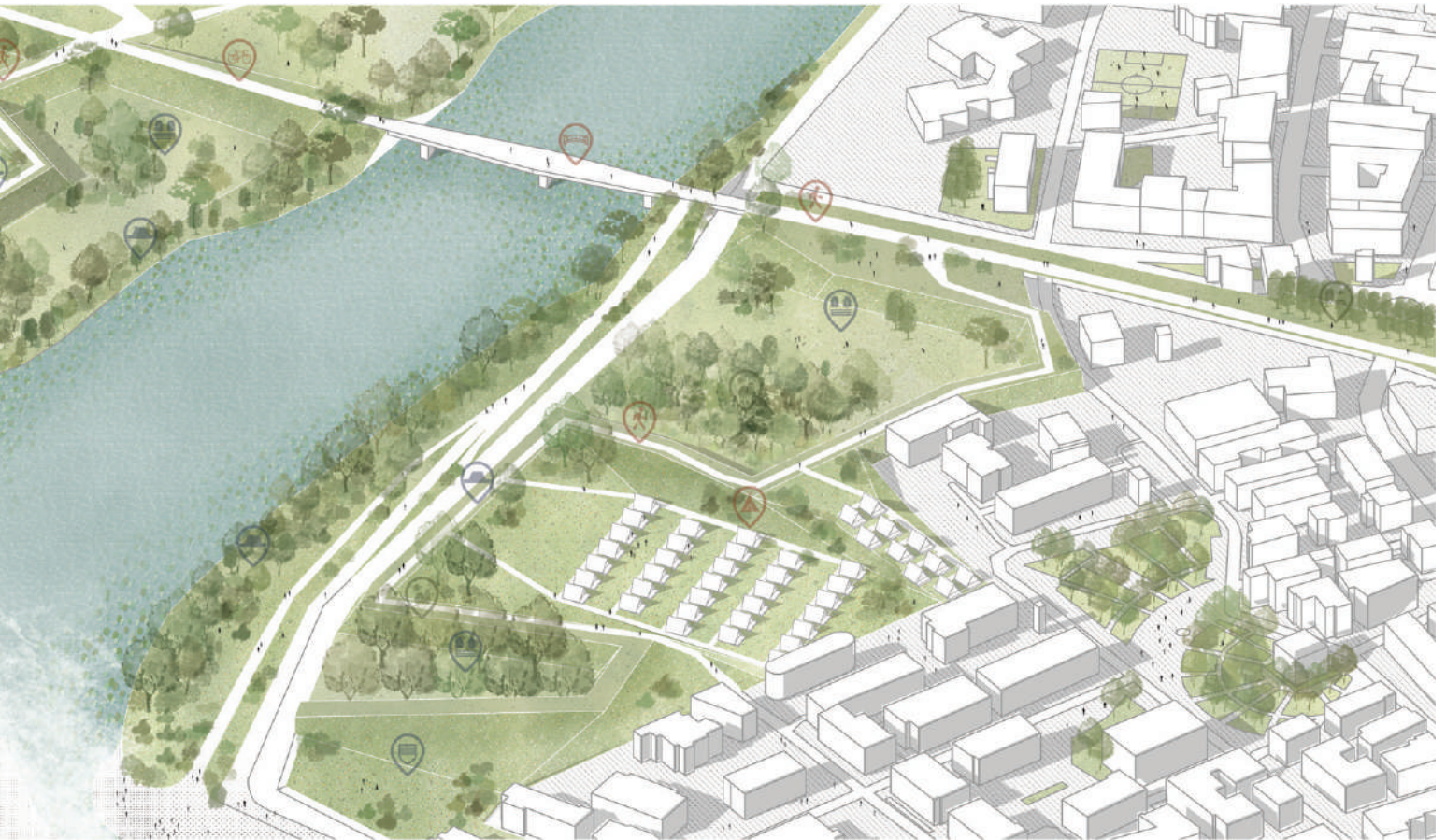
29. Close up of camping area and representation of disposition on the slope



30. Cross section showing the slope and location of camping



31. Axonometric view of proposed river mouth





Giorgio Stagni

Fig 106. Albenga Train station during 1992 [Photography]. Note. By Stagni Giorgio (1992) <https://www.stagniweb.it/foto6.asp?File=signs&Inizio=5&Righe=10&Iniziol=1&Righel=100&Col=5>

The Railway transformation

Infrastructure has always shaped the way cities grow. In Albenga, the arrival of the railway at the end of the nineteenth century transformed the city into a strategic node within the Ligurian coast, strengthening regional mobility and stimulating urban expansion beyond the historic walls. The station became the city's principal gateway, while the railway corridor established a new linear structure that guided subsequent development.

Over time, however, this infrastructure evolved into a physical and spatial barrier. The elevated embankment fragmented the urban fabric, interrupted ecological continuity and weakened the relationship between the historic centre, the Centa River and the coastline. Spaces beneath the railway gradually lost their function, becoming inaccessible and disconnected from everyday urban life.

The recent relocation of the railway therefore represents far more than a transport intervention. It creates a unique opportunity to reinterpret an obsolete infrastructure as a new public landscape. Rather than erasing its industrial heritage, the project preserves the railway as the structural memory of the site, transforming a former line of separation into a continuous system of ecological, social and spatial connections.

The Railway and the Ligurian Coast

The Genoa—Ventimiglia railway, inaugurated during the second half of the nineteenth century, became one of the most important infrastructures along the Ligurian coast. Running parallel to the Mediterranean, it connected coastal towns, stimulated tourism and trade, and played a fundamental role in the economic development of the region. However, while the railway strengthened regional accessibility, it also introduced a continuous physical barrier between cities and the sea.

In many Ligurian towns, the railway occupied the narrow coastal strip, limiting direct access to the waterfront and fragmenting the relationship between urban life and the landscape. Elevated embankments, retaining walls and road crossings prioritised transport efficiency over public space, creating discontinuities that are still visible today.



Fig 107. Ligurian railway [Photography], Note. Hurtado L (2024).

Albenga reflects this condition. The railway once represented progress and regional connectivity, yet over time the elevated embankment became a barrier dividing the city into two distinct urban fabrics. Pedestrian crossings are limited, indirect and largely designed around vehicular circulation, reducing accessibility and weakening the connection between the historic centre, the Centa River and the coast.

As the city expanded, the railway infrastructure remained unchanged, leaving residual spaces beneath the embankment and reinforcing spatial segregation instead of urban continuity. What was once conceived as an element of connection gradually became an obstacle to everyday public life.

Pre- Existing conditions



32. Diagram of Albenga's actual situation



Fig 108.. San Remo Riviera [Photography], Note. Il Rosso Mototour (1970), <https://www.ilrossomototour.com/guide-to-places/the-history-of-the-railway-in-sanremo>

Learning from Sanremo

The relocation of the railway in San Remo in 2001 demonstrates the transformative potential of moving railway infrastructure away from the coastline. The former corridor was converted into a coastal linear park and cycling route, significantly improving access to the sea and reconnecting the waterfront. Nevertheless, the transformation also reveals the limitations of infrastructure-led regeneration. In several areas, the released land continued to accommodate roads, parking and transport-related functions, reducing the opportunity to create a richer and more continuous public landscape. This precedent highlights that relocating infrastructure alone does not guarantee urban quality; the design of the liberated space is equally critical.

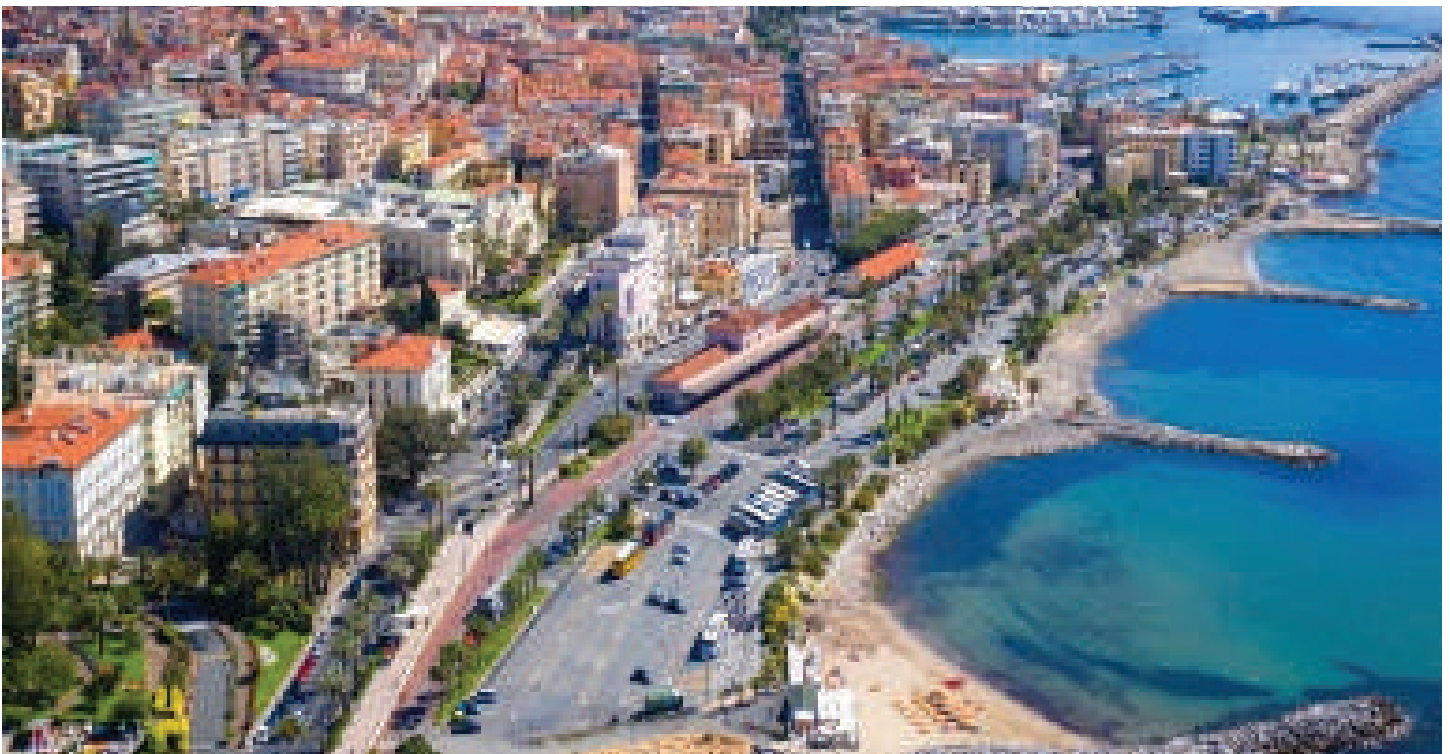


Fig 109. San Remo Coast [Photography], Note. Wolinski R. <https://www.outdooractive.com/de/reisefuehrer/italien/san-remo/1033036/>

Reimagining the Railway Landscape

Building on this opportunity, the project proposes a different approach for Albenga. Rather than demolishing the existing railway embankment, it is reinterpreted as a landscape infrastructure capable of reconnecting the city. The embankment is opened through new transversal passages and reshaped into an accessible terraced topography that accommodates public space, ecological habitats and active mobility.

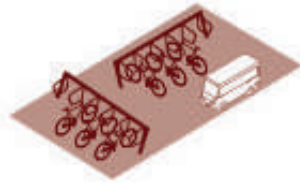
Albenga is one of the few Ligurian cities where the evolution of its urban fabric can still be read through successive historical layers. From the Roman settlement and its orthogonal street network to the medieval walls, the agricultural landscape and the contemporary railway infrastructure, each period has contributed to the identity of the city. Rather than erasing these traces, the project understands them as a collective heritage that should remain legible.

Thus, by preserving and adapting the existing structure, the project significantly reduces material consumption while retaining the historical memory of the railway. The former barrier becomes a catalyst for urban continuity, transforming residual infrastructure into a resilient public landscape that reconnects neighbourhoods, restores ecological processes and establishes a new relationship between the city and the Mediterranean Sea.

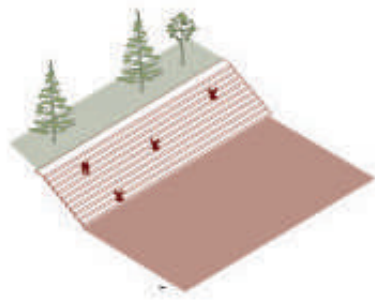
01. Expand the Green Network



02. Create an Intermodal Hub



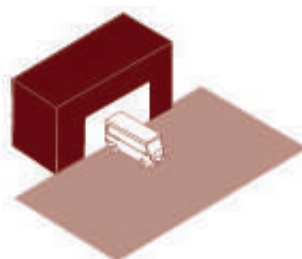
03. Transform the Embankment



04. Reactivate the Historic Station



05. Open New Connections



Ground Level

Reconnecting The City

At ground level, the project transforms the former railway embankment from a physical barrier into a connected and accessible urban system. New transversal openings prioritize pedestrians and cyclists over vehicles, allowing the city to reconnect across the former railway corridor. Rather than functioning as isolated crossings, these new spaces become intermodal nodes where walking, cycling and public transport are seamlessly integrated.

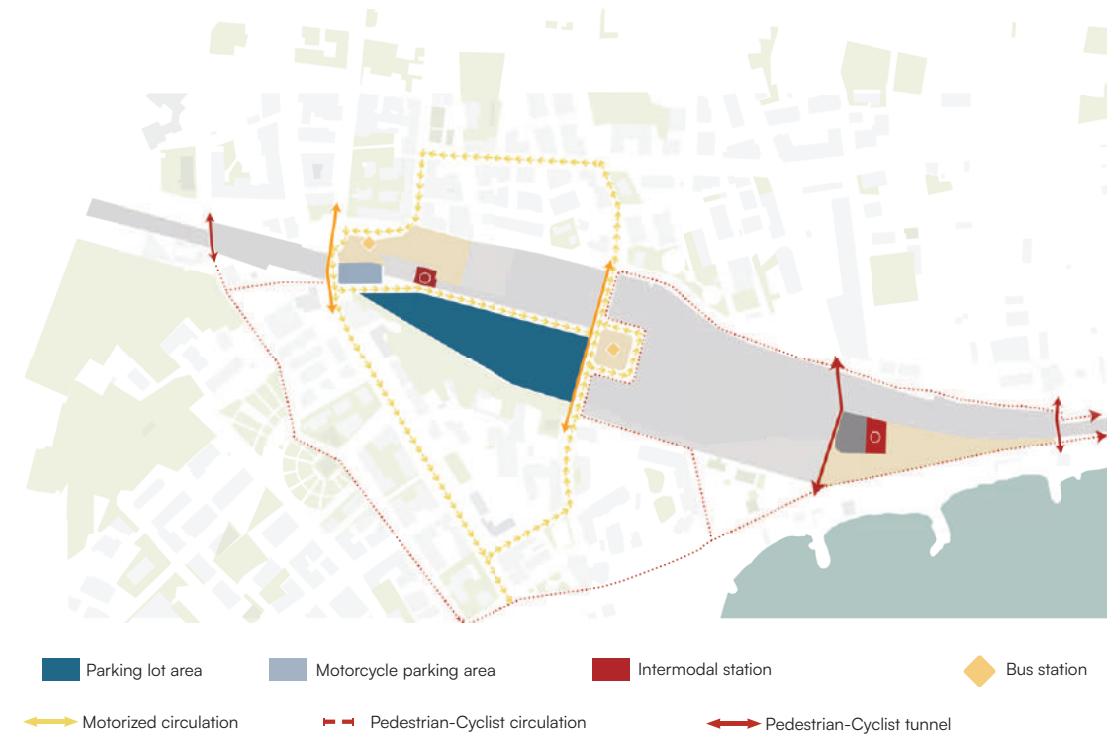
Intermodality is achieved by connecting local bus services, bicycle infrastructure and pedestrian routes through two main mobility hubs. The historic railway station is reactivated as the first intermodal gateway, combining bicycle facilities, public transport and community functions within a restored heritage building. A second, larger opening creates a new civic plaza beneath the park, where buses, bicycles and pedestrians converge around a generous public space illuminated by a central void that visually connects the lower and upper landscape levels.

