

# The Butterfly Effect

*Our strategy is to maximize the development of biotopes and nature in order to make productive and residential uses coexist. In this vision, the key tools for a lively, acclimatized neighborhood are to amplify the impact of both rivers and of the natural components on site, while making the best use of existing facilities and roads.*

## THE KEYS OF THE STRATEGY :

### 1 - BLURRING BOUNDARIES

*An undergrounding effort enables the road enclosing the riverbanks to be diverted. This road will become part of a new green belt.*

### 2 - DROUGHT & RISING WATER

*Climate issues and flood risks are managed by working the soil and reinforcing the site's natural components within landscaped living spaces.*

### 3 - ROAM THE LIVING

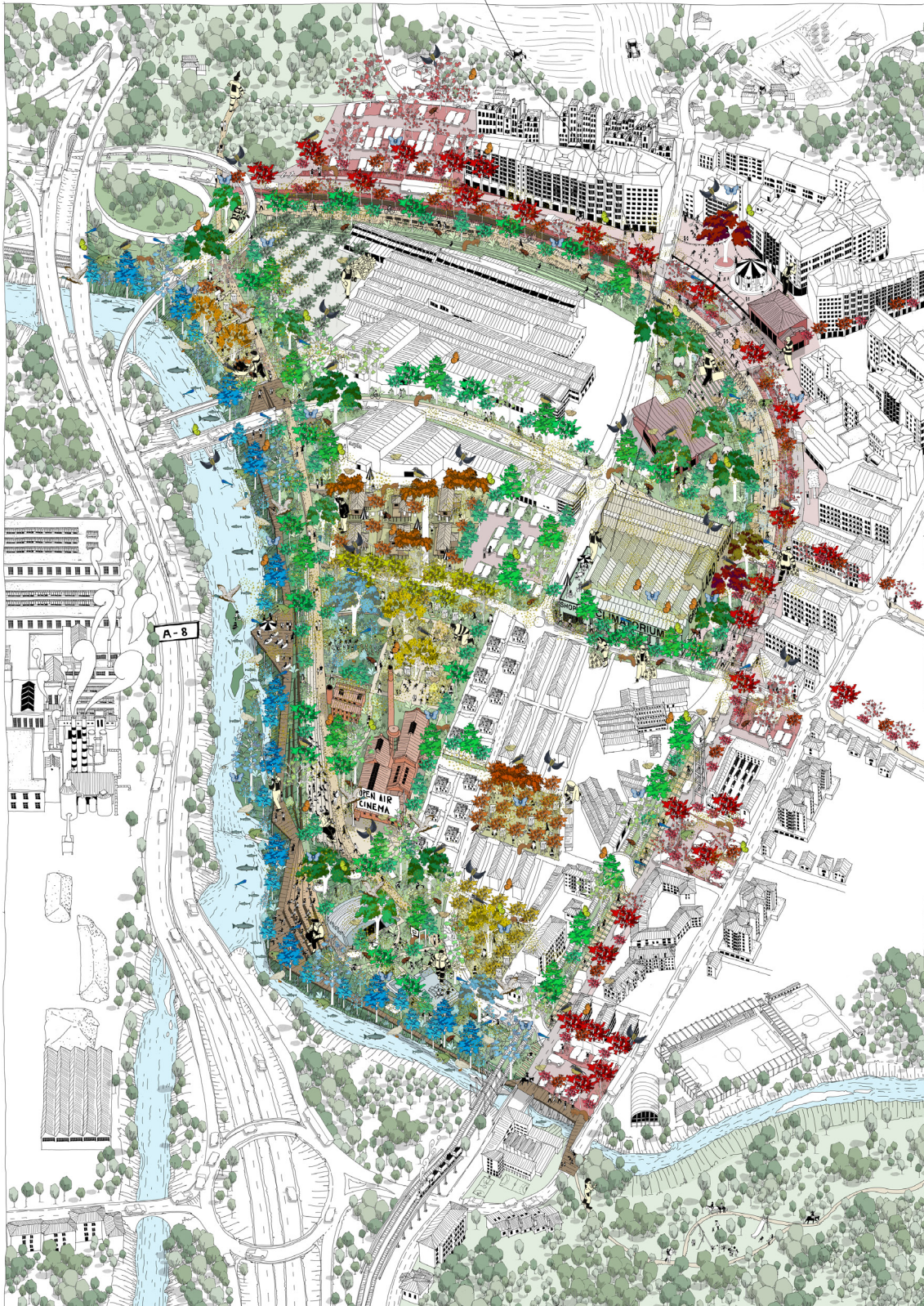
*The linear park along the railway tracks connects with the station forecourt. This large green belt will link the existing sport facilities to the new climatorium, creating the desire to walk along the Saja in an climate-friendly neighborhood.*

