The revitalization of Los Martire's neighborhood through Nordhavn perspective

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The revitalization of Los Martire's neighborhood through Nordhavn Perspective

Supervisor
Prof. Elena Vigliocco

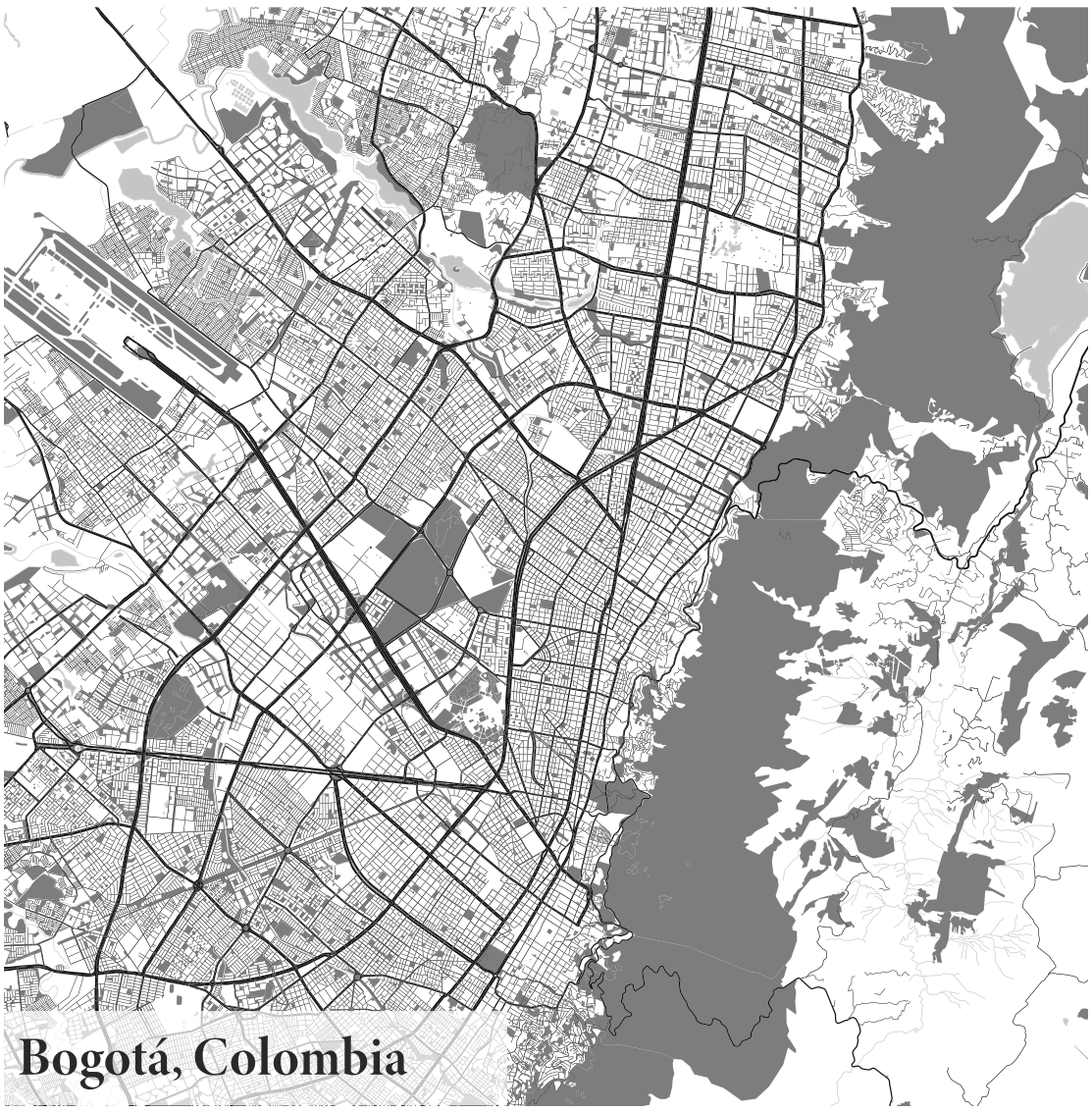
Students
Giovanni Alexander Sarria
Paola Yepes Bocanegra

Abstract

The thesis development focuses on the urban renovation that revitalizes the urban environment and reuses the historical heritage buildings in the selected area of the neighborhood Los Martires, one of the most important neighborhoods in Bogotá, Colombia. It seeks to understand the area and everything that composes it, as a space generated by relationships and interactions between individuals. Los Martire's neighborhood has suffered changes in dynamics and growth that didn't have any previous plan or strategy leaving today a scar on Bogotá. The object of the study is to evidence of the transformations that the area of study has undergone and the understanding for an improvement proposal. Historically Los Martires was the commerce and business center with cultural importance and heritage buildings demonstrating the growth and achievements of Bogotá. However, due to political, environmental, and economic crises that happened in the city, Los Martires suffered a physical detriment that led to an abandonment of the neighborhood to new illicit activities.

The idea is to recuperate this area through the design of a master plan that focuses on a cultural/ social, economical, and environmental approach in punctual places creating a whole system for the recuperation and reactivation of the area.

Index



2016

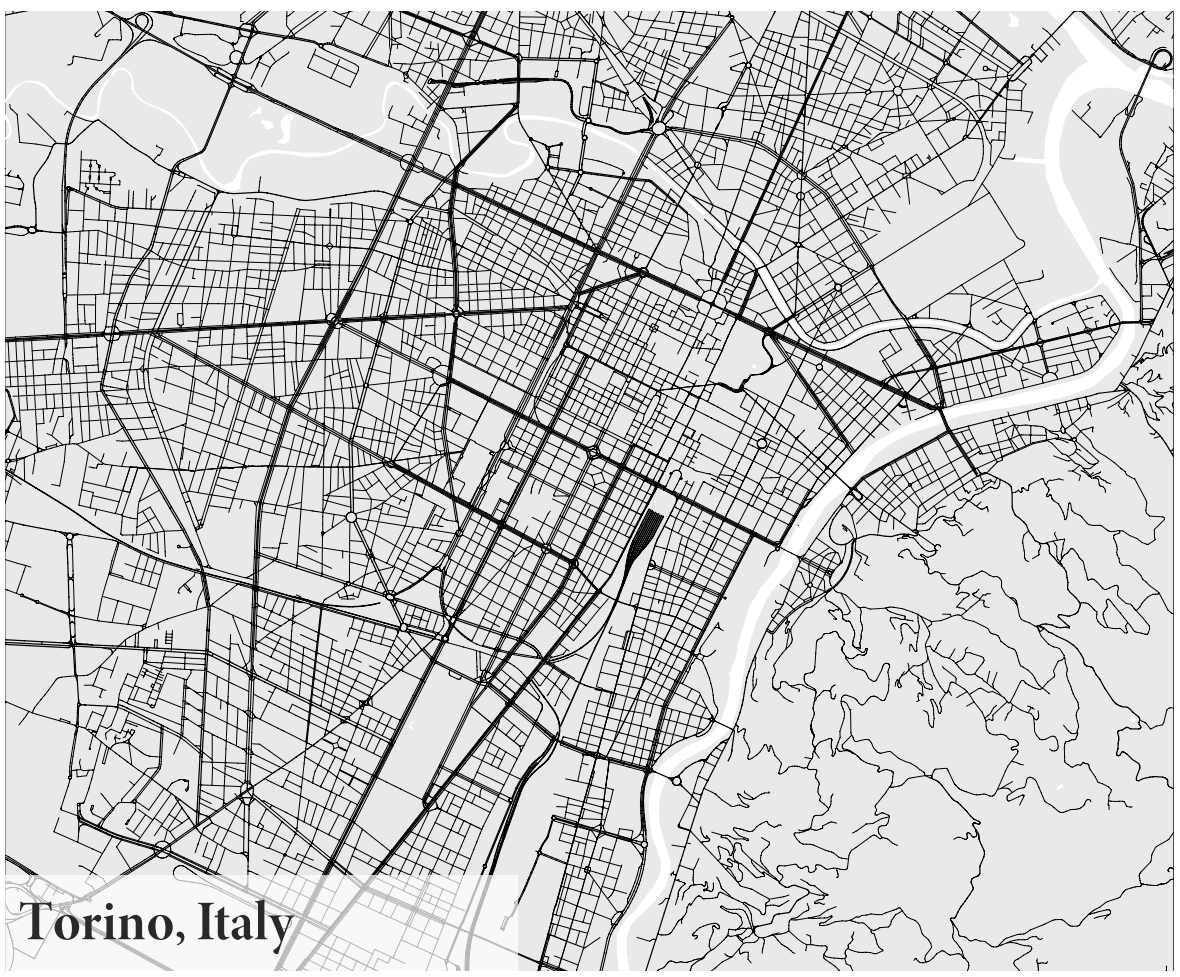
Architecture Bachelor
Pontificia Universidad Javeriana

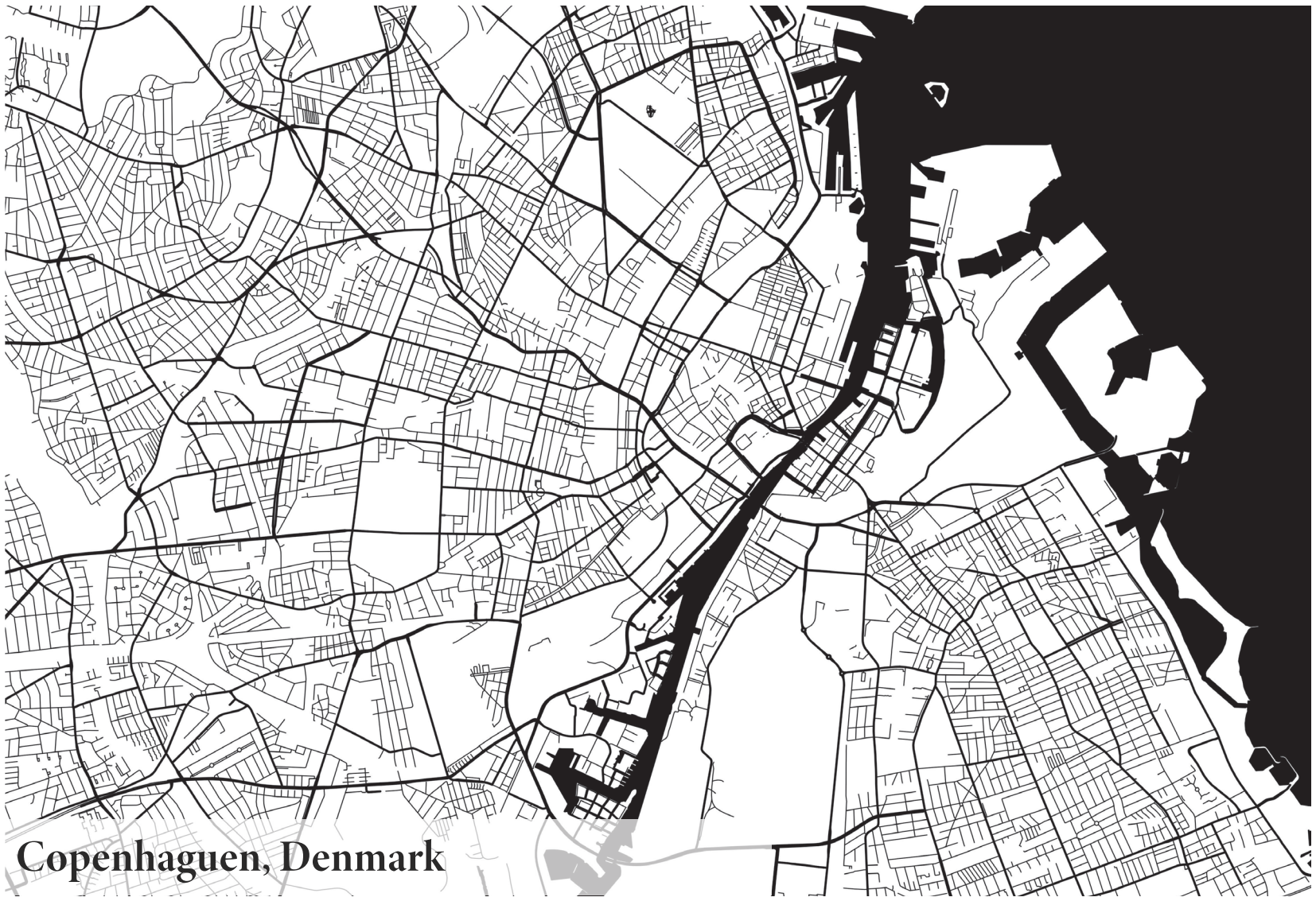
Bogotá, Colombia

2020

Master
Politecnico Di Torino

Torino, Italy





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Politecnico Di Torino

Torino, Italy

Introduction

Nowadays, there is a phenomenon that leads to a great consumption of resources, an increase in pollution, and social polarization between rich and poor; this phenomenon is the excessive urban growth in cities, that are in development. When this uncontrolled growth begins in a city, the entities in charge of the operation and proper development should intervene to control this process in favor of the conservation of the environment, and therefore, it should seek to implement sustainable solutions that improve the quality of life of current and future inhabitants. Bogotá is a city growing rapidly, and its entities and government are unable to control it. This growth can be evident, especially in those areas that were considered peripheries of the capital, today part of the central city. Los Martires, located between the 30th highway and Caracas avenue, was originally rural and began its development with the appearance of industry and small workers' houses. The fast urban growth in Los Martires caused a scale transition problem. The character of the sector was overweight by its metropolitan industrial panoptic dynamics, forgetting its local dynamics. This has caused problems in the neighborhood with its local community, accessibility, compactness, biodiversity, and urban public space. To control the excessive urban growth in places like Los Martires, where traditional urban planning has been impossible, we should integrate new punctual interventions that allow a perspective shift in the community.

One of the cities in the world which has successfully implemented a vision and urban system strategies controlling urban growth of post-industrial areas in Copenhagen, the capital of Denmark. Copenhagen is globally known as a role model due to its enormous investments in new sustainable lively carbon-neutral districts. Nordhavnen is a great example of this. Today Nordhavn is a lively urban laboratory due to its innovative project proposals, new technology implementations, and sustainable schemes that have changed the city through the mindset transformation of its inhabitants. In this thesis, we will explore what can we learn from post-industrial Nordhavn to propose a systematic solution for the problematics happening today in Los Martires.

Methodology

Divided in 11 chapters, this thesis begins with the introduction to the wonderful city of Copenhaguen in Denmark. As the tittle of the chapter says “learning from copenhaguen” the reference city to the world, that have led people reconsider the idea of how the city shapes people human life particularly in culture and environmental circumstances. Copenhaguen demonstrates the importance of how a public space can be the most vibrant and important space of a city as it is today the district of Nordhavnen located in the north harbour of Copenhaguen. The latest development of the city and the most sustainable and innovative project in denmark. Nordhavnen has shown how we can reshape abandoned, harsh post industrial spaces to reintegrate them to the city dynamics giving a unique identity. The new district of Nordhavnen, shows an example of the main key elements an ideal city should should be: a sustainable, resourcefull, compact, accesible, diverse, shared and functionally complex city. Particularly in Los Martires an abandoned neighborhood in Bogotá, Colombia the main area of study and under discussion. The following chapter analyses a neighborhood that todays suffer the consequences of de industrialization in environment, society and the economical conditions of the area. The thesis aims to appreciate the past existing structures to go forward with the district through a design that reuses and reactivates with specific interventions and scales. Also it focuses on changing the current idea of new areas, or new neighborhoods or new closed residences complex and for a different idea of “new projects” based on a historical reinterpretation and cultural patrimony. Thus analyzing the districts works and functions today under the seven main key elements of the ideal city for then understanding the different voids and risks the neighborhood is under. Followed a list of concepts in a theoretical framework to fully get to know the real urban interventions the area needs. Getting to a list of objectives and strategies specific for the area of concerned. Finally, the master plan chapter shows the proposal in a limited area of Los Martires, with a virtuous approach that brings several benefits, specially to the Colombian vision of industrial spaces creating a vibrant hub for Los Martires .

What are the contemporary goals of the adaptive reuse of dismissed industrial sites and the renovation of the urban spaces that in the past have supported them?

Chaper 1:
Learning from Copenhaguen

Development Projects in Copenhagen

Fig 4. Copenhaguen Map

1 - Nordhavn 2,200,000 square meters of industrial harbour
2 - Langelinie Cruise ship loading dock
3 - Refshale Island The B&W shipyard was Denmark's biggest industrial workplace
4 - Holmen Navy Base
5 - Paper island Storage of coal-salt-paper
6 - Island brygge Factories and industry
7 - Carlsberg city Breweries
8 - Meatpacking district Cowsheds and slaughter houses
9 - Sydhavn (south harbor) Industrial train tracks, industrial harbor and storage halls

Copenhaguen
General Information

Copenhagen is the capital of Denmark, the vibrant metropolitan city of the north Europe, with an area of approximately 179,8 km2 and 1.8 million inhabitants. Copenhaguen is constantly used as a reference as one of the best cities in the world to live in due named publically as the happiest place. However, **Copenhgauen has been recognized due to the ability it had in the past to transform a harbour industrial city into what is today**. It was one of the most bussiest harbours in the North of Europe due to its location, this drove the main economicall income of the city. However, this heavy dynamics led the city under pollution the sea coast and the inner canals were full of cargo ship and craned and people where merging to the suburbs . Today, the situation of Copenhaguen is another story, The city has been transformed into a liveable post-industrial city where the human scale is the focus of all activities. Understanding the potential left by industrial areas enabled this improvement in urban quality like the area of Nordhavnen. It has been and still is the focus of architectural intervention to re-activate and regenerate abandoned and dismissed areas.

For the understanding and information about the urban developement of Copenhaguen the following sources where used:

1. The book: THE COPENHAGEN CITY AND PORT DEVELOPMENT CORPORATION: A Model for Regenerating Cities
2. The Documentation: Nordhavnen Urban Strategy 2009 written by cph city and port develop ment By & havn
3. “Copenhagen, Denmark.” Historical Facts about Copenhagen by Cahasan, Paul, and Arielle Clark.
4. Denmark. City of Copenhagen. The Finance Administration. Municipal Plan 2011

Data

Denmark, located in the north of Europe on front of Sweden

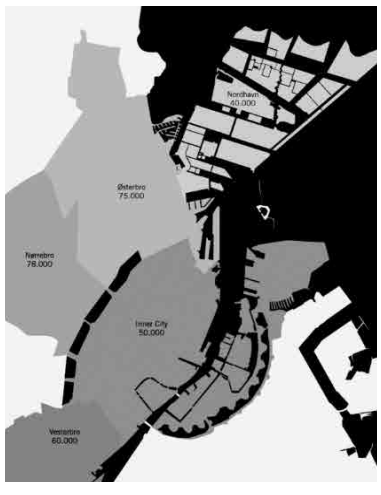
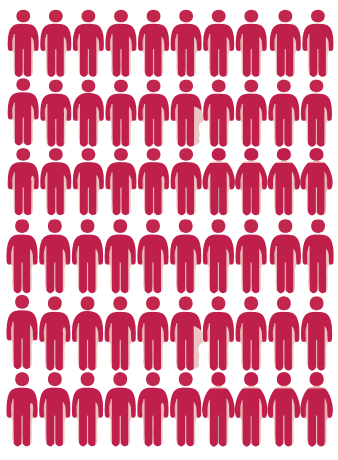


Fig 5. 10 Distritcs with a total area of 179,8 km



1’346,485 Inhabitants

THE COPENHAGEN MODEL:
KEY POINTS FOR U.S. AND GLOBAL CITIES

The Copenhagen model offers several valuable lessons for cities in the United States, Europe and elsewhere.

MAKE PUBLIC OWNERSHIP TRANSPARENT

A key element of the success of CPH City & Port Development is market knowledge—knowing what assets (land, buildings, etc.) are owned by the public and the market value of those assets.

BUNDLE ASSETS BY MERGING PUBLIC ENTITIES

Public ownership in many cities is often fragmented across multiple authorities. And the levels of government that direct these entities (and the laws and regulations that govern them) are also complex. Adapting the Copenhagen model may require national or state reforms as well as local political will.

ENCOURAGE STATE AND LOCAL GOVERNMENT COLLABORATION

The evolution and management of CPH City & Port Development represents a triumph of collaboration by the national and city governments. Despite political friction occurring in many nations, several dynamics—a municipal fiscal crisis; a radical scale-back of a national government; a unified vision of urban growth across key public, private, and civic stakeholders—could provide the impetus to experiment with new institutional models and forms of collaboration.

INSULATE DEVELOPMENT FROM POLITICAL INTERFERENCE

CPH City & Port Development operates with remarkable insulation from political interference. Changing the culture and behavior of politically weighted public authorities is important since the success of this model depends on its ability to operate with agility and to be adaptive to shifting market demands.

ENABLE LONG-TERM THINKING AND STEWARDSHIP

CPH City & Port Development is a remarkable example of long-termism pursued by both the corporation and many of its private financial and development partners. The Copenhagen model offers a way for cities to avoid using the disposition of public assets to fill short-term budget deficits.

Fig 6. Diagram / New merged entity. (Katz; Noring, pg. 15)

Copenhaguen

Urban Development

Source "THE COPENHAGEN CITY AND PORT DEVELOPMENT CORPORATION:
A Model for Regenerating Cities"

"To revive their flagging city in the late 1980s, a coalition of national and local officials laid the groundwork for the Copenhagen (CPH) City & Port Development Corporation. Its success provides a 21st-century model for global urban renewal" (Katz, Noring, 2017).

When the phenomenon of deindustrialization begins, the north European port cities are collectively starting to experience budget deficits one of higher and lower unemployment. The number of the working population was increasing among the elderly 80 percent. the process of gentrification place to have unproductive residents in the city center, and Tax rates that do not affect public investment needed in the city.

Recognizing that the urban crisis exists in all dimensions: social, economics and politics. The strategy must then be adopted Includes all 3, starting with the hardest in Modern Society: Political Compromise. In the 90s the national and local government in Copenhagen established a a historic alliance that drives the city's economy. An alliance Committed to renewing interest in the city through investments already undervalued and unused state assets, to increase value with less investment, unaffected tax rates, public but configurable the private sector will help with the massive renovation in different parts of the city. They will bring back new citizens, actively working population capable of stabilizing the tax structure and again the economic flow in the city.

The political alliance happened between In 1990 between Prime Minister Poul Schlüter of the Conservative People's Party, Social Democratic party leader Svend Auken, and the Social Democratic mayor of Copenhagen Jens Kramer Mikkelsen. As the document *THE COPENHAGEN CITY AND PORT DEVELOPMENT CORPORATION: A Model for Regenerating Cities* written by bruce katz and luise noring says, it is a brave step on the part of the state and municipalities to come together to solve the problems of the capital. Schlüter, Auken and Kramer agreed to transform cities by promoting investment in housing and modern infrastructure, making cities attractive to new residents and strengthening the city's tax base. Making these improvements without increasing local tax revenue presented challenges, so the trio decided to focus on developing vacant and unused public land within the city limits. Larger neighborhoods in urban cores that maximize the value of underutilized public land and use revenues from smart zoning and asset management to fund transportation and other infrastructure (Katz, Noring, 2017).


Nordhavn
Part of 3 Phase
2 Phase
1 Phase

Copenhaguen

Phases

Source "THE COPENHAGEN CITY AND PORT DEVELOPMENT CORPORATION:
A Model for Regenerating Cities"

The solution applied: transfer vast amounts of public land to a new publicly owned, privately managed corporation. The redevelopment of land mainly in the old port and undeveloped areas between the airport and the city center for residential and commercial uses. Then use smart zoning and asset management to plan revenue instead of taxes to fund transportation infrastructure in cities. The results of this institutional model have been a lively and versatile waterfront, the world-class transportation system, thousands of houses were built for market and social purposes according to energy efficiency standards. Parts of the port are even partially built on top of excess soil pumped out of the ground during the construction of the metro, raising the height of the new land by one meter to protect against climate change and sea level rise (Katz, Noring, 2017, p. 11).

FIRST PHASE: ORESTAD DEVELEOPMENT

Ørestad is strategically located south of Copenhagen, on the central strip of the island of Amager, between the old city center and Copenhagen International Airport and bridge to Denmark Sweden, Ørestaden area, approx. 1.2 square miles. The main stratgies of this phase where to rezone the land – primarily in the old harbor and an undeveloped area between the airport and the downtown. Ørestad Development Company is Co-owned by the Municipality of Copenhagen (55%) and the Danish Ministry of Finance (45%). Although Denmark and The city government provide the land, the city Municipalities are fully responsible for distribution. It uses this permission to remove the zone from protected wildlife areas for business, education, Retail, and finally residential use. with this Way, Ørestad development company. A mutually beneficial alliance has been created. Also, the Ørestad Development Corporation financed and constructed the M1 and M2 metro lines; and the Port of Copenhagen (Katz, Noring, 2017, p. 11).

SECOND PHASE: THE PORT OF COPENHAGUEN

Historically, the port of Copenhgauen was mainly functioned as an industrial port of containers terminals. The main vision of this phase was to restore the port due to its missmanagment that followed an anual deficit. The Port was managing a high intensity flow of constant etrances from the Baltic sea. However, after the project of Oresund bridge between Copenhgauen and Malmo, Sweden the intensity of the area got balances and regulated. The city of Copenhaguen to create a solution of this deificit decided to sell unused land to developers, as you can see in the map next page. Areas involving high economic investment in the industrial age of the city as a large container terminal (Katz, Noring, 2017, p. 11).

THIRD PHASE:

In the last ten years the CPH City and Port developement have made enourmous transformations for the city. According to the method defined in the previous two steps, new units have now developed several areas of the city, adopting the same model of alliance, governance and financial performance from 2007 to date. The city used the profit from the rebuilding projects for then investing them in infrastructure. Currently the largest of all projects is the Northern Port area, a development of large landfill projects (Katz, Noring, 2017, p. 11).

Nordhavn

Nordhavn
The Old Free port

The old Free Port is located in the distric of Osterbro an area dominated by historical warehouses, next to central Copenhaguen and a the new development area with very high density where new projects and buildings have born. This northern area of the city in the norh ports haven been under a enormous scale of this redevelopment based on a sustainable vision. The north harbour today contains the old free port of the Kastellet 17th-century fortifications and further north the site of Nordhavnen.

Historically, the Free Port area was established as an industrial port area in the late 19th century, it counts with the areas of West Quay (Amerika Plads), South Quay (India Quay), East Pier (Langelinie and Marble Pier), the four quays, and the area known as Midtermolen. Built in 1891 and it has been associated with the port industry ever since. The constuction of this port was with the porpuse of facilitating shipping between the Baltic and the Gulf of Bothnia without entering to Copenhgauen Port in the center of the city and also to positionate copenhaguen as an important martime hub. It was the first harbor facility to be constructed in concrete and the first harbor in the world to replace mechanical with electric power.

The Old Free Port Development

The north Free Port a major urban change happened in the early 1990. A mix of projects arrived to the area providing housing, service trades located on the jetties, elderly and childre and population of high class starte to populat the old port. It is important to mention that the neighborhood Osterbro in which the north harboous are located is a resourcefull district, with high education, good socioeconomic terms, generaly the residents have higher incomes than the residents in the rest of the city. " the spatial structure of Osterbro is characterized by dense buildings blocks, wide streets running through the are and large green recreational areas. In outer osterbro, roads and railways divide the district into several small city areas with more open space and diverse builind ". (Hjollund, 2014)

Specifically today, the old port next to Kastellet with an existing architecture was mainly red bricks buildings from 1900 have now been transfored into office buildings and new residential complex, with new edifications that started to appear as you can see in the down image on the left.

Beyond Kastellet port, with the important power station of Svanemollevaerket built in 1953. The area also counted with the main railway that continous towards the north of Copenhaguen. Secondly in the west area of the port, called **Amerika plads**, is the area of the railway and the power station which is now a compact and dense area of new constructions mainly of residences next to original harbour buildings that today are also reused. Some of the developement projects of the area are in the next page (Heward, J, 2019).

Fig 8. Photo of the old free port

Projects today in the Old Free Port:

Fig 9. Nordlyset (Northern Light) by C F Møller in Amerika Plads

Fig 10. PLH Building / Midtermolen (4)

Fig 11. The Landmark in the harbour entrance the Kobbertårnet (Copper Tower) from 2004 by Arkitema (2)

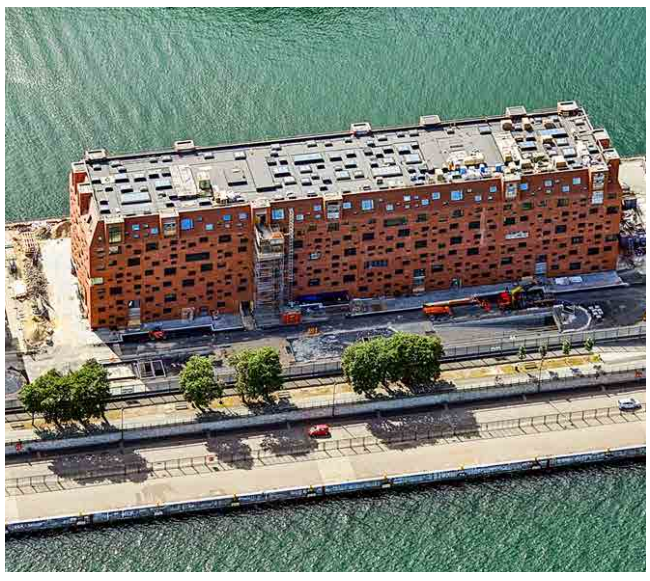


Fig 12. WMX 503 (4)

Fig 13. Fytårnet (Lighthouse) by Lundgaard & Tranberg (3)

Fig 14. Østerport 2's KHR ARCHITECTURE (4)

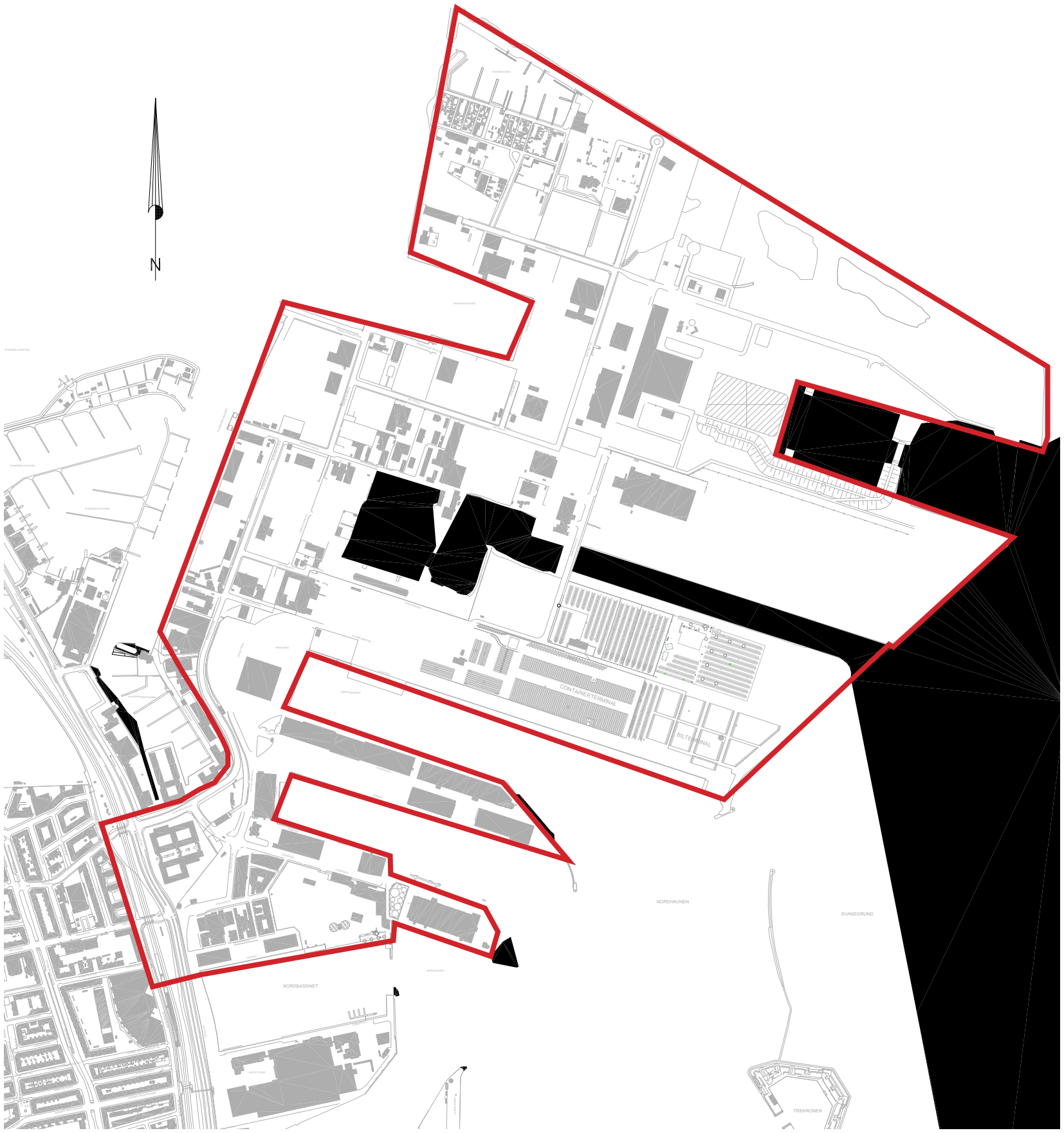


Fig 15. Plan of Nordvan in 2009

Nordhavn
General Information

Nordhavnen is located in the district of Osterbro next to the old Kastellet Free port and central Copenhaguen. The area of Nordhavnen is part of the masterplan for a new city district in a former harbor area, developed by Cobe Architectures that includes the development, design and district plans of the waterfront, various public spaces, streetscapes, promenades, and metro stations. This transformation made the district one of the most sustainable, inspiring for holistic urban planning, and extraordinary coexistence of the old buildings and the new renovations (Cobe, 2022).