To reduce the dominance of cars within the city centre, part of the existing embankment accommodates a new underground parking facility directly connected to the former station. Relocating parking below the landscape frees valuable surface space currently occupied by cars, allowing the creation of continuous pedestrian routes, cycling infrastructure and new public spaces.

The embankment itself is no longer perceived as a solid barrier. Instead, it is carefully reshaped into an accessible terraced landscape that negotiates the 4.5-metre level difference between the city, the park and the coastline. On the western side, the terraces gradually rise towards the historic station, creating generous public steps that encourage gathering and everyday use. Towards the sea, the topography unfolds into a sequence of planted terraces overlooking the Mediterranean, where seating, ecological planting and panoramic views become part of the public experience.

At the coastal edge, a new intermodal pavilion and cultural centre reinforces this transition. Integrated into the terraced topography, the building accommodates bicycle facilities, visitor services and community spaces while strengthening the connection between the city and a waterfront that is currently fragmented and partially privatized. Together, these interventions transform the former railway corridor into a continuous public landscape where mobility, heritage and ecology coexist within a resilient urban framework.

Mobility network



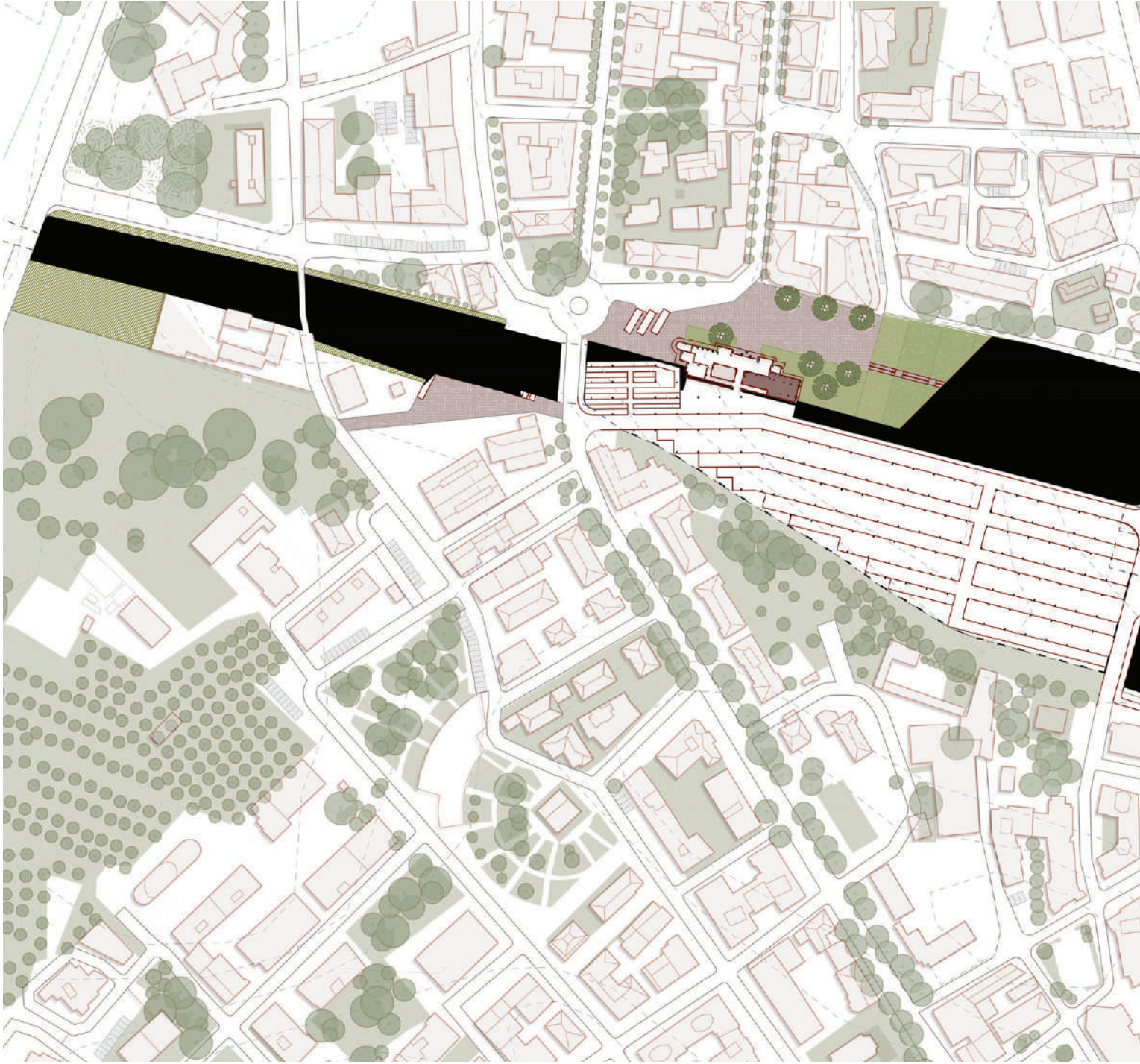
34. Mobility network diagram

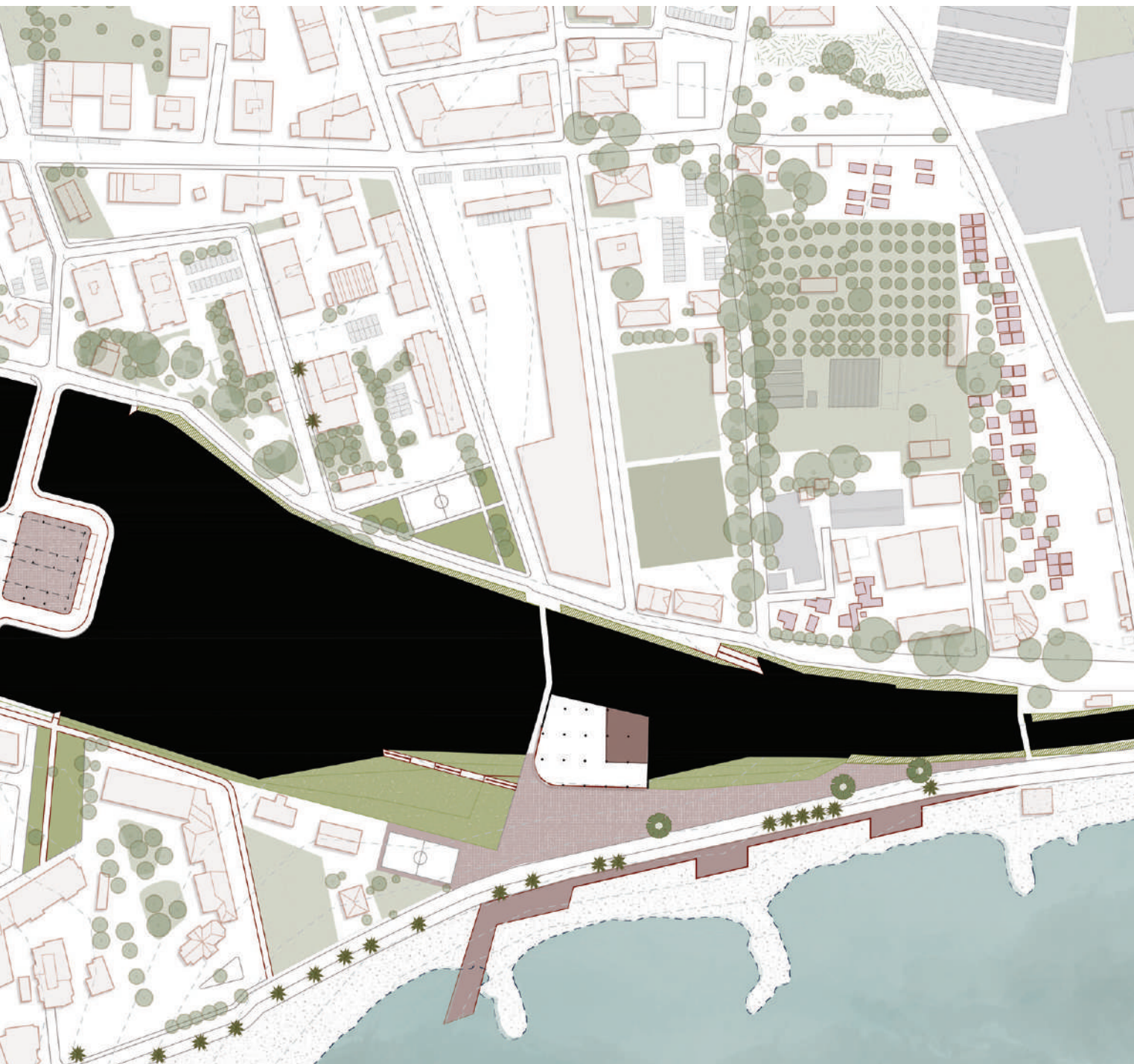
Levels and connectivity



35. Levels and connectivity Diagram

36. Masterplan level 0.00m





0 100 200 m



Railway level

From Railway Logic To Landscape Sequence

The upper level transforms the former railway embankment into a continuous public landscape where the memory of the railway remains visible through rhythm, repetition and sequence. Rather than reconstructing the tracks, the project abstracts their spatial logic into a geometric framework that organizes movement, planting and public space. The former railway is therefore not erased but reinterpreted as a new landscape layer that preserves the identity of the site while supporting contemporary public life.

This approach is inspired by Michel Desvigne's work at Île Seguin, where the memory of a former industrial landscape is preserved through the abstraction of its spatial structure rather than its literal reconstruction. Geometric promenades, repeated tree alignments and a sequence of interconnected public spaces transform historical traces into a contemporary landscape framework, allowing the site's identity to remain legible while accommodating new urban life.

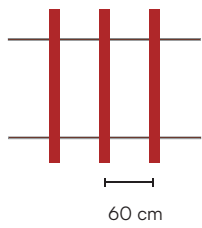
Similarly, the design for Albenga develops a modular rhythm derived from the railway itself. A 6-metre grid structures the alignment of *Quercus ilex* trees, the linear promenade and the planting bands, while larger intervals generate secondary plazas and moments of pause. Every 24 metres, this rhythm expands into civic spaces that punctuate the journey and reinforce the memory of the former railway corridor.

Three principal episodes organize the park: the civic plaza in front of the historic railway station, the central plaza surrounding the new opening that connects the upper landscape with the intermodal level below, and the coastal plaza where the terraced topography gradually unfolds towards the Mediterranean. Between these landmarks, a sequence of smaller plazas creates a continuous rhythm of gathering, rest and everyday activities.

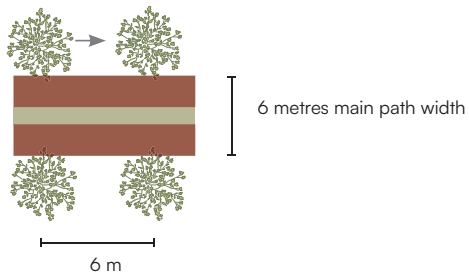
Planting becomes the primary design tool for shaping spatial experience. Rather than functioning as decorative vegetation, the landscape is organised into a series of landscape figures—including promenades, open meadows, woodland edges, learning gardens, pollinator habitats and coastal planting—that guide movement, frame or conceal views and reveal changing environmental conditions. As visitors move through the park, vegetation gradually reflects the surrounding landscapes, creating a continuous transition from the Centa River and its riparian ecology, through the urban railway landscape, towards the Mediterranean coast and the productive agricultural fields beyond.

The Railway Park is therefore experienced not as a single park, but as a sequence of interconnected landscape episodes where memory, ecology and public life evolve together through rhythm, topography and vegetation.