### 4 - ROAM THE RIPARIAN CORRIDOR

*The presence of water and life is visible again to the citizens, and becomes a central element of their mobility.*

### 5 - LANDSCAPE DIVERSITY

*Constitution of a new urban figure around an inhabited park and a green belt, a place of suture between urban spaces and varied landscapes, demonstrating the richness of the local biocenosis.*



## 1 - BLURRING BOUNDARIES

We use the opportunity of undergrounding to divert the road that encloses the riverbanks. It now becomes part of a new green belt, and this simple action reclaims vast plots of land, which used to be near the road, for the benefit of the riverbanks.

Benefiting from the now thicker riverbanks, we transform and open the district into a vast urban park, fine-tune the landscape quality, the biotope and the living soil, and reconnect the paths joining the two existing parks on the outskirts of the site.

## 2 - A NEW VISION OF INDUSTRY

Manufacturing remains a major component of the site. Located at the bow of the district, the existing industries remain, but integration within wooded areas diminish their impact on the urban landscape. Simultaneously, new forms of production maintain and promote the living world on site. Rather than a factory town, the Butterfly Effect proposes a vision centered on Torrelavega's living heritage and on the bio-economy.

## 3 - MULTI-GENERATIONAL GARDENS

The public spaces along the riverbank are preserved and integrated into the overall park layout. Abundance of nature and spaces for intergenerational exchange complement the link between humans and non-humans. By breaking down urban boundaries, people from near and far are invited to join in a shared common good.