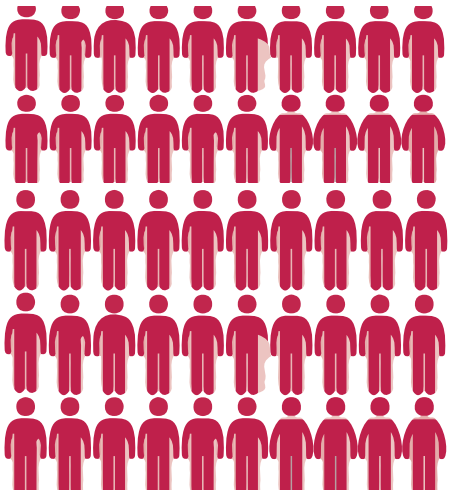
For the understanding and information about the urban developement of Nordhavn the following sources where used:

1. The Master Plan document from the architecture office COBE
2. The Documentation: Nordhavnen Urban Strategy 2009 written by cph city and port development By & havn

Data:

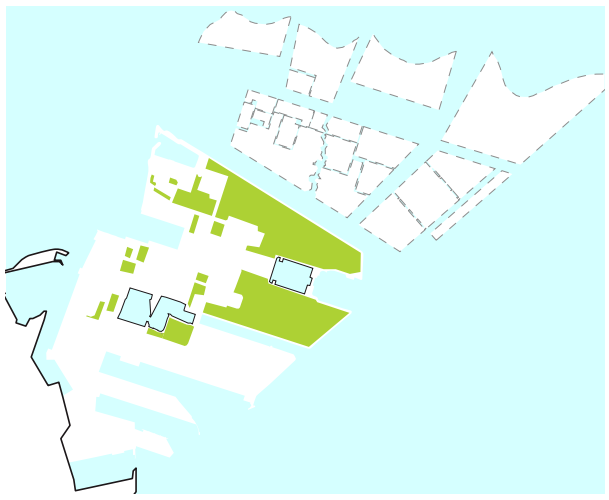
Fig 16. Located in the northern harbour of Copenhaguen

Fig 17. 973.3 hectares of area

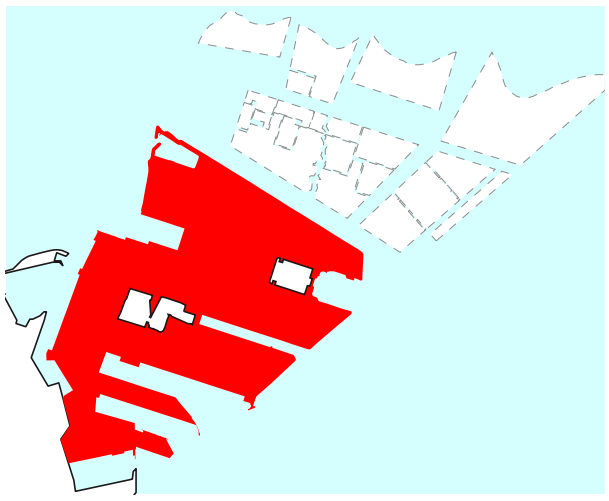


2,144 Inhabitants today

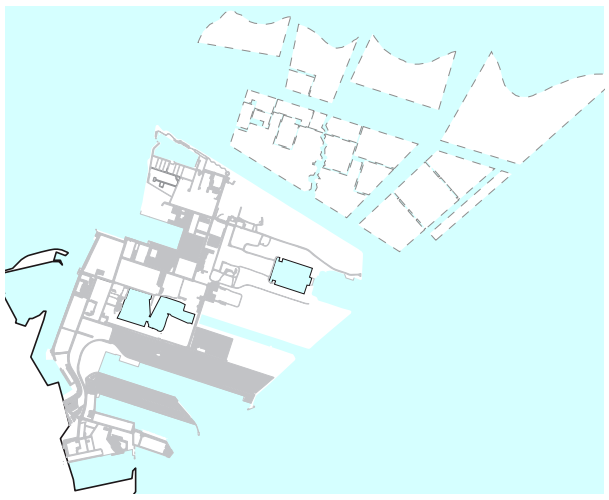
First Development:



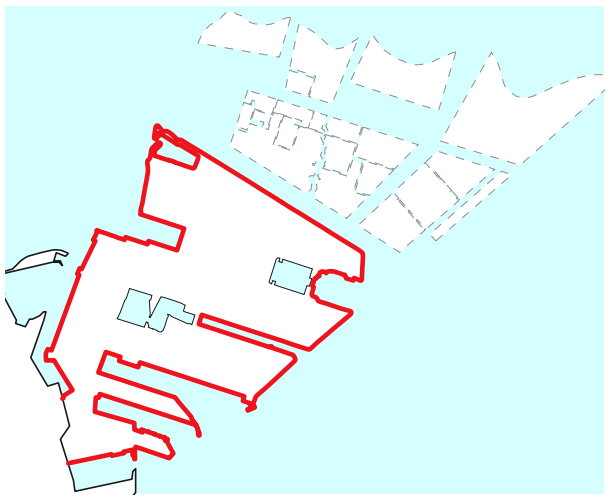
Green Areas
Green areas firstly planned for Nordhavnen harbour, even if the island destiny was just for harbour and industrial purposes, a green area was also planned



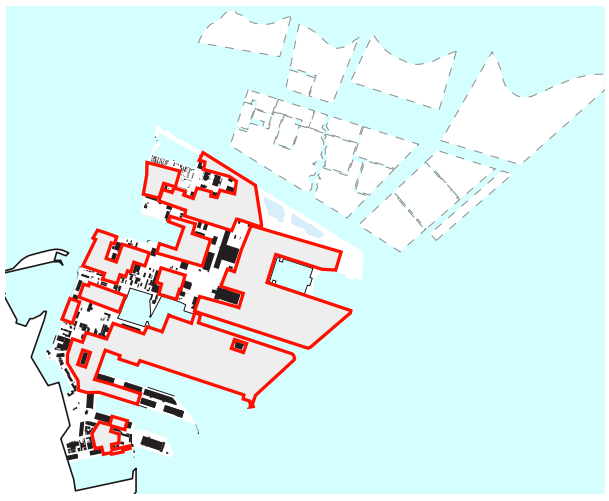
First development area
The area of Nordhavnen is of 200 Hectara



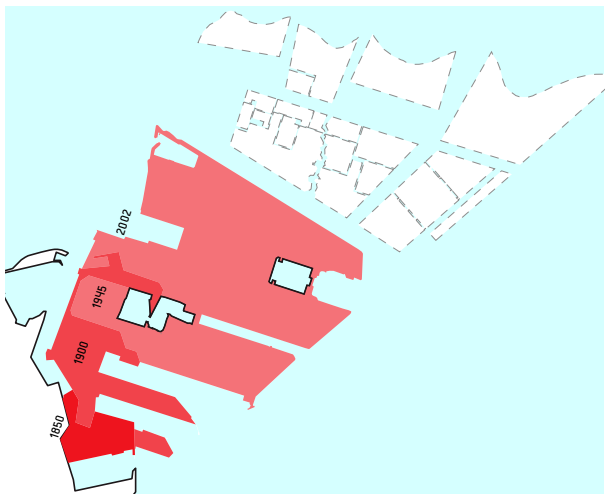
The road grid system
was made for the warehouse and the industrial actvities, with huge size roads for the big transportation and a very clear loop for an easy way of moving arround the Island



Perimeter
The island has a perimeter of 13 km, which in this time it was an area made for cars and transport due to the huge warehouse structures that worked



Occupation.
The harbour Island was half occupied and activated by industrial activities, while the other half was empty with no use



The Landfill
The development of the landfill
The main structural concept

Fig 18. Figure Nordhavnen Master plan ©BIG, 2007, Analysis

Nordhavn
How it started the first development 1900

The landfill construction started on the 19th century, when the harbor was having a very high demand, part of the Nordhavnen development was built on surplus soil pulled from the underground of the metro construction and deposited within a concrete structure extended into the sea. Nordhavnen became the most important industrial harbour of Copenhagen, with new spaces that were not fully occupied, it was already half developed and half used for port industrial related activities on the northwestern side; this side was characterized by its large scale of asphalt roads, surfaces and piers, where cruises, containers ships and passengers' ships used to dock on the wharf, the rest of the land was vacant, the activities and usages were only during the working hours, thus there were no existing residents living there. Twenty years ago, the transformation started with an specific vision inspired by the industrial character and the will of sustainability, incorporated with the needs and demands of today (By&Havn, 2009).

The first industries

Fig 19. The Grain Silo, The largest industrial building in the Nordhavn

Fig 20. Silopakhuset on Midtermolen

Fig 21. Picture of the Old port

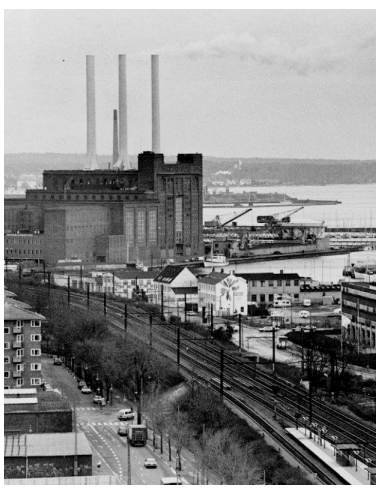
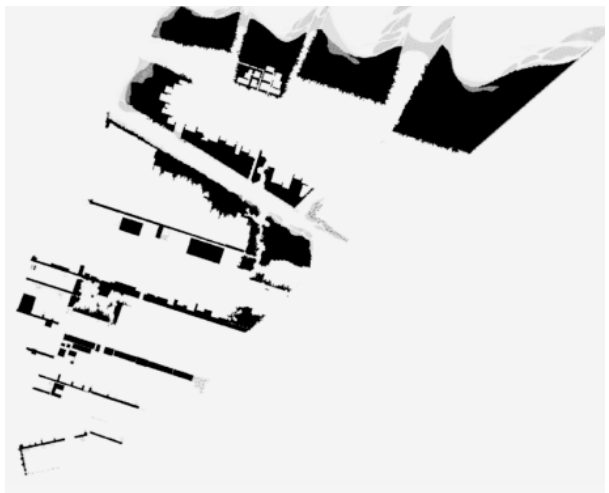


Fig 22. Nordhavn Power plant 1900

COBE master plan main concepts:

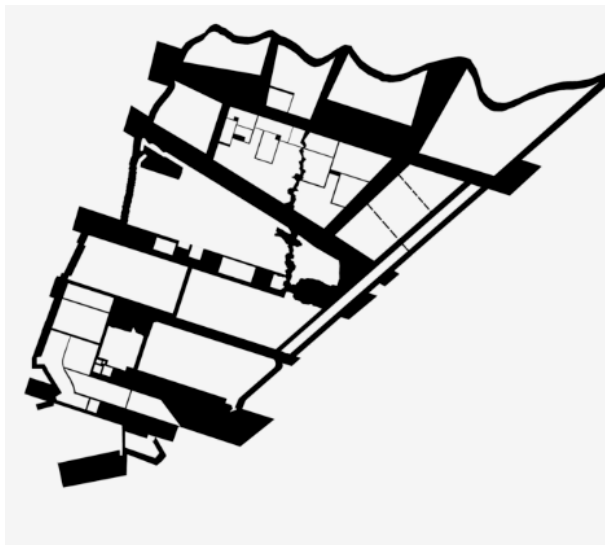


Islets and neighborhoods.
The site is divided into islets that create distinct identities and neighborhoods and facilitate robust and flexible planning tools.

The green loop – five-minute city.
The green Metro and bicycle loop connects the islets and makes for an integrated city. Every corner of the island is envisioned to have less than a five-minute walk to public transportation.

The urban green.
Strips of green spaces run from east to west. Moving through these sections is experienced as a diverse and varied journey.

The harbour and cultural heritage.
The industrial grid and existing buildings are integrated points of departure for the new development.



The city on the water.
Along with the green strips, new canals will be dug to enhance access and proximity to the water. The planning of blue and green city qualities precedes the planning of buildings.

The intelligent grid.
The intelligent grid makes room for multiple mixed functions within a given area. The grid can adapt to changes over time and gives the plan a great deal of controlled flexibility. The variation of lots makes for a diverse city.

Fig 23 Figure Nordhavnen Master plan ©COBE, 2007

Nordhavn

Nordhavn Competition Winner's Development Project 2009

Nordhavnen is currently transformed into a new city district under a leading master plan designed by COBE architects, Sleth, Polyform and Ramboll. With its strategic location just 4km apart from copenhaguen city center, the landfill island has an easy access to the water and the city infrastructure. The main vision of the project is to create a new sustainable and vibrant city district for everyone. The fully development of it will last 40-50 years and it will provide residences and workspaces for 40,000 inhabitants. Today the area gets called as an urban laboratory due to its innovative project proposals, new technologies implantations, sustainable certification schemes for energy efficiency and the individual neighborhoods and buildings (By&Havn, 2009).

The masterplan with a variety of visions

1. The main urban strategy is to divide the island in small islets with the purpose of creating an intelligent grid that allows easy connectivity, water access from all the islets, diversíty and community.

2 . The new area will be integrated in the loop of the metro transportation making the island an accesible hub for everyone.

3. New green corridors connected to rest of the city through public transportation, allowing a green network for bikes and pedestrians

4. Comming from an industrial harbour to a knew trade of knowledge, culture and innova tion

5. An achitecture challenge that shows how the traces of history can be used to create an in novative architecture with a unique identity.

6. Keeping a wild variety of biodiversity with different bioclimates to create a whole natural system

7. Diversity and culture will be enhanced throgh the mix of uses to attract different users and mantain a variaty of interests.

8. The sustainable city of the future, Norhavnen has the policy of maintining the island with re newable energy and new types of energy, optimal use of resources
and sustainable design making the island a carbon neutral place.

Fig 19 Figure Nordhavnen Master plan ©COBE, 2007

“The division of Nordhavn into islets makes it easy to stage the development, with development taking place islet by islet and thus preventing urban sprawl. Future generations will have the opportunity to influence the architecture on the individual islets over time,” says Dan Stubbergaard, architect and founder of Cobe.”

Dan Stubbergaard, architect and founder, Cobe

COBE Master Plan Phases:

PHASE 0 (2009)
begins to be developed with 500,000 m2 of construction,

PHASE 1 (2010-2020)
500,000 m2 of construction, a traffic management, landscaping in the northern areas, construction of a forest beach, Heat storage is established and wind turbines are set up and any test basins for sea lettuce can start to be established.

PHASE 2 (2020-2030)
former container and ferry port
Nordhavnsvej (tunnel) is established

FINAL PHASE (2030-2060)
The remaining areas are developed with the total

Fig 25. Figure Phases of Nordhavnen Master plan ©COBE, 2007

Nordhavn
Master Plan Phases

After 20 years of planning and designing the development of the area, on the first phase of the project Nordhavnen has reached all the proposed goals in terms of workspaces and residences. These developed islets host different companies such as the architecture office of COBE and BIG, the Germany embassy, a variety of restaurants, shops, parks, and much more leisure activities. The island nowadays welcomes locals and tourists that are interested on the renovated district. Some of the current statistics and data are illustrated bellow, these were taken from the website of COBE and Citypopulation.

The project is meant to be developed in 3 phases, the pahse 0 starting in 2009 to phase one from 2010 to 2020 begins to be developed with 500,000 m2 of construction, a traffic management for the existing heavy industries, Landscaping in the northern areas begins with afforestation, construction of a forest beach and construction of a west-facing beach beach park by the fishing harbour, Heat storage is established and wind turbines are set up and any test basins for sea lettuce can start to be established. Then the phase 2 The former container and ferry port areas are being developed with 500,000 m2 of construction each, Nordhavnsvej (tunnel) is established, lastly the final phase 1,600,000 m2 construction of all the remaining areas get developed and area transition to urban or nature development. Currently today the first phase is fnished and te second phase is starting (Cobe, 2009).

Images of Phases:

Fig 26. Aerial View of Nordhvan
Shows the first phase of development

Fig 27. Waterfront view
View frim the reffen boats, waterfront top the north

Fig 28. The waterfront promenade
Promenade towards the metro station

Figure Nordhavnen Master plan ©COBE, 2007

BEFORE 2009
Nordhavnen old Port

Fig 23. Areal View of the old port of Nordhavnen

TODAY 2020
Nordhavnen New District

Fig 24. Areal View of the New port of Nordhavnen

Chaper 2:
Reading the rennovation of Copenha-guen

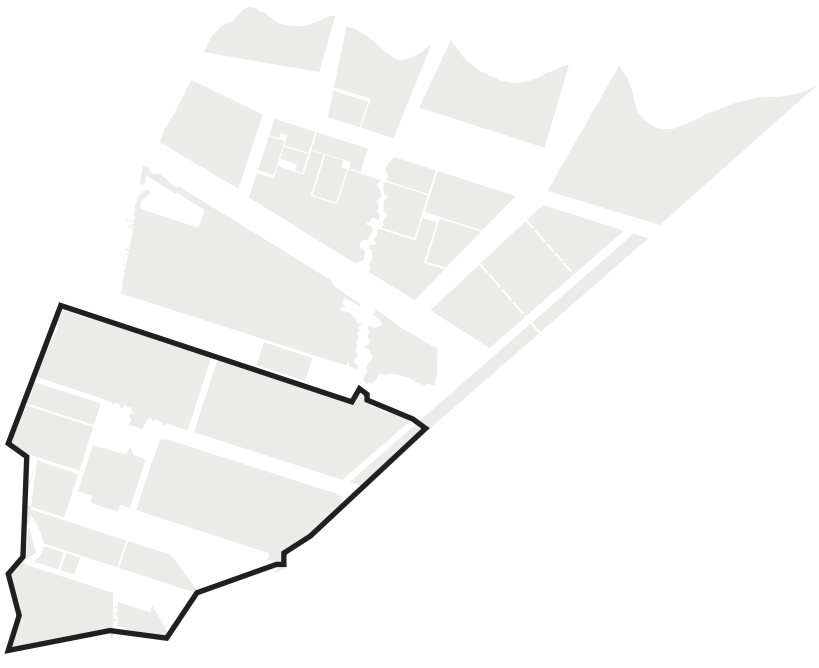
Fig 25. Areal View the new district of Nordhavnen

Nordhavn Analysis
Introduction

In order to understand and analyze the urban development of Nordhavnen, the book "The ideal City" written by SPACE 10, worked as a guide as it illustrates how a desirable city should be, through a documentation of different projects around the world, the book inspires the audience to re-imagine cities for the future. The second document used is "EL URBANISMO ECOLÓGICO: un nuevo urbanismo para abordar los retos de la sociedad actual" written by Salvador Rueda, this document addresses the challenges of today's society, to rethink the models of urbanism and project developments for city transformation and consolidated tissues. Both, propose a new ecological urbanism model in which a city should be compact and complex, efficient in the consumption of resources and socially stable.

For the analysis of Nordhavnen two scales were taken into account, the bigger scale of the entire district of Northaven to understand the general idea of the indicator because the area is still in development until the 2060, and the scale that focuses on the existing area, which corresponds to the first phase of the master plan.

Entire Nordhavn district plan:



Current 1st phase development:

Fig 32. Orientakl station arriving to nordhavn main plaza
The stations provide a proper public space for the area

Fig 33. Aereal View
Shows accesability to the area from the train

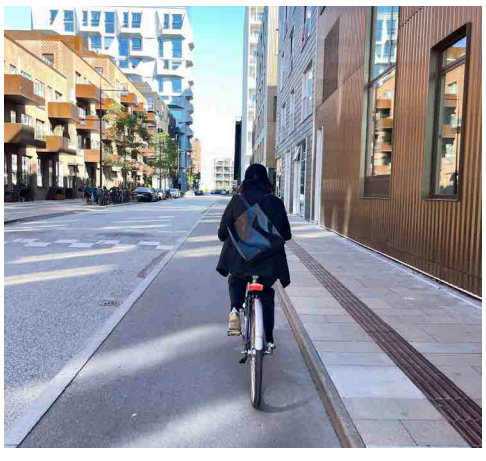


Fig 34. Bike Connection
Bike structure through the entire district and connects with the rest of the city

Fig 35. Waterfront Promenades
Allows a coonection thriuh all the islets fo the area, making shared spaces for evyone that conncets everywhere

Figure Nordhavnen Master plan ©COBE, 2007

Nordhavn Analysis
1. Accesible

The concept of accesability in Nordhavn focuses on offering residents short distances from houses and workplaces to public transportation, bike routes, parks, green spaces and public areas like shops, restaurants and entertainment. The developers used the 5-minute principle, to guarantee that all conveniences can be reached in five minutes, including schools, day-care facilities, supermarkets or the public transportation, this approach also encourages people to use more sustainable mobility options rather than using cars. Moreover, vehicle traffic prioritizes vulnerable transportation users like cyclists and pedestrians to ensure their safety, security and accessibility. The road plan distribution contains 1/3 road space for cyclists, 1/3 for public transport and 1/3 for vehicule transportation (By&Havn, 2009).

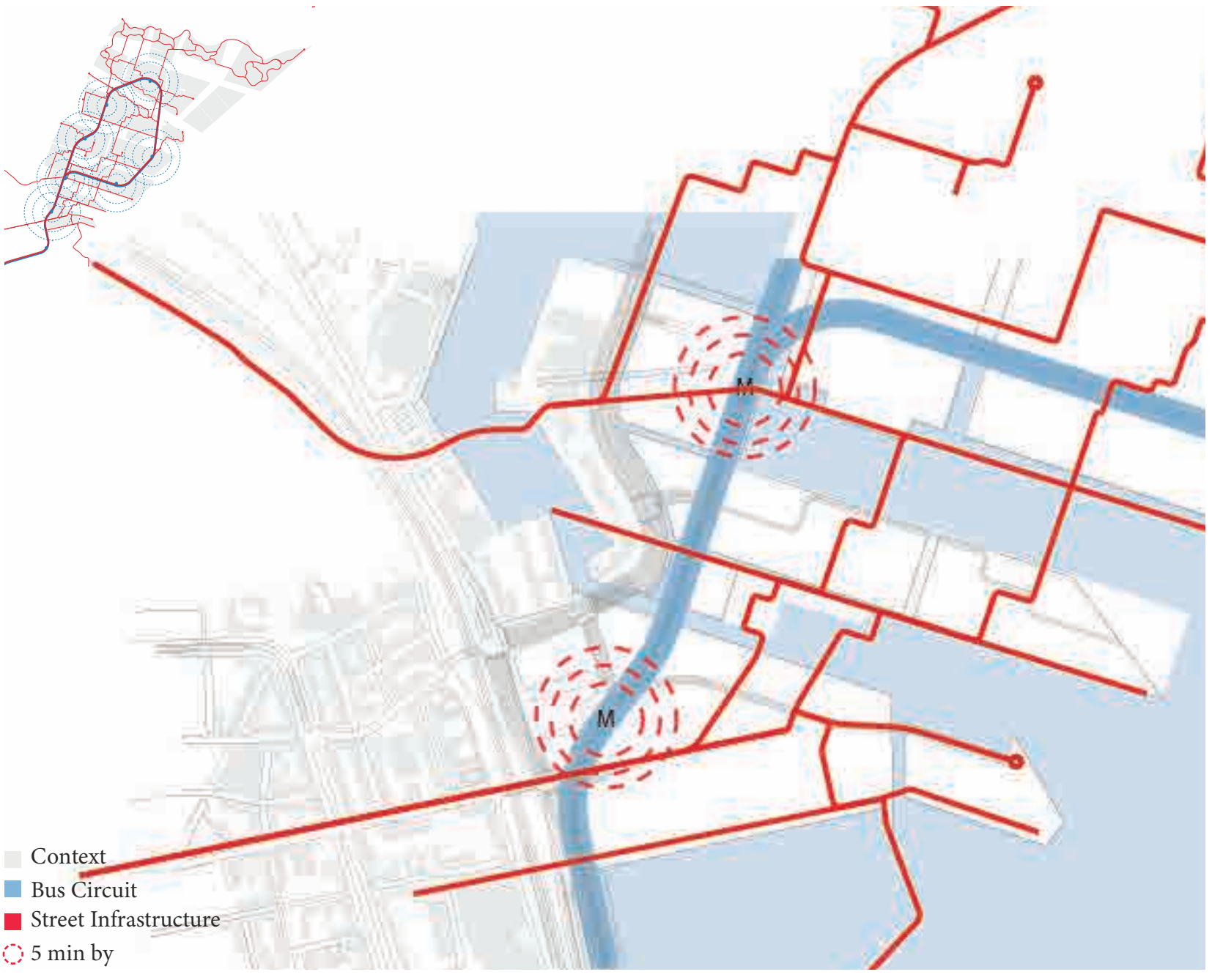


Figure Elaborated by authors based on
Nordhavnen Master plan ©COBE, 2007

Fig 36. The Silo
The 17-storey former grain silo is the largest industrial building in the Nordhavn and has been used for storing and treating grain for decades.

Fig 31. O phase
Norhavn with the 1900 Lnadfill

Fig 32. 1 Phase
The city of islets can be developed one islet at a time, leaving room for unpredicted needs and preserving the ability to respond to the challenges of the given time.

Fig 33. Final Phase
Final plan of Nordhavn with all the islets developed

Figure Nordhavnen Master plan ©COBE, 2007

Nordhavn Analysis
2. Compact

In Nordhavn the urban development has been planned to be compact. Nordhavn is developed in 3 phases. The southern area, closer to Copenhagen's central city, is developed in the first phase, for its proximity. The central area, on the other hand, remains purely industrial and unaffected while the first phase of development is completed. Finally, the third phase, at the north of the island, consisting of totally new land development will take place in 30 years. This allows concentrating the efforts on consolidating a compact city, preventing scattered development. Simultaneously each phase integrates the existing industrial buildings and grid as a catalyst point for the development. The existing industries and warehouses are adapted and transformed into offices, residences, and stores, preventing urban voids of abandoned buildings. Lastly, Nordhavn's limited car parking is never on ground floors but on buildings, which even compensates with public spaces on rooftops. This prevents inactive ground floors which are the most valuable square meters in a city. All this makes Nordhavn a compact city where no area is wasted (Cobe, 2009).

Figure Elaborated by authors based on
Nordhavnen Master plan ©COBE, 2007

Fig 37. The Parking Building park
Hybrid structure between parking house and playground

Fig 38. Co existing with old strcuctures
Variety of uses, offices building next to Sailboats and a power plant
Figure Nordhavnen Master plan ©COBE, 2007

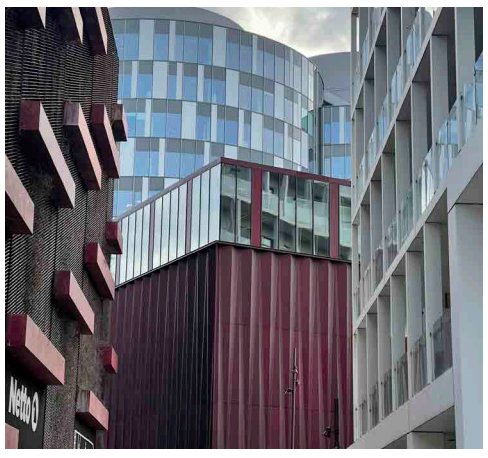


Fig 39. Piture of residences, Malls adn parking

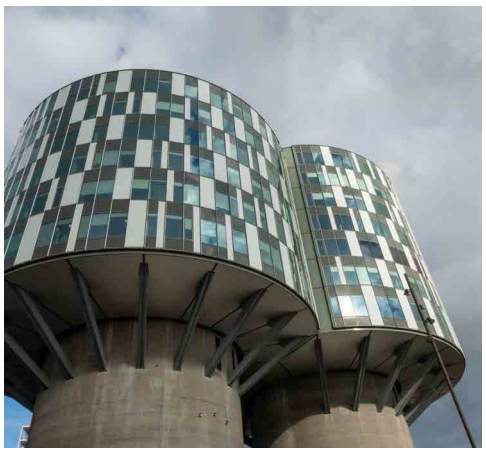


Fig 40. View of the Portland Tower
two silos converted into office bildings in the Nordhavn district.

Nordhavn Analysis
3. Functionally Complex

Nordhavn is a functionally complex neighborhood. Its functional diversity makes Nordhavn active during the day and night, and incentives to leave work and study in the same neighborhood. This prevents commuting, saving energy, resources, and the city's infrastructure capacity. This functional complexity is achieved with an "intelligent grid". Cobe defines an intelligent grid as a structuring planning tool that, makes room for multiple mixed functions within a given area. The grid can adapt to changes over time and gives the plan a great deal of controlled flexibility, whereas the variation of lot sizes makes for a diverse city. However, its functional diversity doesn't make Nordhavn a generic neighborhood. The neighborhood maintains a strong creative and artistic character while maintaining a diversity of use. Design offices, showrooms, pottery ateliers, and innovative restaurants are typical in the neighborhood making it a creative diverse system.

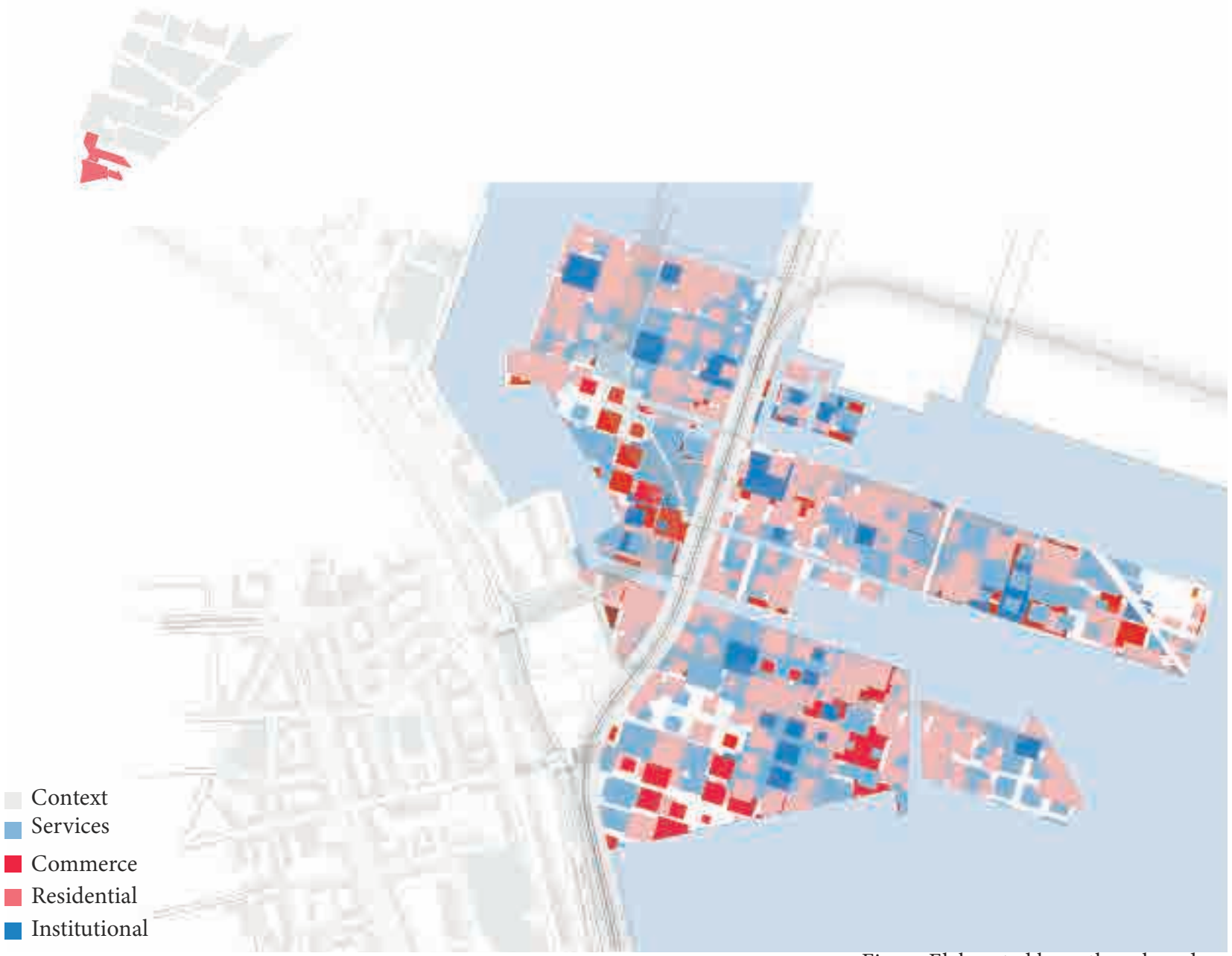


Figure Elaborated by authors based on
Nordhavnen Master plan ©COBE, 2007

Fig 41. The North Beaches
Landscaping in the northern areas with afforestation

Fig 42. Pocket Parks
Pocket Parks as connectors between services and buildings

Fig 43. Green Border
Vegetation a long the waterf

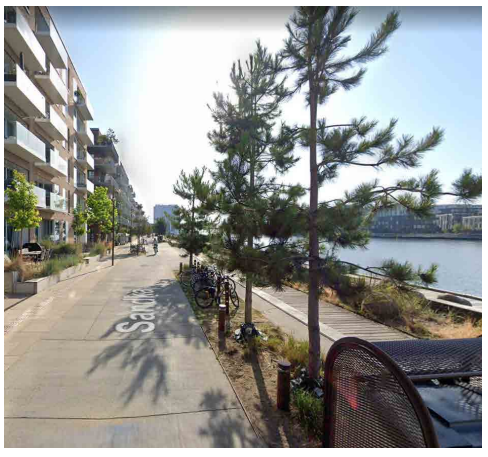


Fig 44. Green Promeandes
Connected to the public transportation loop is a green corridor for bikes, which connects Nordhavn to the larger biking network of the city

Nordhavn Analysis
4. Biodiverse

Nordhavn is a biodiverse neighborhood. It is particularly successful in integrating the green system as a structural corridor for biodiversity and as a functional and crucial element for the urban qualities of the neighborhood. The green structure is degraded, starting from a fine urban green granulate on the south of the green axis and edge zones that gradually enlarges and ends up as a completely wild large green area on the north coast. The main green structure is simultaneously articulated to the metro loop as it connects the neighborhood from south to north and works as a sound barrier for the metro line. Along with the green structure, new canals are dug to enhance access and proximity to the water. The water canals knit the territory with biodiversity and valuable urban experiences and activities. The canals are the heart of Norhavn where people meet to swim, fish, or just appreciate. The planning of blue and green city qualities precedes the planning of buildings (Cobe, 2009).

Figure Elaborated by authors based on
Nordhavnen Master plan ©COBE, 2007

Fig 45. Ultra-Fast Charging Stations for Electric Cars
The charging stations are an oasis far away from the noise and pollution of the traditional fossil fuel-based gas stations.(Cobe, 2019)

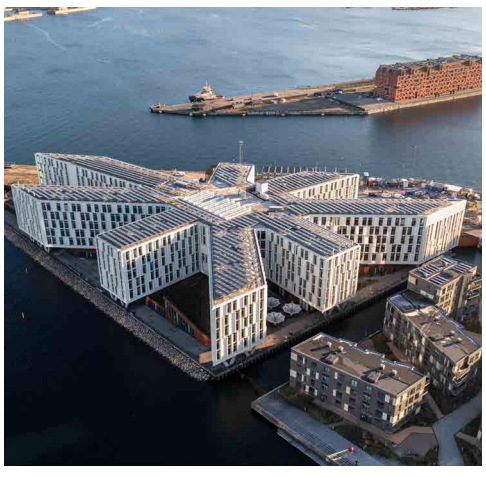


Fig 46. The UN building
Aerial drone view of the UN City buiding

Fig 47. Copenhagen International School completed by the firm CF Møller with the world-largest solar panel facades

Fig 48. Copenhaguen Aelic Energy
Windmill provides energy for the entire district

Nordhavn Analysis
5. Resourcefull

Nordhavnen area was awarded with the pre-certification of gold status scheme of the German Sustainable Building Council (DGNB) in 2013, being the first urban development area to receive this status for a neighborhood master plan, this is the highest certification of the DGNB label, and demonstrates a very strong commitment to their sustainability objectives (DGNB, n.d.). The DGNB assess the overall performance of a building or district based on seven categories starting with the premises of the life cycle of a building system, and including key characteristics of sustainable buildings, environmental, economic, sociocultural, functional aspects, technology and processes (Green Building Council Denmark, 2017). According to the DGNB the certification was granted to three areas in the district, Trælastholmen, Levantkaj Vest and Sundmolen (By&Havn, 2018). Because the plan is under construction, Nordhavn was pre-certified for its masterplan, this certification demands that all developers in the district plan their buildings to a minimum of a bronze level, to ensure that they meet higher standards than the current building code requires (København Kommune, 2013).

