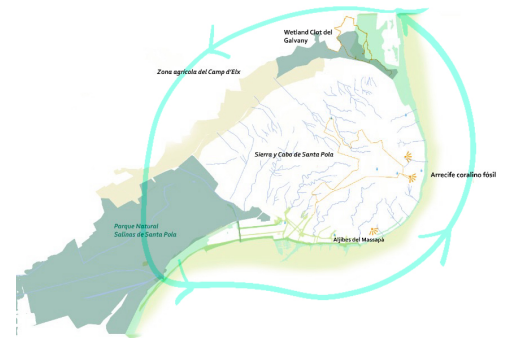


SANTA POLA(ES)

Water Revealing the landscape

The Sierra and Cape of Santa Pola constitute a very interesting mountain range from a geological, environmental, and landscape perspective, an ancient atoll surrounded by water with dominant views of the Costa Blanca. Water has been and will continue to be the most representative element that has shaped and transformed this landscape over millennia.

Climate change threatens the dynamics of these fragile landscapes, both due to rising sea levels and the flooding caused by cold drops, which are especially severe in highly urbanized coastal municipalities like the one we are in.



The coast, wetlands, and salt flats, although fragmented by the humanization of the land, form a high-quality green infrastructure, where the natural values of the area are still preserved and are compatible with the population's need for livable spaces. These spaces create a large green and humid ring that shelters the rock and gives it functionality.

Urban developments have interrupted the ravines and streams, which have ceased to function as ecological and social connectors, as well as disrupting the correct dynamics of water and sediment flow to the sea.

This has led to a series of imbalances, primarily in water management, which negatively impact Santa Pola. As a result, Santa Pola has become an increasingly uninhabitable place; frequent flooding, heat waves, and tourist overcrowding threaten the ecological balance and natural dynamics of the area.

Climate change has highlighted the urgent need to recover water management as a tool to maintain this ecologically interesting and scarce landscape in the territory where we are located

Water Reliving the landscape

The transformation of the natural hydrological network of Cape Santa Pola, largely due to the urban growth of the city, has caused a disconnection of the mountain range from the sea, interrupting all existing dynamics: disruption of water and sediment flows, disappearance of the agricultural landscape, and isolation of the city from its green infrastructure.

This drainage system forms, at an urban scale, a series of strategic transversal axes that constitute entry points or 'fingers' of the external green infrastructure into the city of Santa Pola, allowing us to rethink the way the city relates to its surroundings.



From here, different scenarios emerge in which projects of various scales and depths can be imagined, ranging from urban tissue regeneration actions to ecological restoration of degraded ravines. By adapting the proposal to each axis, we create green connectors that allow for:

- To have a livable city by reducing the urban heat island effect through the introduction of green infrastructure from the mountain range into the city.
- To establish a social and ecological link of active exchange between the city and the mountain range through routes and paths.
- To mitigate the impact of flooding through proper water management, retention, and infiltration, following agricultural practices.
- To provide a greater perception of space and width to public areas, which are largely dominated by the visual impact of private spaces.
- To rediscover the agricultural landscape of the mountain range.

At the same time, these transversal axes are crossed by civic, permeable longitudinal axes, connected to the main facilities and points of interest in the municipality. These axes take advantage of urban voids, forming buffer zones as an alternative to the seafront promenade, and contribute to the formation of this large green ring around the Sierra de Santa Pola.

The strategy of this project is based on the recovery of these transversal water axes, as well as longitudinal ones in the form of a grid, as the main action to recover and restore the natural and social dynamics that have always developed in the municipality.

Water's Journey through Barranco del Fondo

A green connector, a promenade full of experiences

This green connector is divided in 4 different areas that we named as:

1. The sunken landscape
2. The Hall of Santa Pola Quarry
3. Almeria Green Axis
4. Marshlands Varadero's Beach

The Sunken Landscape and the Hall of Santa Pola Quarry

The town of Santa Pola owes its physical existence mainly to its quarry. Over at least 100 years of mining exploitation, enough material was extracted to build much of the town and its characteristic urban growth from the 1960s. Today, it constitutes a large void and an open wound on Cape Santa Pola, which has altered the relief, the hydrological network, and the dynamics of sediment and nutrients in the surrounding environment.

The proposal transforms this large void into a vast, porous, and diverse park adapted to the effects of climate change, where various uses and activities can be developed. The proposal is based on transforming two large voids that will have distinct characteristics:

1. The upper quarry (Sunken landscape), closer to the mountain range, with a more naturalized character.
2. The lower quarry (Quarry's hall), closer to the urban area, with a more urban park and public facility character.