## 4 - LIVING IN THE FLOOD

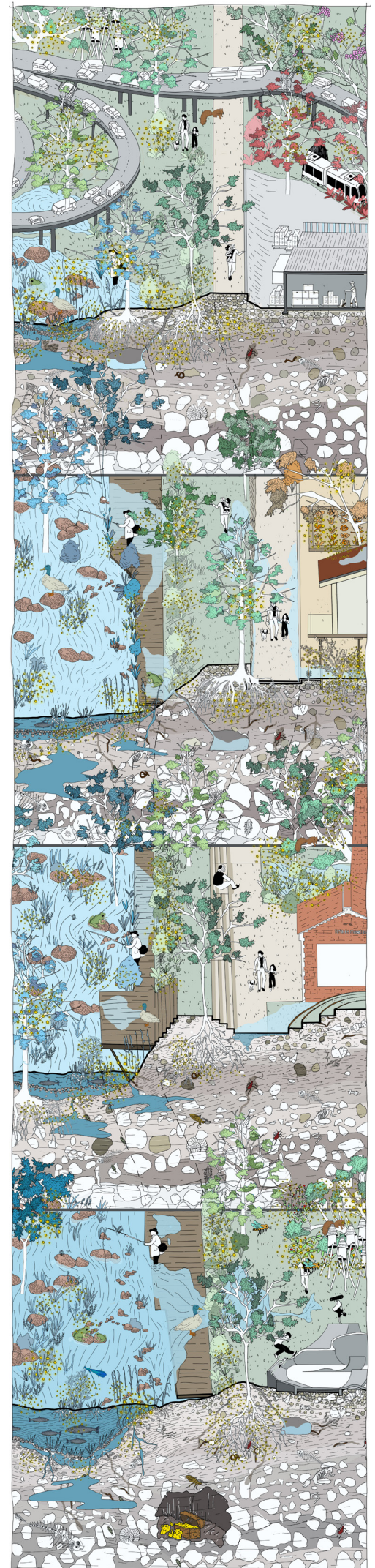
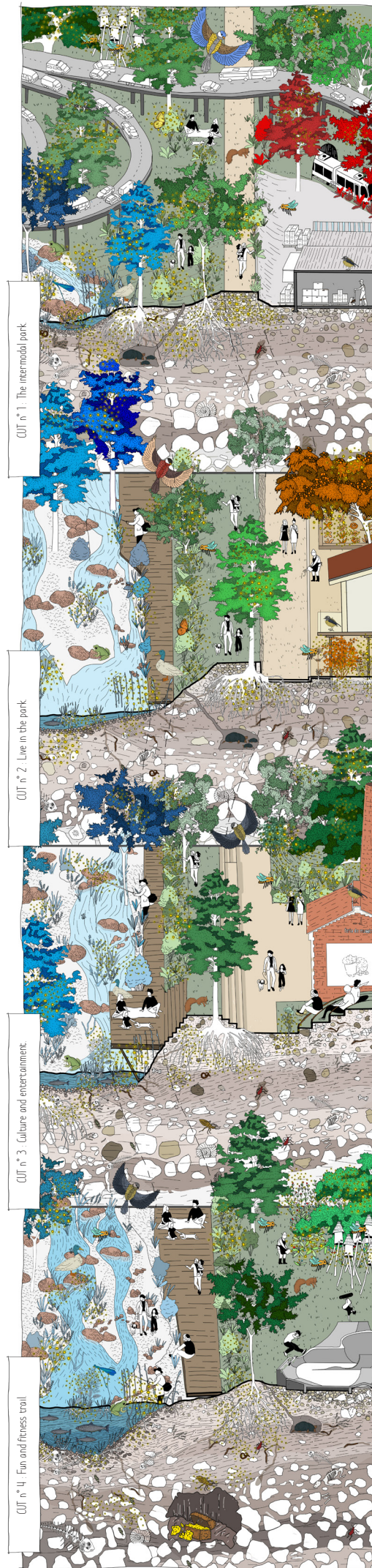
The enclosed del Cerezo neighborhood is located in a highly flood-prone area. The park project is an opportunity to implement a series of water management systems within landscaped living spaces. Permeable soils, cool spots, retention basins, ditches, etc. are used as a way to manage climate issues and flood risks. The aim is also to propose new forms of living that not only adapt to future water levels, but also generate positive interactions with the living environment.

## 5 - THE 4 SEASONS ESPLANADE

Public space becomes cyclical. They evolve with the seasons, becoming in turn fallow land, planting, event space. They adapt to the weather and to the annual festive events and create a symbiotic public space at the foot of facilities that are already dedicated to the climate and to culture.

## 6 - BUTTERFLY EFFECT

To reconnect Torrelavega with its riverbanks, we need to reclaim the biocenosis of the city and to make use of its pre-existing heritage of roads, buildings and trees. Living things become the central element of the urban morphogenesis, where every non-human becomes an essential cog in a virtuous cohabitation. The diversity of Cantabrian flora and fauna flourishes in all its variety.



## 7 - CONFLUENCE THEATER

The topographical accidents of the riverbed provide opportunities for interaction with living things. New uses are developed in the service of the site's geography. Sensitivity, culture and poetry come together at the Confluence Theater.

## 8 - ROAM THE LIVING

The sports park runs in a linear fashion along the railway tracks, connecting to the station forecourt. This large green belt links the existing sports facilities to the new climatorium and promotes walking along the Saja in an acclimatized neighborhood. It is a green corridor for pedestrians and cyclists, thickened by facilities designed to encourage outdoor sports activities. The existing road network is stretched and requalified as a support for life, while the traces of the old roads are preserved as a historical marker of the area.