Green Circular Explotation:

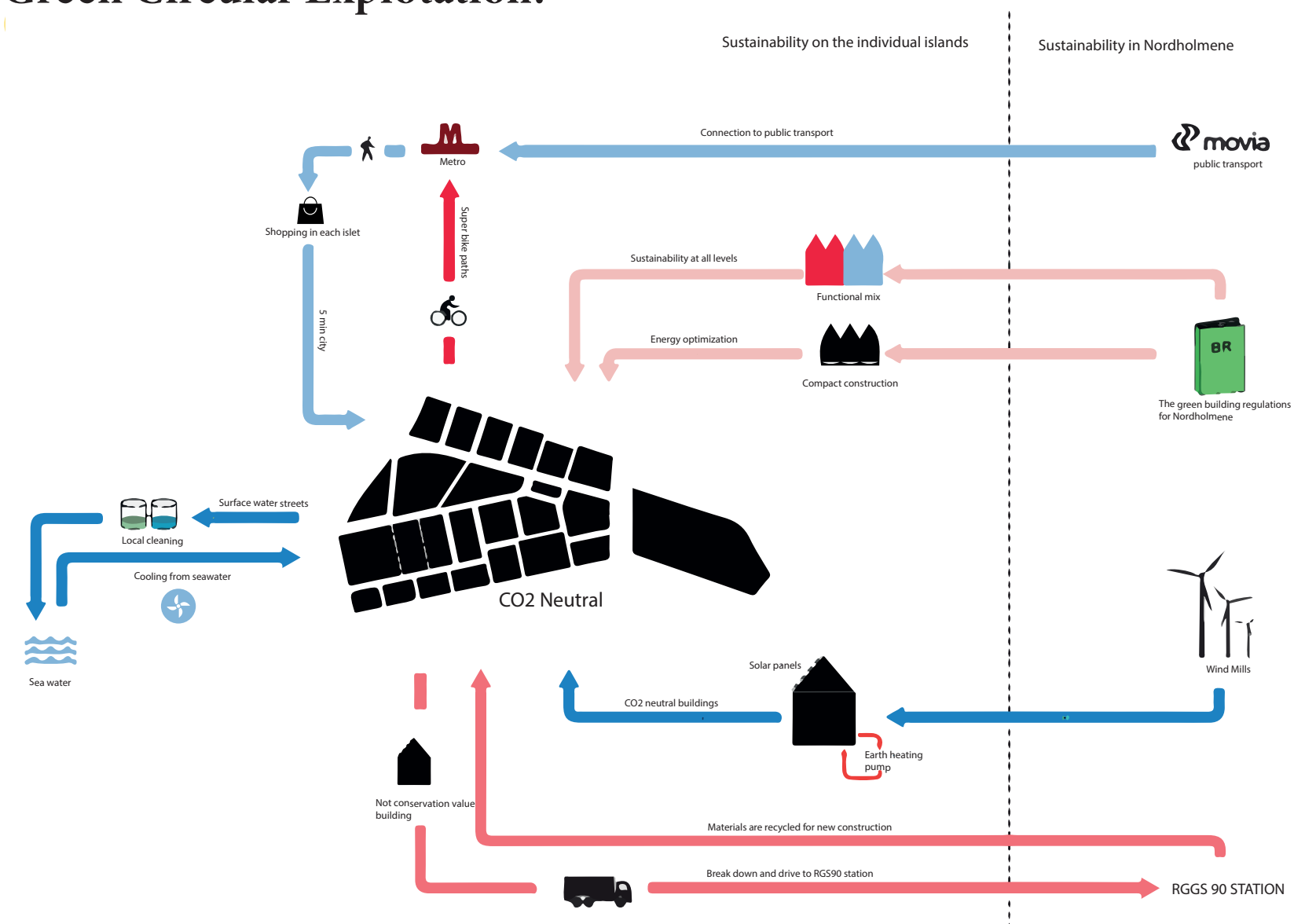


Figure Elaborated by authors based on Nordhavnen Master plan ©COBE, 2007

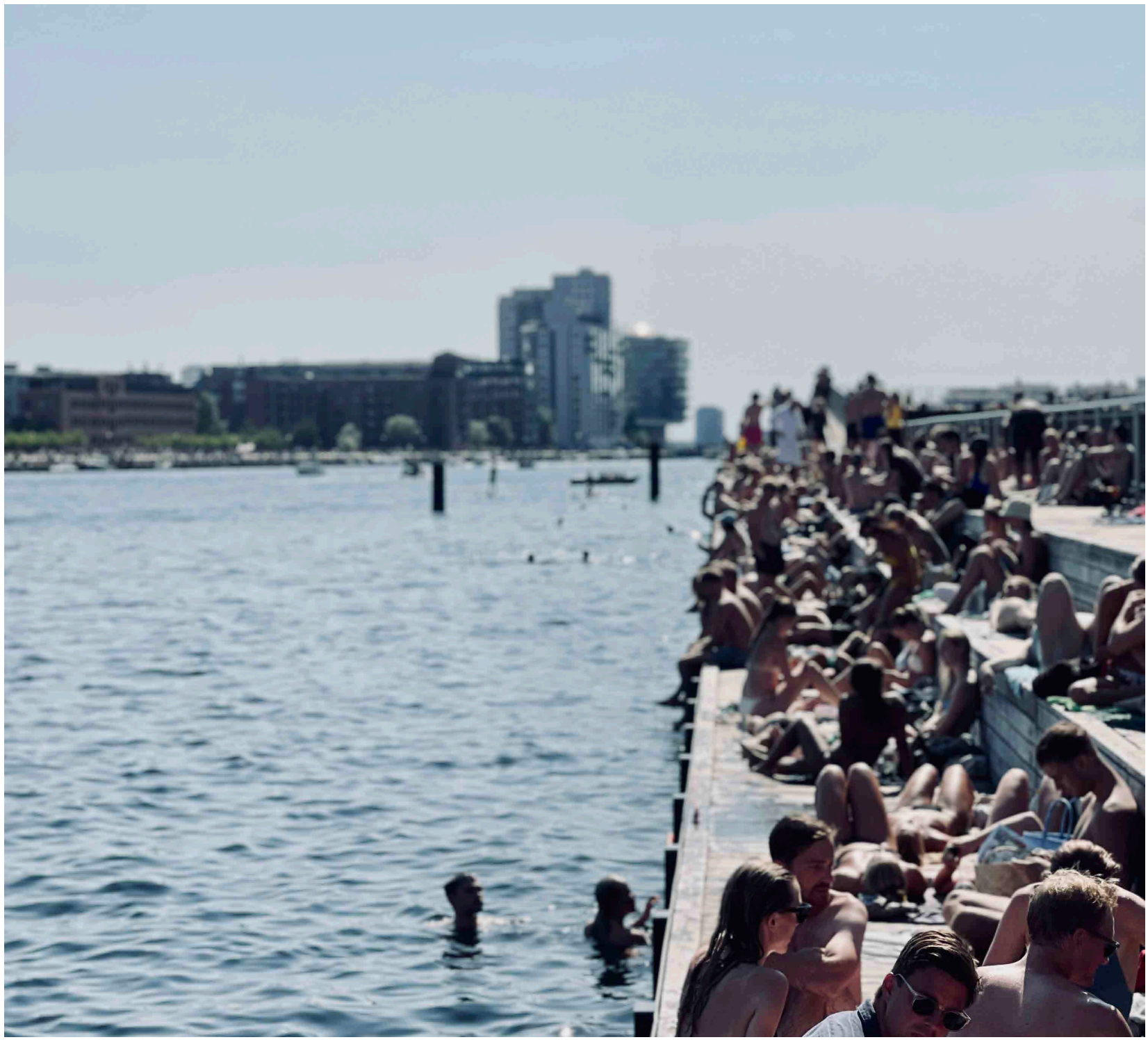


Fig 49. Waterfront one of the most shared spaces in Nordhavn
A summer picture of the waterfront and people swimming

Fig 50. The Restaurants

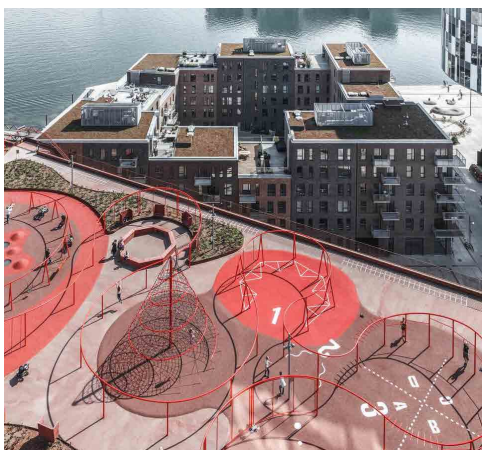


Fig 51. Shared Spaces in heighs

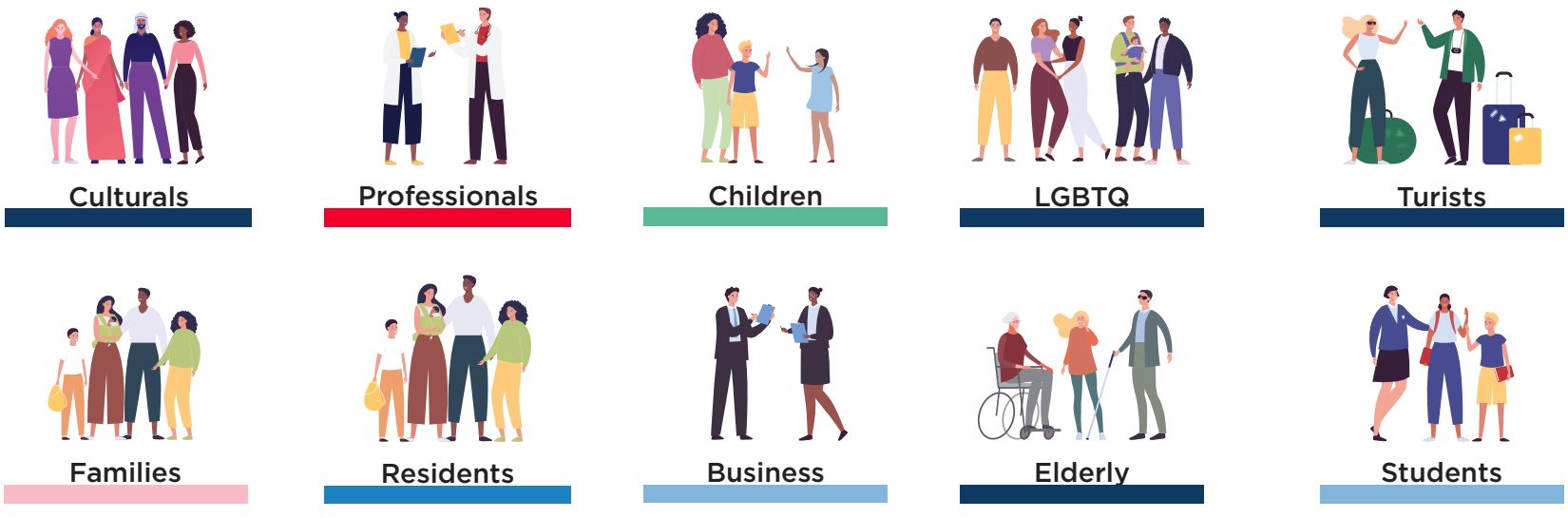
Fig 52. Connecting Plazas

Nordhavn Analysis
6. Shared

Nordhavn is a shared neighborhood. The territory is structured by diverse scales of public spaces, responding to different dynamics. On a metropolitan scale, Nordhavn provides main plazas. These squares are big public spaces close to metro stations and receive users from the district, tourists, and visitors of Nordhavn. Main plazas are surrounded by institutional and cultural functions that can maintain these big urban spaces active. Zone plaza's purpose is to connect the islets with the waterfronts, providing spaces to swim, tan, and interact. These spaces have a less formal character and, their main users are Nordhavn habitants. They are visually connected to each other and are equipped with restaurants, cafes, and bars that allow these spaces to be fun and active. Finally, the Neighborhood plazas are located at the far edges of the Islets. They have a more local purpose, almost communal, where the users on the far edges of Nordhavn have a more private interaction with the ocean. As a system, these public plazas provide leisure spaces for everyone in Nordhavn, activating every canal side and islet of the neighborhood.

Figure Elaborated by authors based on
Nordhavnen Master plan ©COBE, 2007

Fig 53. Fisherman in the northvan Islets waterfronts



Nordhavn Analysis
7. Diverse

"Copenhagen is currently one of the most diverse cities in Europe, accommodating a vibrantly mixed population in terms of income, ethnicity, age and household composition. Renowned for its socially progressive policies, the city has long encouraged this diversity by controlling rents, building state-owned housing, encouraging variety and innovation in ownership and rental models, and investing in a rich and open public realm. A long history of inclusive planning, combined with innovative design thinking, has established Copenhagen as a leading example of how to build housing that reflects the diversity of its population. The municipality's rhetoric is distinctly pluralistic, emphasizing the social and economic benefits of a diverse city that aims to be indiscriminate in its 'liveability'."(Wells, Benjamin, N.A)

Nordhavn enjoys a vast diversity of users, with diverse cultures, ethnicities, and social groups. The district has been appropriated by diverse visitors as fishermen however, the high costs of rent in Nordhavn make the district permanent residents mainly wealthy high-class people. "Nordhavn is the biggest urban project in Copenhagen in recent years, aiming to accommodate 40,000 inhabitants in 18,000 homes that by now seem to be exclusively for the wealthiest in Copenhagen" (Ariza et al., 2019). The original users of the area, workers of its industrial past, seem to have no place in the today consolidated south Nordhavn residences. Gentrification is the biggest problematic Northhavn will face as a territory identity is mainly based on its locality and its loosing it to high rents.

Figure Elaborated by authors based on
Nordhavnen Master plan ©COBE, 2007

From CPH we can learn that the city should be....

The city should be:

1. Accesible
Diverse movility infrastructure should articulate the city giving priority to massive transportation and green movility.

2. Compact
Reuse and reactivate urban and architectural deserts before expanding, controlling the city growth.

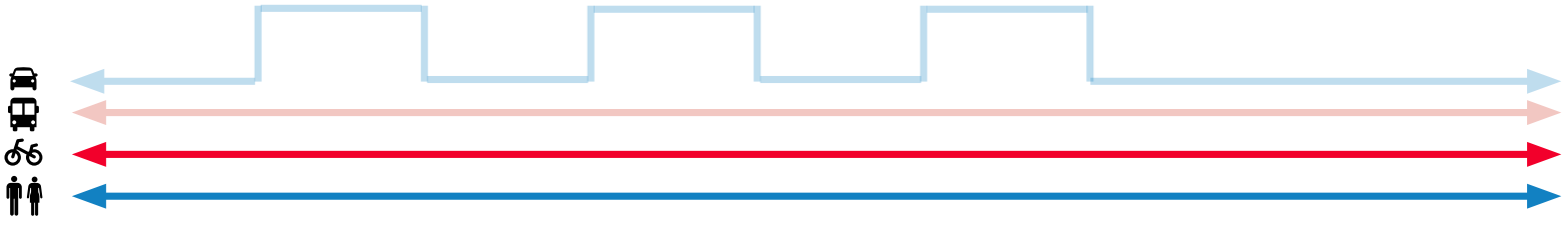
3. Functionaly Complex
Foster diverse activity proximity to prevent commuting and create mixtures of activities and users.

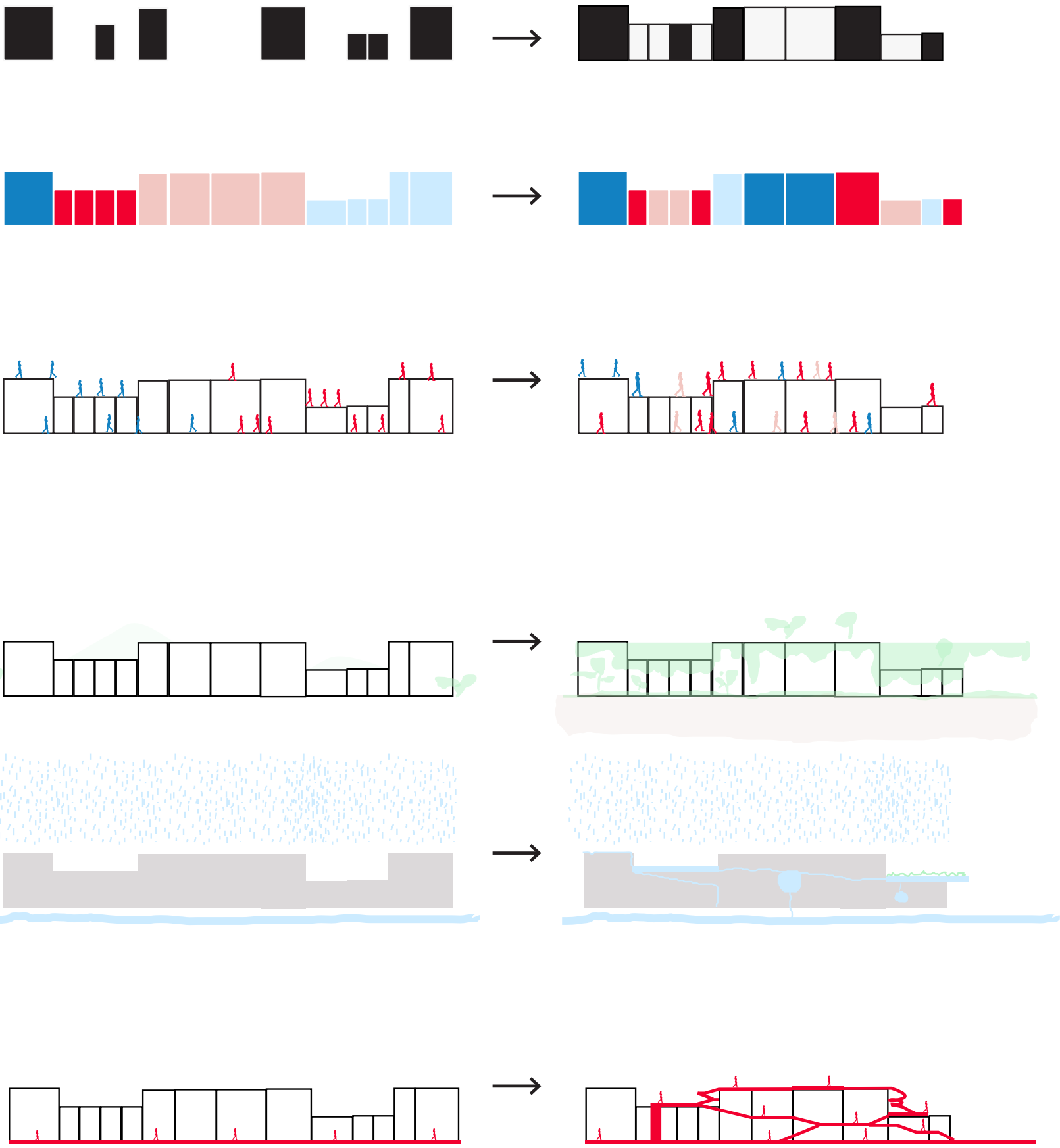
4. Diverse
Promote cultural and social diversity proximity to enrich knowledge, innovation and development.

5. Biodiverse
Preserve the geografic and natural values on the subsoil, surface and above ground designing for nature and humans as part of a same ecosystem.

6. Resourcefull
Integrate flows like water, energy and residues cycles on the urban space and buildings to minimize consumtion.

7. Shared
Promote the public functions primarly on ground surface but also incorporating public spaces on subsurface and at hight.





A case study in Bogotá

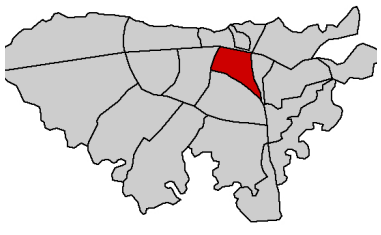
Fig 54. Photos /1: Bogotá City Center

Bogotá, Colombia
General Information

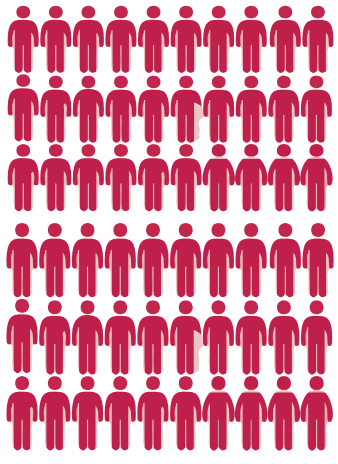
Bogotá is the Capital of Colombia, located in the north of South America, at an altitude of 2,600 mt from the sea level in the Andes Mountains, it is the meeting point of the entire country, it is a diverse and multicultural city (Colombia,). Bogotá is still on a developing phase; the current state of the city struggles to support the everyday dynamics of the residents causing big traffic jams, invasions on the mountains, infrastructure that does not support the number of inhabitants on the city and many more situations, this growth has been caused by the huge wave of immigrants moving to the unprepared city (Cuervo, Barbieri, Rangel, 2018).

Data

Bogotá, Colombia



10 Districts with a total area of 179,8 km



1’346,485 Inhabitants

Bogotá, Colombia
Introduction to case of study

Bogotá city center was Colombia's most representative nucleus of urban life in the XVI century. The city was founded under urbanistic and architectural colonial characteristics, based on a grid system, and originated on Plaza Bolivar. It was delimited by 4 peripheries: the north by la Plaza de las Hierbas, in the South Las Cruces, and in the West La Plaza España. This consolidated the initial footprint that allows even today to appreciate what once was the origins of Bogotá society.

As mentioned in the book *La Candelaria El Centro Histórico de Santafé de Bogotá* written by Corporación de La Candelaria, in the west in the surroundings of Plaza España los Martires neighborhood was born, originally as a mixed sector of housing and small commerce and industries. With time this area became a key center of the industrial boom and which brought the arrival of new infrastructures like the tram and the railway station of La Savanna. The area started to have an accelerated development and growth of the center of through drastic so- cial, economic, physical, and environmental changes. The growth caused urban alterations in the city dynamics and chanllenging tensions due to the centralized commerce, services and industries that started to appeared at the time.

The economical growth was also portrayed in the urban morphology not only because of the agglomerations of activity but also because of the increase in population density. The population growth consisted of people from all around Colombia in search of new opportunities. This situation gave Los Mártires: a heavy port character (in contrast with its predominant housing typologies), infrastructure disconnected from the local dynamics more concerned with national connections, and big environmental problems.

In addition, a historical event brought the industrial boom to an end. In 1948 the assassination of the popular candidate Jorge Eliecer Gaitan caused the famous Bogotázo, where half of the city was burned and the railway and tram were practically destroyed. At the same time all around the country, more than one million people were displaced to Bogotá as Gaitan's murder started the 14 years of conflict now known as La Violencia. The government administrative offices relocated to CAN, the wealthy families moved to the north and various industries and commerce relocated to the north and west of the city, escaping from the city center chaos. This left an urban void full of poverty, displaced people, and criminal gangs (Zambrano,1994).

History of Bogotá growth: A brief summary

Bogotá Historical Growth:

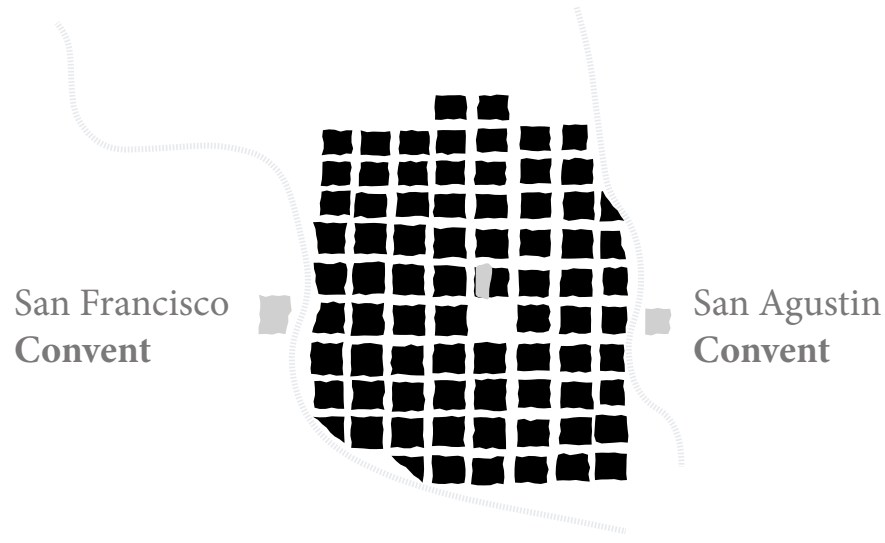


Fig 50. Bogotá historic center 1560

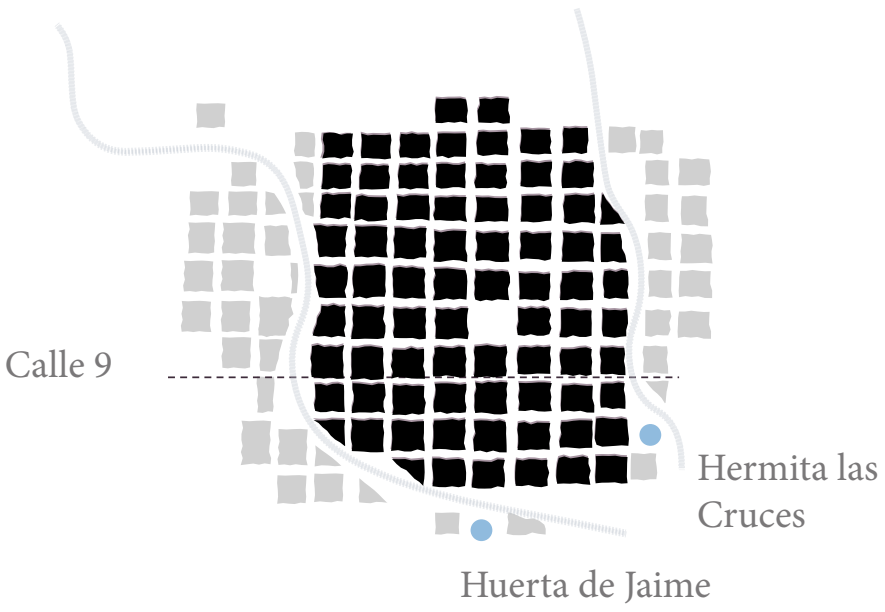


Fig 51. Bogotá historic center 1600

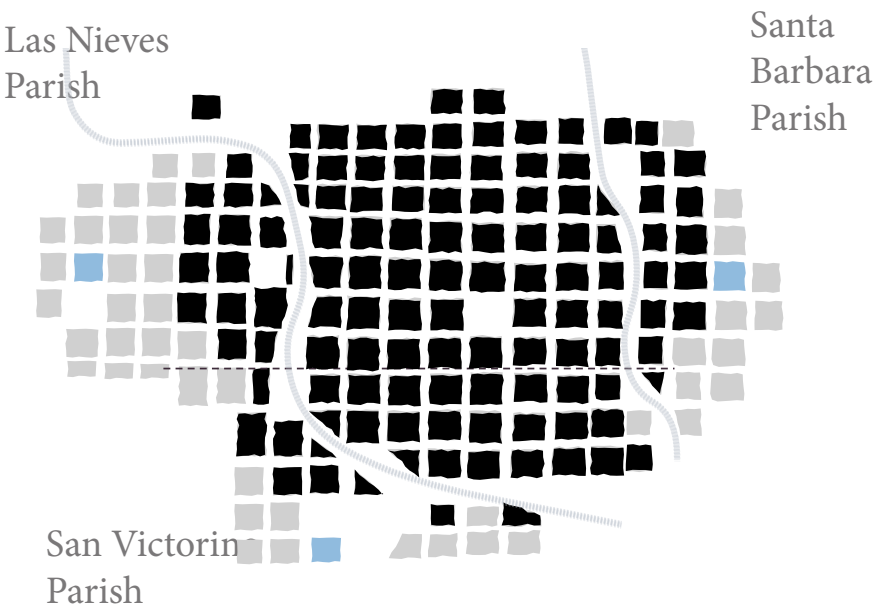


Fig 52. Bogotá historic center 1670

Diagrams elaborated by authors based on
Old Maps of Bogotá

Bogotá, Colombia
Bogotá Historical Center

The colonial center in Bogotá originated in 1538. It was the nucleus of big cultural and spatial transformations. Plaza Bolivar was the main organizer, meeting, and hierarchical point for Bogotá, where the main historical buildings were constructed. Starting from the plaza, a uniform reticular layout is arranged, comprising a small number of compact blocks.

The location and proximity of these blocks with respect to the square determined the settlement of the social classes. Therefore, the buildings closest to the square where those with the greatest power settled down, and so the further they moved away from the square, the lower the social level. Therefore the language of the urban layout allowed social control as mentioned in the book La candelaria el centro histórico de Santa Fe de Bogotá written by La Corporación de La Candelaria. Single-story blocks allowed the hierarchy of control symbols such as towers, churches, and convents.

In the middle of the 18th century, expansion transformations began to appear towards the 4 peripheries, due to the increase of people from rural areas arriving in the capital. The first urban renewal happened in the 16th century when infrastructure works began to be fastly built causing a noticeable change in urban life as explained in the following quote " In the layout, the neighborhoods maintained the ecclesiastical distribution of the colonial parishes: La Catedral, Las Nieves, Santa Bárbara, and San Victorino, the neighborhood of The Cathedral was still the most important neighborhood in Bogotá, due to the fact that the most important public buildings, civil and religious, as well as the residences of the elite capital. In addition, it was the largest neighborhood since until the mid-nineteenth century it housed half of Bogotá's population, in contrast to the Las Nieves neighborhood, inhabited by artisans, and similarly San Victorino." (Zambrano, 1994, p. 27)

In this way, the neighborhood configuration began to emerge especially between south and north but maintaining a morphology that was urbanized by sections, without any continuity. This morphology also developed under the flowing configuration "The resulting urban fabric follows the tentacular trace of the roads inherited from the Colony and the elongated strip is a consequence of the fact that the city adheres to the hills" (Zambrano, 2007).

Bogotá Historical Growth:

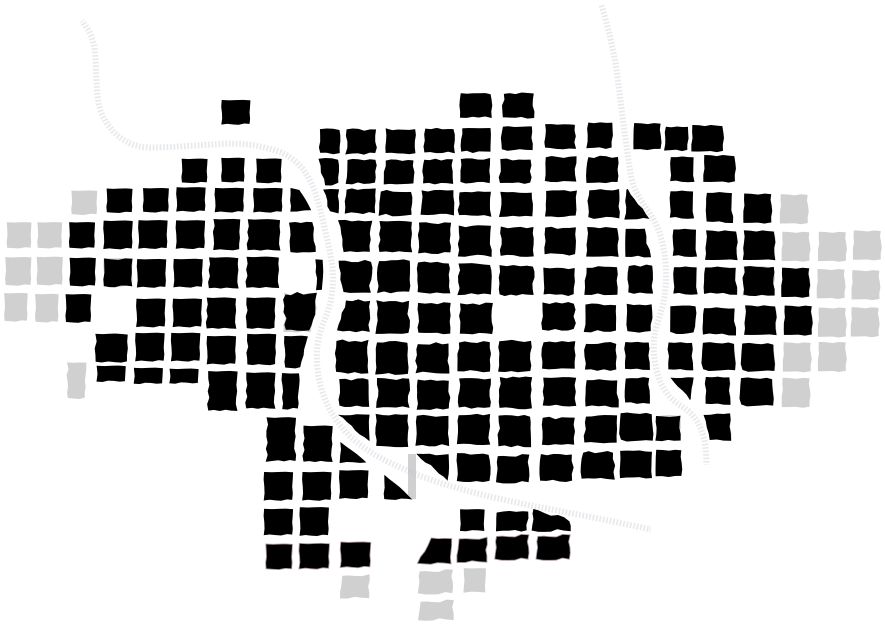


Fig 53. **Bogotá historic center 1772**

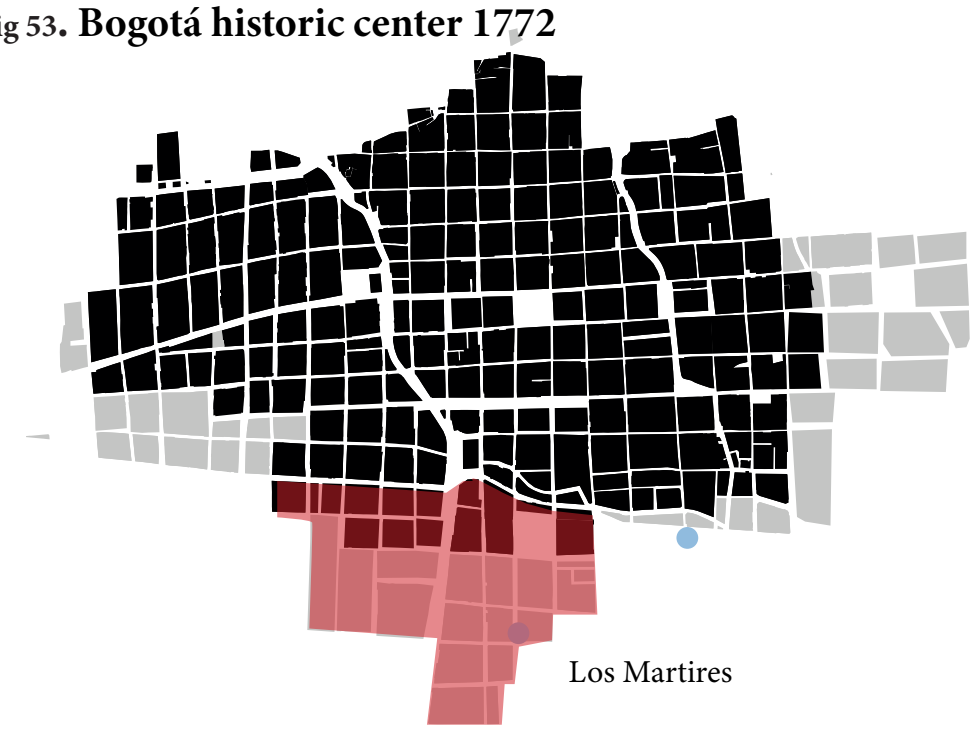


Fig 54. **Bogotá historic center 1797**

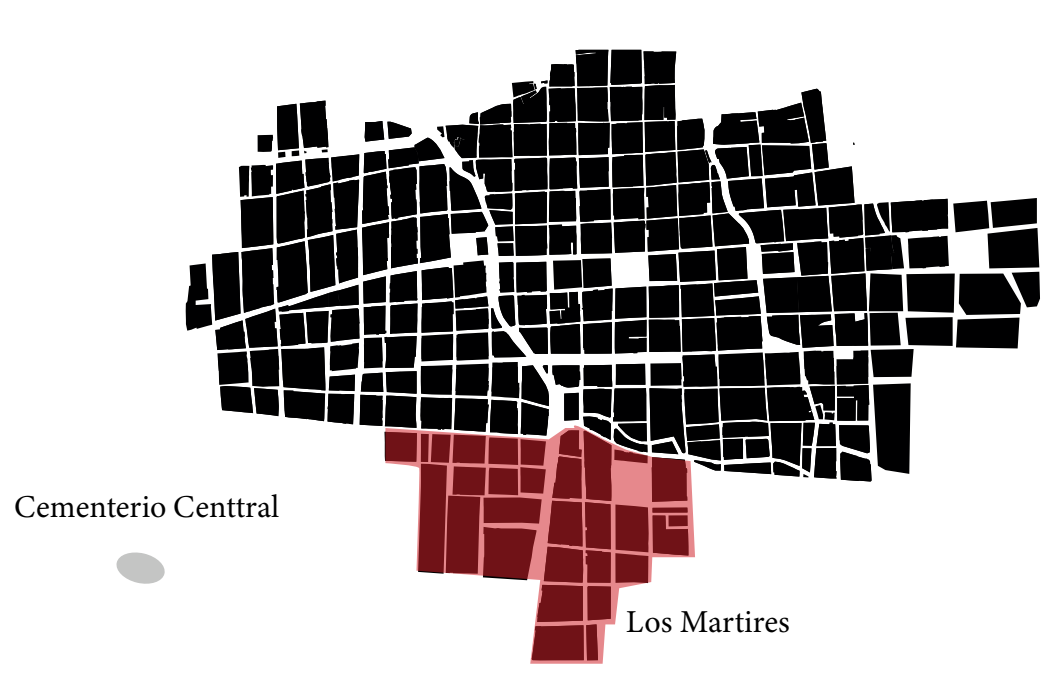


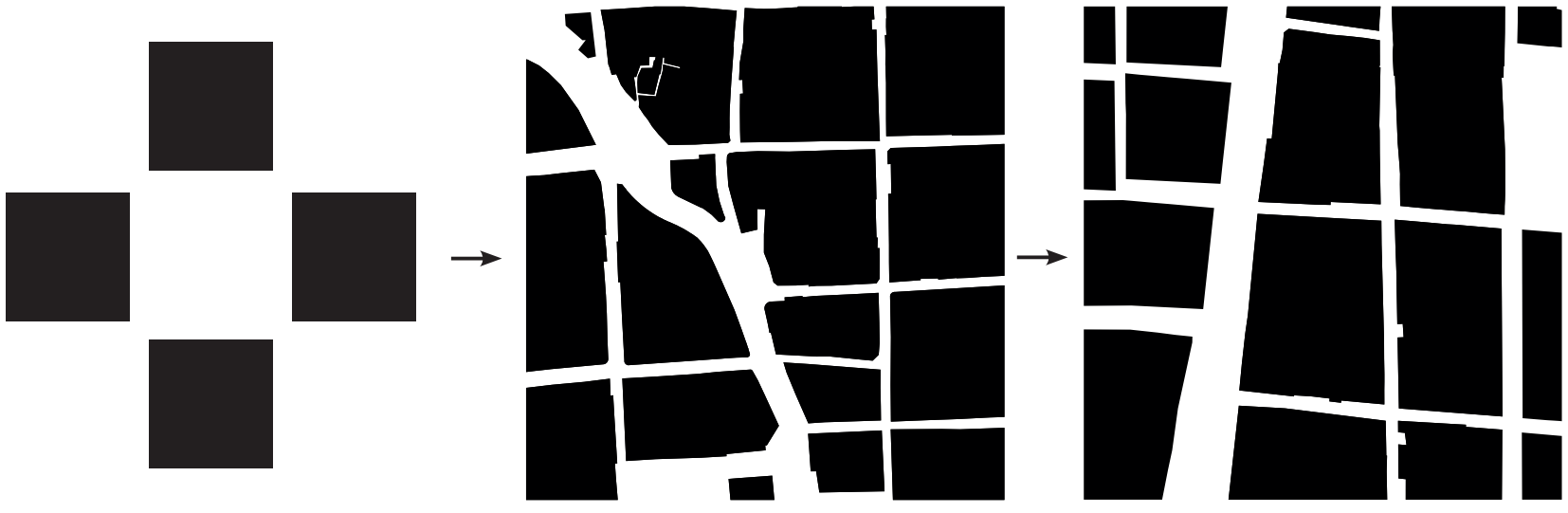
Fig 54. **Bogotá historic center 1824**

Diagrams elaborated by authors based on
Old Maps of Bogotá

Bogotá, Colombia
Urban expansion of the Historic Center

According to Zambrano in the book Brief History of Bogotá, the first accelerated growth and expansion of Bogotá's center came in the late-nineteenth century ¨ On July 20, 1889, the steam engine arrived in Bogotá, an element that revolutionized the city like never before. This urban event is undoubtedly one of the most significant for the development of the city in terms of mobility and transportation¨ (Cardeño, 2007). Places of significance began to form, such as the Locality Los Mártires. San Victorino was the first neighborhood to consolidate in Los Mártires. It was founded with a church also named San Victorino and 25 large lots belonging to wealthy families. Very rapidly these large lots got subdivided under the demand of a greater number of homes, and emerging working-class neighborhoods. New infrastructure insertions were done with the constant arrival of new social classes, new services were integrated and the growth of the city accelerated. In this way The railway opens doors to growth, thus allowing the exchange of people and merchandise, being the first trigger of accelerated urban development. As seen in the following image, the railway mostly moved linearly from south to north, connected to the center of the city with what is known today as the Chapinero sector.