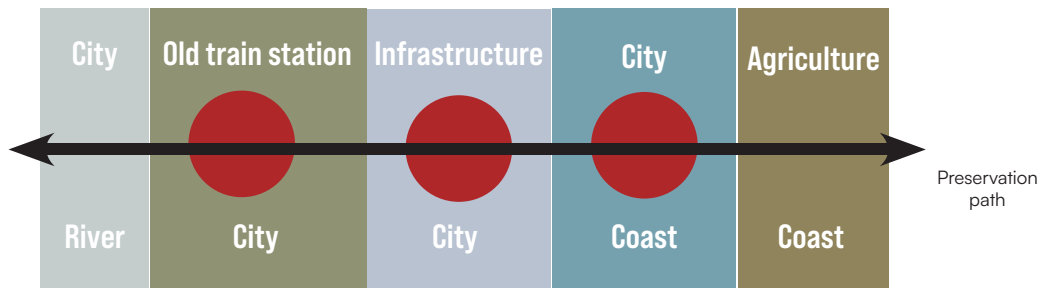
Railway rhythm



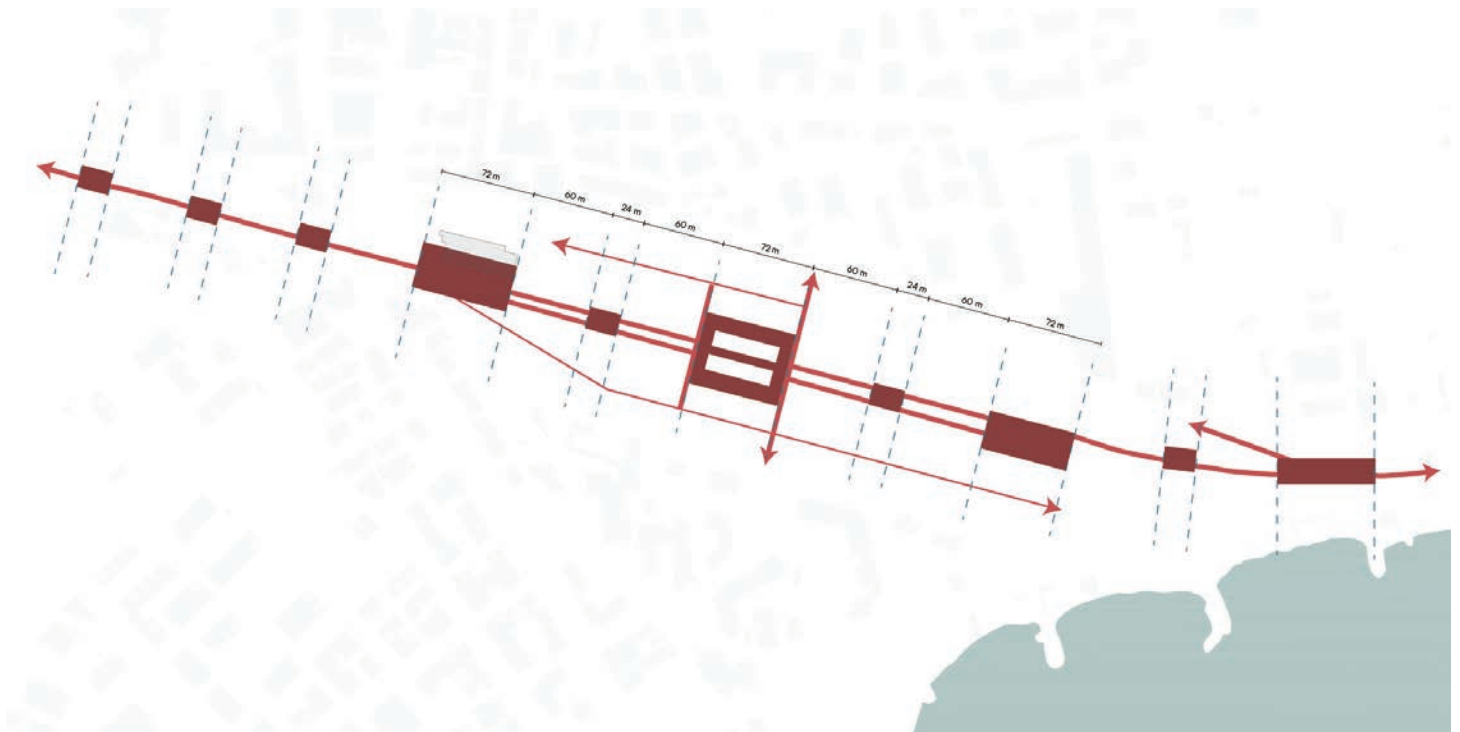
60 cm 6 metres base module



Moments



Spatial definition

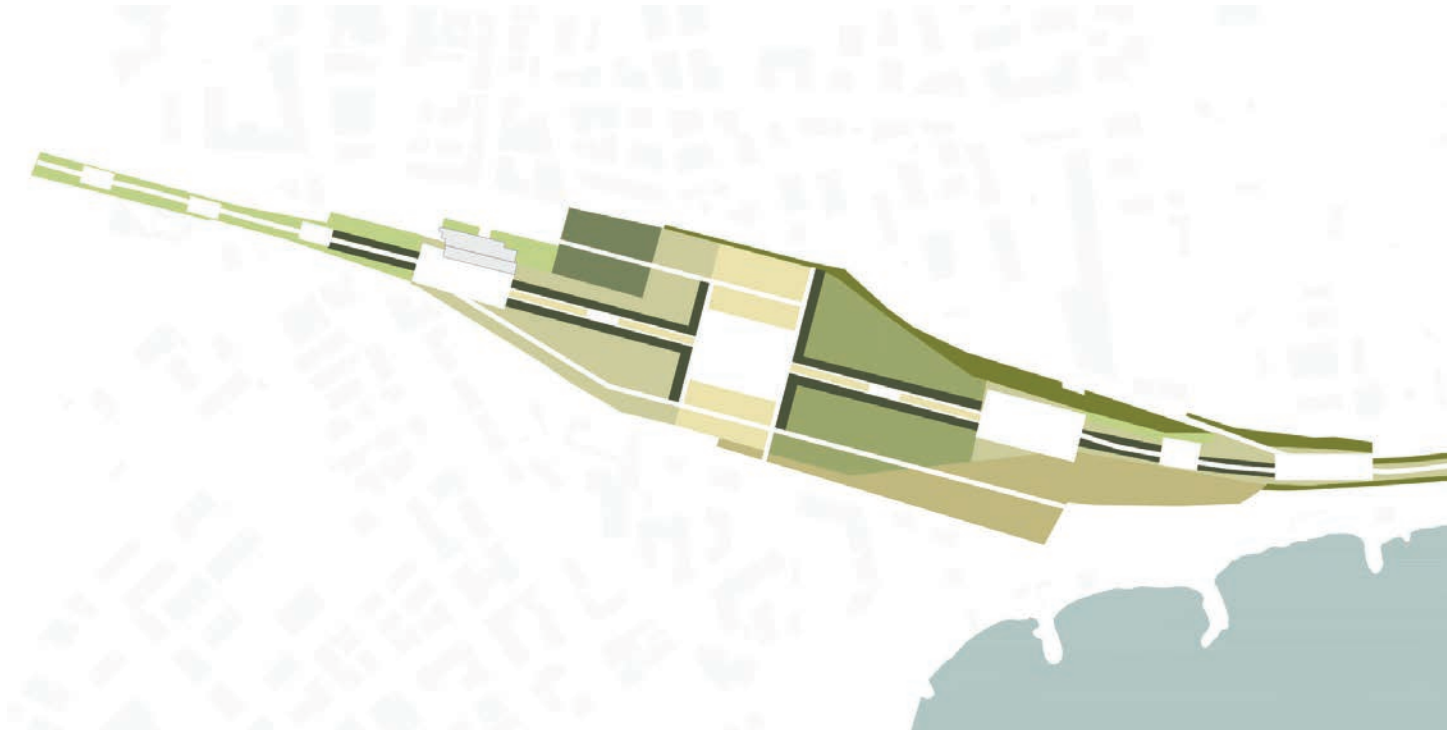


Main squares

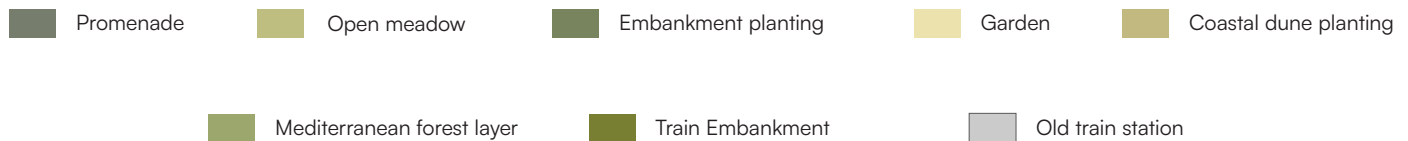
Main path

Secondary path

Landscape units



38. Landscape units diagram



The Railway Park is structured through a sequence of distinct landscape units inspired by the ecological character of Liguria. Each unit responds to specific environmental conditions while reinforcing the transition between river, city and coast. Open Meadows create flexible recreational spaces; Woodland Planting, defined by rhythmic alignments of *Quercus ilex*, provides shade and spatial structure; Learning Gardens combine *Lavandula stoechas*, *Salvia rosmarinus*, *Helichrysum italicum*, *Santolina chamaecyparissus*, *Thymus vulgaris*, *Borago officinalis* and *Echium vulgare* to support pollinators and envi-

ronmental education; Coastal Planting introduces salt-tolerant species such as *Ammophila arenaria*, *Pancreatium maritimum*, *Crithmum maritimum*, *Pistacia lentiscus* and *Myrtus communis*, restoring the ecological transition towards the Mediterranean. Together, these landscape units establish a resilient planting strategy that reflects Albenga's natural identity while enhancing biodiversity and climate adaptation.

Landscape figures and user experience

Tunnel: Forest path



Side path: One side tree



Open path: Promenade



Learning path: Gardens



Terraced viewpoint



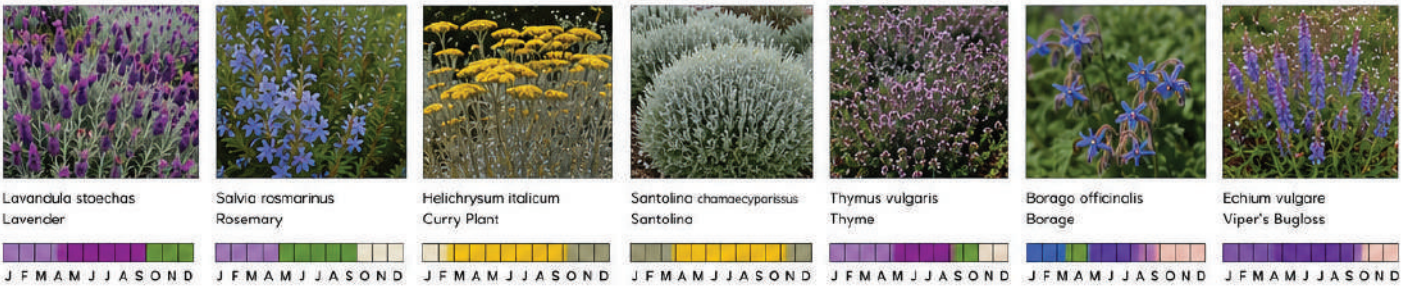
39. Landscape figures diagram

Landscape figures define how vegetation shapes movement, perception and public life throughout the Railway Park. Rather than functioning as isolated planting beds, each figure creates a distinct spatial experience. Tree-lined promenades establish rhythm and orientation through repeated *Quercus ilex* alignments, open meadows frame expansive civic spaces, woodland edges filter views and provide moments of enclosure, while learning gardens immerse visitors in seasonal colour, fragrance and biodiversity. Towards the coast, native dune vegetation softens the transition between the urban landscape and the Mediterranean shoreline. Together, these figures choreograph a continuous sequence of experiences where ecology, memory and everyday life are expressed through vegetation.

Planting strategy

	Species	Size (H × W)	Landscape Qualities	Ecological Benefits	Project Location
	Pinus pinea	18—25 × 12—18 m	Mediterranean landmark, umbrella canopy, sculptural silhouette	Shade, coastal resilience, bird habitat	Coastal Plaza, Pier, Seafront Promenade
	Celtis australis	18—25 × 12—18 m	Light canopy, elegant branching, seasonal interest	Urban tolerance, shade, biodiversity	Civic Plazas, Railway Station Square
	Quercus ilex	12—18 × 8—12 m	Evergreen structure, dense canopy, strong rhythm	Carbon sequestration, cooling, habitat	Main Railway Promenade (every 6 m), Park Structure
	Fraxinus ornus	10—15 × 8—10 m	Light shade, fragrant spring flowering	Pollinators, seasonal diversity	Learning Gardens, Secondary Plazas
	Olea europaea	5—8 × 5—7 m	Iconic Mediterranean character, sculptural form	Drought resistance, cultural identity	Mediterranean Gardens, Cultural Areas
	Ulmus minor	18—25 × 12—18 m	Broad canopy, generous shade	Cooling, biodiversity, habitat	Large Civic Spaces, Central Park Areas
	Salix alba	15—22 × 12—15 m	Soft texture, riverside identity	Water regulation, riparian habitat	River Corridor

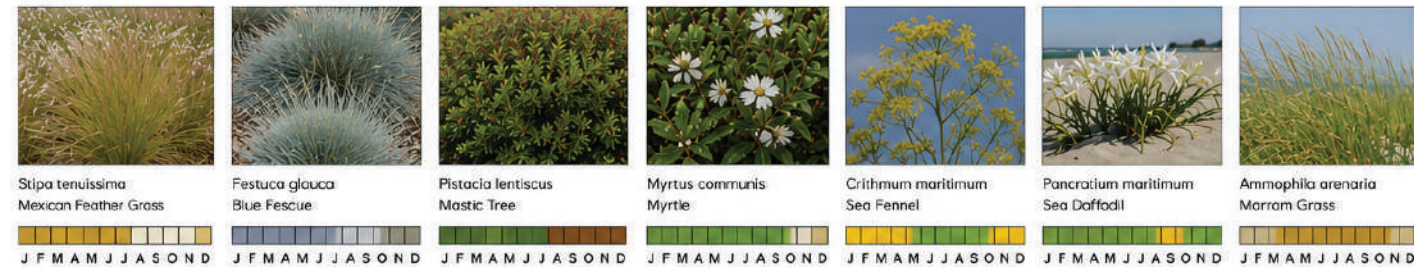
Planting strategy : Learning gardens



41. Learning gardens planting strategy diagram

The mediterranean gardens look forward enhancing the aromatic and resilient character of the ligurian landscape. Selected species are drought-tolerant, low maintenance and hgily attractive to pollinatoes, ensuring biodiversity while enhancing sensory experiences through their fragrance, texture and seasonal colour. These gardens create pockets of intimacy, learning and ecological value along the railway park