## 9 - CONNECTIONS WITH THE WIDER LANDSCAPE

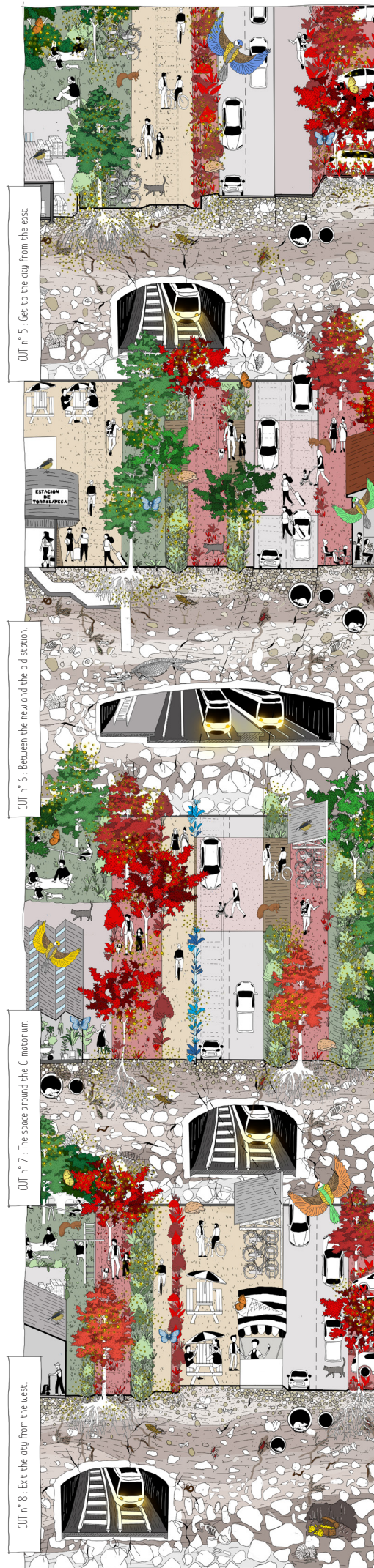
Two routes are proposed along the riverbanks: a lower route close to the water and an upper route interacting with existing facilities and public space. They reconnect the Viesca natural area and the Oscar Freire sports complex to be reconnected via soft mobility, within a reconstituted and reinforced ecological corridor. Water is visible to the citizen again, and becomes a central element of mobility within the urban space and reconnect the paths joining the two existing parks on the outskirts of the site.

## 10 - THE NEW STATION

The future station is connected to a network of soft mobility within a linear biological corridor. This facility is served by a third party venue adjoining the climatorium, as well as by a 20 digital tourism office located in the renovated station. This will become Torrelavega's cultural showcase, guiding travelers as they enter the city. The green belt links this station to the various existing park-and-ride facilities - which are duly planted with vegetation - via a network of cycle paths and tree-lined promenades along landscaped valleys. This is how change in mobility is made possible: by offering quality spaces, made for living beings and fresh air.

## 11 - CLIMATORIUM

Just aside the climate research center, the halls of the former Obregon workshops become a climatorium. This facility transforms the production-centered landscape into a landscape of the living world, as it creates spaces for the consumption and sale of hyper-local foodstuffs to serve both residents and travellers. The spaces of this program evolve with the rhythm of the seasons and see a variety of landscape mutations according to climatic cycles. Inhabitants, travelers and producers animate these resolutely cooperative spaces as part of a climate awareness initiative. A tree-lined, experimental and educational space, this is a major facility that forms the gateway to the new park.