Typical Blocks:



Foundation of center tipical bock
Paramented Rectangular city block

River valley Tipical block
Paramented organic city block

Exterior city center typical block
Large paramented ortogonal city block

Diagrams elaborated by authors based on
Old Maps of Bogotá

History of Los Martires growth: A brief summary

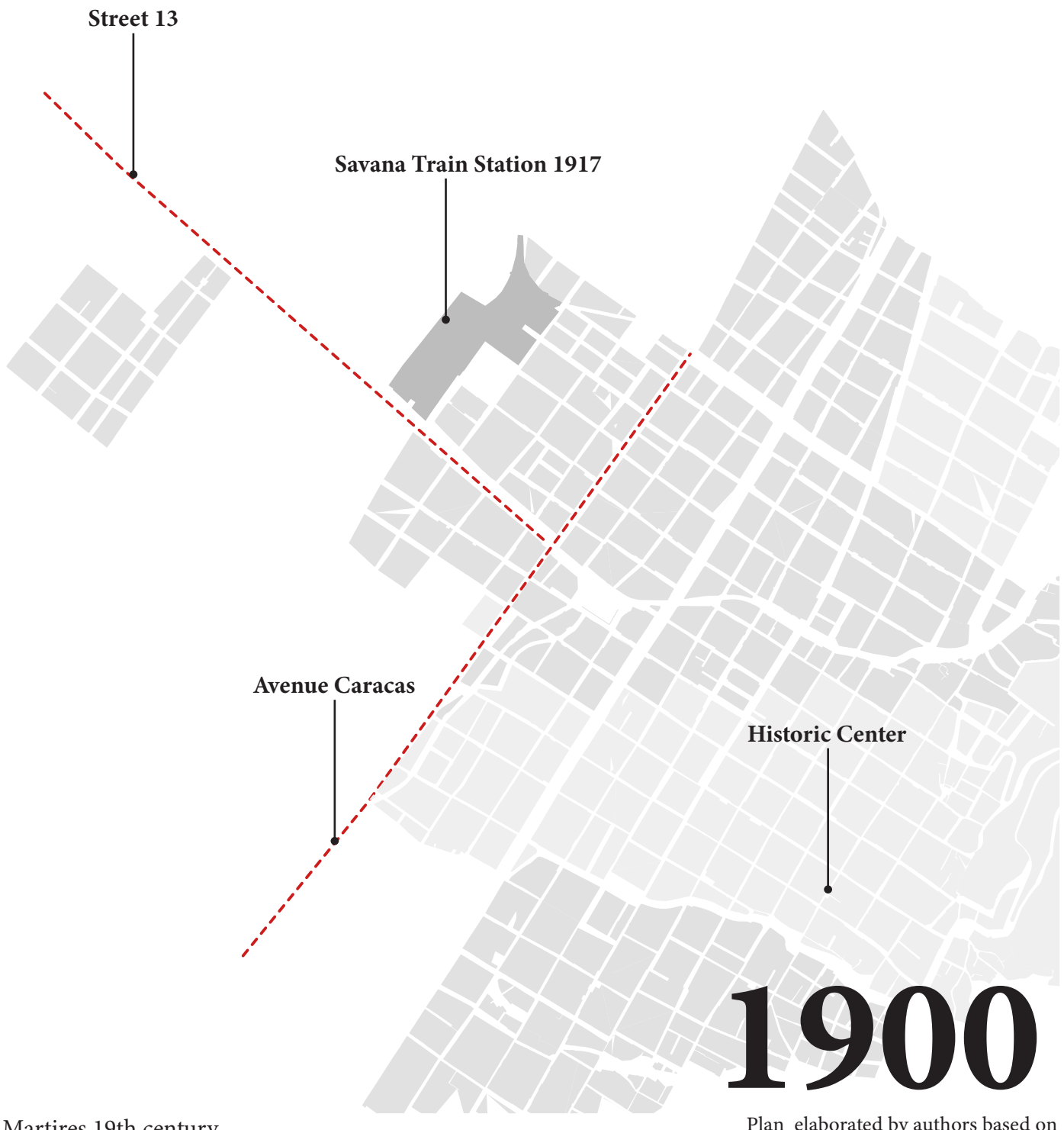


Fig 55. Plan of Los Martires 19th century
Scale 1:700

Plan elaborated by authors based on
Plan Especial de Manejo y Protección del Centro Histórico de Bogotá Dicember, 2019

Fig 56. Sabana Station

Fig 57. Los Martires Church

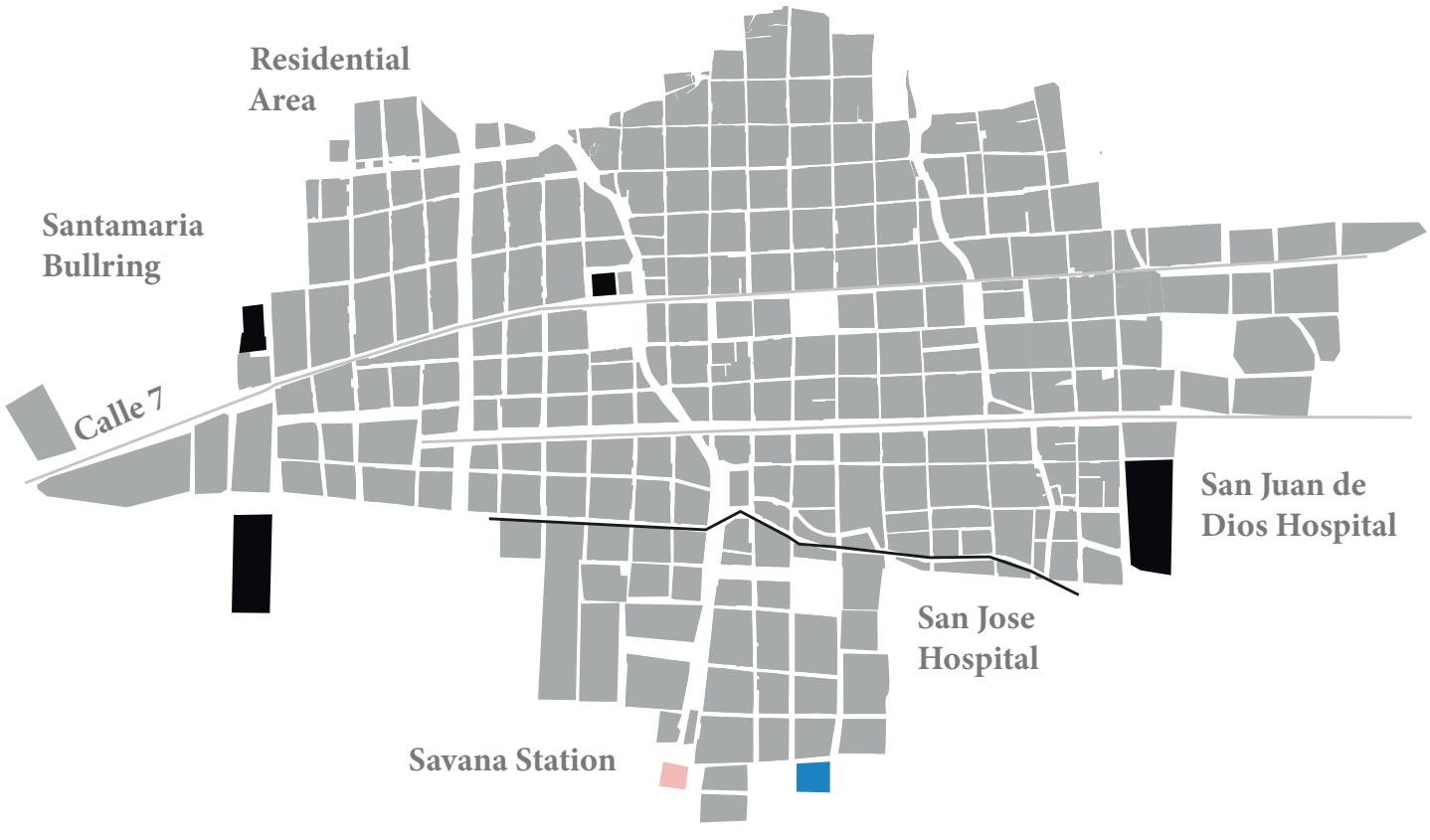
Fig 58. Hritage governmental buildings

Los Martires
Apartition of Los Martires

This expansion began to appear towards the middle of the 19th century, mainly because of the connectivity presented by the tram and rail transport. The growth of industrial and commercial activities developed in San Victorino since it was a point of meeting of different nationalities whereby the 1910 San Victorino neighborhood had 14,004 inhabitants (Cardeño, 2007). Here an urban layout different from the colonial one was established, due to the sinuous descents of the river, and the strategic location on the west exit towards the Magdalena river. San Victorino could be defined as ¨…A scene of an encounter between the elites and the groups subaltern to society hegemonic; likewise, a place where members of the same subaltern groups used to come together to interact and live their own city experience. All this gradually gave San Victorino a category of the first order in the urban context, and granted, in the opinion of many, the status of "dry port" of the city. (Carbonell, 2010, p.227).

The first appearance of Los Martires was as part of the **Panoptic Ring of the city.** The panoptic ring contained t**he main dotational buildings of high impact in Bogotá.** These buildings were purposely on the **city's edge as they represented health, safety, or logistic problems. The Savanna Station and the Hospital San Jose were the two foundational Panoptic Buildings in Los Martires** and they defined the sector as an industrial not attractive area for residents.

Panoptic Circle:



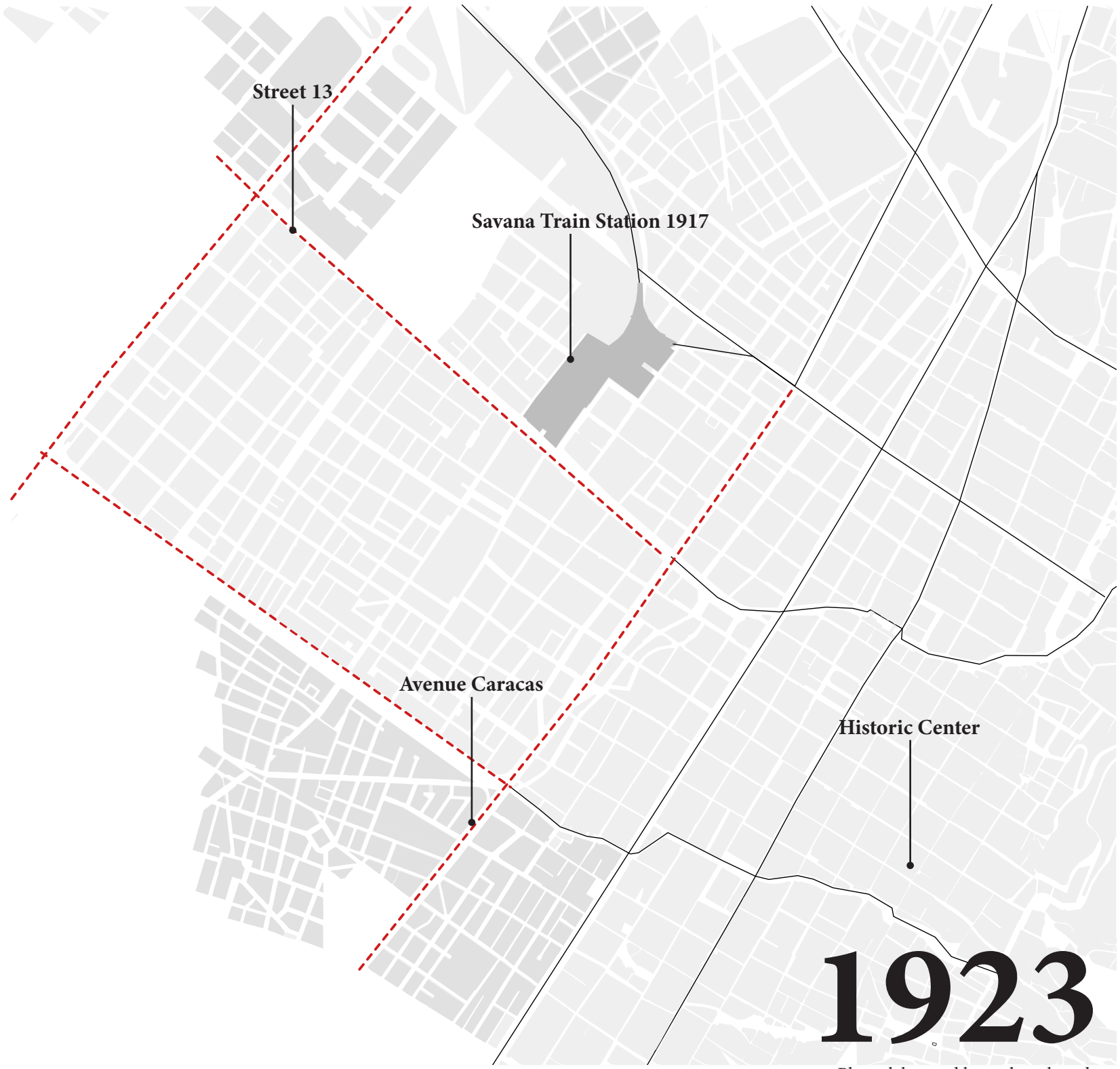


Fig 64. Plan of Los Martires 1940
Scale 1:700

Plan elaborated by authors based on
Plan Especial de Manejo y Protección del Centro Histórico de Bogotá Dicember, 2019

Fig 65. AV Caracas

Fig 66. AV NQS

Fig 67. Street 6

Los Martires
Functional development

The first half of the 20th century was definitive for the formation and functional activation of the west of Los Martires. Mainly from the arrival of the first railway station of La Sabana in 1917, which allowed the connection of the National territory. La Sabana station connected Bogotá with Buenaventura (the main port on the pacific), Santa Marta (the main port on the Caribbean), and of course the whole magdalena river (connected the whole country south to north) making it a crucial point for commerce and industry. It then consolidated as the most important part of the city in terms of spatial, social and economic development since the sector began to support dynamics on a national scale. As mentioned by the author Cardeño, the railway station was the most important urban piece for the spatial configuration of the locality because it was structured from exchanges of trademarks for the industrial and commercial sectors. However, the factor of "poverty and inequality" also shows an increase that is beginning to be perceived, generating, as a result, a peripheral sector of pockets of insecurity (Cardeño, 2007).

¨ …because around the station the land uses were accommodated for the reception and exchange of merchandise and the attention of visitors and foreigners; In general, the area adapted to receive the growing migration, which generated greater pressure on the growth of the entire city ¨ (Cardeño, 2007, p.21)

In the mid-20th century, trade and industrialization began to reach high levels of abundance in the West of the city, after generating a central positioning point for goods and flows of people in which the streets started to transform into informal commerce, the houses and buildings began to transform spatially into warehouses or trading sites, affecting their socioeconomic and environmental conformation.

Los Martire's **success in commerce, trade, and industry** made it one of the most important economic nuclei of the city but also brought **problematics of insecurity** and danger, caused by this **high-impact urban dynamics**.

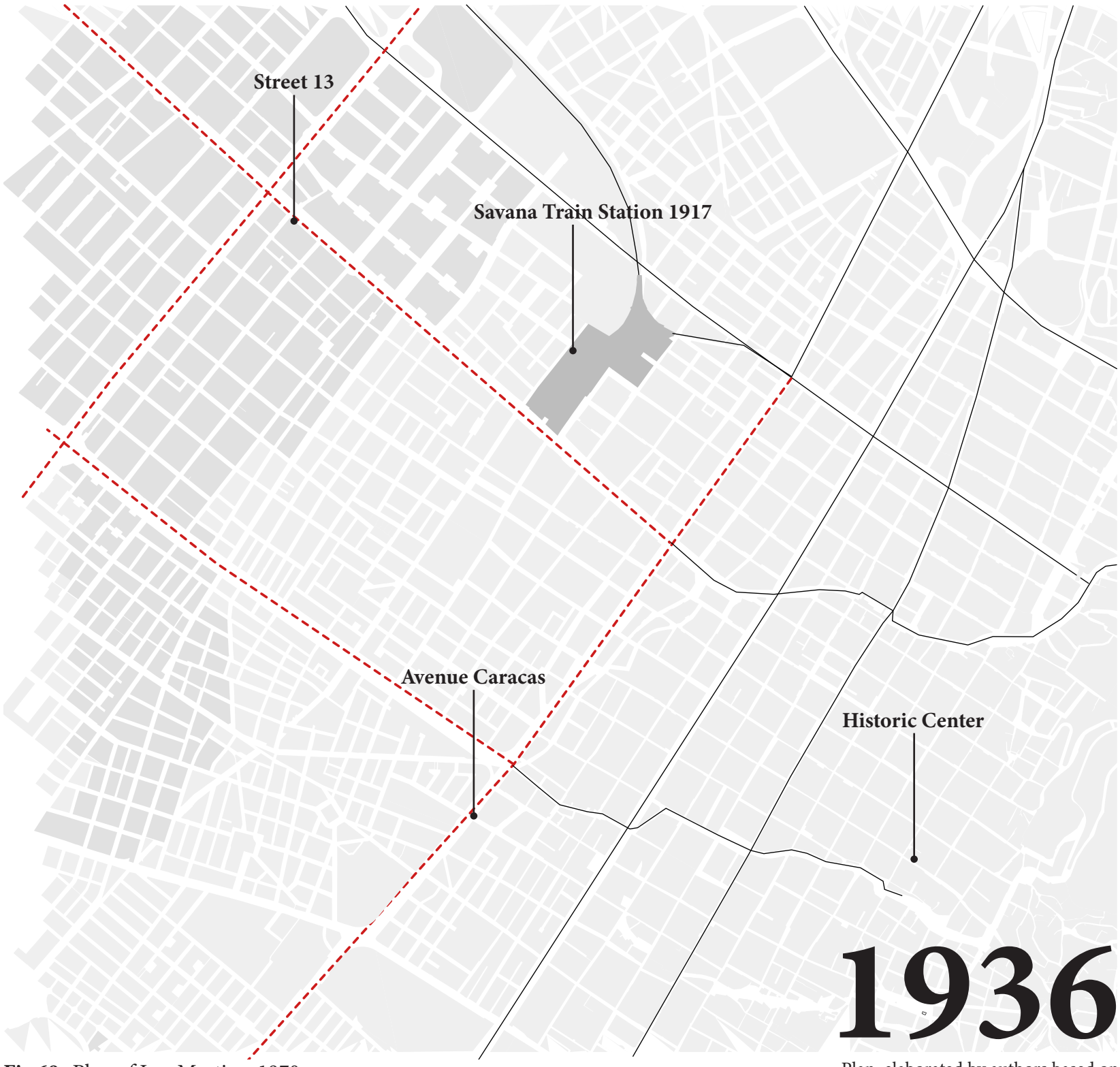


Fig 68. Plan of Los Martires 1970s
Scale 1:700

Plan elaborated by authors based on
Plan Especial de Manejo y Protección del Centro Histórico de Bogotá Dicember, 2019

Fig 70. Polluted River

Fig 71. Industry Pastas el gallo

Fig 72. Connecting Plazas

Los Martires
The fall off Los Mártires

As Cerdeño tells us, between the 60s and 80s new neighborhoods were integrated into the city of Bogotá. Urban historical heritage concept emerges in this moment, to protect the historical neighborhood, with the name of "Assets of Cultural Interest". In the 1960s, the center experience a phenomenon of leasing and subletting of buildings. The tenancies began to settle and the trade without any kind of control resulted in a final deterioration for the area. The boom in the creation of supply services caused the extinction of Plaza de la Concepción, transformed into shopping center of San Victorino, later moved in1957 to the west of Plaza España.

The sector became a centrality of monopolised commerce as evidenced in the following quote: ¨ In the Plaza España area, seven plazas or markets were established for the sale of perishable products and about 200 stores for the sale of dry food and manufactured products, there were also hardware stores, drugstores, well-presented canteens, the marketing conditions in this square were chaotic, the facilities inadequate to house the market that congregated [...] streets were invaded by itinerant green food vendors, the platforms were occupied by retailers, the untidiness was impressive and the thieves walked like Pedro around his house¨ (Cardeño, 2006).

Los Mártires disarticulated from the center of Bogotá due to the urban transformation of Calle 19 (1974-1978) that separated the neighborhood into two sectors, with very different characteristics and dynamics. Calle 19 wich connected the west and the center caused only marginality (Pérez, 2013).

The typological conformation of this sector allowed a pattern of uses, such as rooms, shops and services, even associated with prostitution. As mentioned in the following quote, after these decadent transformations, the sector was granted to new populations ¨the neighborhood remained and its spaces were occupied and used by new inhabitants and workers, with very different needs and socio-cultural characteristics. The spatial conditions were given; only the arrival of a population that, according to its possibilities, of those who went to the Sabana Station to attract customers; of those who, needy, had no choice but to conjure up sordid pacts in the shadow of the Cemetery. The prostitution that began very early in the history of the neighborhood and that kept a low profile for a long time at the hands of high interests, progressively became the quasi-exhibitionist activity currently anchored in the public imaginary of the neighborhood¨ (Pérez 2013).


Bogotá
Los Martires

Los Martires Today

Fig 73. Los Martires development projects
Scale 1:500

Plan elaborated by authors based on
Plan Especial de Manejo y Protección del Centro Histórico de Bogotá Dicember, 2019

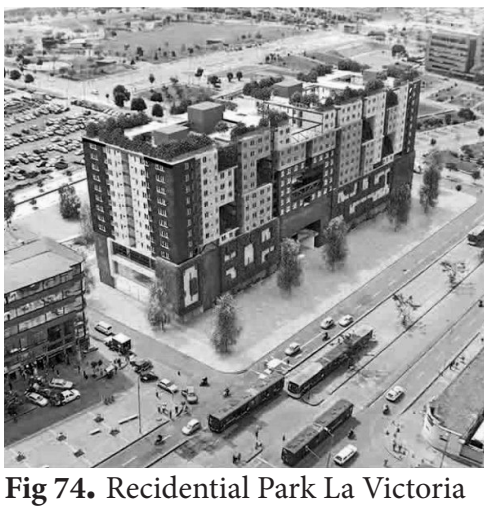


Fig 74. Recidential Park La Victoria

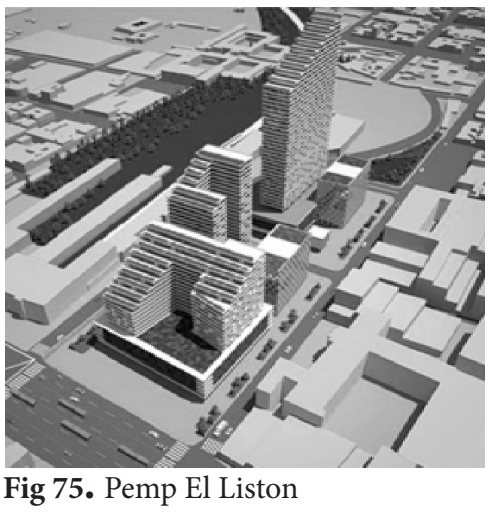


Fig 75. Pemp El Liston

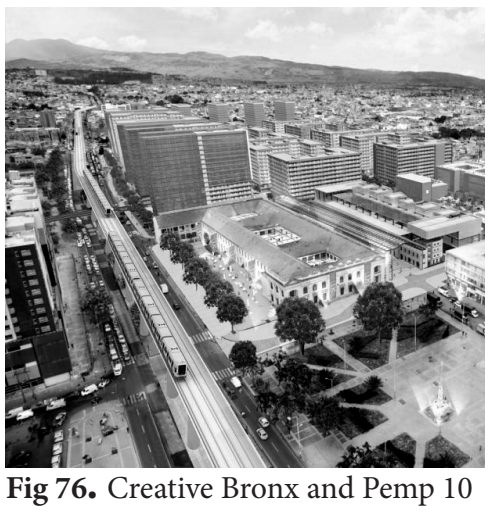


Fig 76. Creative Bronx and Pemp 10

Los Martires
Integral urban recovery

The neighborhood of Los Martires is an area that keeps developing each day. Today, the neighborhood keeps the original typology from the extensions that the historic center had of small streets between 5-9 meters, houses of 2-3 floors, and buildings of a maximum of 4 floors. The area keeps symbolic heritage pieces such as republican houses, old industries which some host government uses, administrative services, institutions, and some cultural such as the theater of San Jorge that keeps the historic memory of Bogotá alive. However, today plenty of this symbolic structures are abandoned and in a state of decay, creating complex situations of insecurity and illicit activities in this unused areas, also in the area dominates the floating population fragmenting the territory dynamics and aspects.

Following this, Bogotá made several studies and analyses for 20 years of the area proposing an urban change. Each of them has proposed a specific statements and objectives for changing the historic center of Bogotá. These plans have succeeded in some aspects like new constructions and new insertions that have transformed and impact the area with new dynamics and activities that attract people. However, the existing development plans in Los Martires pursue a drastic transformation of the neighborhood. They all respond to decontextualize development changing the neighborhood typology, urban trace, character, and height and replacing the actual social tissue. These projects replace massive buildings of metropolitan scale, the neighborhood's local dynamics like it happened in the urban plan of El Liston next to the Sabana Station with the proposal of office towers of more than 30 floor levels with a new block typology. It also happened in with the project of the residential Park Victoria, with a construction of a massive building creating a barrier with the the neighborhood.

Today the PEMP CHB is the ongoing urban development plan, in which the perspectuve is more sensible with the area proposing a block renovation as the urban approach and specific interventions in a neughborhood scale.

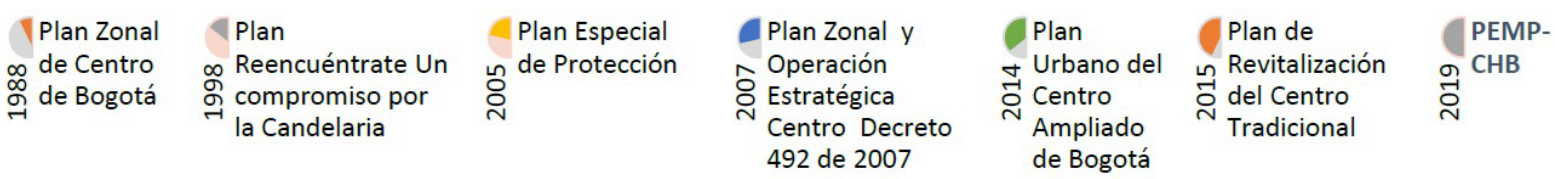
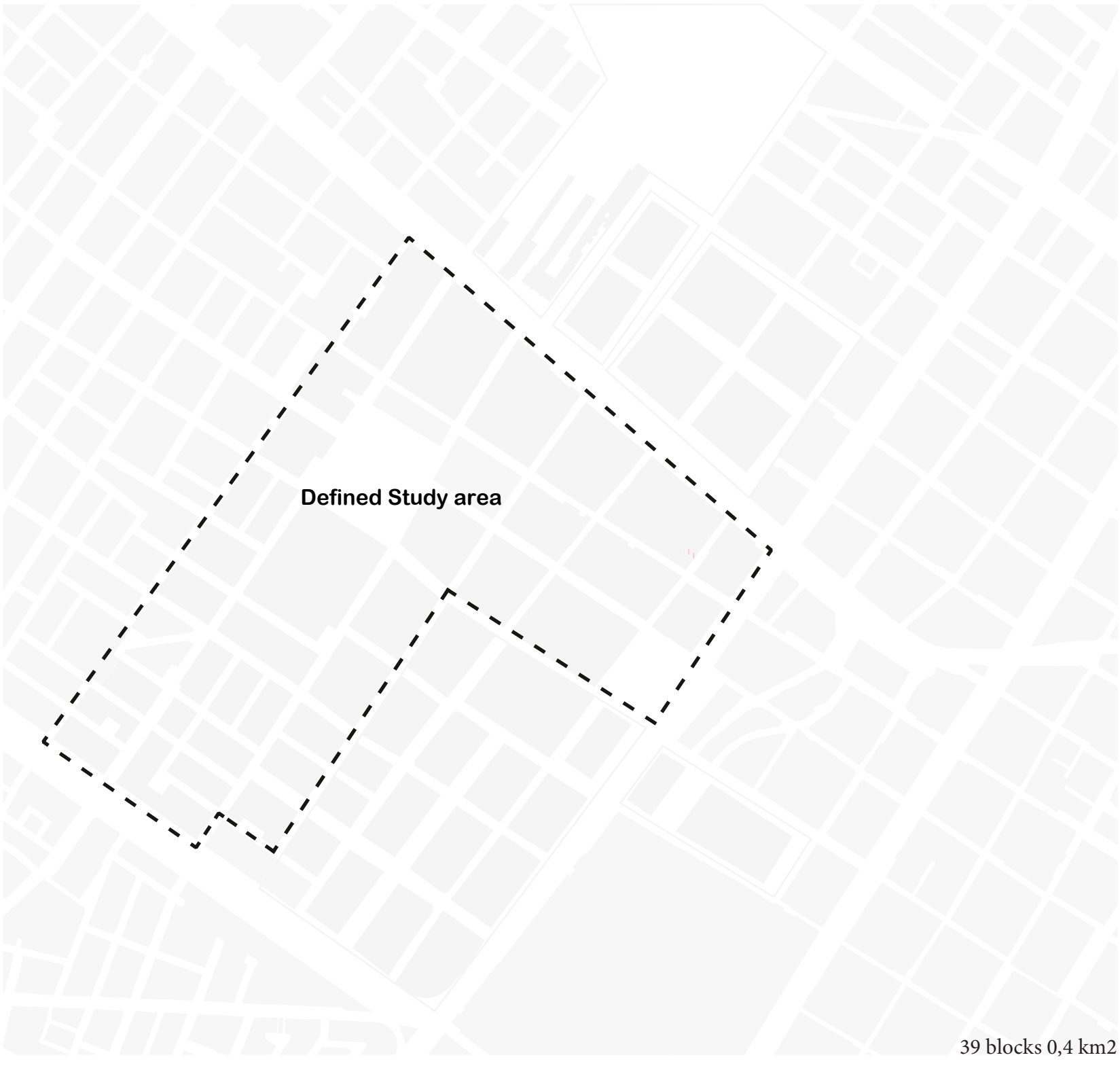


Fig 77. Bogotá Historic Center development Plans taken from the PEMP document

Analysis of the case study: Los Martires, Bogotá

Area Analysis
Introduction

The study area was defined as an articulator of the existing development plans in Los Martires. The existing development plans in Los Martires **pursue a drastic transformation of the neighborhood.** They all respond to **decontextualize development changing the neighborhood, urban trace, character, and height.** These projects **replace massive buildings of metropolitan scale, the neighborhood's local dynamics.** The analysis and proposal in this thesis will persue a more sencible and local understanding of the area than the existing plans (PEMPS) on their theoretical approach while functionally connecting to them, as unfortunately they are already part of the future city. The analisys is structured threw the previus understanding of Nordhavn.