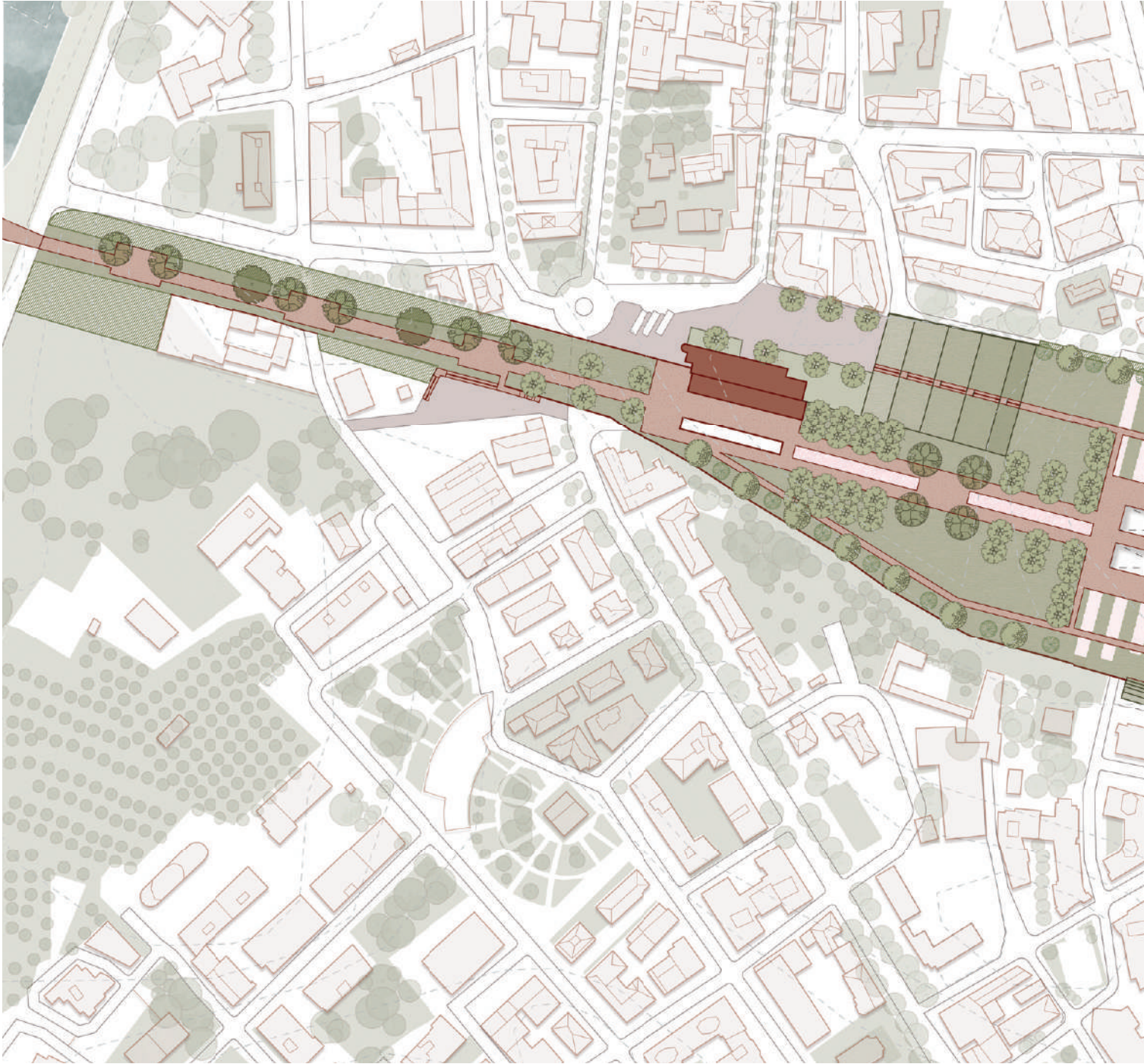
Planting strategy : Coastal gardens

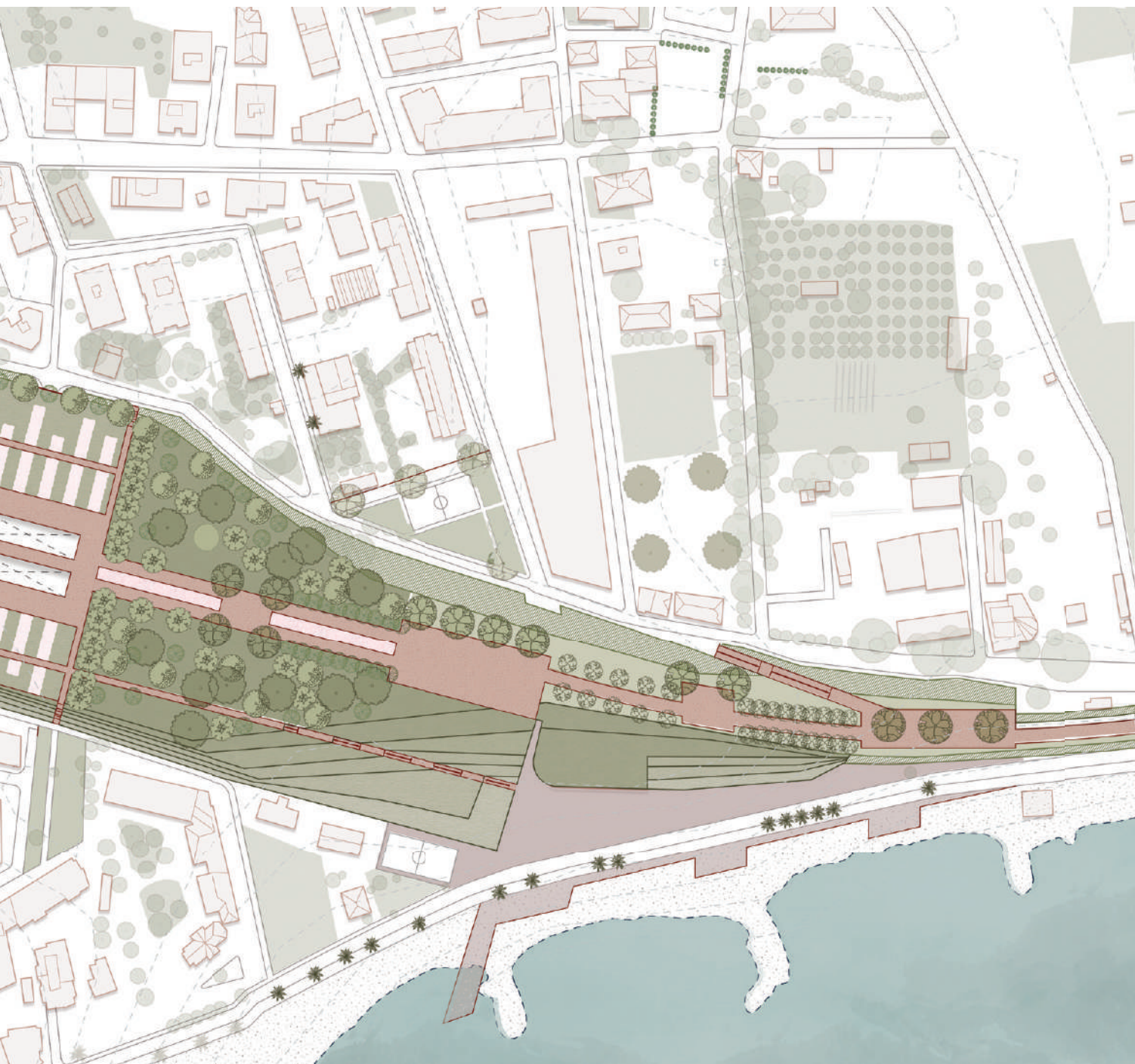


42. Coastal gardens planting strategy diagram

Coastal planting stabilizes the dunes, filters wind and salt spray, and restores the natural transition between the city and the sea. Native species are adapted to sandy soils and harsh conditions to support ecosystem resilience, protect biodiversity and re-establish a soft, permeable edge that invites people back to the coastline while enhancing its landscape conditions

43. Masterplan Level 4.50m

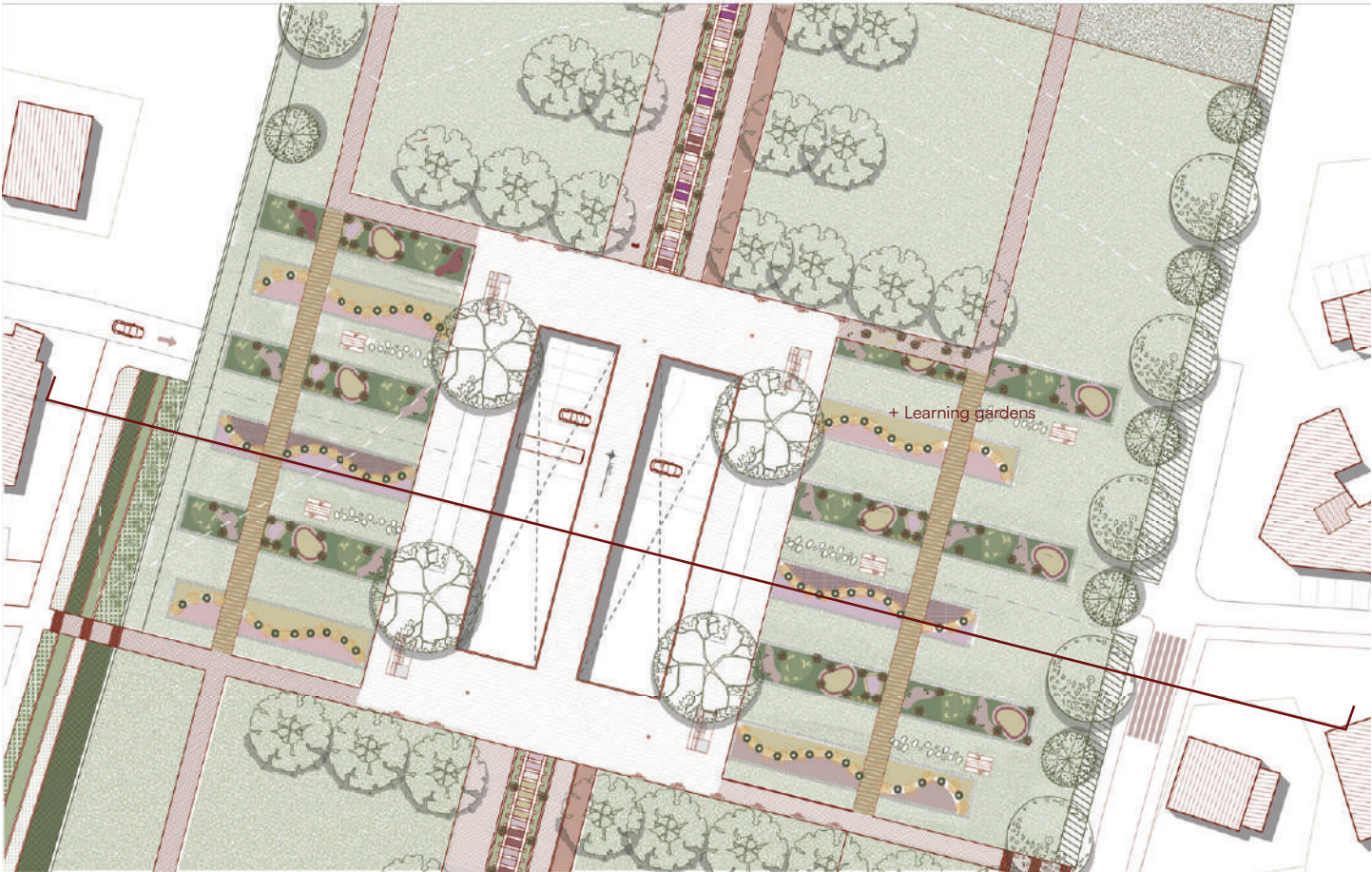




0 100 200 m



Railway park and learning gardens



44. Railway park and new opening detail

0 5 10 20m



45. Railway park and new opening cross section



46. The experience of the learning gardens

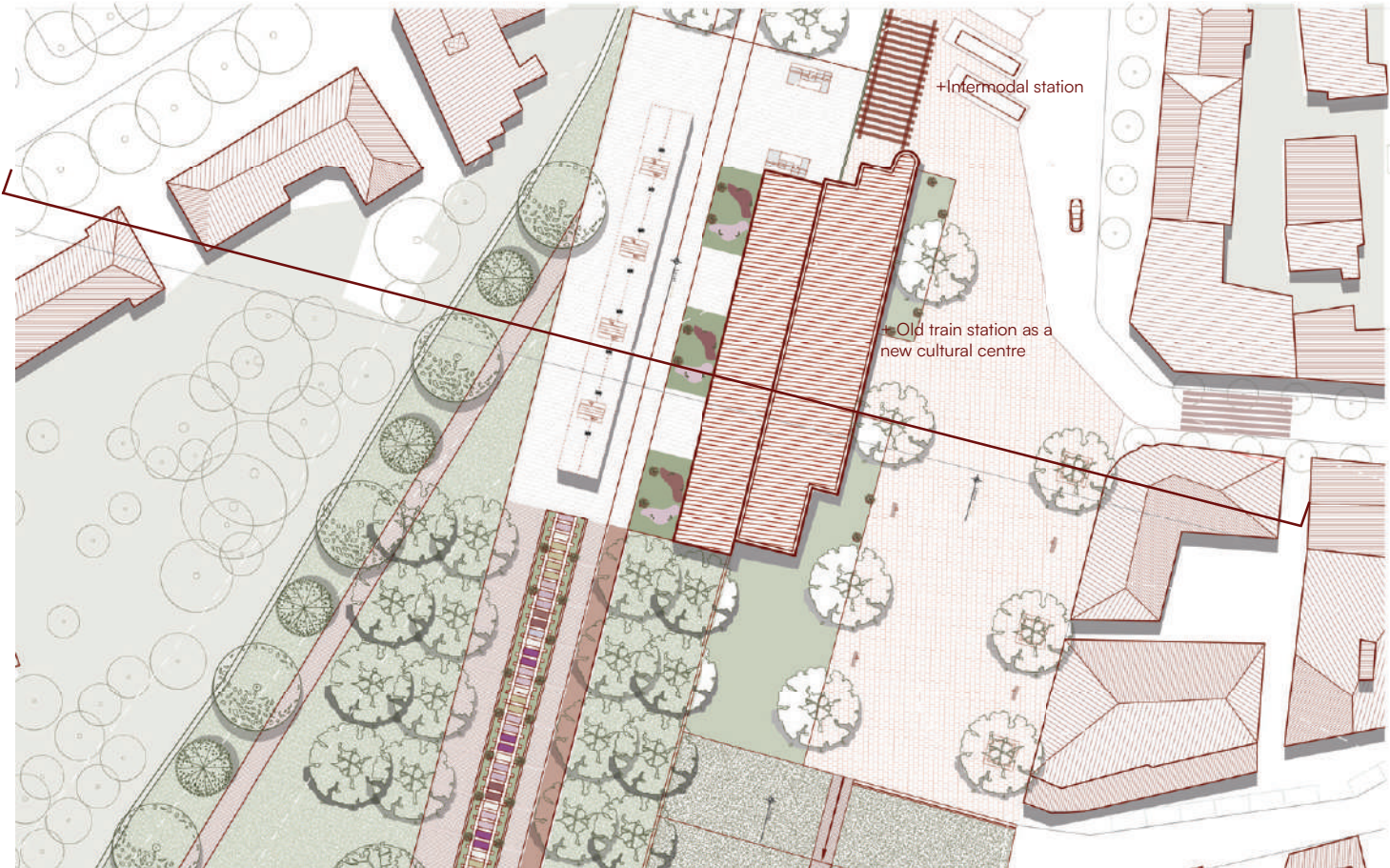
The design approach begins by recognizing the historic railway station as one of Albenga's most significant infrastructural and cultural landmarks. Rather than preserving it as a static monument, the project transforms it into an active public destination where heritage, ecology and everyday life coexist.

Three main decisions guide this strategy:

- 1** Reusing the former station as an intermodal and cultural hub that accommodates community activities, bicycle facilities and local services while preserving its historical identity.
- 2** Extending the memory of the railway through a central promenade, where preserved rails, elongated brick paving and rhythmic tree alignments reinterpret the former tracks as a continuous public landscape.

- 3** Integrating Mediterranean learning gardens between the railway traces using aromatic and pollinator-friendly species, allowing vegetation to gradually reclaim the infrastructure and create seasonal experiences.

The goal is to transform the former station into a living gateway where the memory of the railway evolves into a contemporary landscape that reconnects heritage, ecology and public life.



48.Old train station square detail

0 5 10 20m



49. Old train station square cross section



50..Old train station square the experience

The design approach understands the central opening as more than a circulation space. It becomes the spatial and social core of the Railway Park, revealing the relationship between landscape and infrastructure while strengthening urban connectivity.

Three main decisions guide this strategy:

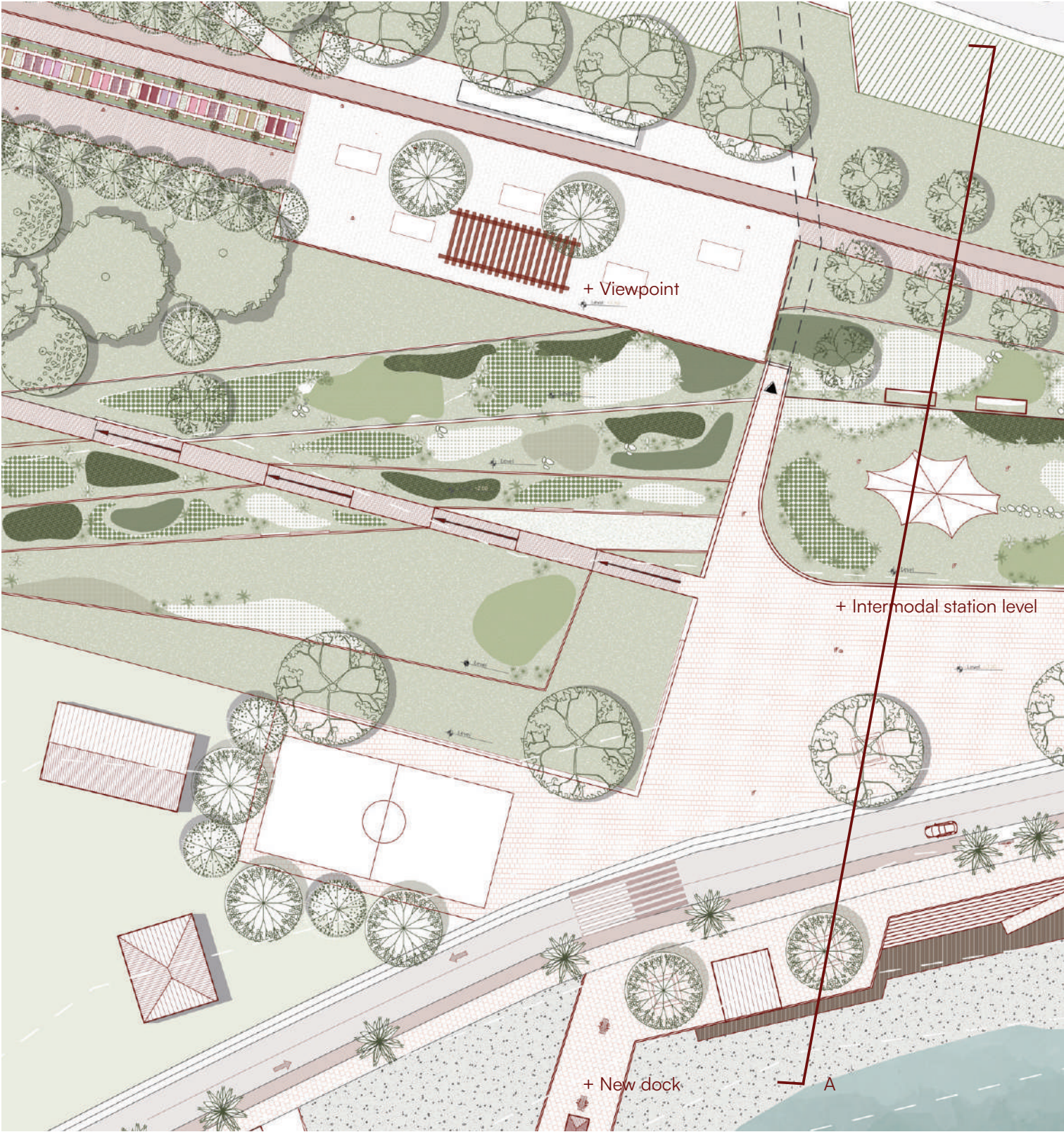
1 Creating a generous opening within the embankment that visually and physically connects the upper park with the intermodal level below.