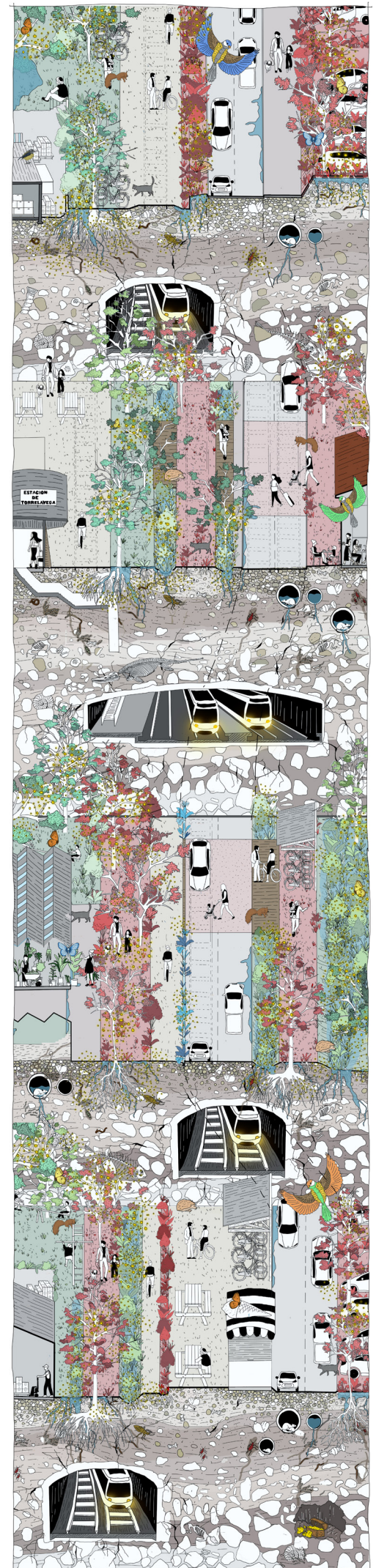


CUT n° 5: Get to the city from the east.

CUT n° 6: Between the new and the old station.

CUT n° 7: The space around the Climatorium.

CUT n° 8: Exit the city from the west.

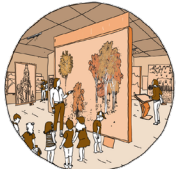


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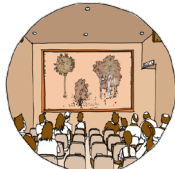
1.1 RECEPTION AND AWARENESS SPACE  
400 M2 (DOUBLE HEIGHT)



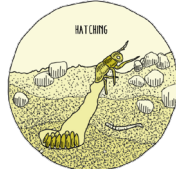
1.2 TEMPERATE / COLD / HUMID ZONES EXHIBITIONS  
1800 M2



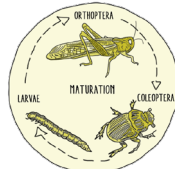
2.1 DOCUMENTATION AND INFORMATION CENTER  
800 M2



2.2 SEMINAR AREAS  
800 M2



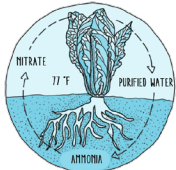
3.1 INCUBATION AREAS



3.2 MATURATION AND HARVEST



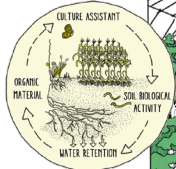
3.3 TRANSFORMATIONS  
175 LBS OF INSECT FOR 1000 M2



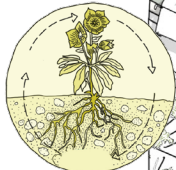
5.1 AGRICULTURE SPACES  
7 HARVEST PER YEAR / SPECIES



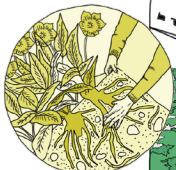
5.2 HARVEST  
100,000 LBS OF FLOWERS PER YEAR



6.1 ORGANIC CULTURE  
26455 LBS OF GRASS PER YEAR  
-37.4°F DURING HEAT WAVES



6.2 MATURATION  
5 HARVEST PER YEAR / SPECIES



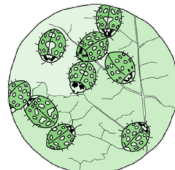
6.3 HARVEST  
176380 LBS OF FLOWERS PER YEAR



7.1 PREPARATION AREAS  
250 M2



7.2 STORAGE  
6000 M3



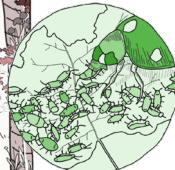
4.1 BREEDING  
300,000 INSECTS PER 1000 M2



4.2 SPREADING



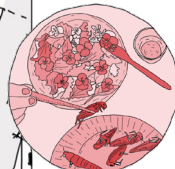
4.3 HATCHING  
500 EGGS PER INSECTS



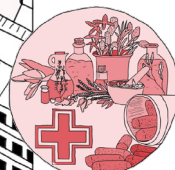
4.4 BIOLOGICAL CONTROL  
30,000 INSECTS PER 1000 M2