39 blocks 0,4 km2

Study Area Movility Plan
Scale 1:500

Plan elaborated by authors based on IDECA

Fig 79. Avenue Caracas
This street crosses the city till the northern part of Bogotá connecting with the NQS avenue to the south

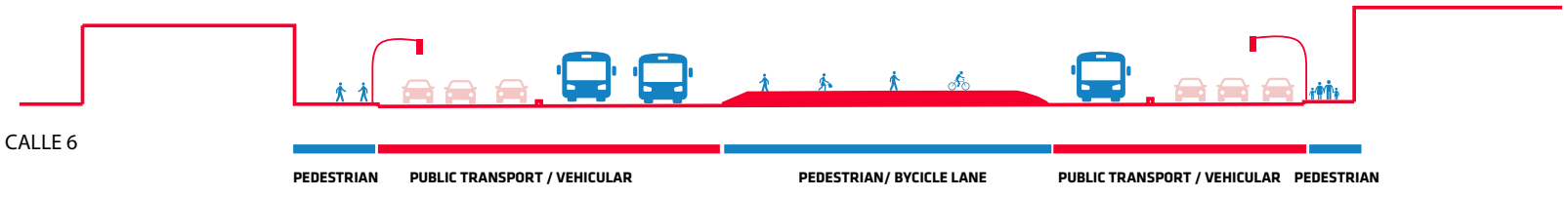
Fig 80. Street 13
This street crosses from the west to the east arriving to the avenue 7 in the center

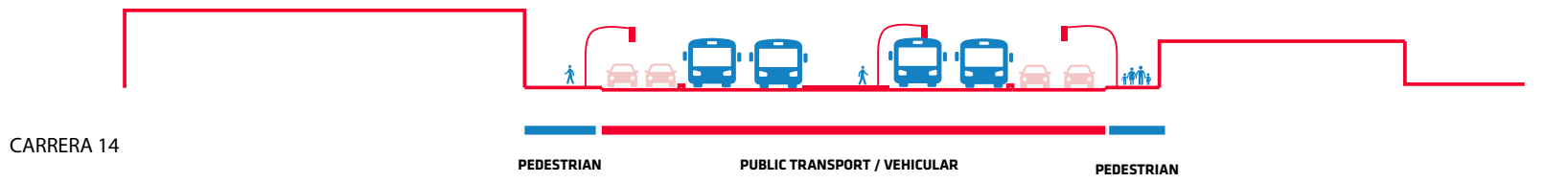
Fig 81. Street 6
This street crosses from the west to the east arriving to the avenue 7 in the center

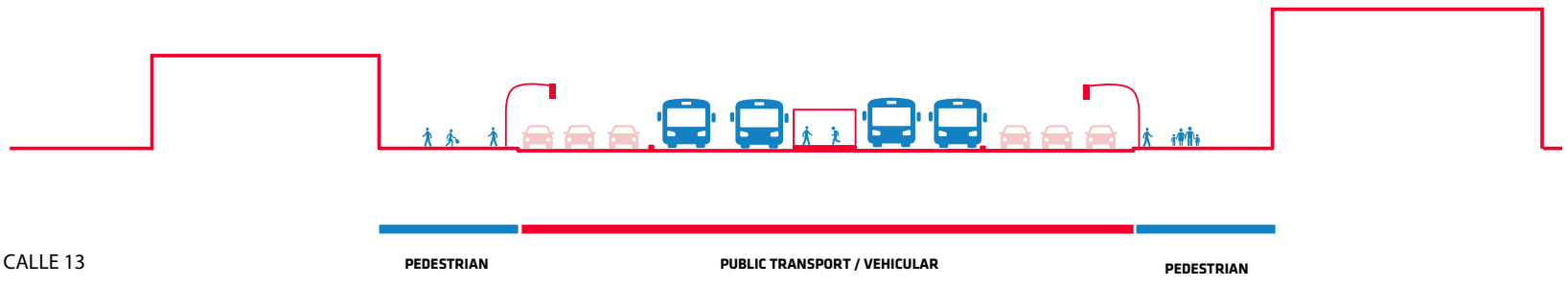
Area Analysis
1. Accesible

The study area is in a privileged location, due to its connections to the rest of the city. There are five transmilenio stops around the study area and one future metro stop on Caracas avenue. The study area could be considered a 5-minute city as the maximum walking time from any part of it to a transmilenio stop is five minutes. However, the proximity to metropolitan infrastructure is also problematic. In Los Martires, the high-impact infrastructure of a metropolitan scale is in direct contact with the neighborhood houses. Six car lines, four Transmilenio lines, and no transition area between the street and the sidewalks generate a poor urban space with high pollution. This extremely wide, high-impact infrastructure on the same level as the sidewalks, also fractures the territory creating isolated islands. The interior of the study area prioritizes automobile infrastructure and disregards green mobility such as bike paths and pedestrian streets, this is evident as there are no bike paths or pedestrian streets inside the area. Its also evident that the area is not designed for pedestrians, the current sidewalks are irregular and invaded by cars and informal commerce.

Section of the surrounding Streets:



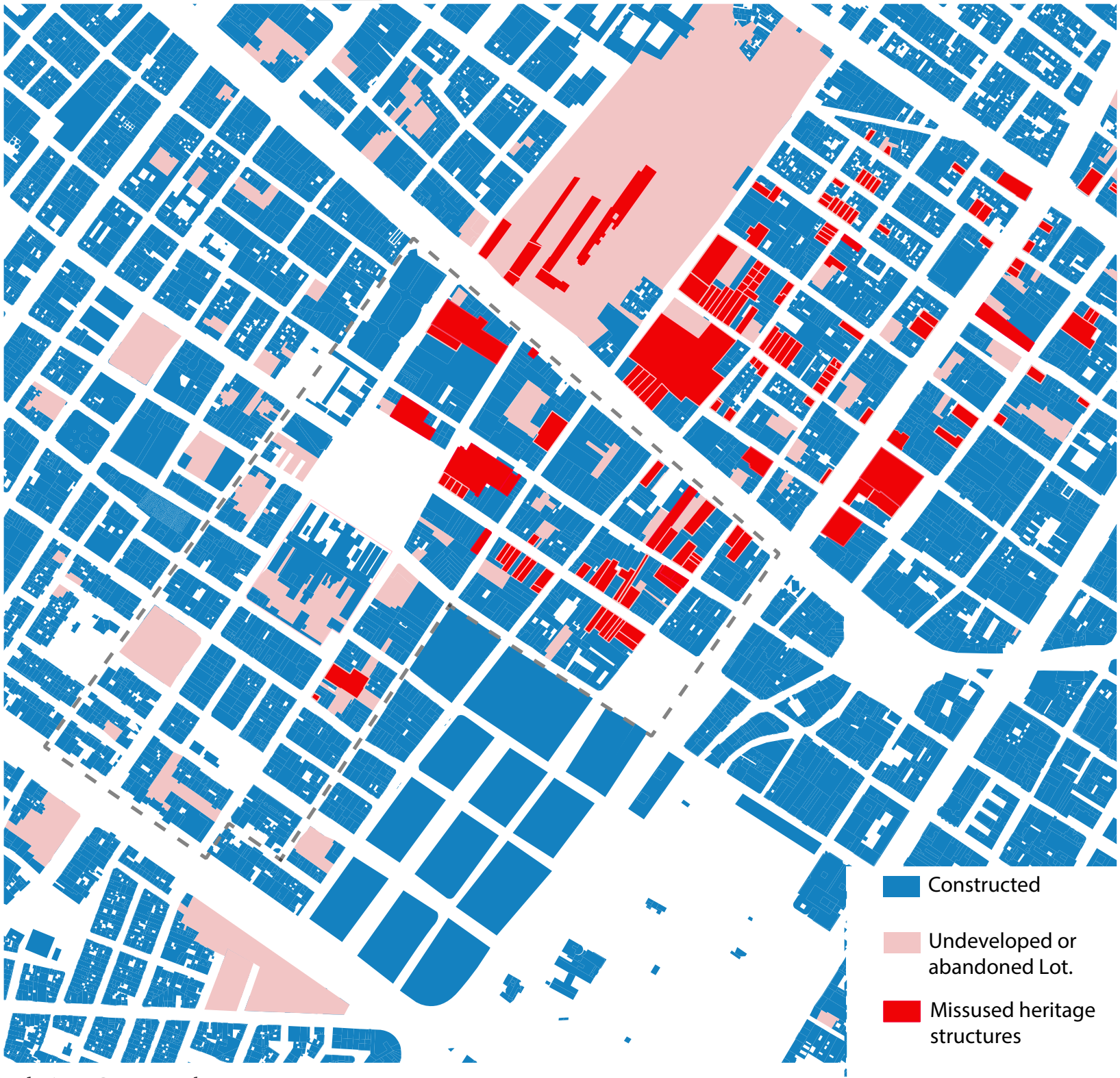




Diagrams elaborated by authors

4% of all lots
are **abandoned**

2% of all lots are **ground floor parking lots**



Study Area Compact Plan
Scale 1:500

Plan elaborated by authors based on IDECA

Fig 82. Industry Pastas El gallo

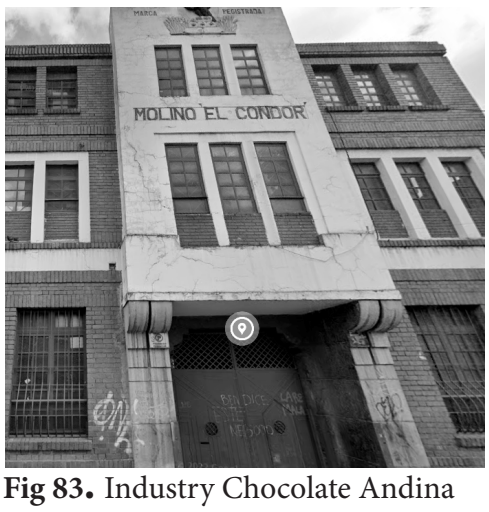
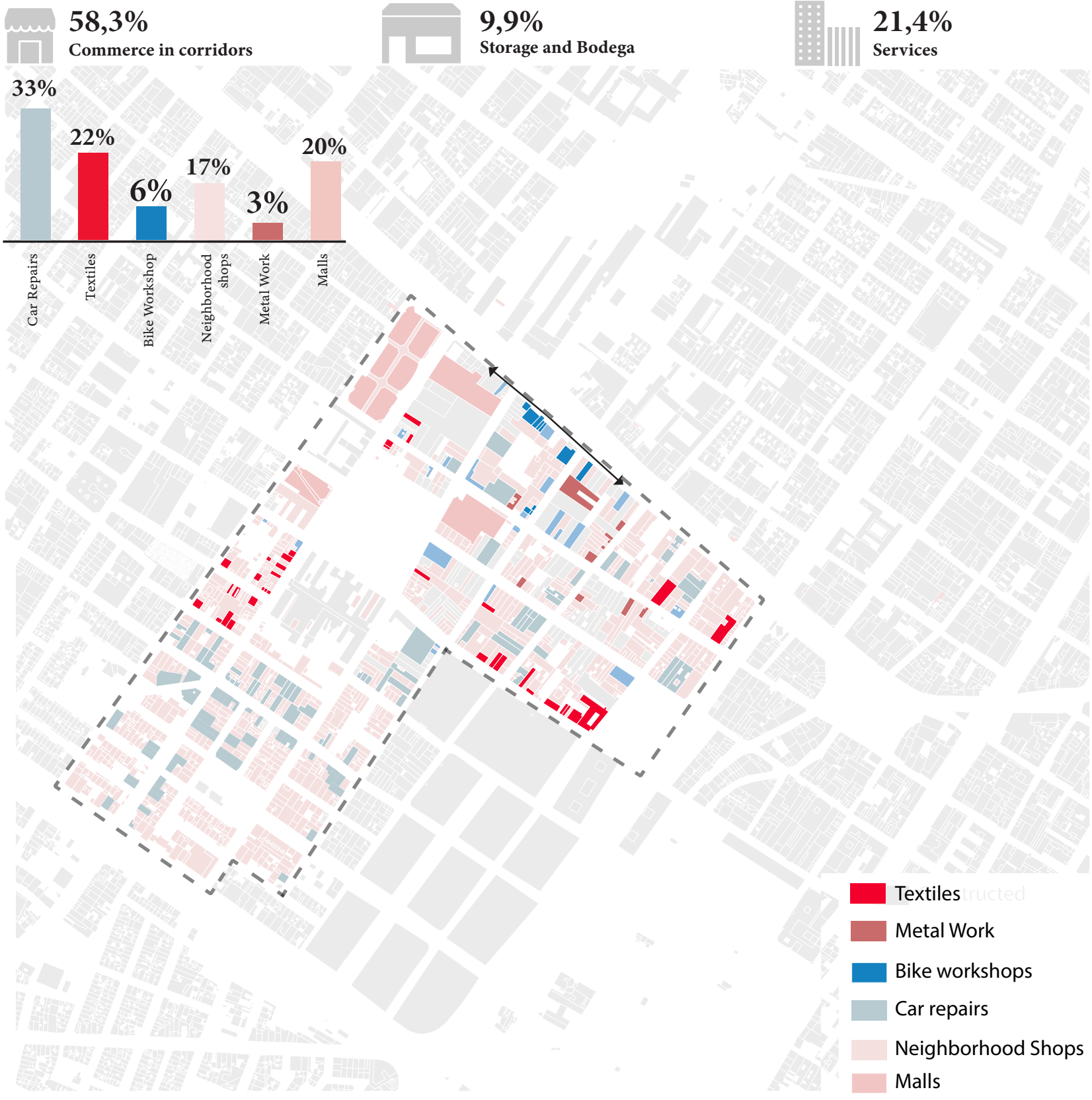


Fig 83. Industry Chocolate Andina

Fig 84. Parking lots ground floor

Area Analysis
2. Compact

Los Martires' blocks were compact and continuous historically. After the fall of Los Martires, some falling and abandoned edifications were transformed into ground-floor parking lots for economic advantage vs very low investment. The apparition of ground-floor parking lots has caused a variety of problems. These parking lots create a lack of activity between the public space and the block. The parking lots present around the interior of the study also incentives the use of cars inside the area, making people less inclined to walk, creating an inactive public space. Additionally, there is an abandonment of the heritage buildings in the sector while some new high buildings are created on the periphery of the area. This generates an attraction on the edges of the area while creating urban voids on its interior. The study area is not compact as the ground floors, public areas and historical buildings are today urban voids.



Study Area Functuonallity
Scale 1:500

Plan elaborated by authors based on IDECA

Fig 85. Textiles

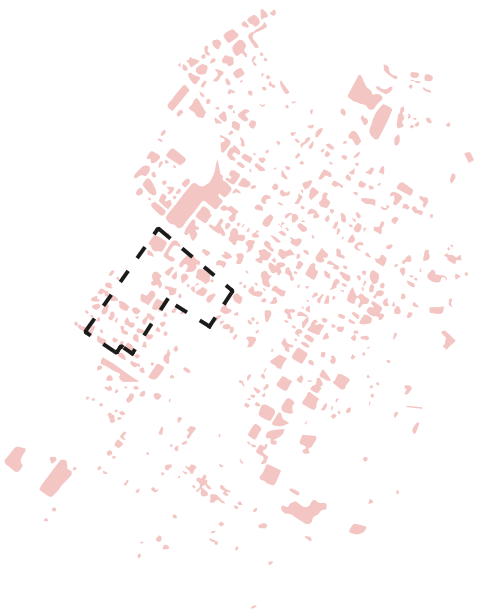
Fig 86. Car Repair

Fig 87. Bike Workshop

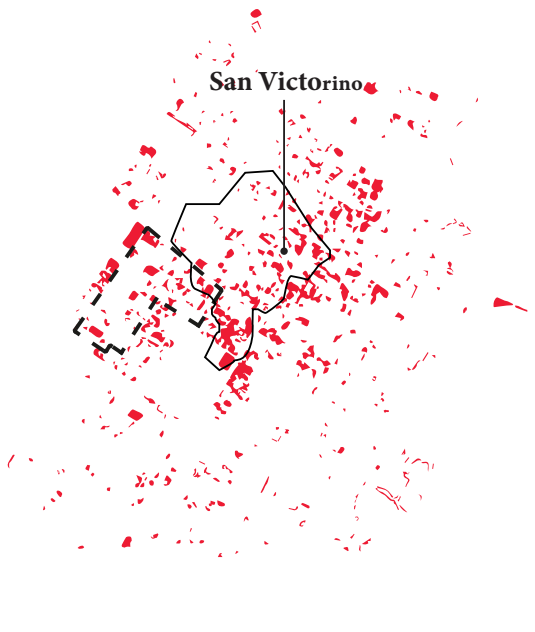
Area Analysis
3. Functionally Complex

The area's context has a strong zoning of activities. In La Candelaria, there is a cluster of dotational services, in San Victorino of commerce, in Las Cruce's residence. These clusters harm the study area as they have a very strong attraction to them, leaving the study area with a poor attraction for people. On the other side, the study area has a rich diversity of specialized commercial activities and small workshops distributed on urban corridors. These commercial corridors are of high value in the sector except for car repair. This specific function is concentrated in the southeast of the area and generates a high urban impact on the neighborhood for the high presence of cars, oils, and pollution. One of the most troubling phenomena in the sector is the high presence of shopping malls. Shopping malls cluster activity and users in an enclosed space, isolated from urban life in its context. The area has the potential to become a unique functionally complex territory however clusters in its context and in its interior harm this dynamics.

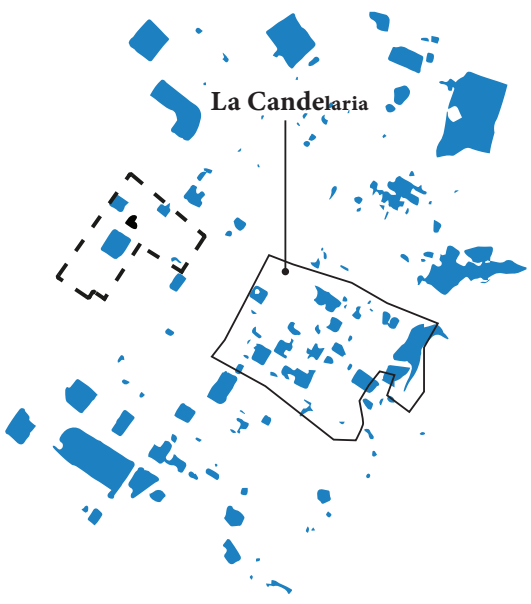
Residences



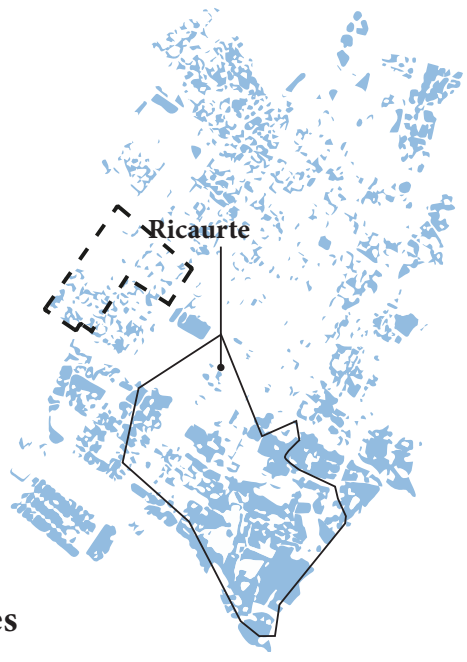
Commerce



Dotacional



Services



4,36m2/hab
Green Space per Habitant

17% Plazas and Parks

83% Roads

Study Area Biodiversity
Scale 1:500

Plan elaborated by authors based on IDECA

Urapán
Fraxinus chinensis
Height: 7,50 m

Pino Colombiano
Retrophylum rospigli-
osi
Height: 3,10 m

Pino Ciprés
Cupressus sempervivens
Height: 3 m

Sauco
Sambuscus
Height: 6 m

Eucalipto de flor
Corymbia ficifolia
Height: 5 m

Caucho Benjamin
Ficus benjamina
Height: 2,50 m

Nogal
Juglans regia
Height: 5,20 m

Acacia morada
Acacia baileyana
Height: 3,55 m

Chicalá, flor ama-
rilla
Tecoma stans
Height: 6,30 m

Information taken from *Plan Especial de Manejo y Protección del Centro Histórico de Bogotá Dicember, 2019*

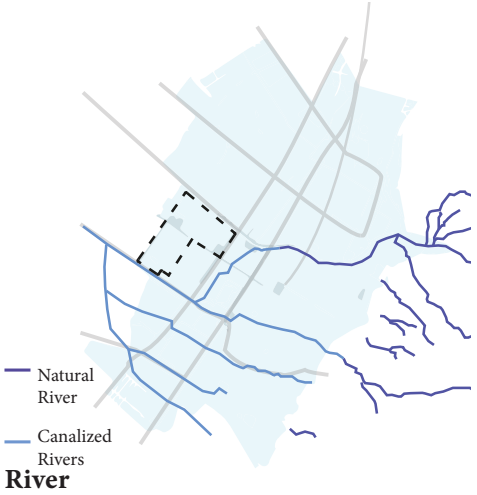
Area Analysis
4. Biodiverse

There is a degrade of the green structure from a dense green in the orient to an almost vanished green granulate in the west (Los Martires). The blue structure is fractured by roads and streets burying the rivers and destroying the biodiversity of these important ecological corridors. Also, there is a pollution corridor surrounding the study area. Inside the sector, there are three neighborhood parks isolated from each other and no other green elements. The lack of articulation and existence of green elements in the area with the context of green structure make a poor biodiverse, system affecting also the urban quality of the sector.

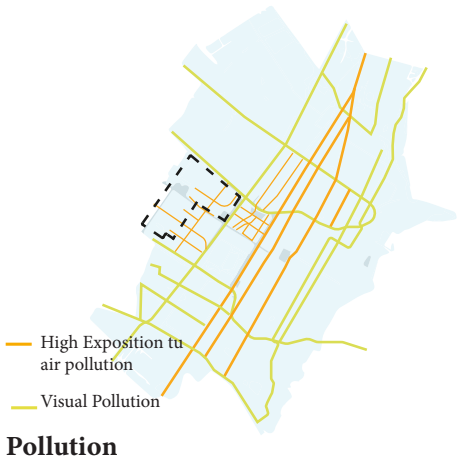
Fig 88. Tercer Milenio Park
The site is divided into islets that create distinct identities and neighborhoods and facilitate robust and flexible planning tools.

Fig 89. Los Martires Square
The green Metro and bicycle loop connects the islets and makes for an integrated city. Every corner of the island is envisioned to have less than a five-minute walk to public transportation.

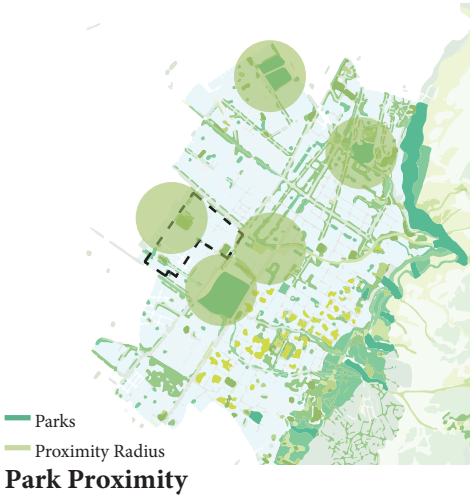
Fig 90. Calle 6
Strips of green spaces run from east to west. Moving through these sections is experienced as a diverse and varied journey.



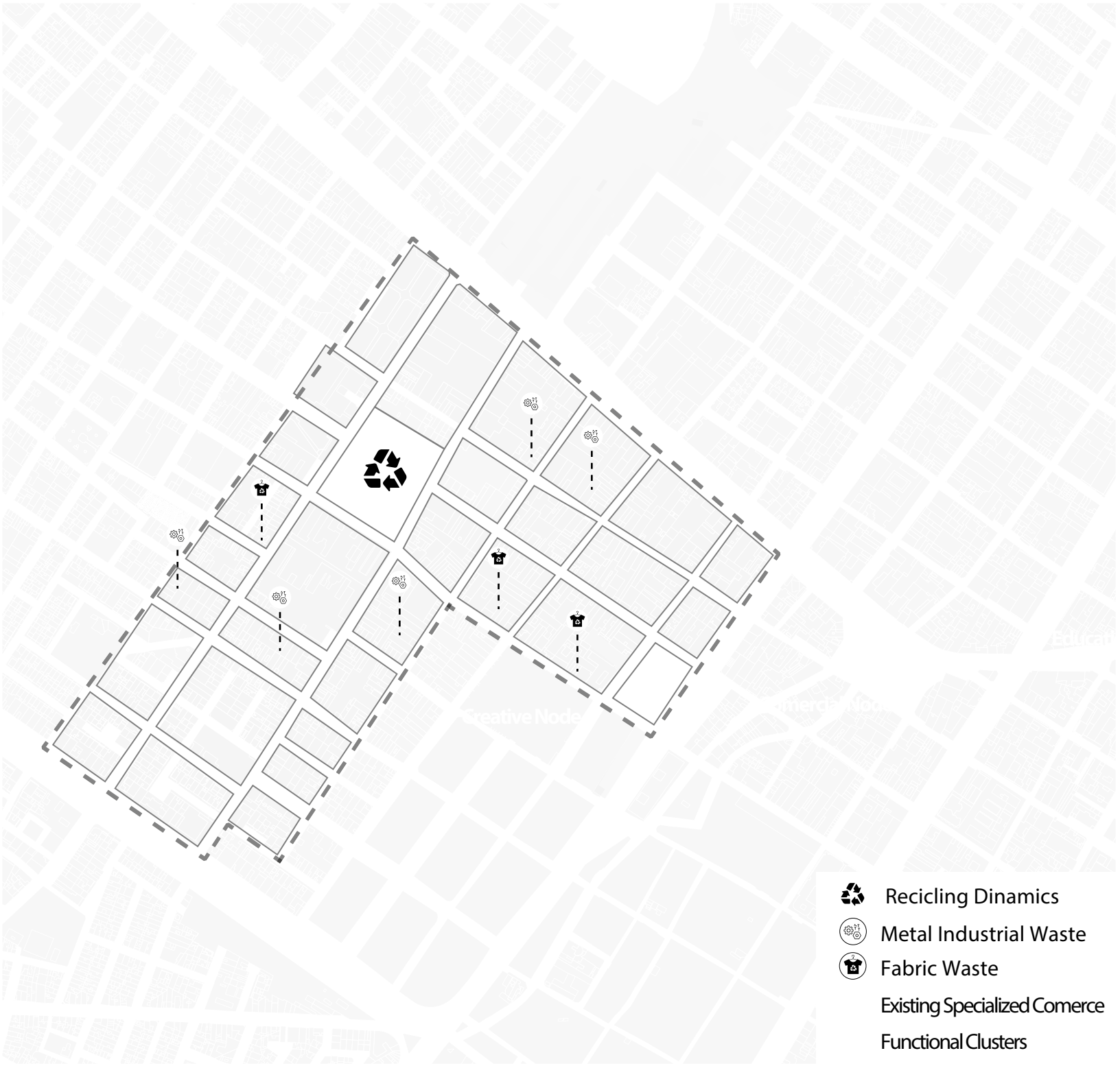
River
The industrial grid and existing buildings are integrated points of departure for the new development.



Pollution
Along with the green strips, new canals will be dug to enhance access and proximity to t



Park Proximity
The intelligent grid makes room for multiple mixed functions within a given area.



Study Area Resourcefull Plan
Scale 1:500

Plan elaborated by authors based on
Cultural practices of Los Martires, Bogotá

Fig 91. Recycling

Fig 92. Recycling

Fig 93. Ropaviejeros

Area Analysis
5. Resourcefull

In Los Martires there is historical dinamic of circular economys intrinsic to traditions and culture of the sector. The “ropa viejeros” are historically one of the most important groups in Los Martires with more than 70 years of existance. The ropa viejeros recollect used clothes on good quality to sell or create new pices. The ropaviejeros main concentration node is in Plaza Espana, where they sell the used clothes on the floor or improvised tables. They also sell textile pices to the stores on comercial corridors contributing to a green economy. Reciclers of metal, glass, and plastic are also very present in the area and its context as there is a high amount of waste on different areas of the sector, as indicated on the image below. (Participantes programa Patrimonios Locales-IDPC, 2019)

Waste In los Martires:

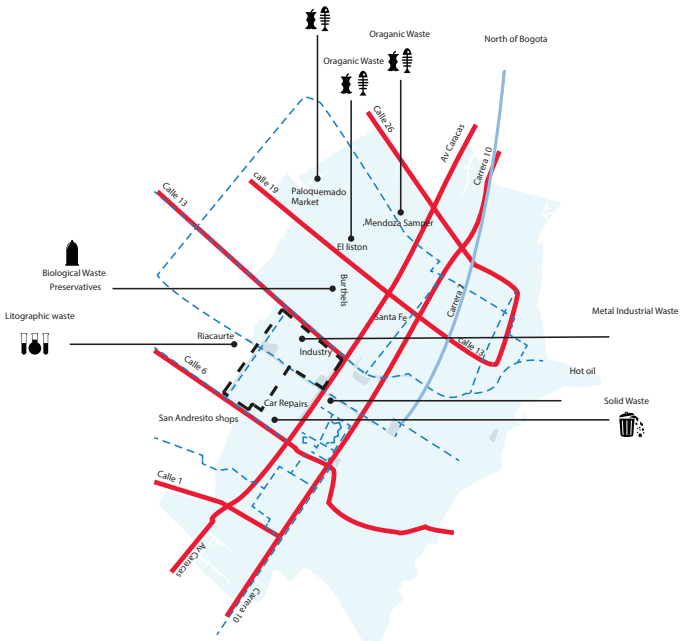
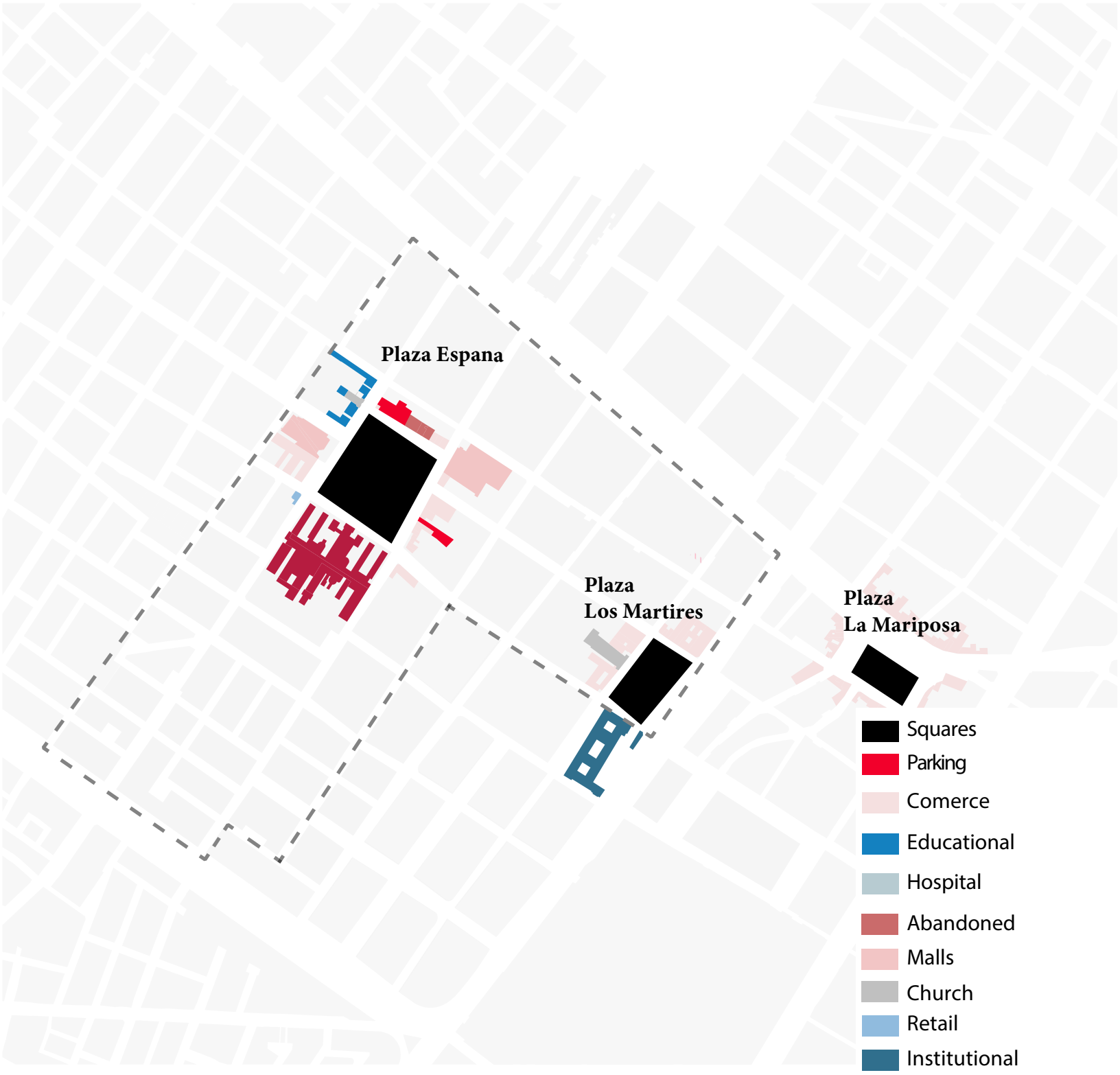


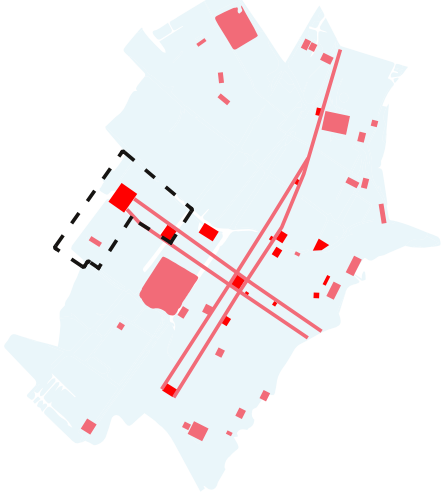
Diagram elaborated by authors based on IDECA

Diagram elaborated by authors based on IDECA



Study Area Shared Plan
Scale 1:500

Plan elaborated by authors



Los Martires shared spaces

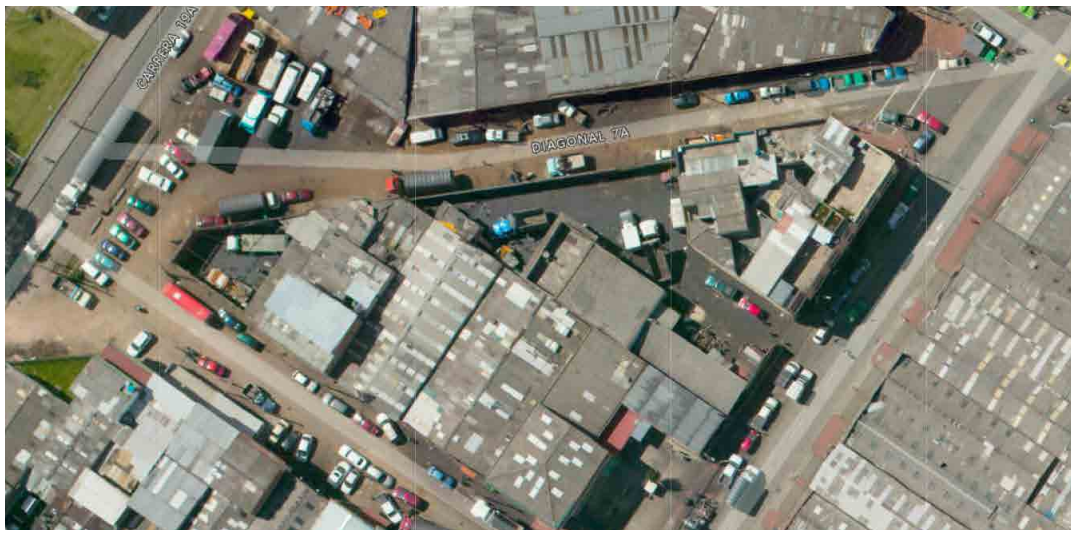


Fig 94. Side walks and public spaces invaded by cars in the study area, Diagonal 7

Area Analysis
6. Shared

The study area contains two historical squares Plaza Espana and Plaza Los Martires. Both squares have a metropolitan dynamic character. They are the most transited spaces in the neighborhood on the day. In Plaza Espana merchants have taken over the public space, selling on floors and improvised tables using clothes and trinkets. Both squares are surrounded by historical buildings and commercial shops. that activate the public space. The scale's historical importance and strong commercial dynamics on these squares make them work on a metropolitan scale rather than in a local neighborhood one. The lack of activity at night in these public spaces, only active during commercial hours, makes these squares the nucleus of insecurity and fear. In the neighborhood, there is a lack of local public leisure spaces. Sidewalks are invaded by cars, there is no pedestrian street, and there is no communal square in the area.