2 Organising the surrounding public space as a civic plaza framed by *Quercus ilex*, encouraging gathering, orientation and everyday social activities

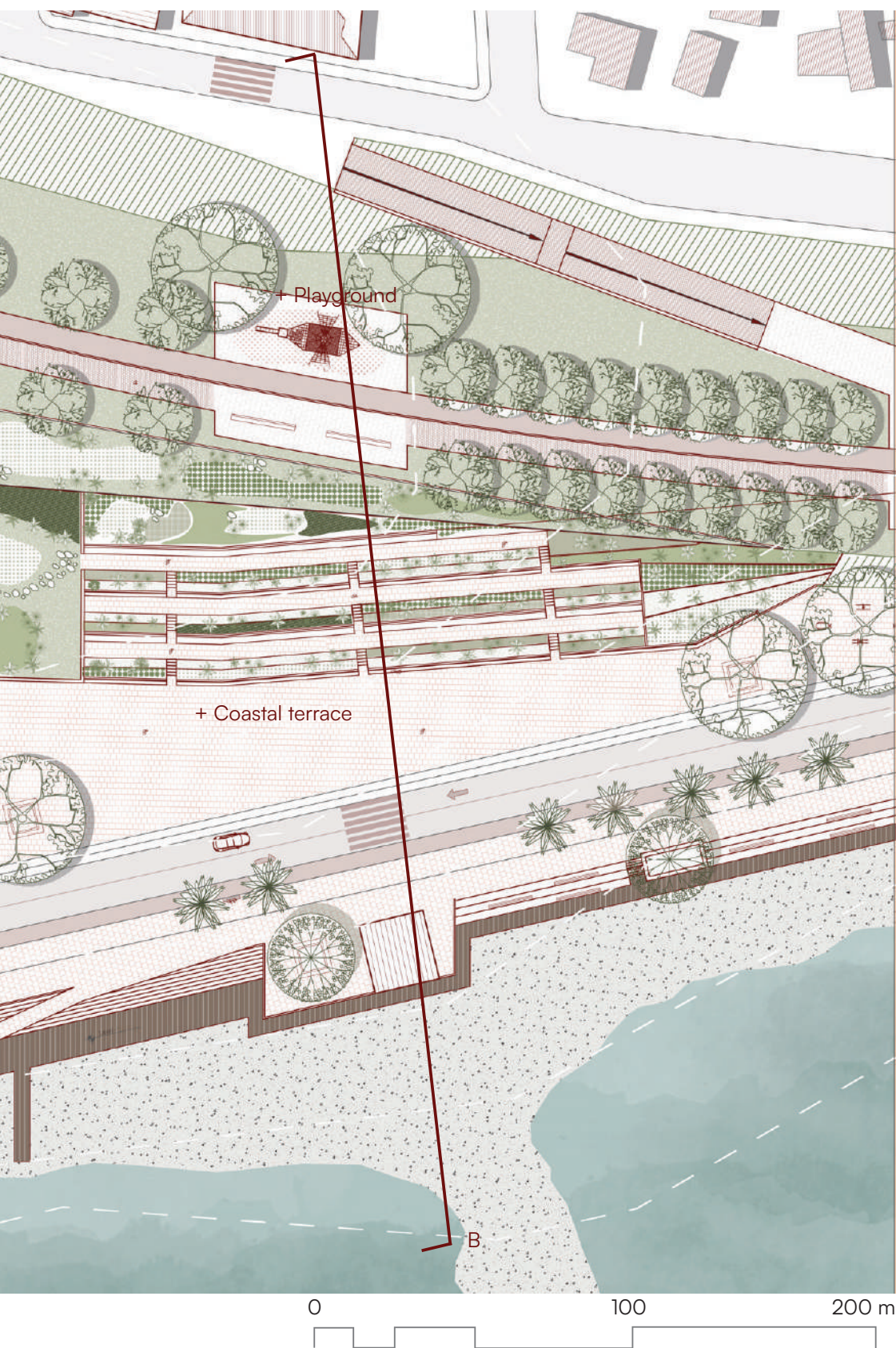
3 Integrating bus services, bicycle infrastructure and pedestrian circulation into a single intermodal node where movement becomes part of the public space rather than separated from it.

The goal is to transform infrastructure into a civic experience, where mobility, landscape and public life are seamlessly connected through light, vegetation and spatial continuity.

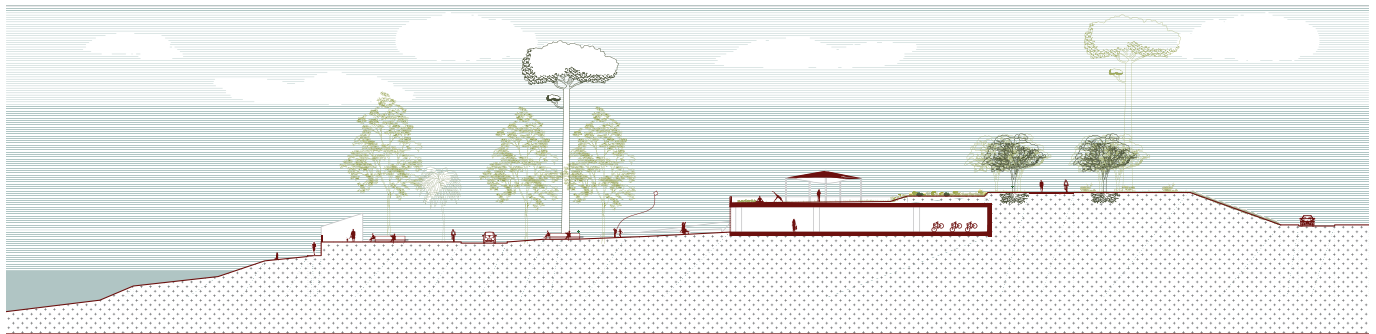
Horizon: Where The Railway Landscape Meets The Sea



51.New coast border detail

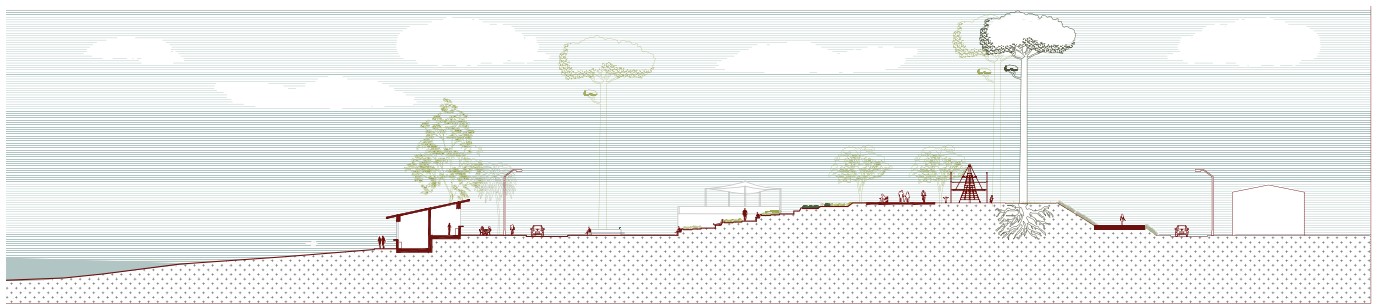


Section A-A'



Section B-B'

52.New coast border Cross section new cultural building



53.New coast border Cross section seascape stairs

The design approach reinterprets the former railway embankment as a gradual transition between the city and the Mediterranean. Rather than ending abruptly at the coastline, the landscape unfolds through topography, vegetation and public space. Three main decisions guide this strategy:

1 Reshaping the embankment into a sequence of accessible terraces that integrate seating, shade and panoramic viewpoints while responding naturally to the site's topography.

2 Restoring the coastal landscape through salt-tolerant Mediterranean planting, creating ecological continuity between the urban park and the shoreline.

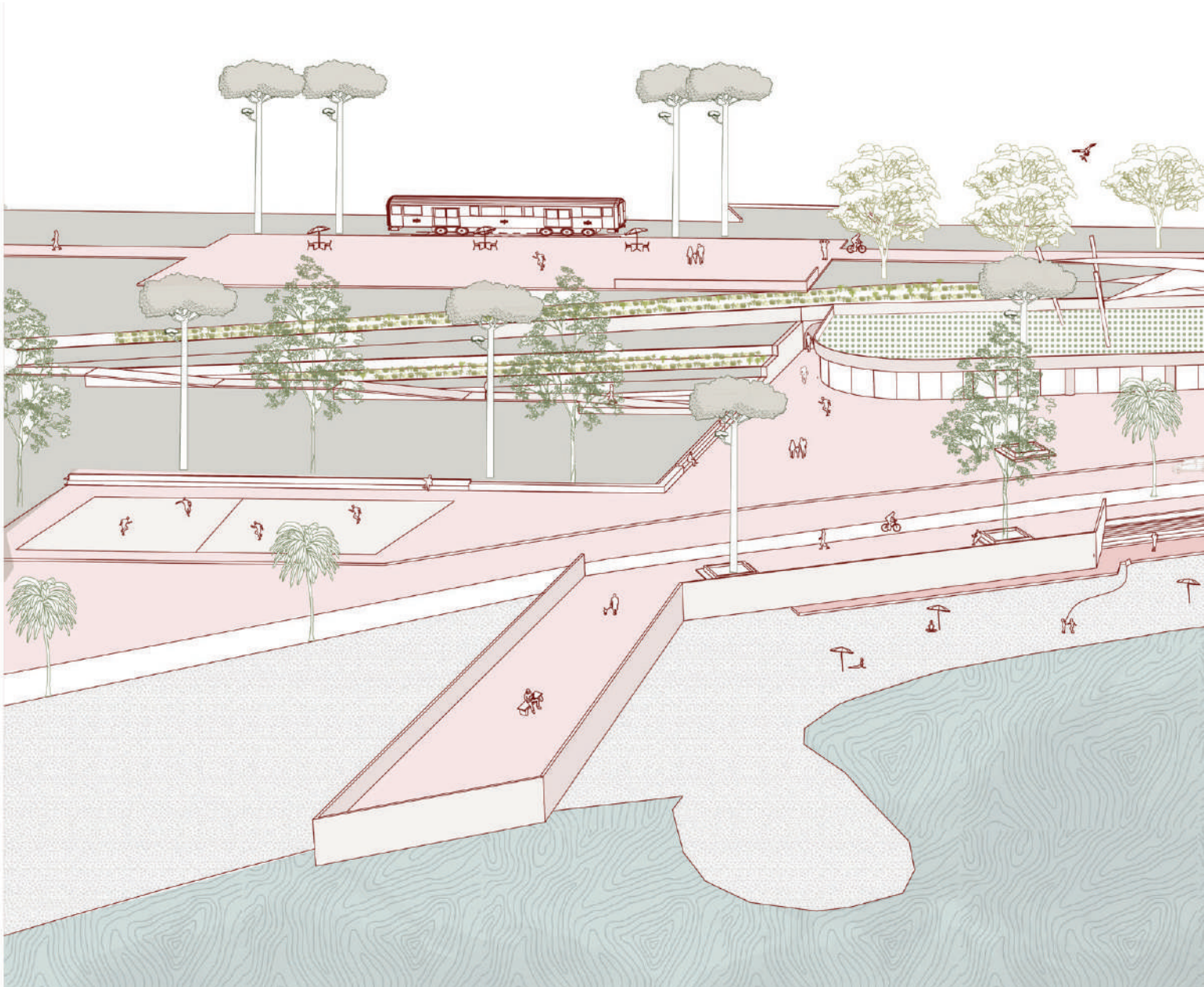
3 Extending the public realm with a new pier and a coastal pavilion that accommodate community activities, active mobility and cultural events while improving public access to the sea.

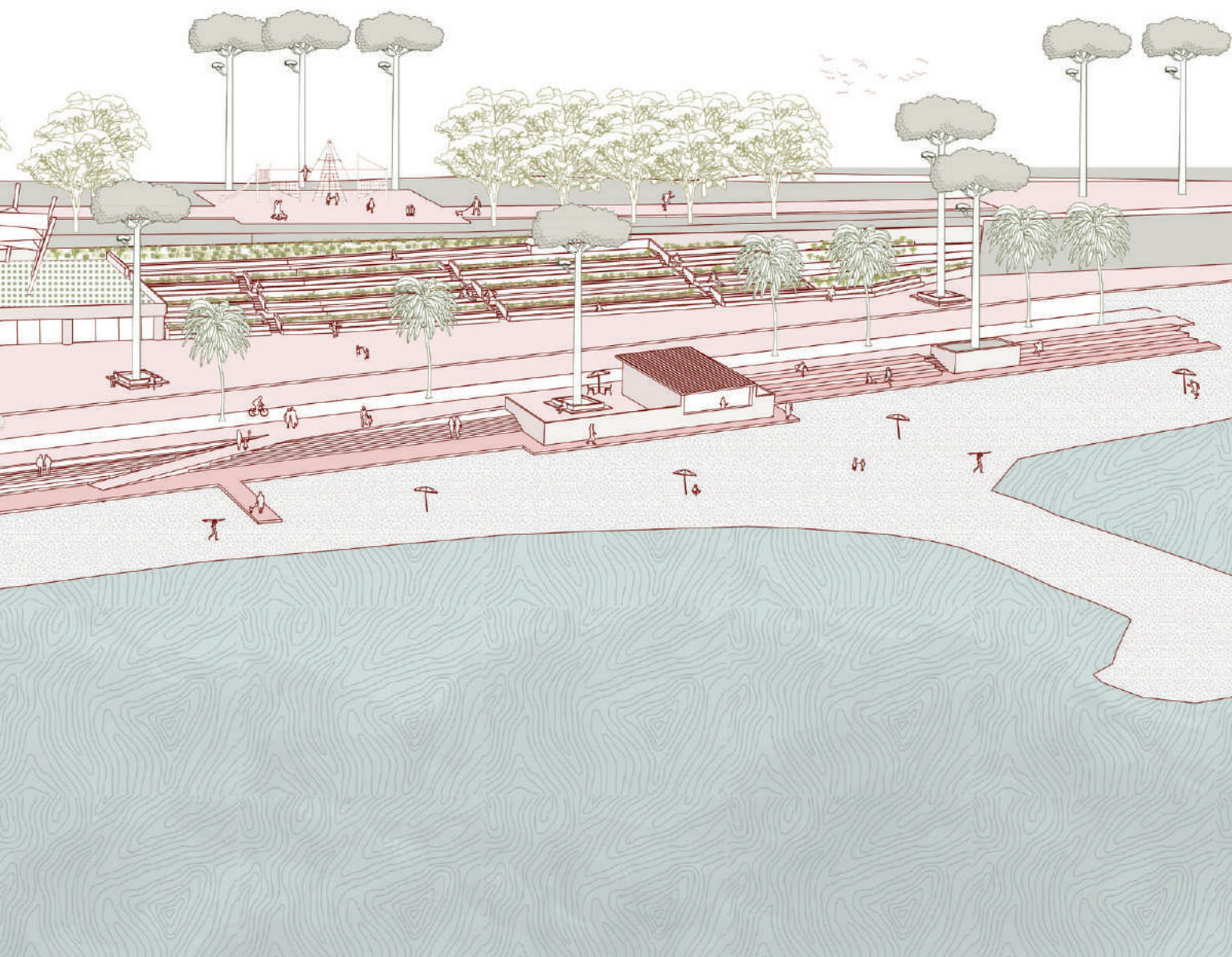
The goal is to reclaim the waterfront as a shared civic landscape where ecological restoration, public life and the Mediterranean identity of Albenga come together in a continuous and accessible coastal experience.