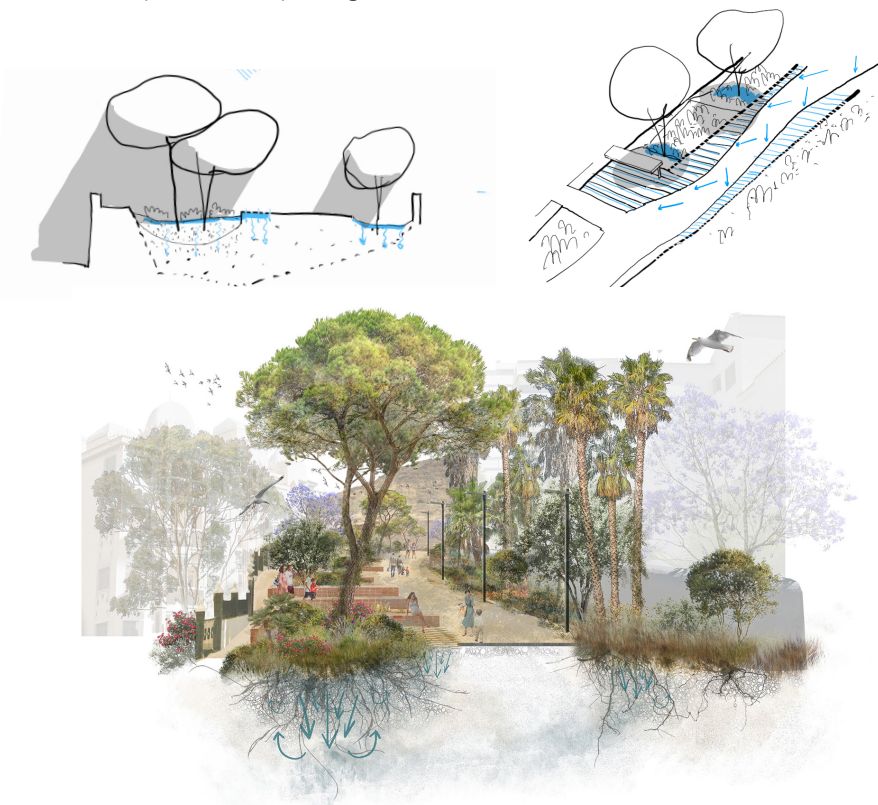
Thus, the proposal is mainly based on five key actions:

1. Recovering the water footprint and the landscape: The management of water and the recovery of the Torrent Fondo allow the proposal to emerge naturally. Water infiltrates the quarry through a morphological reconstruction of the place and the establishment of a new drainage network using the agricultural technique of water harvesting called “cañadas”. This helps avoid potential future flooding situations. It is the management of this water that naturally helps us restore the typical vegetation of this arid landscape and create different conditions of humidity, orientation, and slope, which allow us to recover different habitats.
2. Linking Cape Santa Pola with the beach and its inhabitants: A network of paths and panoramic viewpoints, both for pedestrians and cyclists, will be created around and inside the quarry, connecting the town to the quarry itself and linking with existing trails on the Cape.
3. Creating leisure spaces for the citizens: The voids are used to create large spaces. An amphitheater and seating areas are established in the more urbanized area to host large events.
4. Rediscovering the underwater landscapes of the reef front: The large footprint left by the quarry, with its vertical walls, allows for the observation of the reef front (geo-conservation) from the Messinian period, so characteristic of the Cape. A network of viewpoints, walkways, and paths will allow people to discover these new landscapes and this particular geology.
5. Reusing the material from the quarry to create fertile soil: The proposal involves creating new soil (technosol) by recycling the existing edaphic material in the quarry, along with external contributions. Organic amendment techniques are used to improve soil quality, utilizing *Posidonia* waste, which, when decomposed, generates organic matter that will facilitate revegetation.

Almería Green Axis:

Almería Street constitutes the main green connector axis between the Quarry and the beach. Currently, it is mainly designed for vehicular traffic, both for passage and parking. The proposal reconfigures its section to create a slow-movement corridor for pedestrians, cyclists, and water. This transit space also invites rest, encouraging calm walking or pauses, allowing pedestrians to walk leisurely towards the beach or the quarry. The different actions included in this project area are:

- Recovering the water footprint: The proposal aims to conceptually recover the ancient *Barranc del Fondo*, which passed through this street long before Santa Pola was urbanized. A large planter is created with weirs, forming a big Sustainable Urban Drainage System (SuDS), which allows us to have a lush forest canopy, thanks to the addition of moisture and rainwater. Access to residential and tourist complexes on both sides is ensured, with resting areas near their entrances.
- Depave and introduce permeable paving to enhance the infiltration of water



Marshlands Varadero's Beach

Varadero Beach constitutes another major urban void in the town of Santa Pola, alongside the Quarry. Years ago, it was used as a dumping ground for materials extracted from the quarry and as a shipyard for vessels. Today, it stands as a large empty space, mostly serving as a parking lot during the summer season.

Given its location and the opportunities presented by such a site, the proposed intervention invites us to give this large shipyard a second life. The goal is to reactivate and diversify the economic activity, which will in turn activate the social space through the regeneration of the area. The project will guarantee access to the water surface and create pleasant spaces for people to enjoy.

This area proposes new ways to engage with the sea at Varadero Beach, combining renaturalization with a variety of alternative activities beyond traditional beach use. The channelization of the *Barranc del Fondo* mouth to the sea is removed, allowing water to drain and spread on-site, thereby restoring marshes and wetlands through topographical changes. The edge between the platform and the sea is softened, creating varied levels that encourage the mixing of fresh and saltwater, enhancing local habitats. Proximity to the water is also enhanced with seating terraces, a water walkway, bathing pools, and shoreline renaturalization, expanding opportunities for social interaction and connection with the natural habitat.

Additionally, a major aquatic activity hub will be established, centered around the new large sea plaza, equipped with temporary elements to host various events. Water collected in the quarry will be distributed and allowed to flow in the form of pathways leading to the beach, creating a new “delta” on the beach. Palm trees will be used as natural guides, directing visitors towards the water.



Water's Journey

The revitalization of Santa Pola highlights the need to reconnect urban areas with natural water systems to address environmental and social challenges. Past urban development, including quarrying, has disrupted the region's hydrological and ecological balance. However, through ecological restoration and sustainable urban design, water management can be used to both enhance the landscape and improve residents' quality of life.

The proposed green connectors, from the Sunken Landscape to Varadero Beach, aim to restore water flows, reduce flooding, and reintroduce biodiversity while enhancing urban spaces. With strategies like permeable paving and water harvesting, these projects seek to make Santa Pola more livable and ecologically resilient.

By focusing on water as a transformative element, this initiative offers a chance to safeguard the region's natural beauty and create a lasting connection between the community and its environment.