Fig 95. Plaza La Mariposa

Fig 96. Photo of Plaza los Martires

Fig 97. Photo of Plaza Espana

Fig 98. Photo aerial Plaza La Maripo-sa

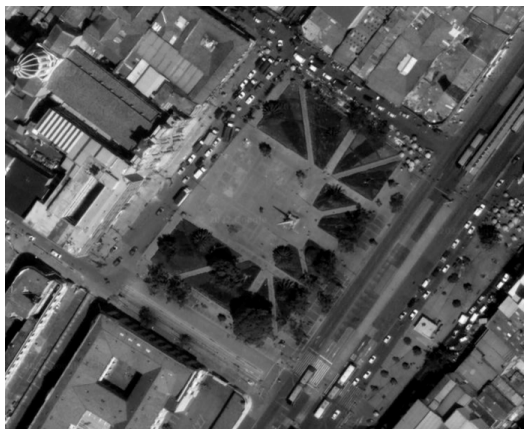
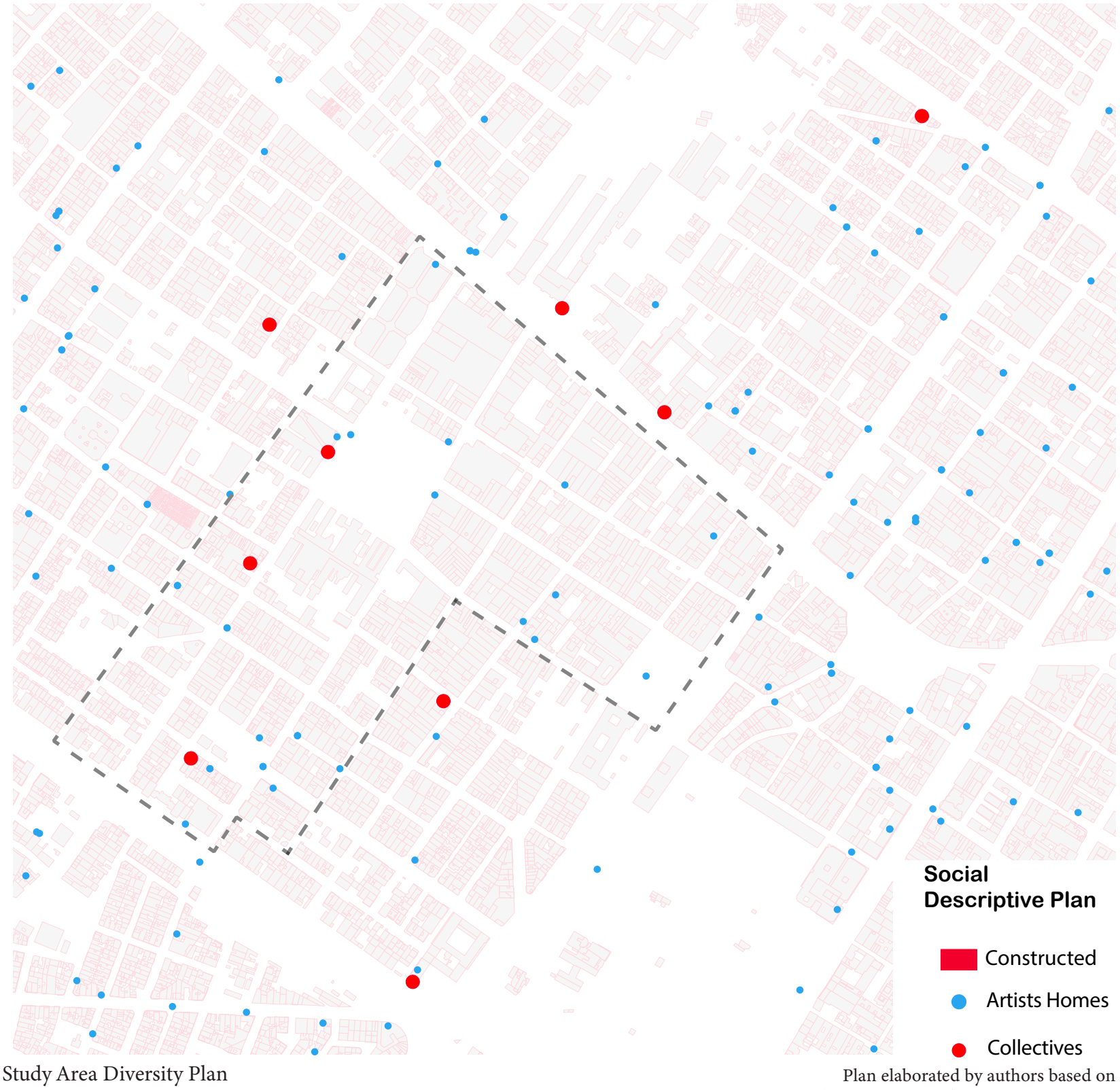


Fig 99. Photo aerial of Plaza los Mar-tires

Fig 100. Photo aerial of Plaza Espana

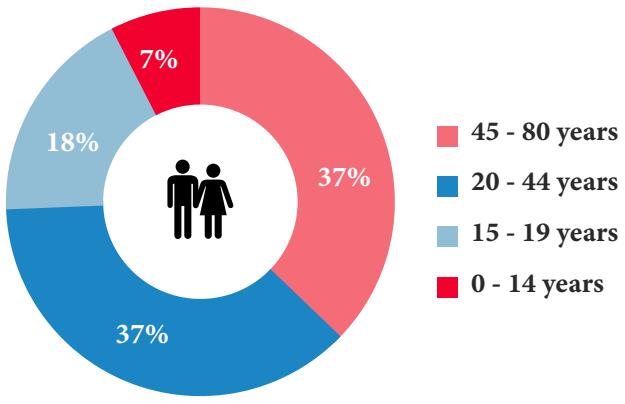


Study Area Diversity Plan
Scale 1:500

Plan elaborated by authors based on
Cultural practices of Los Martires, Bogotá

46.000

Habitants



Area Analysis
7. Diverse

Los Martires has multiple minority populations such as Indigenous, immigrants, and black people which enriches the cultural diversity and the exchange of knowledge. There is a diversity of specialized artisans in the sector working with metals, textiles, bikes, and car repairs. Unfortunately, there is an under population of children which endangers the future development of the neighborhood and a mix of different cultures. The mixture of different cultures in Los Martires makes the neighborhood a potentially innovative and artistic hub. Following data taken from the database of IDECA: Infraestructura de Datos Espaciales para el Distrito Capital.

458
Number of Artists

16
Dancers

63
Musicians

44
Plastic Artists

27
Actors

8
Formal Collectives

1
Dancers

2
Musicians

2
Plastic Artists

2
Theaters

12
Informal Collectives

4
Theaters

1.639
Indeginous

14.000
Inmigrants

693
Black People

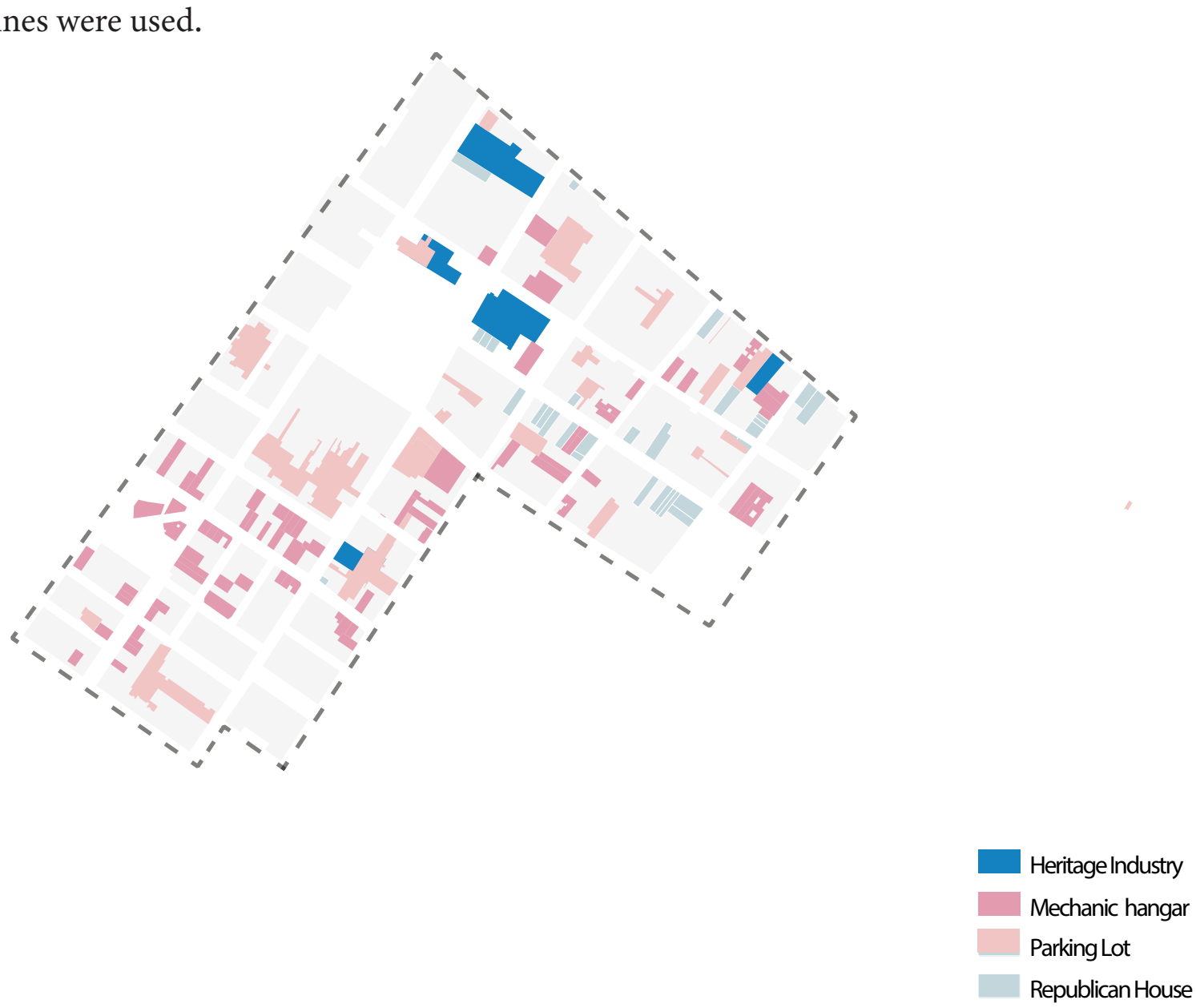
Diagram elaborated by authors based on IDECA

Urban Codes

Fig 101.

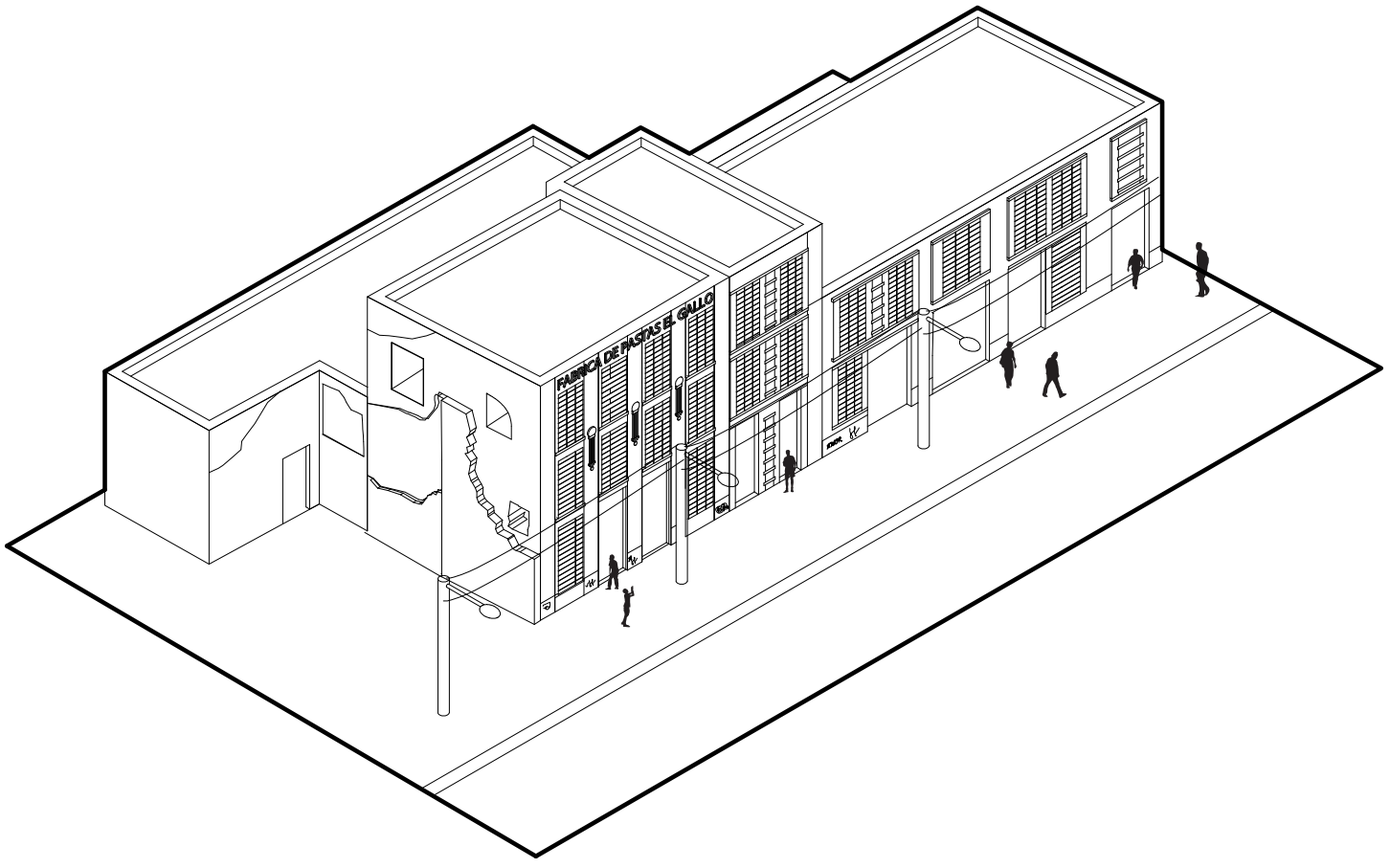
Area Analysis
Urban Codes

The territory counts with specific architectural pieces that characterize it. These architectures illustrate the history and dynamics of the place. The most important architectures found are categorized into four groups 1. Historic Industries 2. Heritage republican houses 3. Ground Floor Parking Lots and last 4. Car Repair hangars. As it's been mentioned before, the historical industries are key pieces of identity for the area. The existing heritage houses from the colonial ages, currently invaded by informal commerce or abandoned talk about a residential working-class past. The ground-floor parking lots found all around the area break the block's continuity and deteriorate its urban conditions. Finally, car repair hangars are the typology that today occupies the area the most and have made the area a car sector without giving any urban or architectural value. These four categories compose the area today and will be studied as codes for a better understanding of the sector. For this, we will illustrate and describe the origin of two typical architectural pieces of the sector per code that can exemplify its dynamics. For the historical analysis of the origin and evolution of the building, the PEMP CH magazines were used.



Industrial Heritage

Block area: 2171.2 m2
Construction area of block: 1450.9 m2
Free area: 720.3 m2



This building was built in the middle of the 20th century and belonged to the Transition period. It has historical importance in the industrial development of the neighborhood, which classifies it as heritage. Destined for industrial use as the Pasta Factory el Gallo, it is currently abandoned. The industry structure is columns of large spam which makes it very flexible. The industry has evidence of a heavy state of decay on its interior and facades.

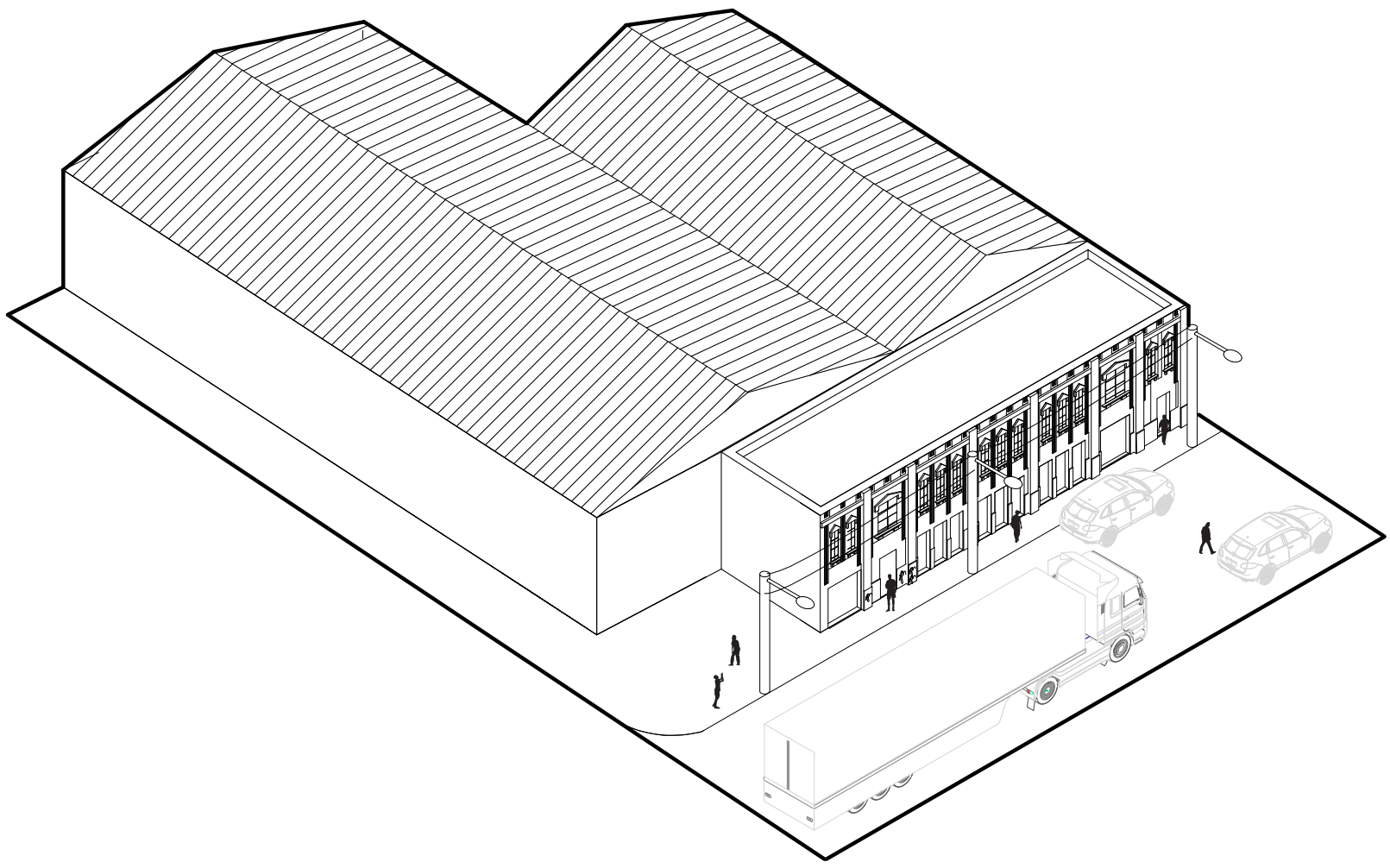
Fig 102. Facade of Pastas el Gallo of the first volume

Fig 103. Interior of Pastas el Gallo of the first

Fig 104. Interior of Pastas el Gallo of the first

Industrial Heritage

Block area: 4624.9m2
Construction area of block: 4624.7m2
Free area: 0.2m2



The old chocolate industry was built towards the end of the 19th century,it has decorative elements on the façade that associate it with the Republican period making it heritage od the area. Despite its interventions, it retains most of the extensive decoration on its façade and its original composition. This is the only part of the property that has been well preserved, the rest of the building has been heavily modified. This can be evidenced in the roof interventions as well as the interior images of the building. It occupies half of the block, with a front of 44m.

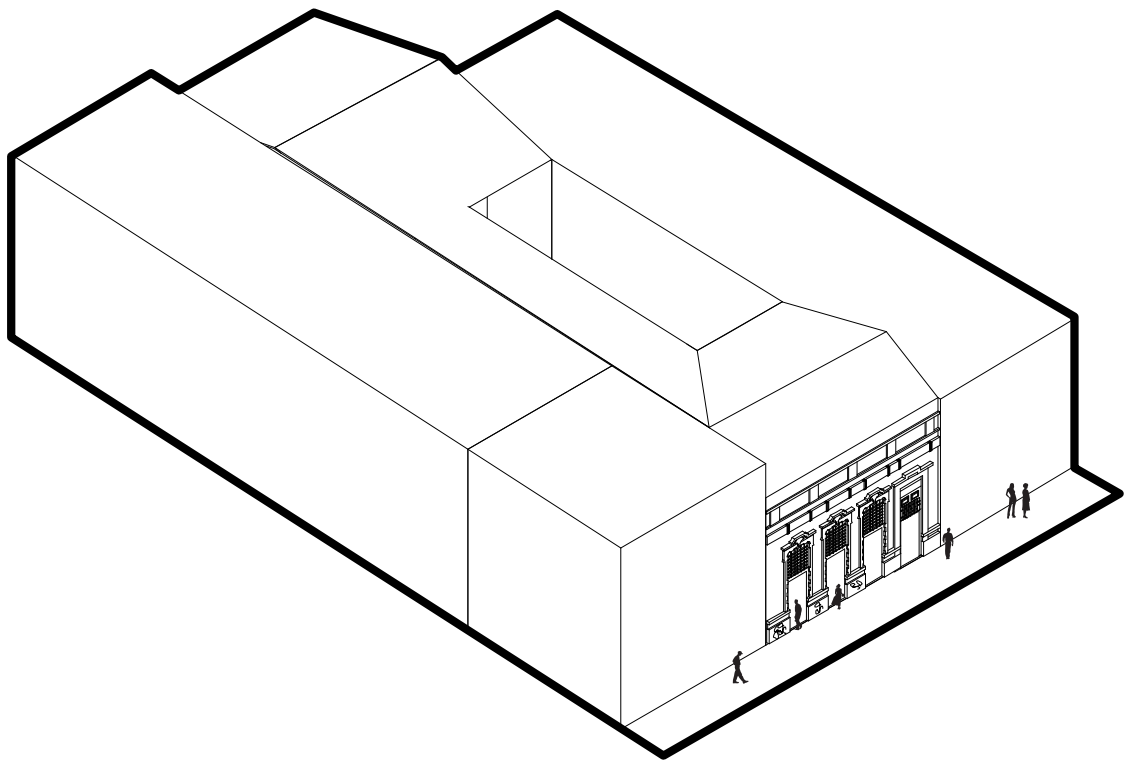
Fig 105. Facade of Reoublican industry

Fig 106. Details from the entrance

Fig 107. Interior passage

Heritage Republican House

Block area: 385,3 m2
Construction area of block: 385,3 m2
Free area: 0,0 m2



Built towards the end of the 19th century, with decorative elements on the façade that associate it with the Republican period. It counts only with one level and a lateral central courtyard, conforming in plan a volume with two cloisters. The interior images evidence modifications that weaken the spatial quality of the building.

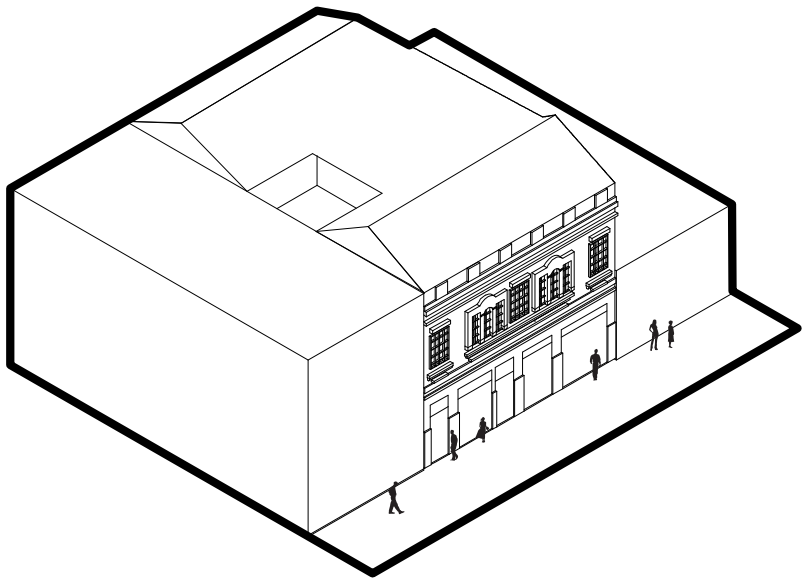
Fig 108. Facade of the republican house showing the actual commerce

Fig 109. Interior of the house

Fig 110. Interior corridor of the house

Heritage Republican House

Block area: 194,4m2
Construction area of block: 194,4m2
Area of urban code: 0.0m2



Built towards the end of the 19th century, with decorative elements on the façade that associate it with the Republican period. It counts only with one level and a lateral central courtayard. Its façade gives continuity to the street facing, with a continuous plane of two bodies divided by a cornice.

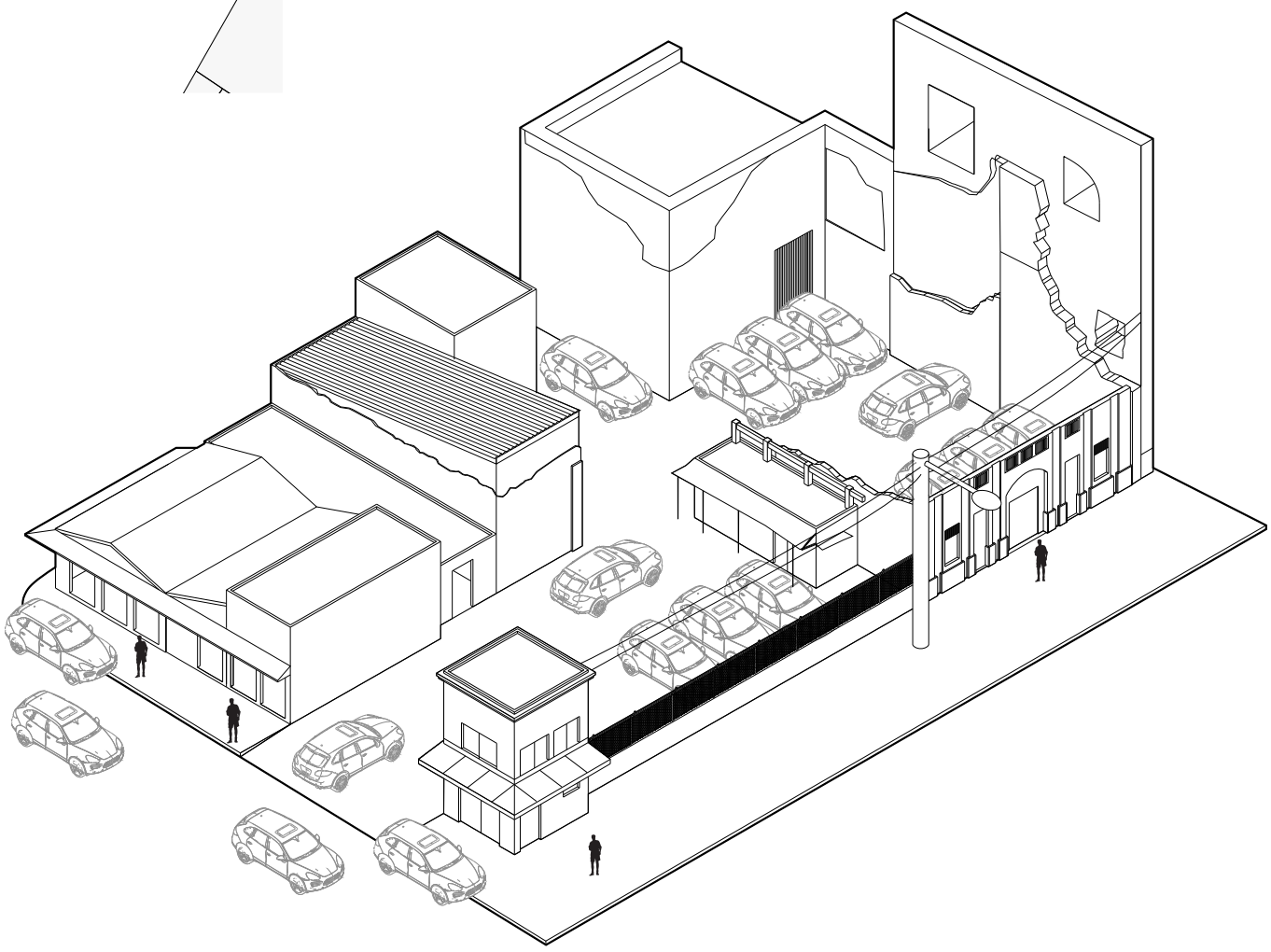
Fig 111. Facade of Reoublican house

Fig 112. Details from the inside

Fig 113. Interior stair

Parking Lot ground floor

Block area: 1180m2
Contruction area of block: 60m2
Free area : 1120m2



The parking lot located in front of Plaza Espana and next to Pastas El Gallo shows the typical dynamics of the parking lots in the sector and their origin and history. In this specific case, it is evident the remaining ruins of a republican house where only its facade remains. This can illustrate the evolution of the block from a consolidated continuous element into a broken falling ruin. A series of small vernacular interventions complement the vacant lot that serves commercial purposes. There is a lack of human activity and an invasion of cars in the public space.

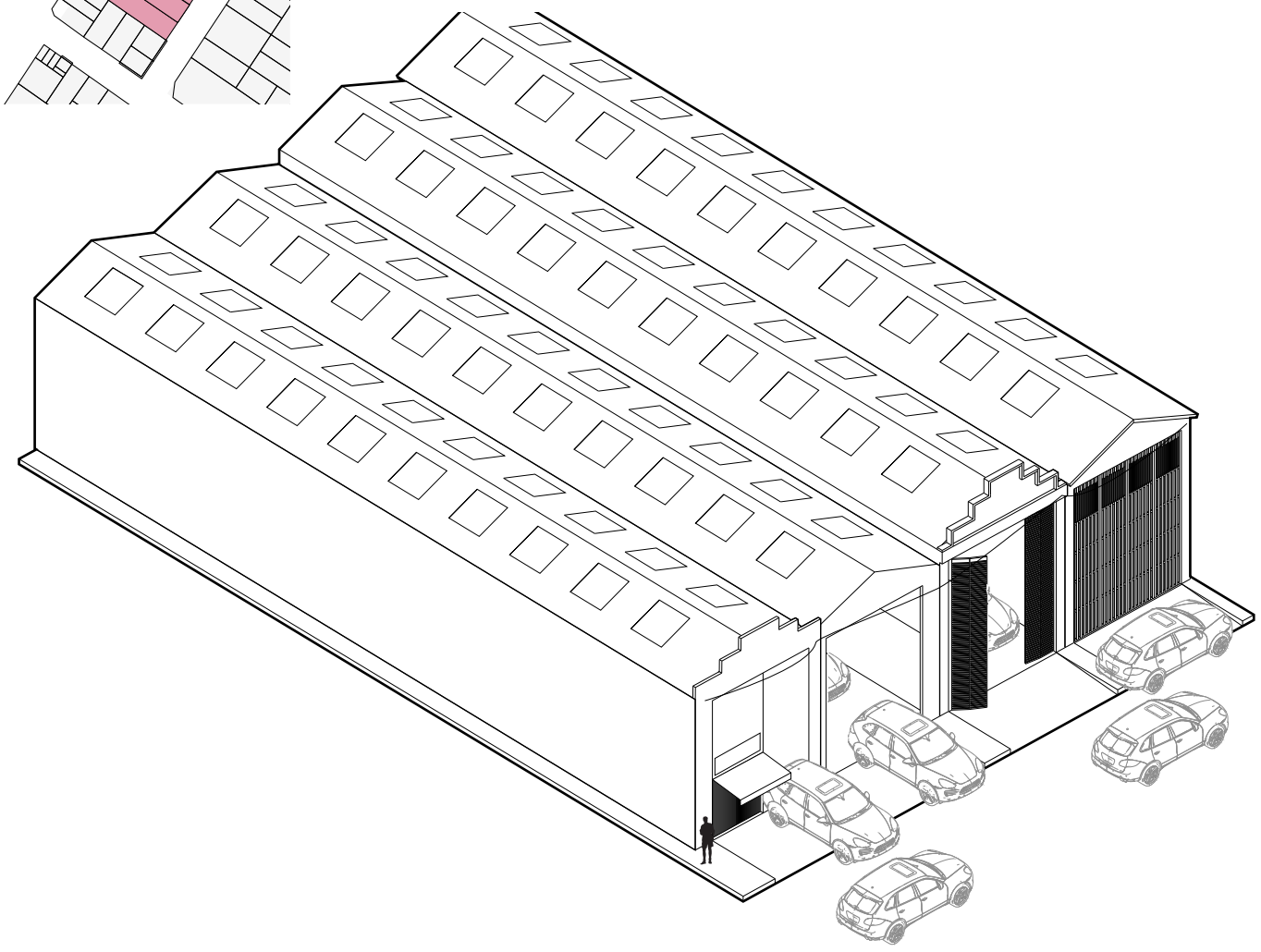
Fig 114. Top view parkin lot Plaza Espana

Fig 115. Interior parking lot Plaza Espana

Fig 116. Republican house ruin parking lot

Mechanic Hangar

Block area: 1520m2
Contruction area of block: 1520m2
Free area : 0 m2



The mechanic hangars located in Carrera 19 have become the most common typology of this street. This structure consists mainly of double-height shallow buildings with no spatial or urban qualities. These typologies respond to automobile repairs and attract to the sector very negative dynamics. Over saturation of cars, oil and auditive pollution and crime are all common around these areas.