54.New coast border the experience

56.New coast border axonometry





Ecosystem Services and Sustainable Development

The Railway Park is conceived as a multifunctional landscape infrastructure that generates environmental, social and cultural value while strengthening Albenga's resilience. Through the transformation of the former railway corridor, the project restores ecological continuity between the Centa River, the urban fabric and the Mediterranean coast, creating a connected network of habitats that supports biodiversity and enhances ecosystem functioning.

A diverse Mediterranean planting strategy—including woodland, meadows, pollinator gardens, riparian vegetation and coastal habitats—improves ecological connectivity, increases urban biodiversity and creates new refuges for birds, insects and pollinators. Permeable surfaces and terraced topography enhance rainwater infiltration, reduce surface runoff and contribute to climate adaptation, while extensive tree planting mitigates the urban heat island effect, improves air quality and provides thermal comfort through continuous shaded public spaces.

Beyond its environmental performance, the project generates significant social ecosystem services. New pedestrian and cycling connections encourage active mobility, learning gardens promote environmental education, and a sequence of plazas, promenades and community spaces strengthens social interaction, health and well-being. By adapting rather than demolishing the existing railway embankment, the proposal also reduces construction waste and preserves the historical identity of Albenga, demonstrating how landscape can become an instrument for ecological restoration, cultural continuity and sustainable urban regeneration.

Contribution to the United Nations Sustainable Development Goals (SDGs)



SDG 3 – Good Health and Well-being

Promotes active mobility, outdoor recreation and healthier public spaces.



SDG 9 – Industry, Innovation and Infrastructure

Reuses existing railway infrastructure through adaptive and resilient design.



SDG 11 – Sustainable Cities and Communities

Enhances accessibility, public space, cultural heritage and urban resilience.



SDG 13 – Climate Action

Supports climate adaptation through green infrastructure, permeable landscapes and urban cooling.



SDG 15 – Life on Land

Restores native habitats, strengthens biodiversity and creates ecological corridors for local flora and fauna.



SDG 17 – Partnerships for the Goals

Encourages an integrated approach linking mobility, ecology, cultural heritage and public space to support long-term sustainable urban development.

Ultimately, the project understands sustainability not only as an environmental objective, but as a long-term landscape strategy that integrates ecology, cultural heritage and everyday life. By preserving and reinterpreting the former railway embankment rather than replacing it, the proposal protects an important layer of Albenga's historical identity while adapting it to contemporary needs. The Railway Park becomes more than a green corridor: it is a resilient public landscape designed for both residents and visitors, where memory, nature and mobility coexist. In doing so, the project demonstrates how landscape architecture can transform obsolete infrastructure into a living landscape that strengthens environmental resilience, celebrates local identity and improves the quality of life for future generations.



Fig 110. Albenga 1700s



Fig 111. Albenga 2014

The Centa Trace

For centuries, the Centa River shaped Albenga's coastal plain, establishing a productive relationship between agriculture, wetlands and the Ligurian Sea. This dynamic landscape functioned as a continuous hydrological system, where seasonal flooding, fertile soils and ecological processes coexisted with human settlement.

Urbanization, infrastructure and the expansion of coastal campgrounds fragmented this relationship, disconnecting the river from its floodplain and the sea. As natural water dynamics were progressively constrained, the territory became increasingly vulnerable to flooding and environmental degradation.

This project reimagines the former trace of the Centa River as a landscape infrastructure that restores these lost connections. By integrating productive agriculture, ecological transitions and public space within a continuous gradient from inland to coast, the proposal re-establishes water as the organizing element of the landscape.

The project aims not only to mitigate flood risk through nature-based solutions, but also to redefine the relationship between river, agriculture and sea as a resilient territorial system for Albenga's future

Landscape as infrastructure

Landscape becomes the project's performing infrastructure, where ecological processes provide environmental and spatial functions. A continuous bioswale system, wetlands, and transversal hedgerows manage stormwater, enhance biodiversity, improve agricultural productivity, and restore ecological continuity between the river and the sea. Instead of relying on engineered solutions alone, natural systems structure the landscape while increasing its resilience to flooding and climate change.

Ecological processes perform as public

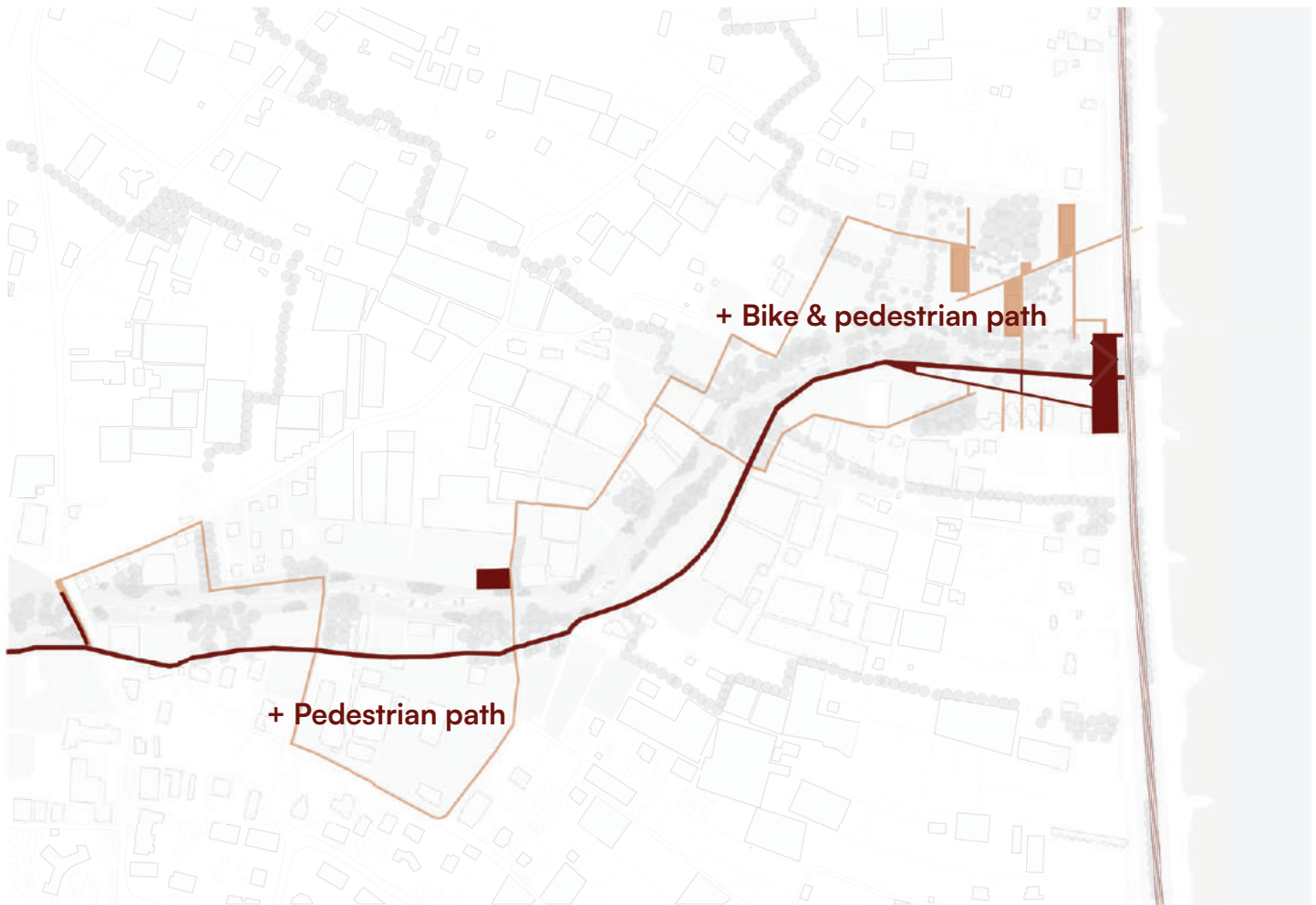


56. Landscape as infrastructure diagram

Connectivity as structure

Connectivity is conceived as the primary spatial framework that reconnects Albenga's fragmented landscapes. A continuous network of pedestrian and cycling paths links the archaeological site, productive fields, the Centa River, and the coastline, transforming movement into a sequence of ecological and cultural experiences. Rather than acting as isolated routes, these connections organize the territory and reinforce the relationship between people, landscape, and water.

Movement reconnects fragmented land



57. Connectivity as structure diagram

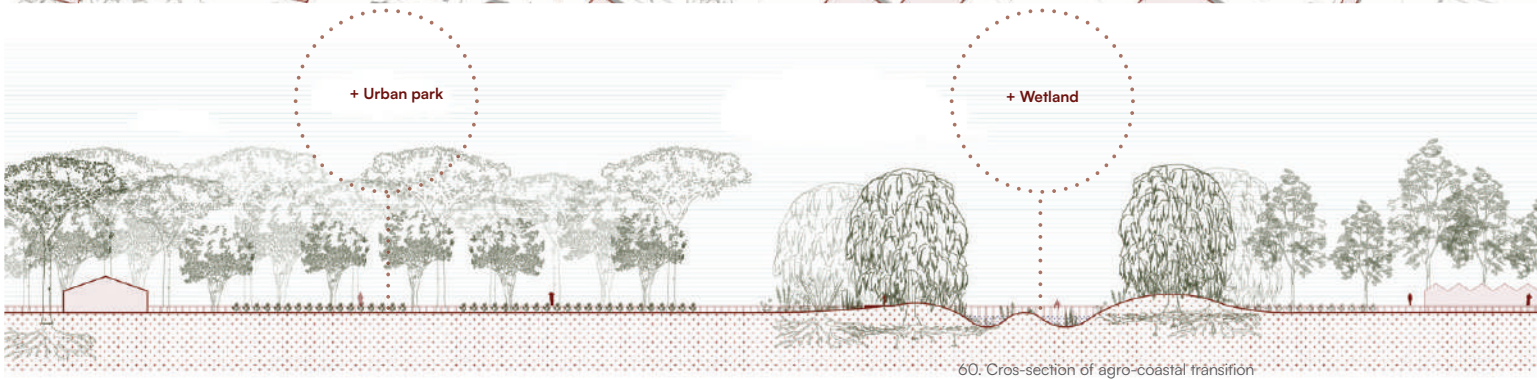
Social nodes

Three strategic public nodes act as gateways along the agro-coastal gradient, creating spaces where ecological restoration, cultural heritage, and everyday life intersect. Located at the archaeological landscape, the agro-ecological transition, and the coastal edge, these destinations encourage social interaction while reconnecting residents and visitors with Albenga's productive landscapes, river system, and shoreline.

Strategic destinations transform connections into places.



58. social nodes diagram



Agro-Coastal Transition

Reconnecting Agriculture, River and Coast



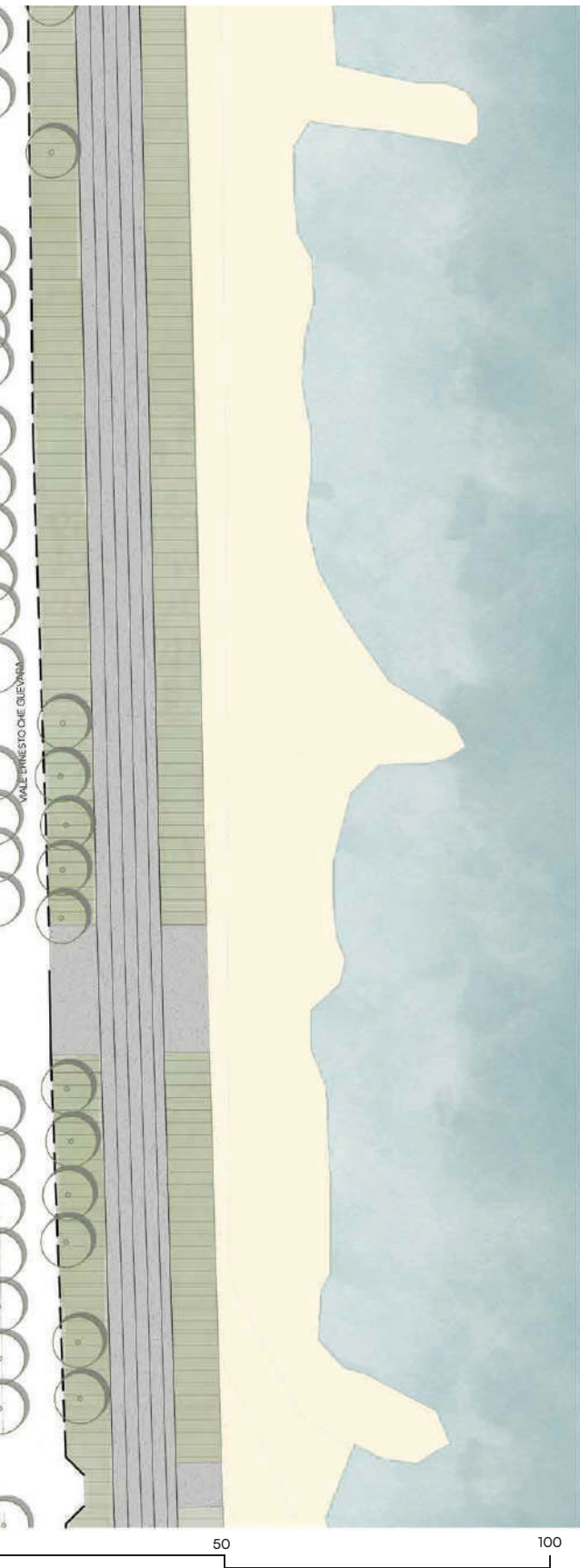
At the threshold between land and sea, the project transforms a fragmented landscape into a continuous agro-coastal system where archaeology, productive fields, water, and the coastline are reconnected. Water becomes the structuring element, linking the Centa River to the sea through a network of bioswales, wetlands, and hedgerows that improve ecological continuity, biodiversity, and natural stormwater management.