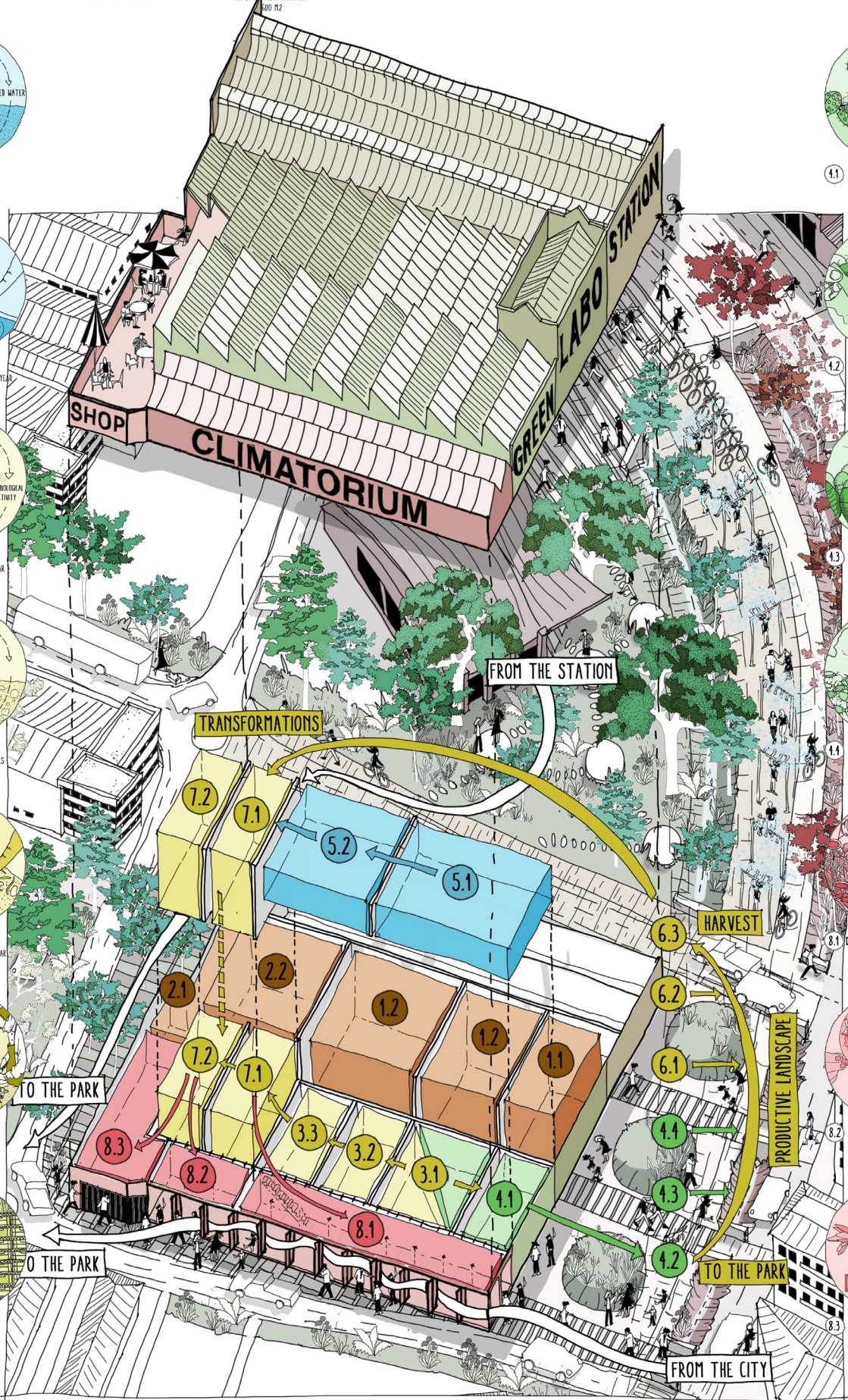
8.1 DIRECT SALE WITH PRODUCERS  
1000 M2 / 365 DAYS PER YEAR



8.2 FLOWER AND INSECT RESTAURANT  
700 M2 OF THEM CONSUMPTION



8.3 APOTHECARY  
250 M2



SHOP

CLIMATORIUM

GREEN LABO STATION

FROM THE STATION

TRANSFORMATIONS

HARVEST

PRODUCTIVE LANDSCAPE

TO THE PARK

TO THE PARK

FROM THE CITY