Fig 117. Top view hangars carrera 19

Fig 118. Hangars front

Fig 119. Carrera 19 trafic

Diagnostic

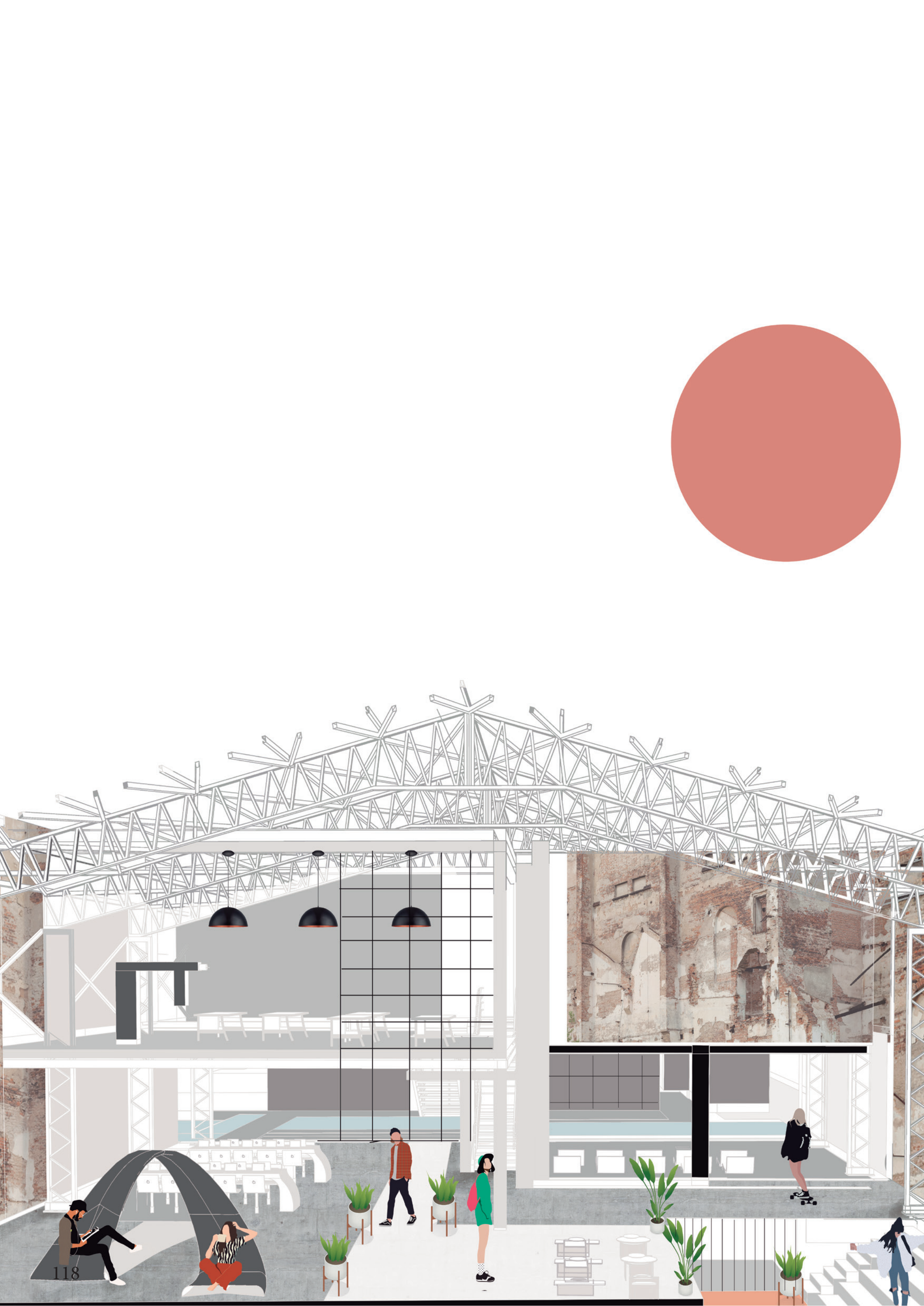
Scale 1:500

The study area suffers from a scale transition problem, reflected in all of its dynamics.

Fracturing Infrastructure
Burried rivers
Transmilenio stops
Specialized Comerce Corridors
Urban Voids
Urban Atractors
Development Projects
Historical squares

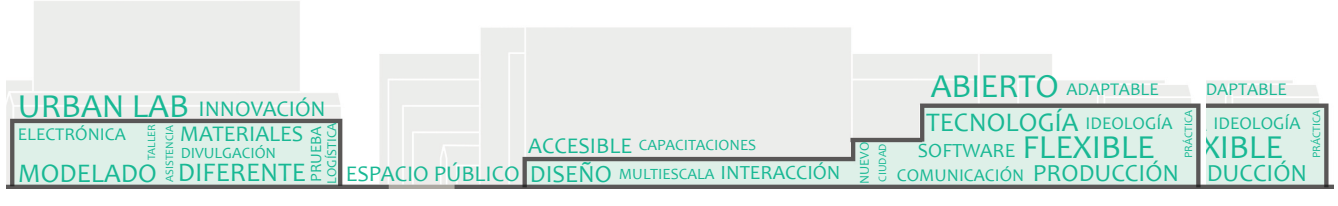
Area Analysis
Diagnose

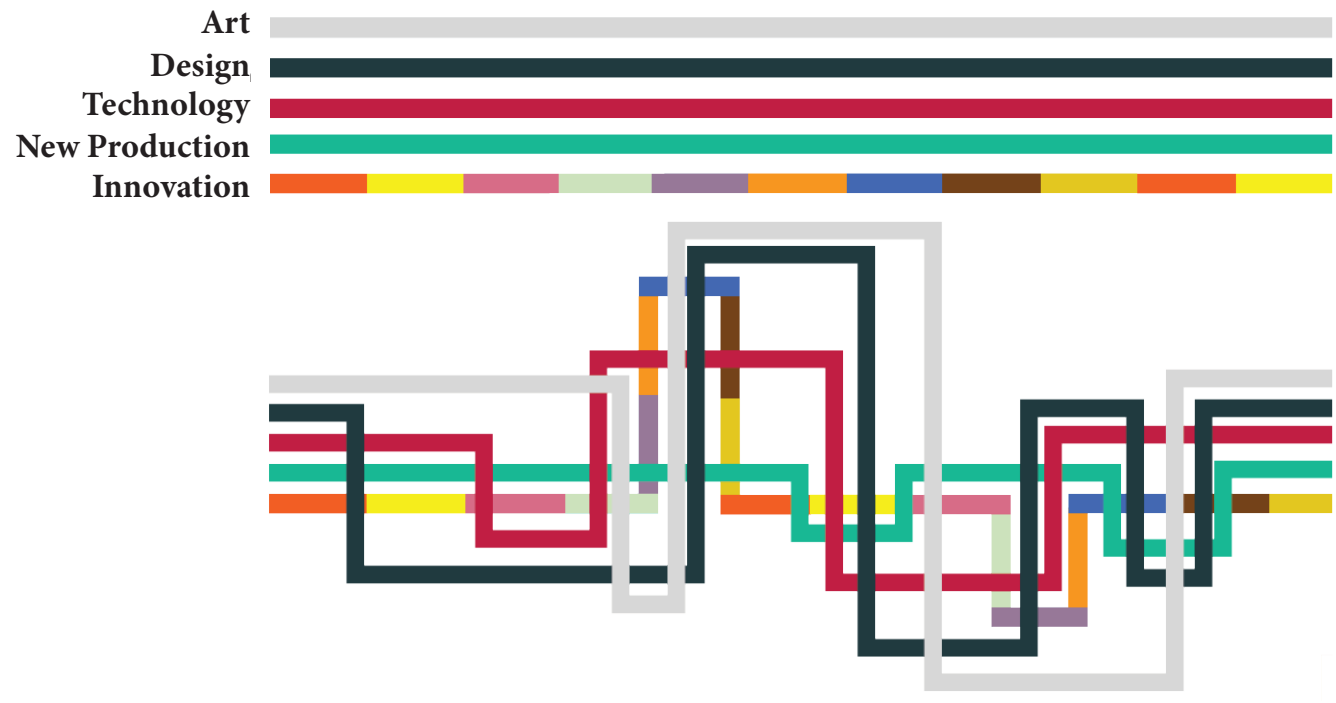
On one side, It's a **privileged neighborhood at a regional scale** (It has **connections** with regional vehicular roads and massive public mobility infrastructures. It is in **proximity** to areas of the city of national importance such as la Candelaria and San Victorino, and the Eje Ambiental, which have made Los Martires an **attractor of diverse cultures and artists**. It is equipped with **historically significant** national squares and a metropolitan park on the confluence of two historical rivers.) **However**, **some of these positive regional dynamics seem to fracture the territory on a neighborhood scale.** (The regional mobility infrastructures isolate Voto Nacional from its immediate context and **bury** and **segment** the green and blue natural infrastructures, creating poor environmental quality. The historical metropolitan dynamics of commerce and industry in the sector **disarticulated** with its residential character. This has left the same industrial and heritage abandoned and the residential in high decay, creating **urban voids.** The historical squares have been **appropriated only by outsiders**, leaving no room for leisure in public spaces in the neighborhood. **This scale conflict has made Los Mártires an isolated and deteriorated neighborhood in one of the most privileged locations of Bogotá.**



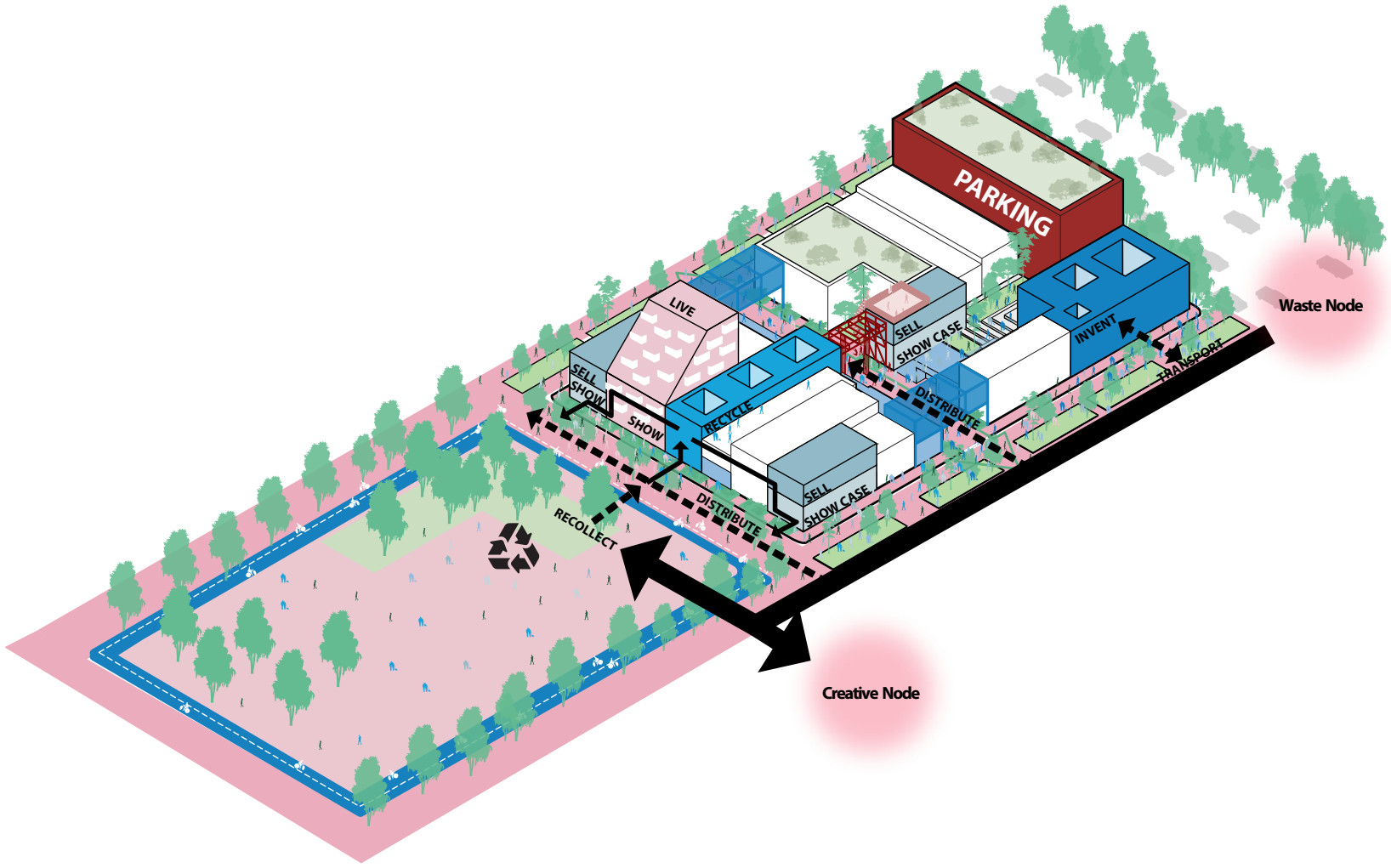
Main question or hypothesis

How to scale the sector into a local attractive circular economy district while articulating it to its metropolitan dynamics?





Urban Strategies


PARKING
LIVE
SELL
SHOW
SHOW
RECYCLE
SELL
SHOW CASE
INVENT
TRANSPORT
DISTRIBUTE
SELL
SHOW CASE
DISTRIBUTE
RECOLLECT
Waste Node
Creative Node

Urban Strategies
Introduction

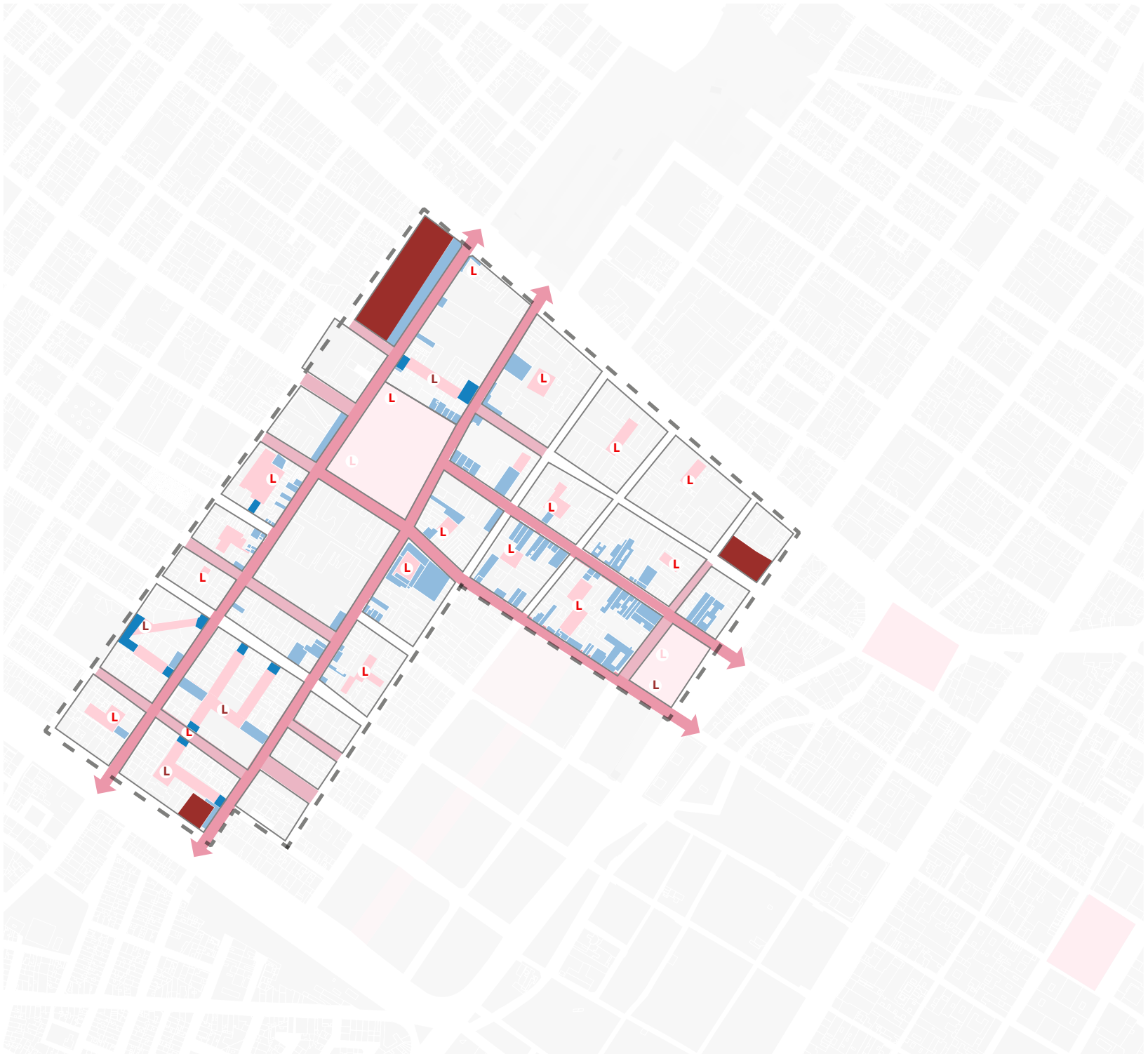
By understanding the mechanics of the study area threw the vision of Nordhavn's master plan, three strategies were proposed. The strategies are theoretical tools intended to scale down the territory into a more locally attractive circular economy district, keeping its articulation with its metropolitan dynamics. Each strategy is materialized threw a series of mechanisms that transform the theoretical concepts into architectural and practical solutions applicable to the territory. These mechanisms are mapped in the existing territory on a 1:500 plan where it's possible to locate them. For a further understanding of the spatial meaning and consequences of these mechanisms, a symbolical axo is constructed. The symbolical axo concludes all the existing dynamics and problematics of the territory in a single block to later apply each strategy mechanism, and study the effects on the territory.

Strategy 1 purpose is to generate active local public spaces that articulate the main squares of the sector. This strategy combines Nordhavn's vision of a shared, compact and accessible city by activating urban voids into diverse shared spaces connected threw pedestrian streets.

Strategy 2 task is to knit a green infrastructure that connects and enhances the neighborhood's local life. This strategy integrates the biodiverse and accessible city concepts of Nordhavn by creating a green structure with green mobility that connects with the area's context.

Strategy 3 intends to Use the existing specialized commercial corridors and valuable architecture in the area as the structuring elements for a local circular economy circuit and connect it to the context of strong commercial and creative nods. This strategy merges the compact, functionally complex, diverse, and resourceful concepts of Nordhavn by creating a green economy circuit using existing urban voids, diversity, and powerful dynamics.

Strategie 1



Scale 1:500

Generate active local public spaces that articulate to the main squares of the sector threw horizontal porosity.

Mechanisms

- Create local communal spaces using the existing block discontinuity (ground floor parking lots) and articulate them to main pedestrian paths, using ground floor passages that respec the block continuity but allow porosity.

- Implement hyper-local interventions in public and communal spaces of active leisure for the young public, passive leisure for adults, and appreciative leisure that allow a new view of the territory's architecture and landscape.

- Complement retail use on the ground floors of the buildings adjacent to main squares and pedestrian passages to activate the public spaces.

- Transform malls at the edges of the area into parking lots to keep people on the streets and cars outside the neighborhood.

Ground Floor Passage

Ground Floor Retail

L Active Leisure

L Passive Leisure

L Appreciative Leisure

Proposed Communal Spaces

Main Pedestrian Paths

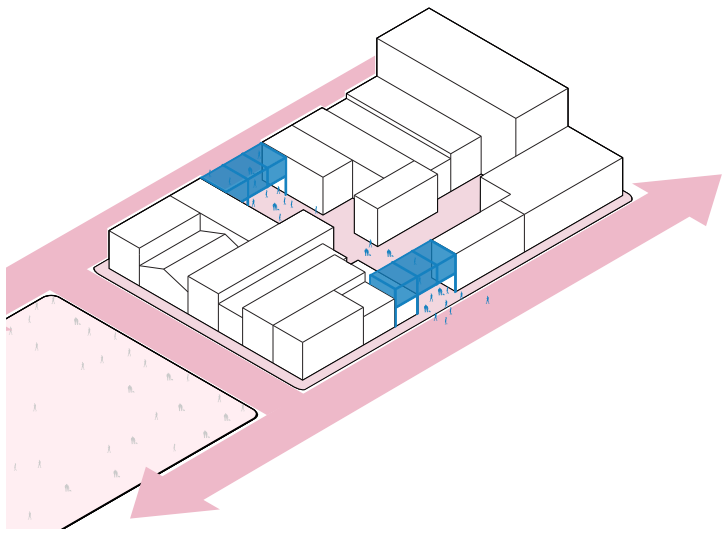
Secondary Pedestrian Paths

Parking Building

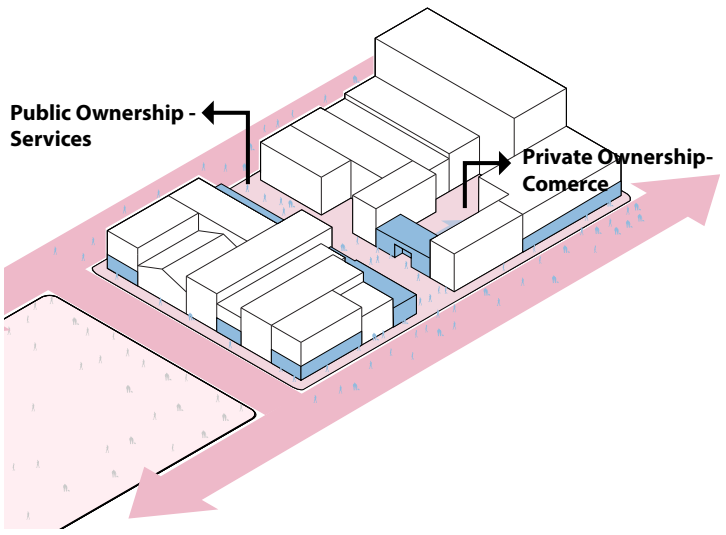
Existing Squares

Axonometric Diagrams

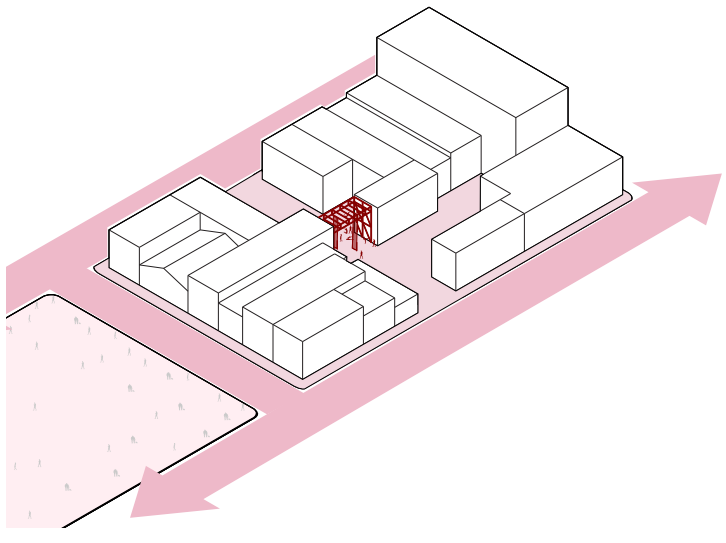
Ground Floor Passage



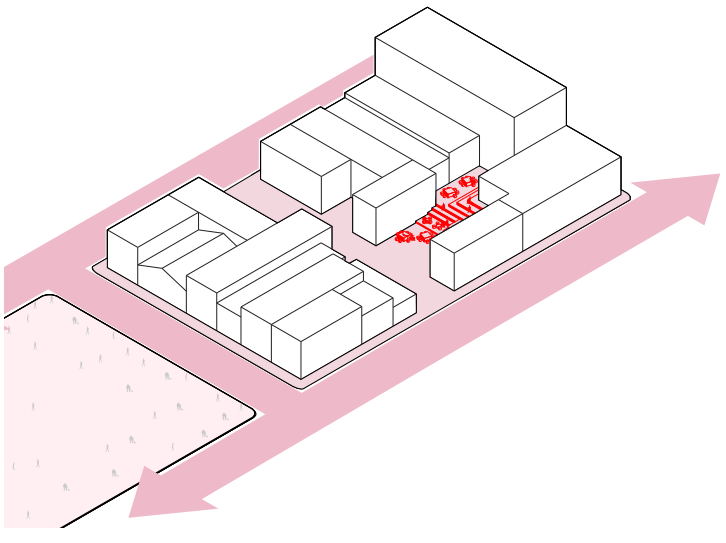
Ground Floor Retail



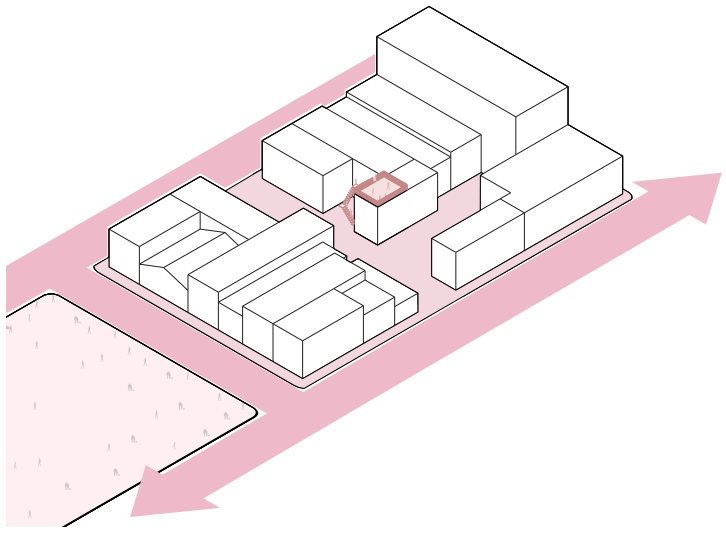
L Active Leissure



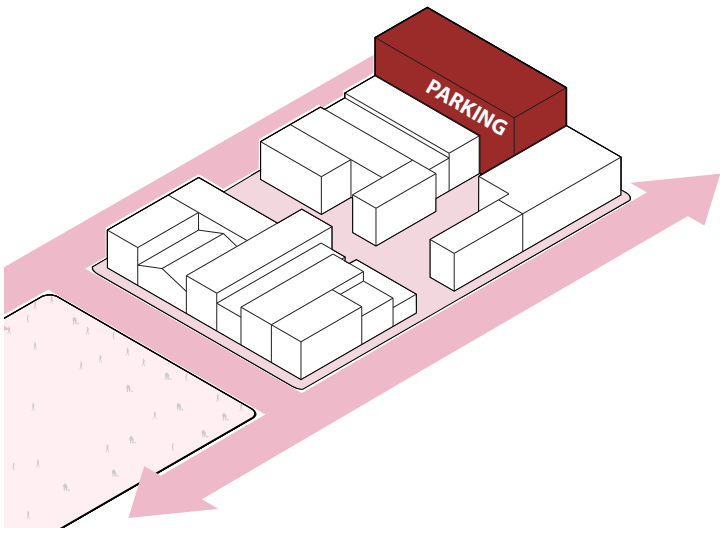
L Passive Leissure



L Appreciative Leissure

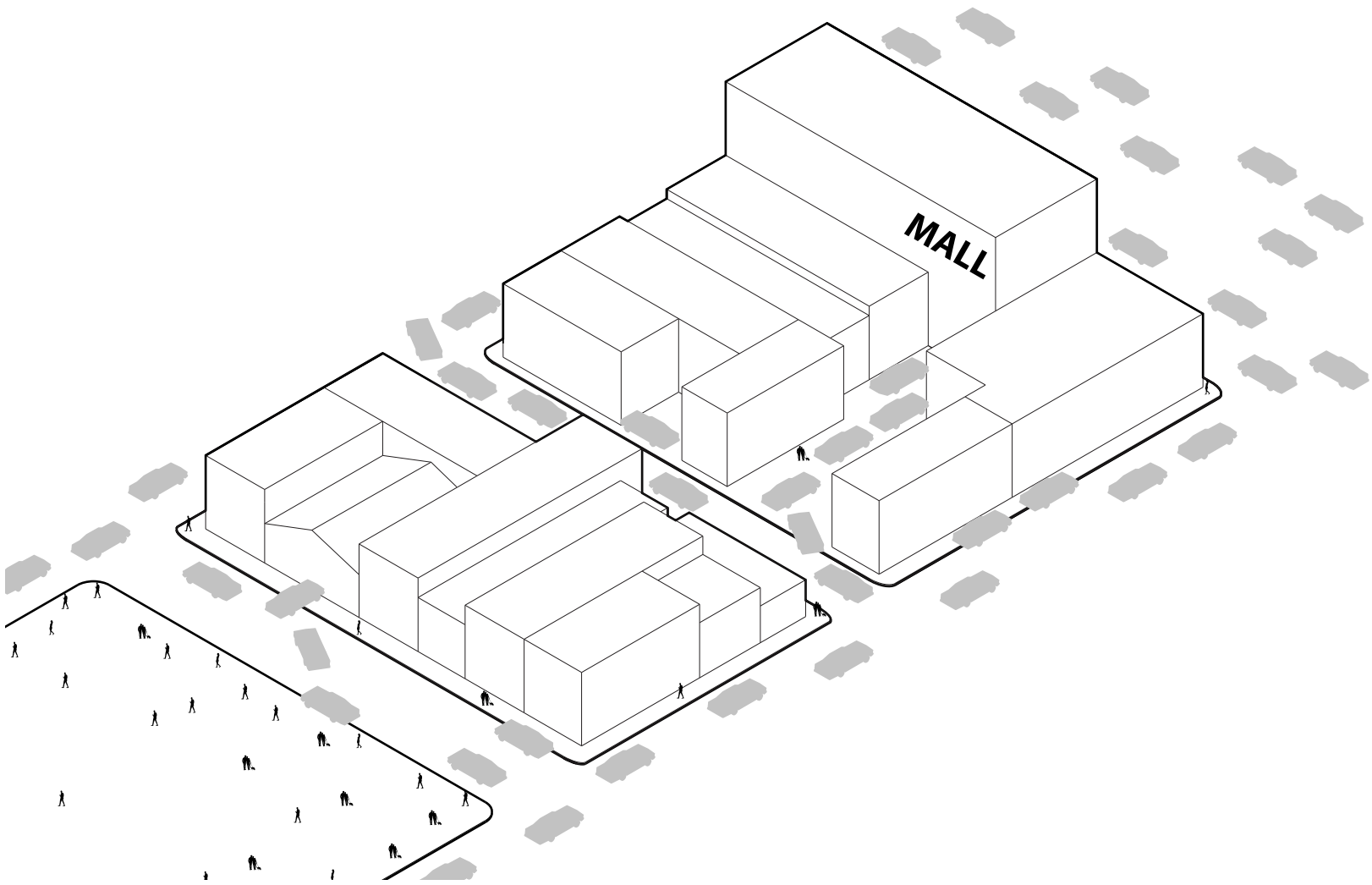


Parking Building



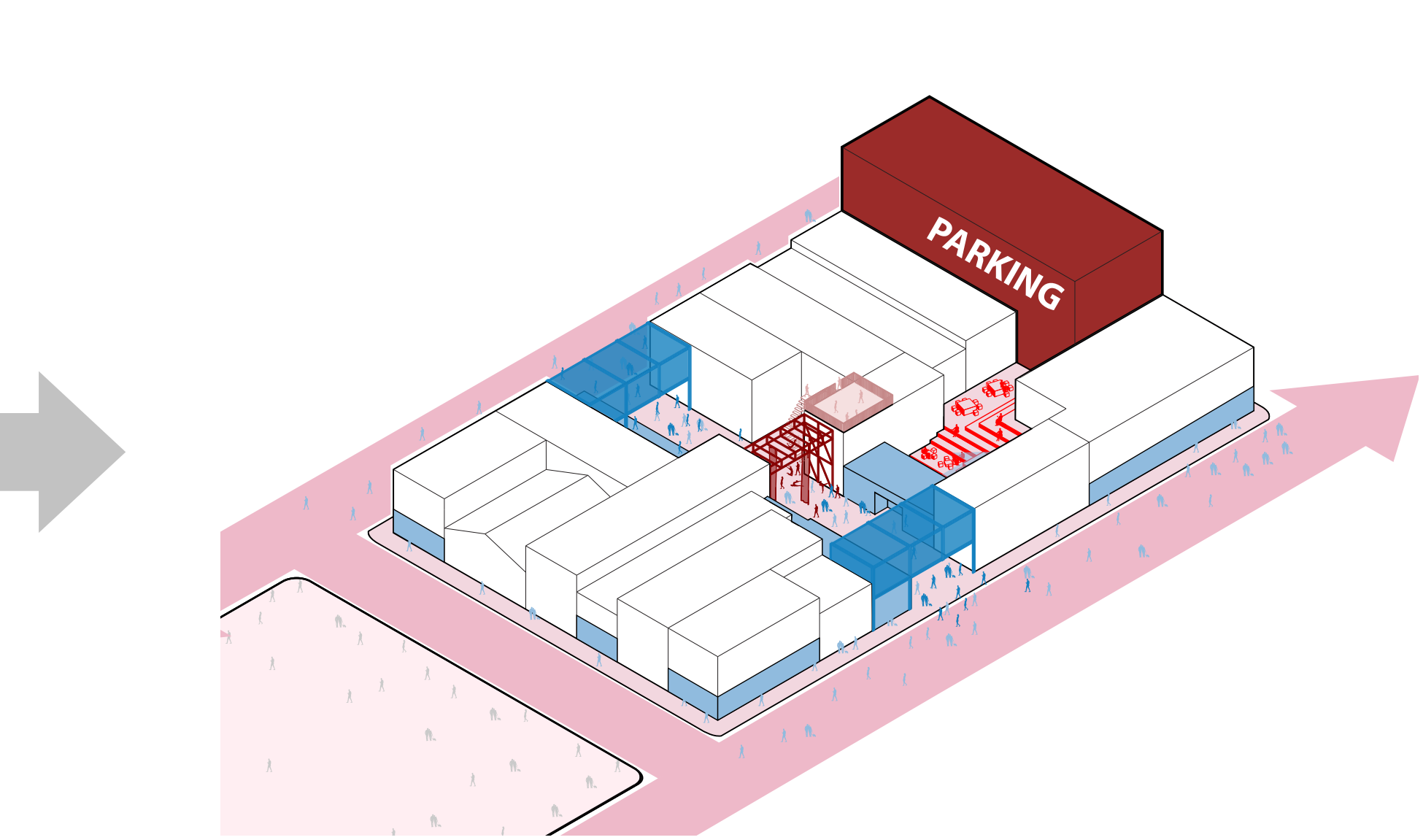
Strategie 1

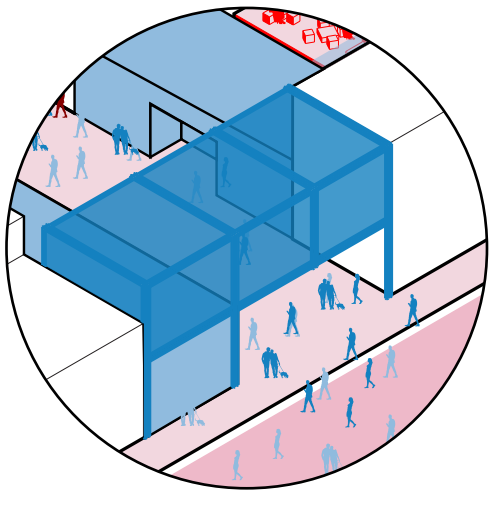
Axonometric Actual Dynamics

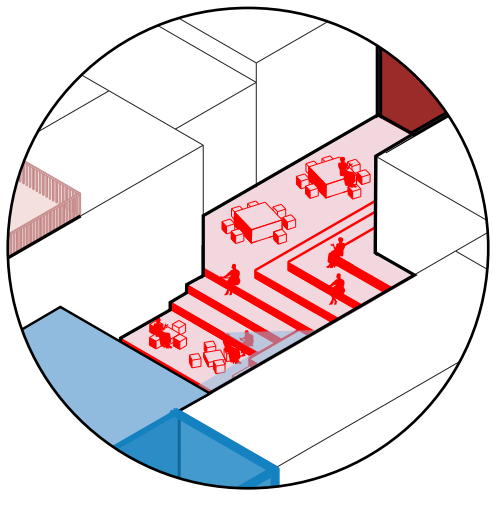


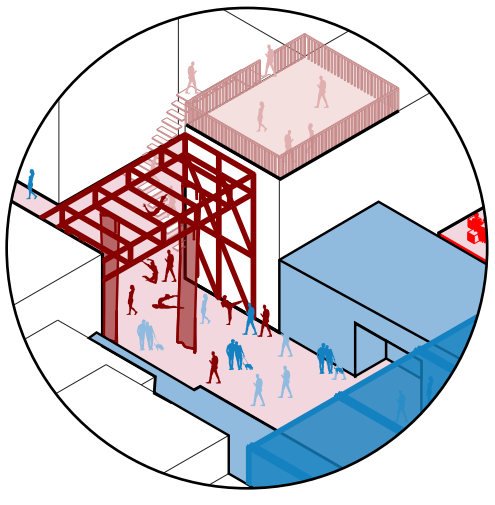
This axonometric doesn't represent an specific block but a diagrammatic conclusion of its behavior and how the strategies are intended to better the territory.