A hierarchy of pedestrian and cycling paths reinforces this landscape structure, connecting three key transition points while revealing Albenga's agricultural identity through an immersive sequence of productive and ecological landscapes. By restoring public accessibility to the coast, the proposal rebalances the relationship between tourism, local communities, and the Ligurian shoreline.

Within this territorial framework, the coastal transition emerges as the project's critical area. Here, the horizontal occupation of campgrounds interrupts the ecological gradient between agriculture, the Centa River, and the sea, limiting both environmental continuity and public access. Rather than questioning tourism itself, the project identifies this landscape as an opportunity to reimagine camping through vertical occupation, releasing the ground for ecological restoration while preserving its role within Albenga's coastal identity.



61. Cross-section current conditions site



The Existing Camping Model

Landscape Fragmentation at the Coastal Transition

The existing campsite occupies a strategic position between Albenga's agricultural plain and the Ligurian coast, yet its current spatial organization creates a strong physical and ecological barrier.

A dispersed arrangement of bungalows, service buildings, fences, paved surfaces and private facilities fragments the landscape and limits public access to the shoreline. Despite being located within the historical floodplain of the Centa River, the site functions as a highly sealed

and disconnected enclave, reducing ecological continuity between inland productive landscapes and coastal ecosystems.

The dominance of horizontal occupation, impermeable surfaces and privatized open spaces restricts hydrological processes, biodiversity and public accessibility, revealing the need for a more integrated relationship between tourism, water management and landscape restoration.



Buildings typologies



Fixed building



Covered structured



Fixed bungalow



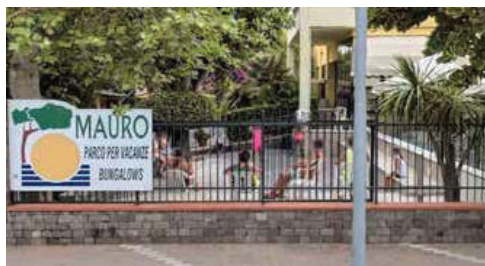
Mobile bungalow



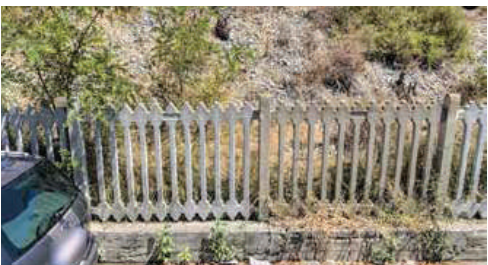
Fences typologies



Metal fence



Concrete fence



Bush fence



Fig 112. Current conditions pictures. Noted by Google maps

Pavements

Concrete street tiles



Bricks



Gravel



Tiles



Vegetation

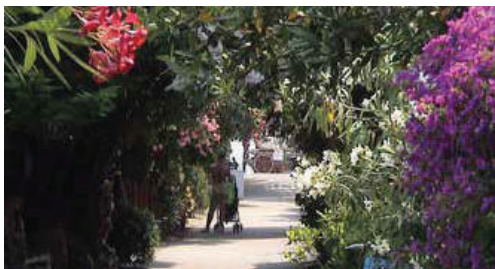
Cutted grass



Invasive species



Floral Canopy



Dense tree canopy

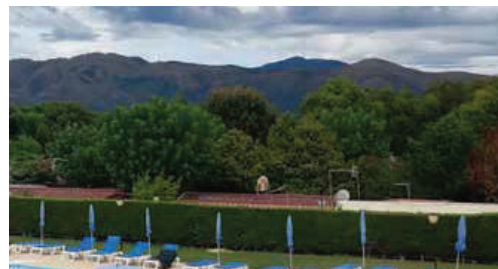
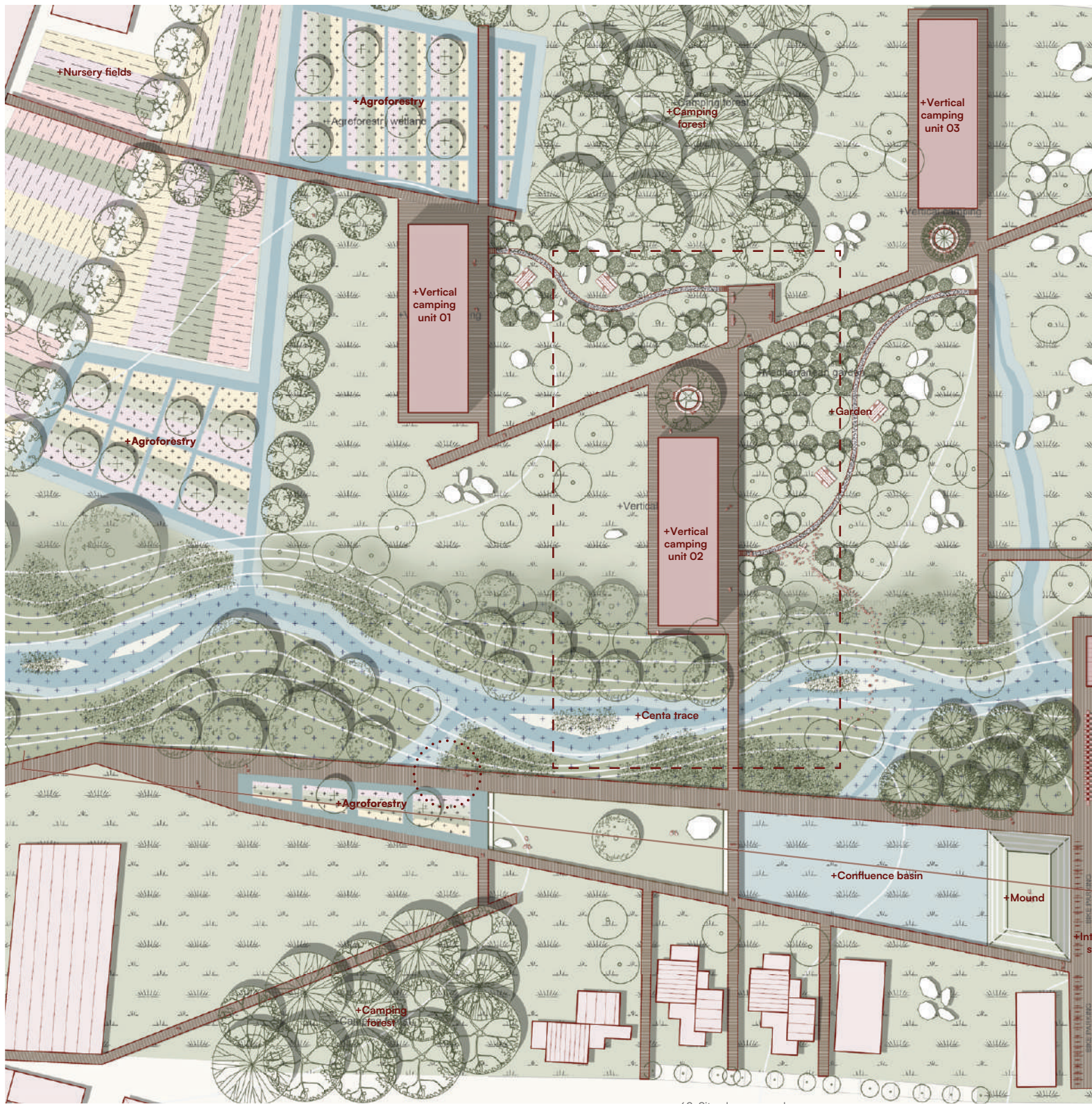
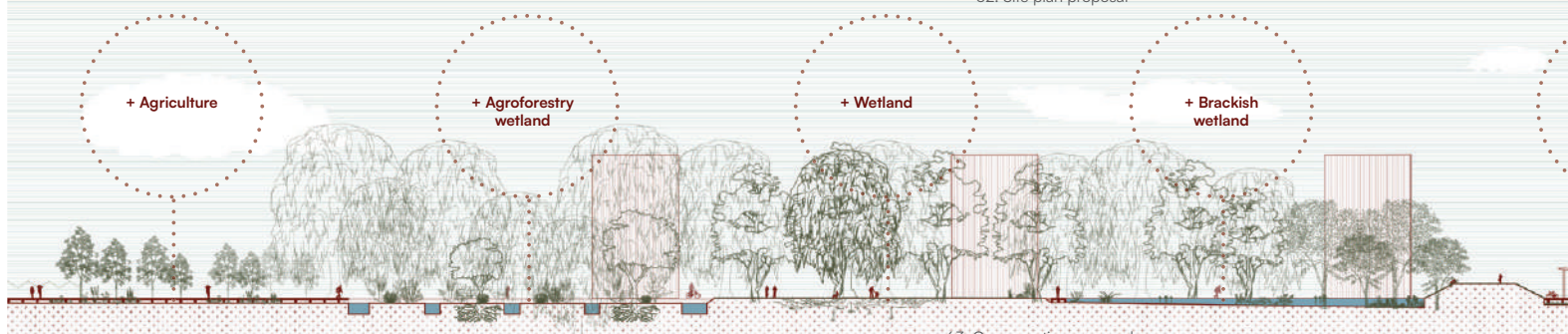


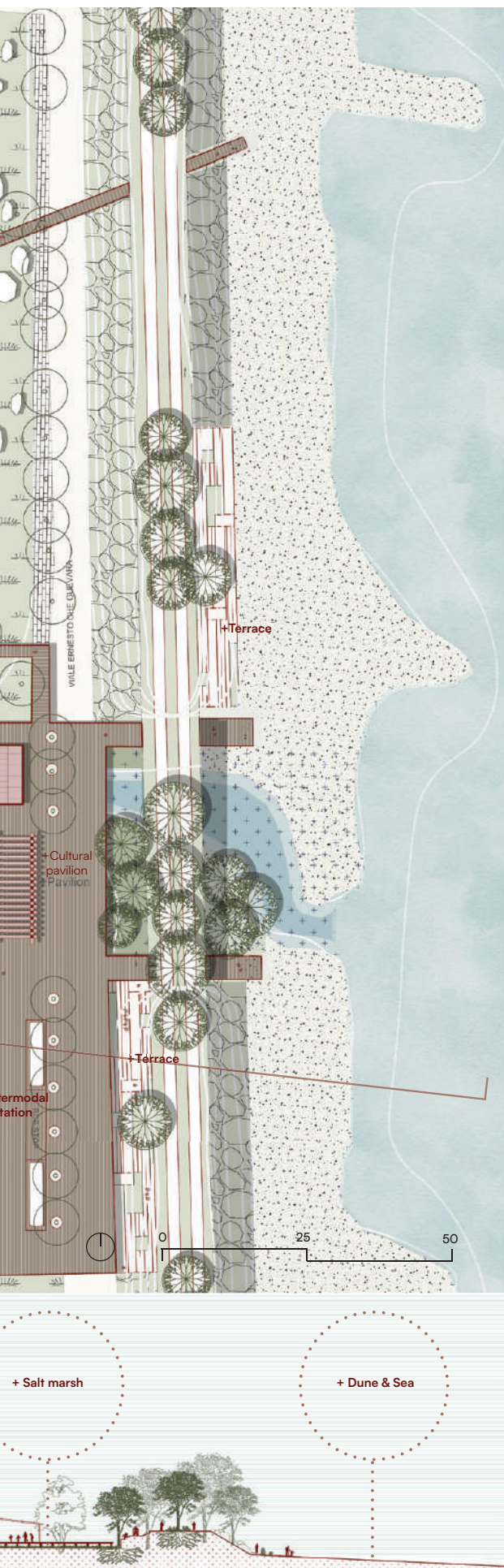
Fig 113. Current conditions pictures. Noted by Google maps



62. Site plan proposal



63. Cross-section proposal

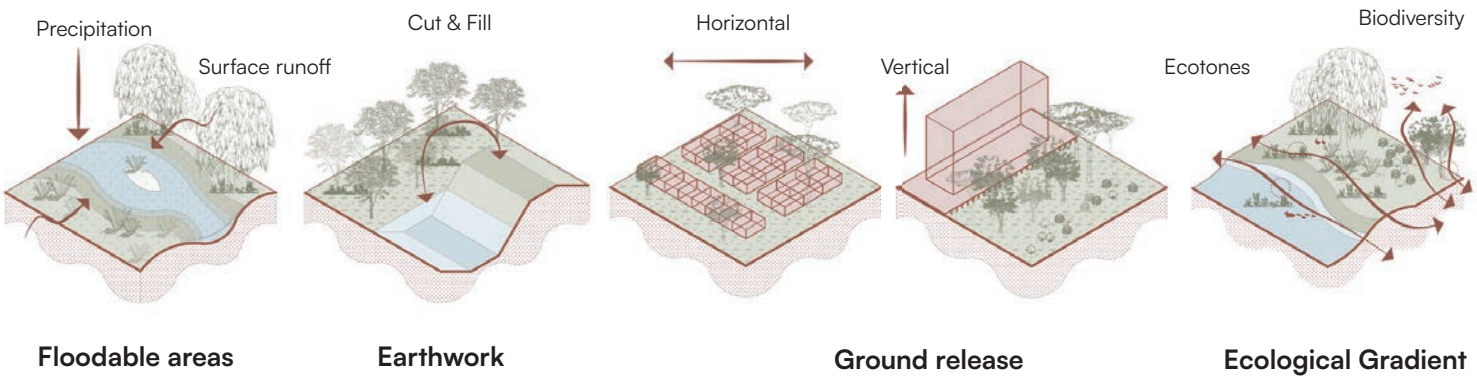


The Centa Trace

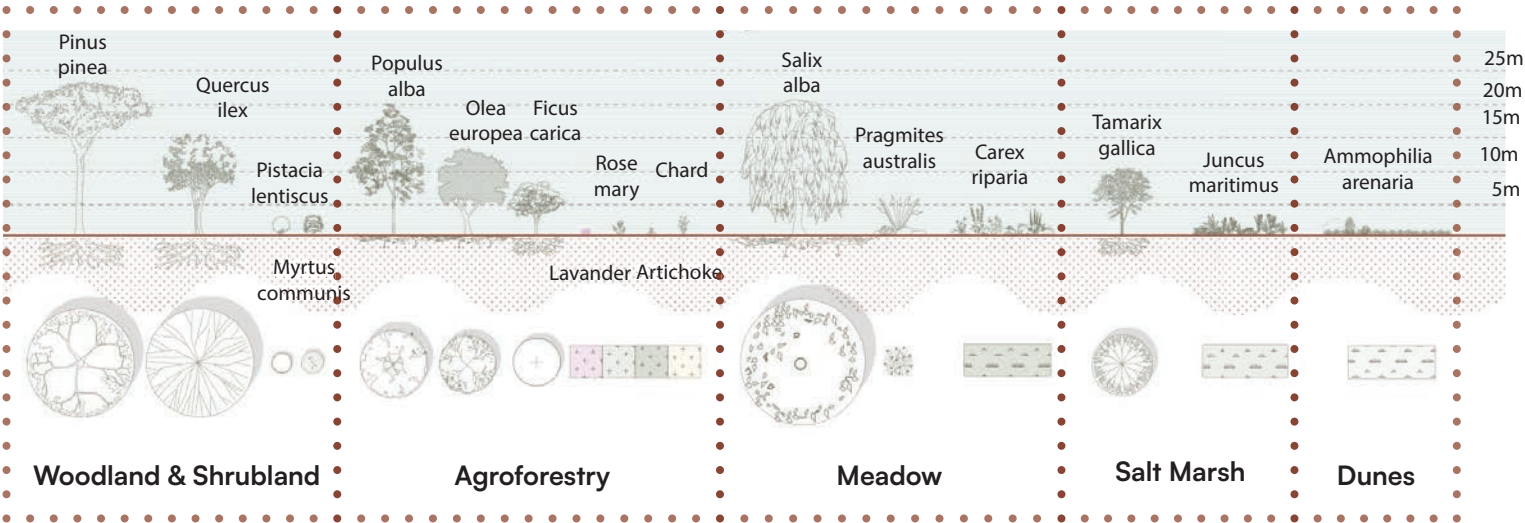
A Living Gradient from Agrigulture to Sea

The proposal reimagines camping as a shared landscape rather than a private occupation of the floodplain. By concentrating accommodation vertically, the ground is released to restore wetlands, productive landscapes, and ecological continuity while creating new public spaces accessible to both residents and visitors. Tourism is no longer conceived as an isolated destination, but as part of a continuous landscape where agriculture, biodiversity, and recreation coexist. Moving through productive fields, wetlands, woodlands, and coastal ecotones, the experience of camping becomes inseparable from the experience of the territory itself.

Ecological strategies

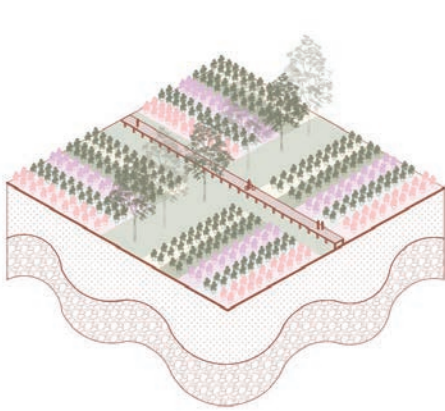


64. Ecological axonometries

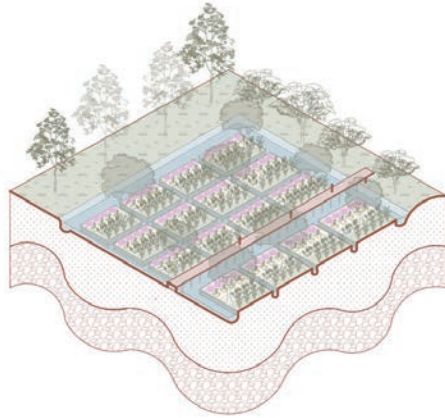


65. Vegetation section

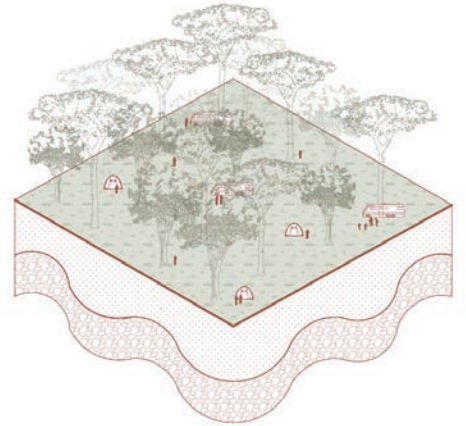
Reimagining camping experiences



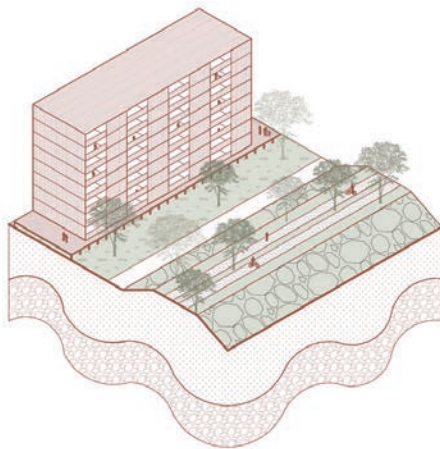
Productive Landscape



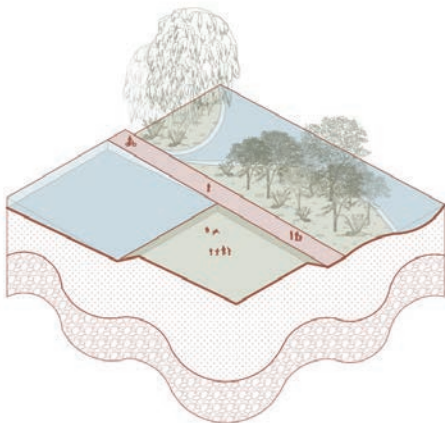
Floodable mosaic



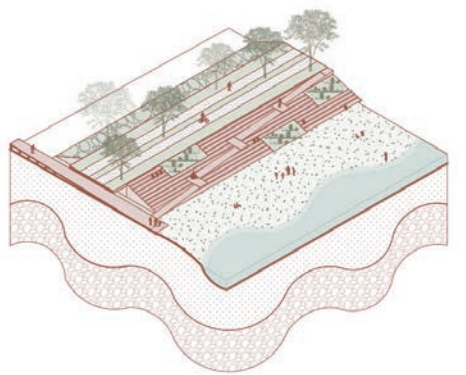
Woodland retreat



Elevated Horizons



Between waters



Sea arrival

66. Axonometries camping experience

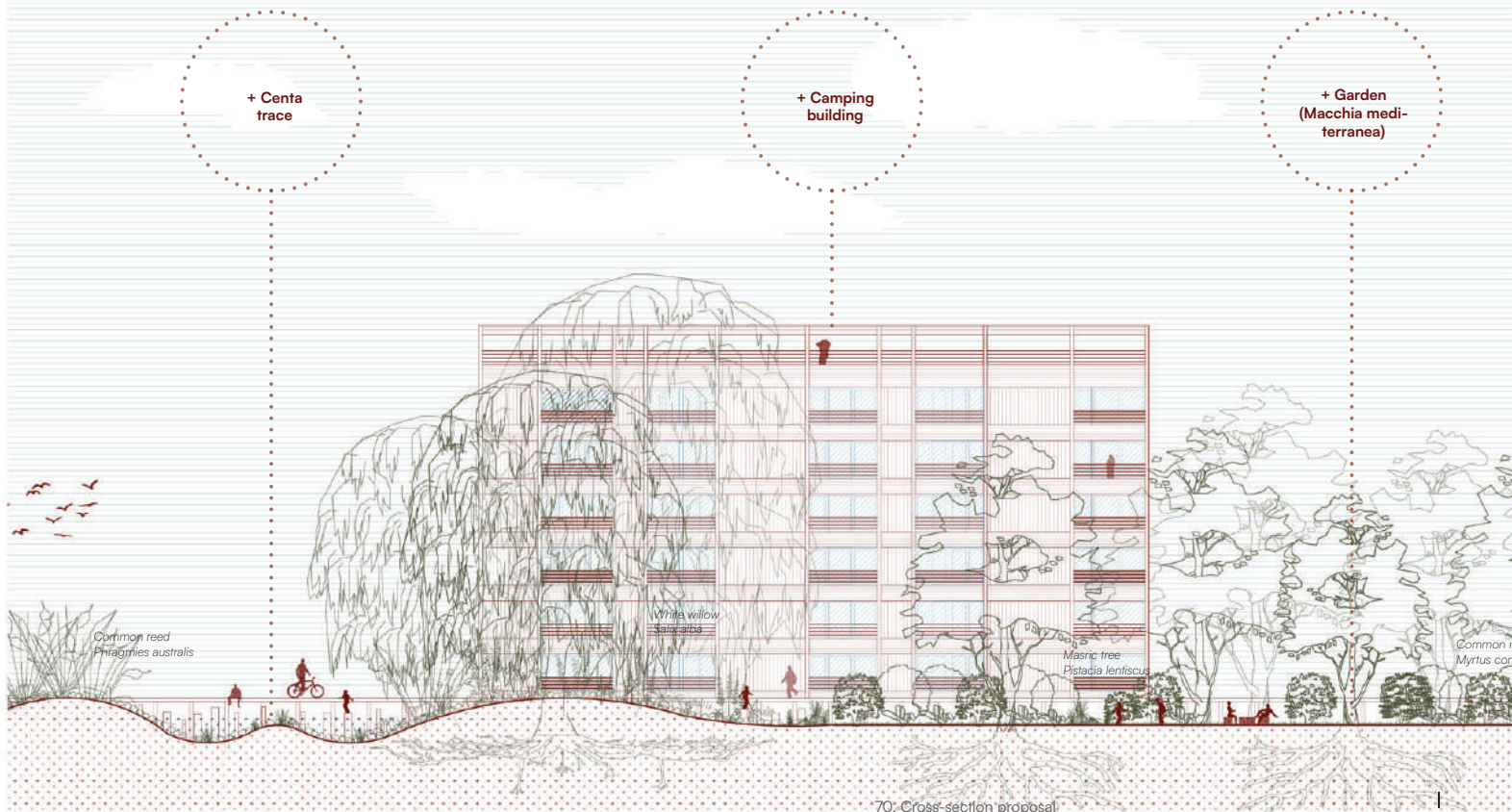




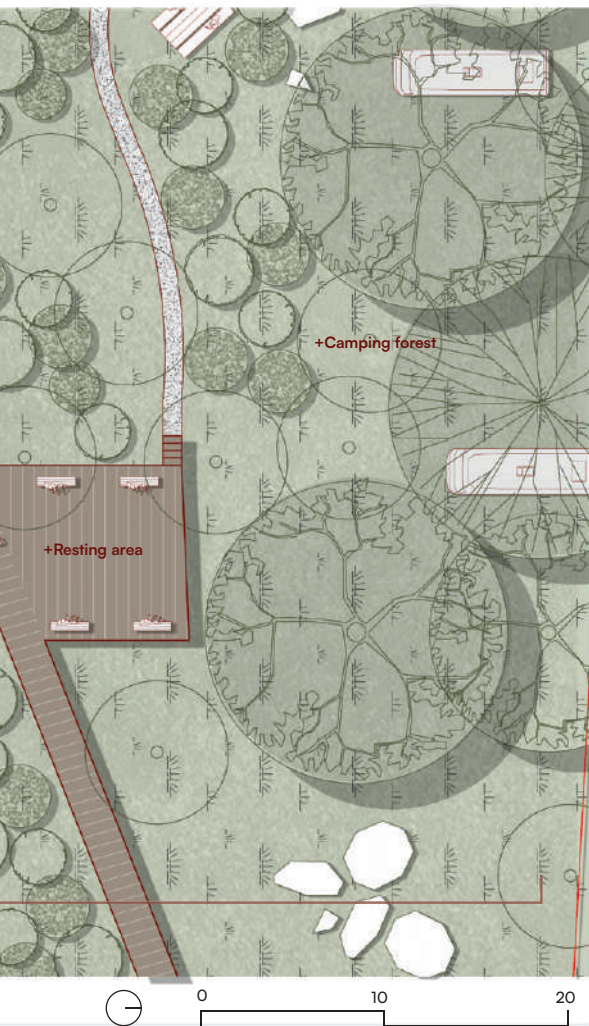


Section A-A'

69. Site plan proposal



70. Cross-section proposal



Elevated Occupation

Reimagining Camping Through Verticality

Reimagining camping is not simply about changing the way people stay, but about redefining the relationship between tourism and landscape. By replacing horizontal occupation with compact elevated structures, the project restores the ecological continuity of the Centa floodplain while opening the ground to water, vegetation, and public life. Inspired by the historic towers of Albenga, the new accommodation becomes part of a continuous landscape where residents and visitors share productive fields, wetlands, Mediterranean woodlands, and the restored river corridor. Tourism is no longer an isolated destination, but an active component of the living gradient from agriculture to the sea

Section B-B'

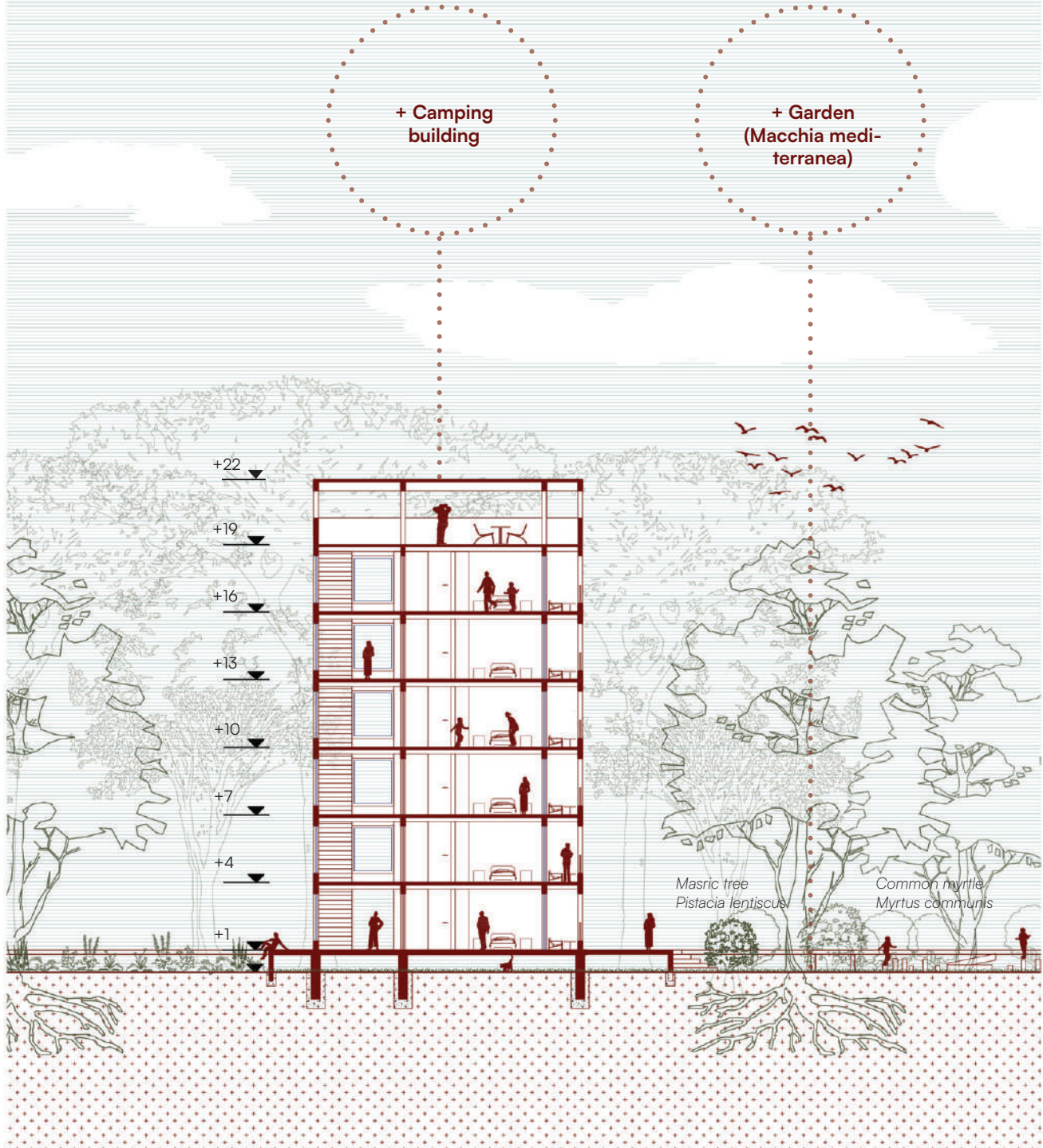




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