Axonometric Strategie 1

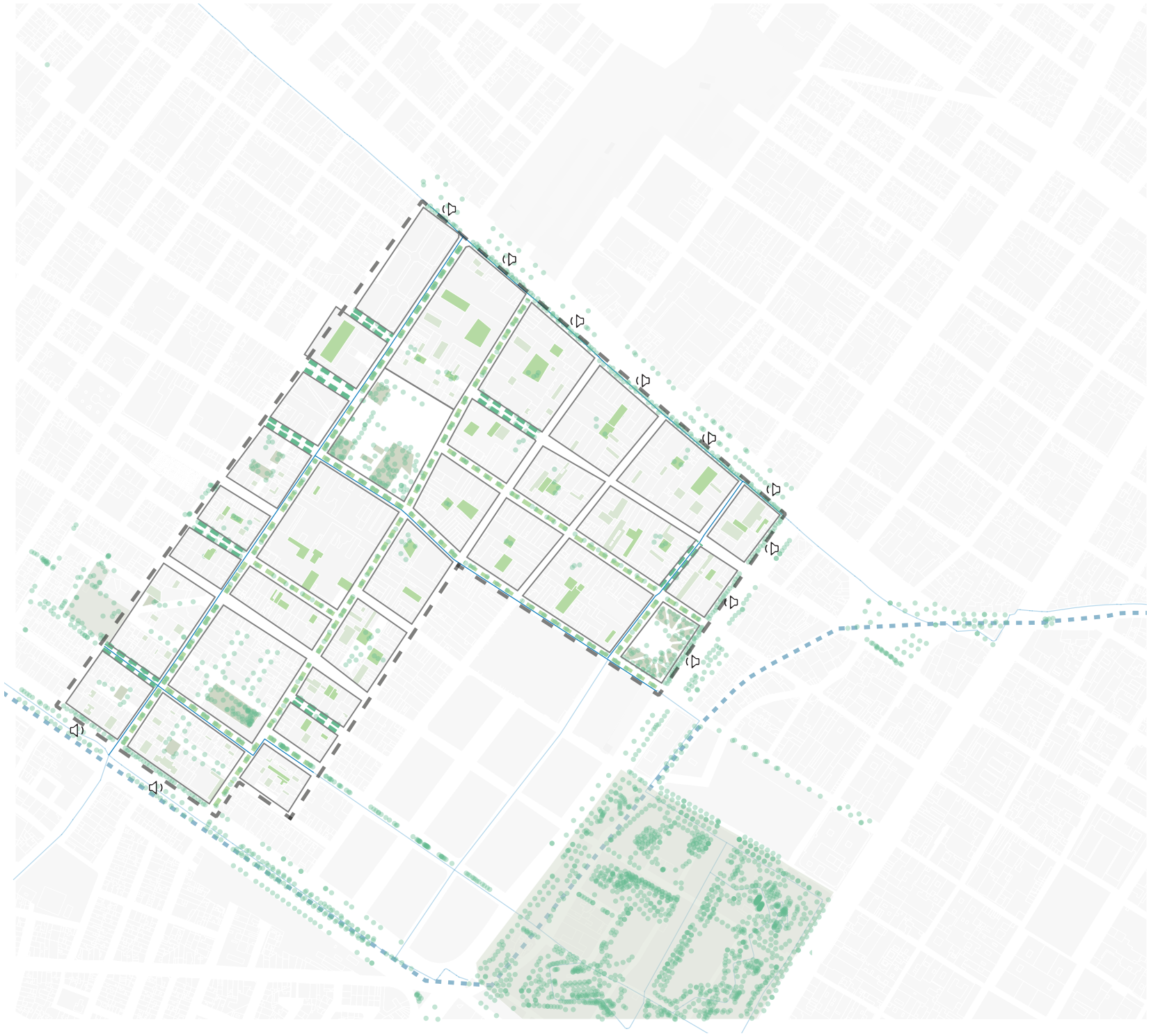








Strategie 2



Scale 1:500

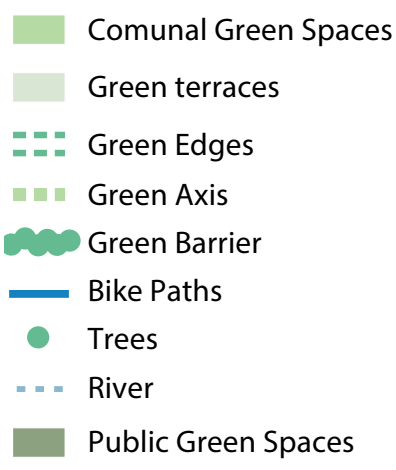
Knit a green infrastructure that connects and enhances the neighborhood local life.

Mechanisms

- **Complement** the existing large parks with green comunal spaces and green terraces that provides greenery to all residents.

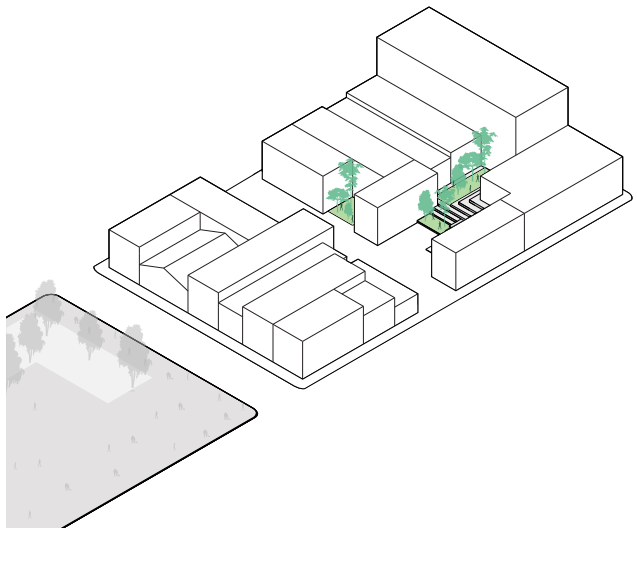
- **Connect** to the existing green infrastructure with green edges and axis that prioritize green mobility.

- **Protect** the area from auditive and air pollution by creating a green barrier from the metropolitan roads.

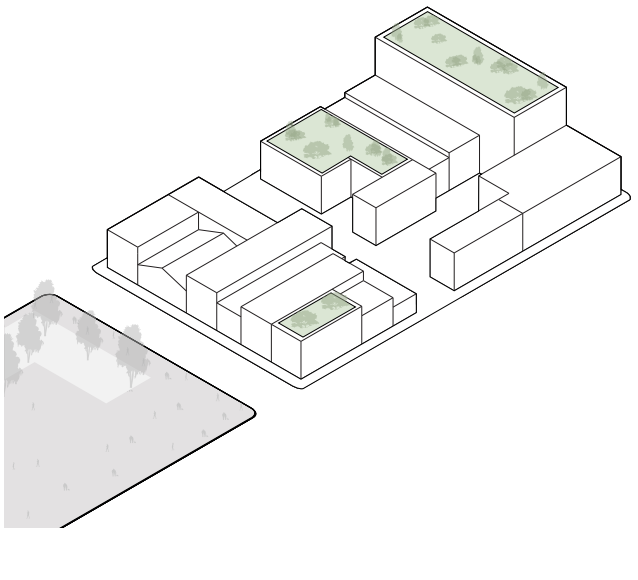


Axonometric Diagrams

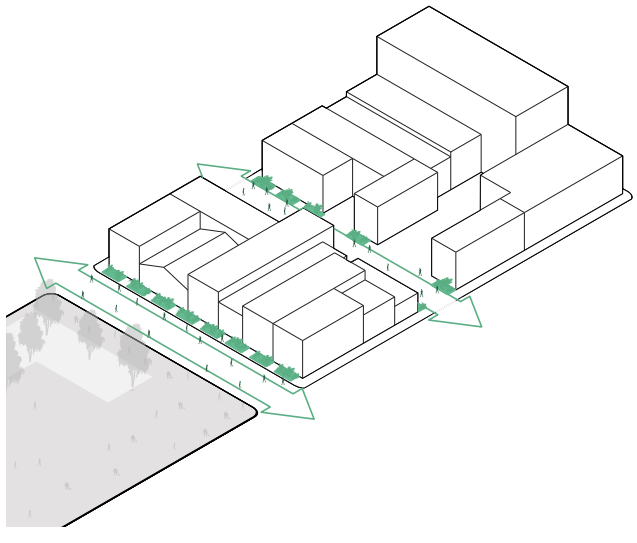
Comunal Green Spaces



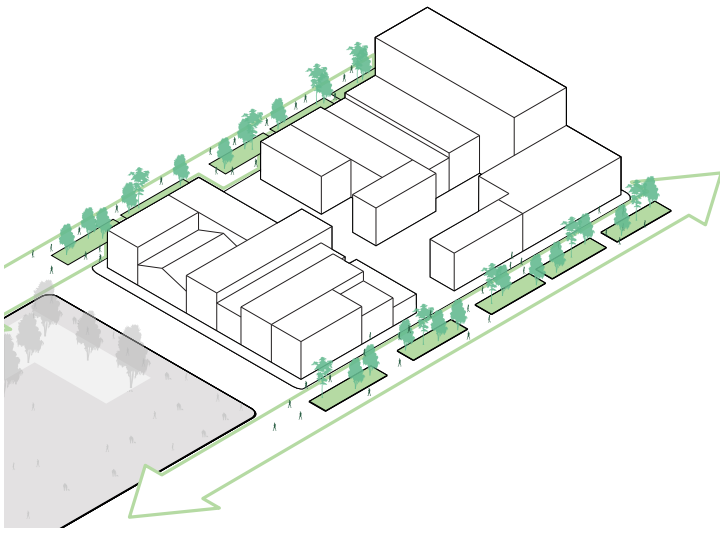
Green terraces



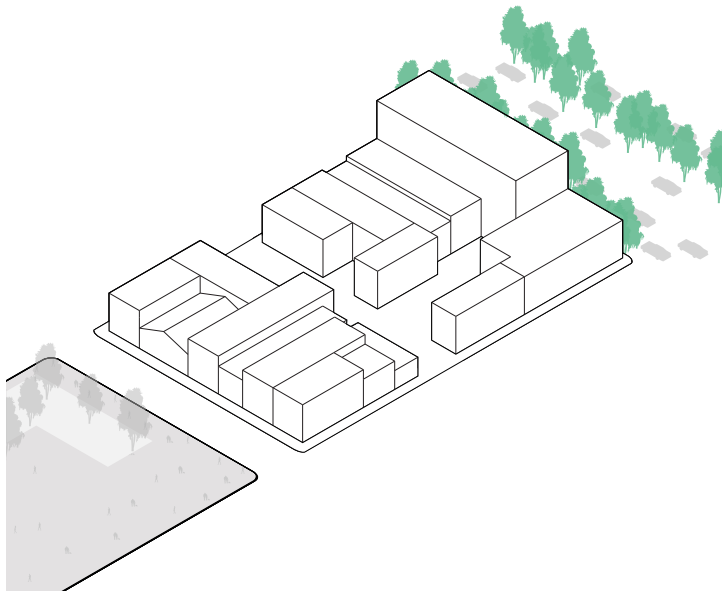
Green Edges



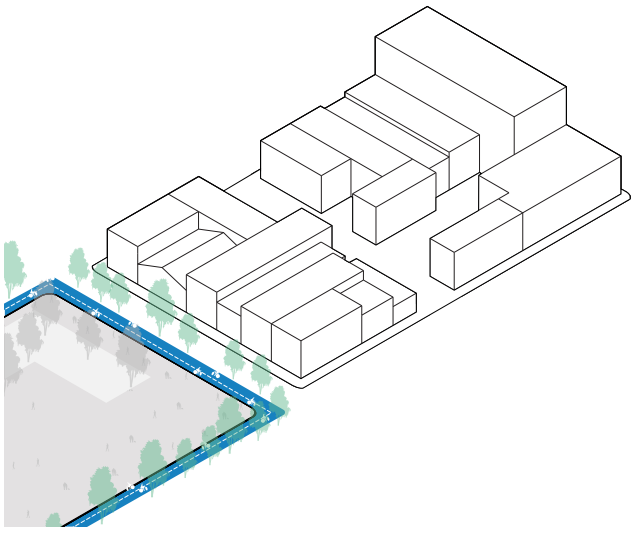
Green Axis



Green Barrier

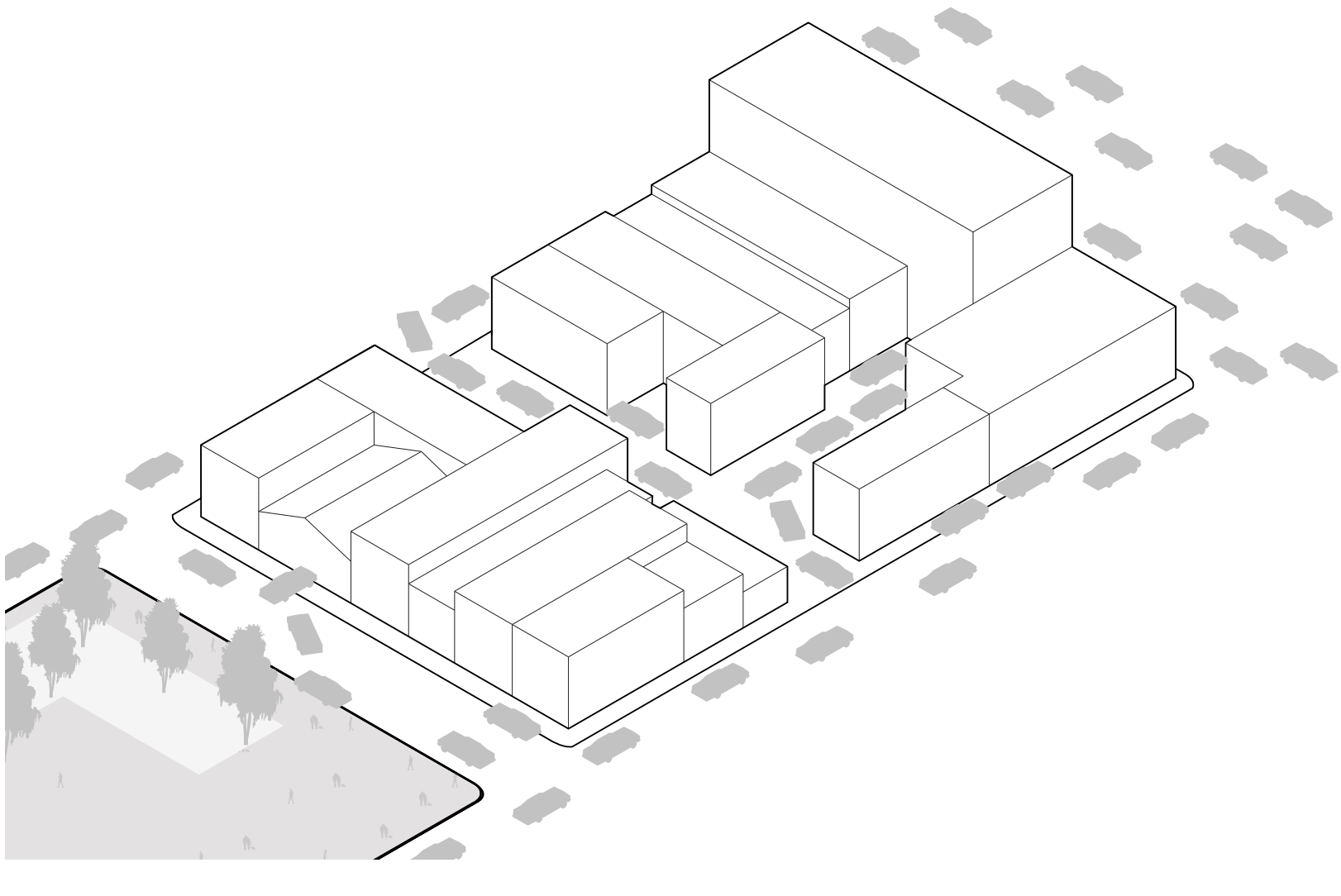


Bike Paths



Strategie 2

Axonometric Actual Dynamics



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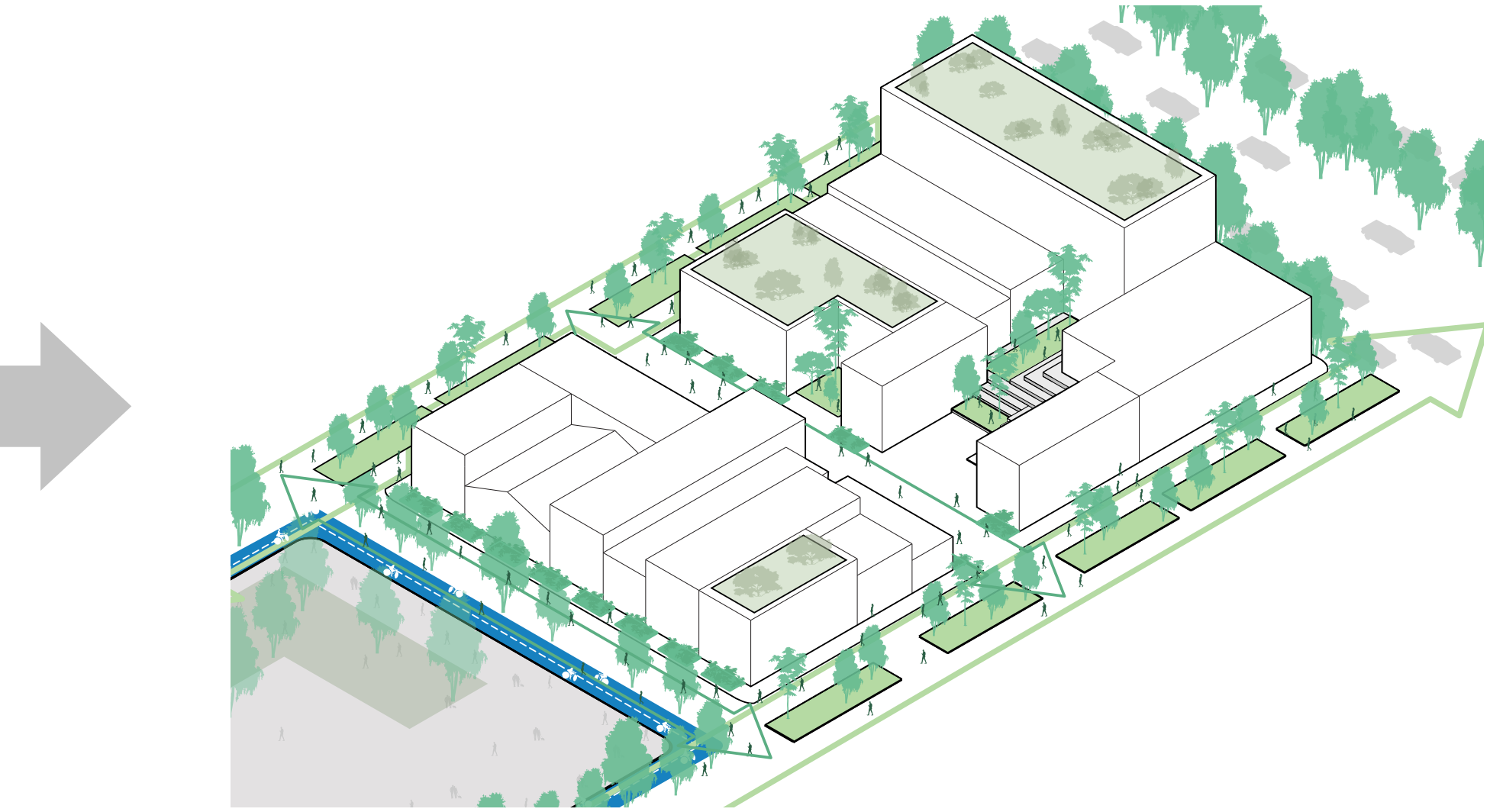
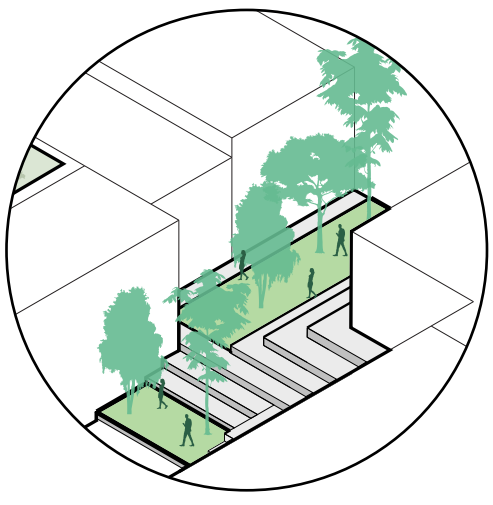
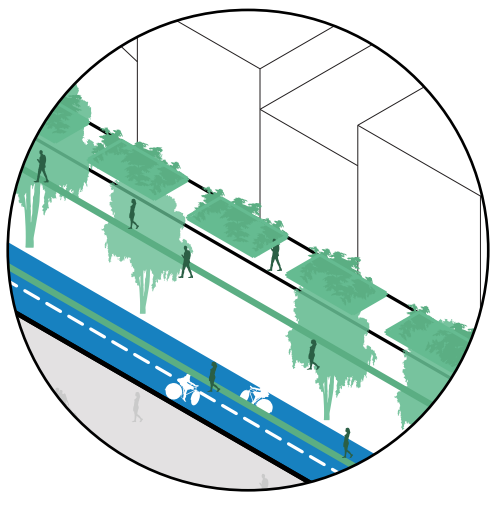
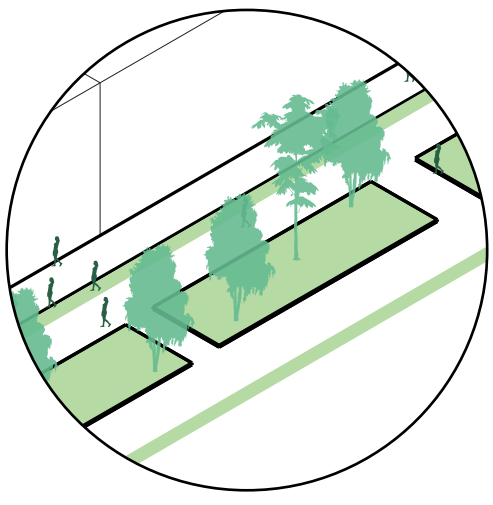
Axonometric Strategie 1

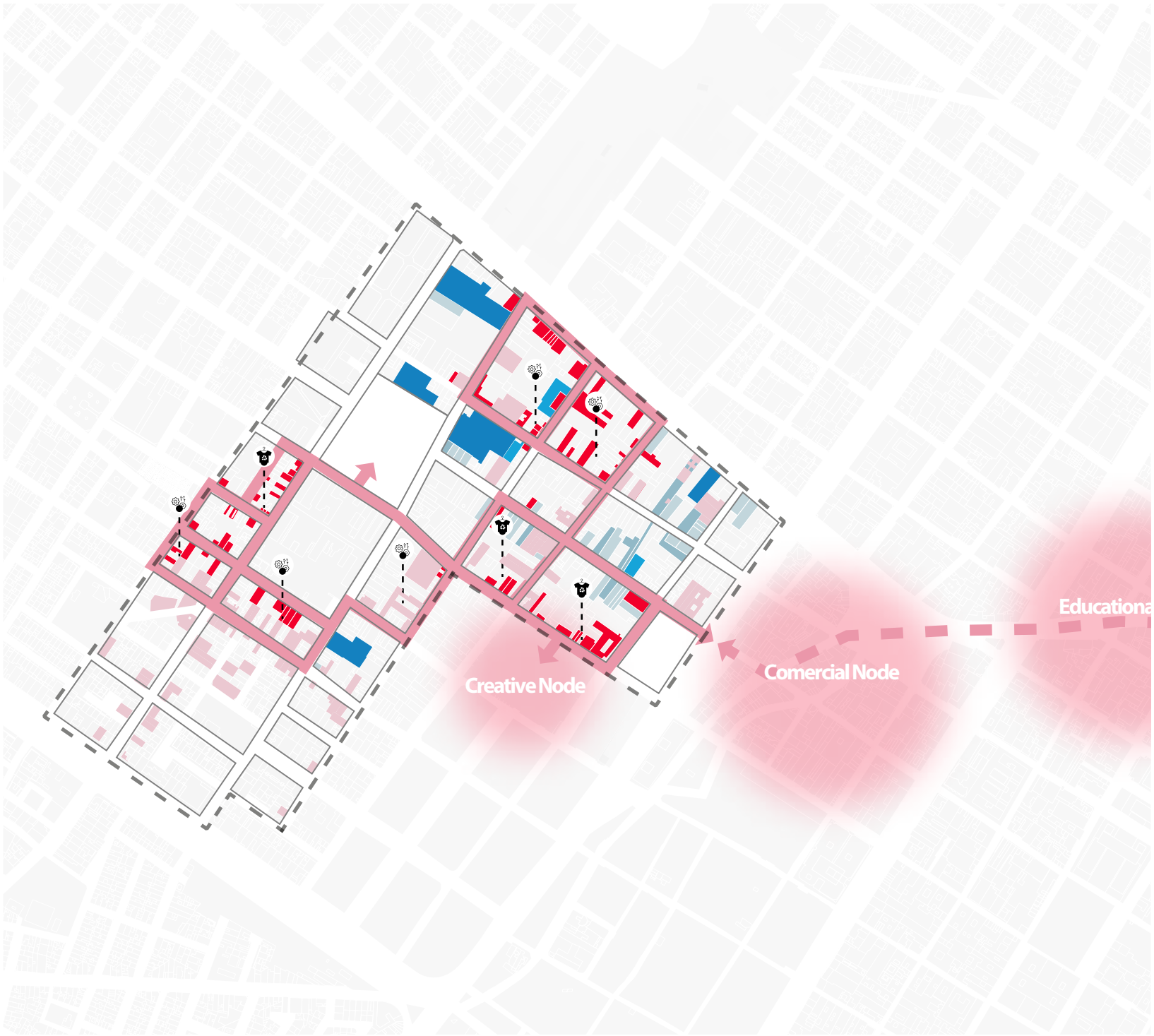








Strategie 3



Scale 1:500

Use the existing specialized commercial corridors and valuable architecture in the area as the structuring elements for a local circular economy circuit and connect it to the contexts strong commercial and creative nods.

Mechanisms

-**Restore** republican house heritage architecture on the circuit to implement **showrooms** and **shops** showcasing local dinamics.

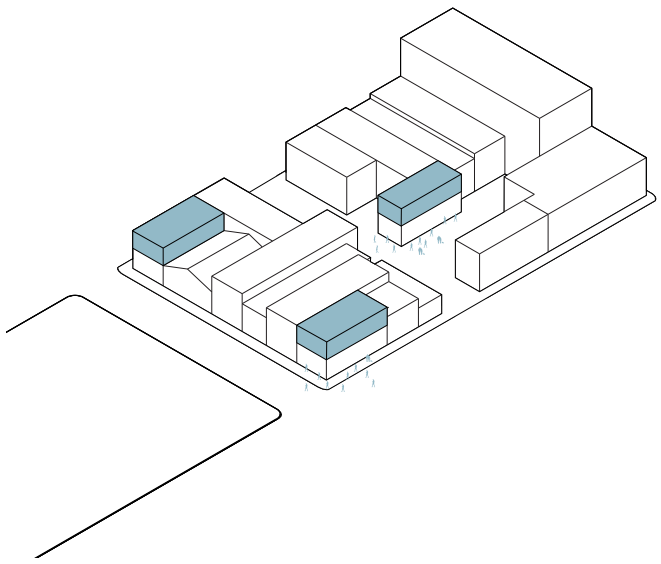
-**Transform** industrial flexible heritage architecture in the sector into **ateliers** and **urban labs** that encourage mixture of human diversity, knowledge and culture.

-**Recycle** auto mechanic hangar structures into **housing** that encourages the arrival of new residents as artists, artisans, and students.

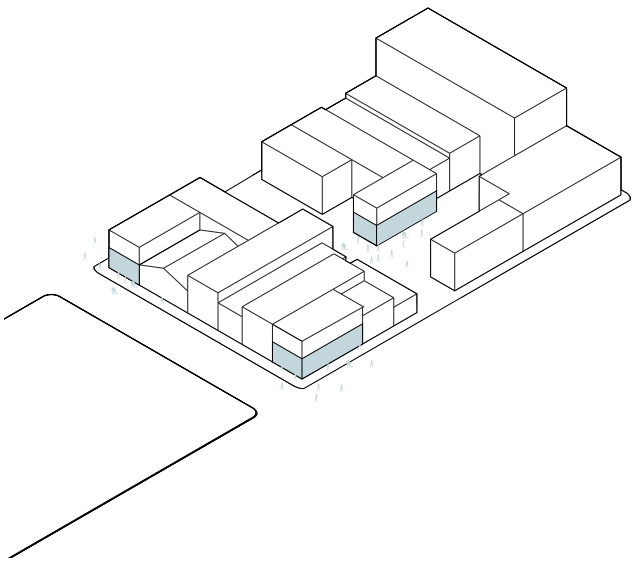
Green Economy Circuit
Urban Lab
Atelier
Show Room
Shops
Housing
Metal Oil Waste
Textile Waste
Existing Specialized Comerce
Functional Clusters

Axonometric Diagrams

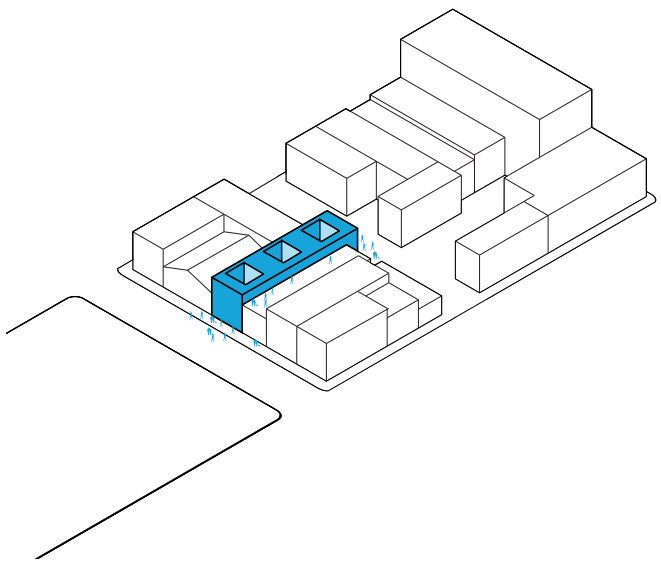
Show Room



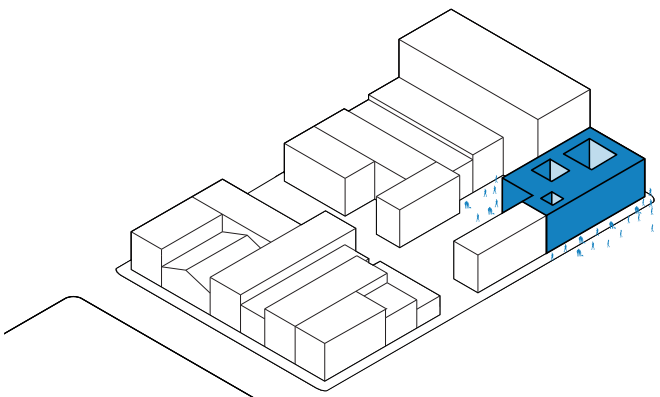
Shops



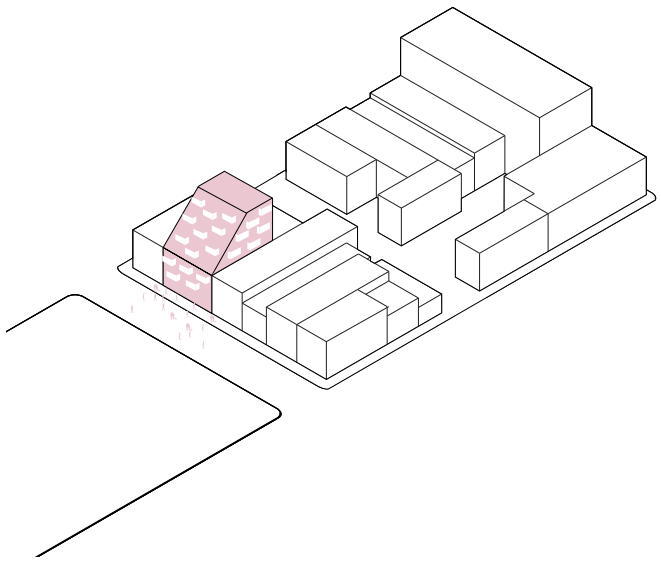
Atelier



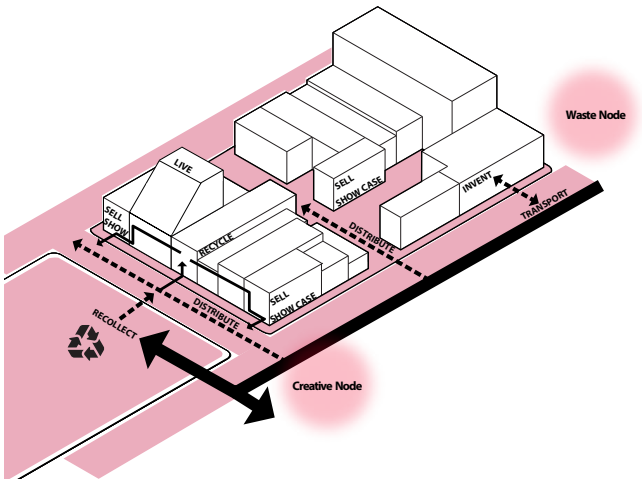
Urban Lab



Housing

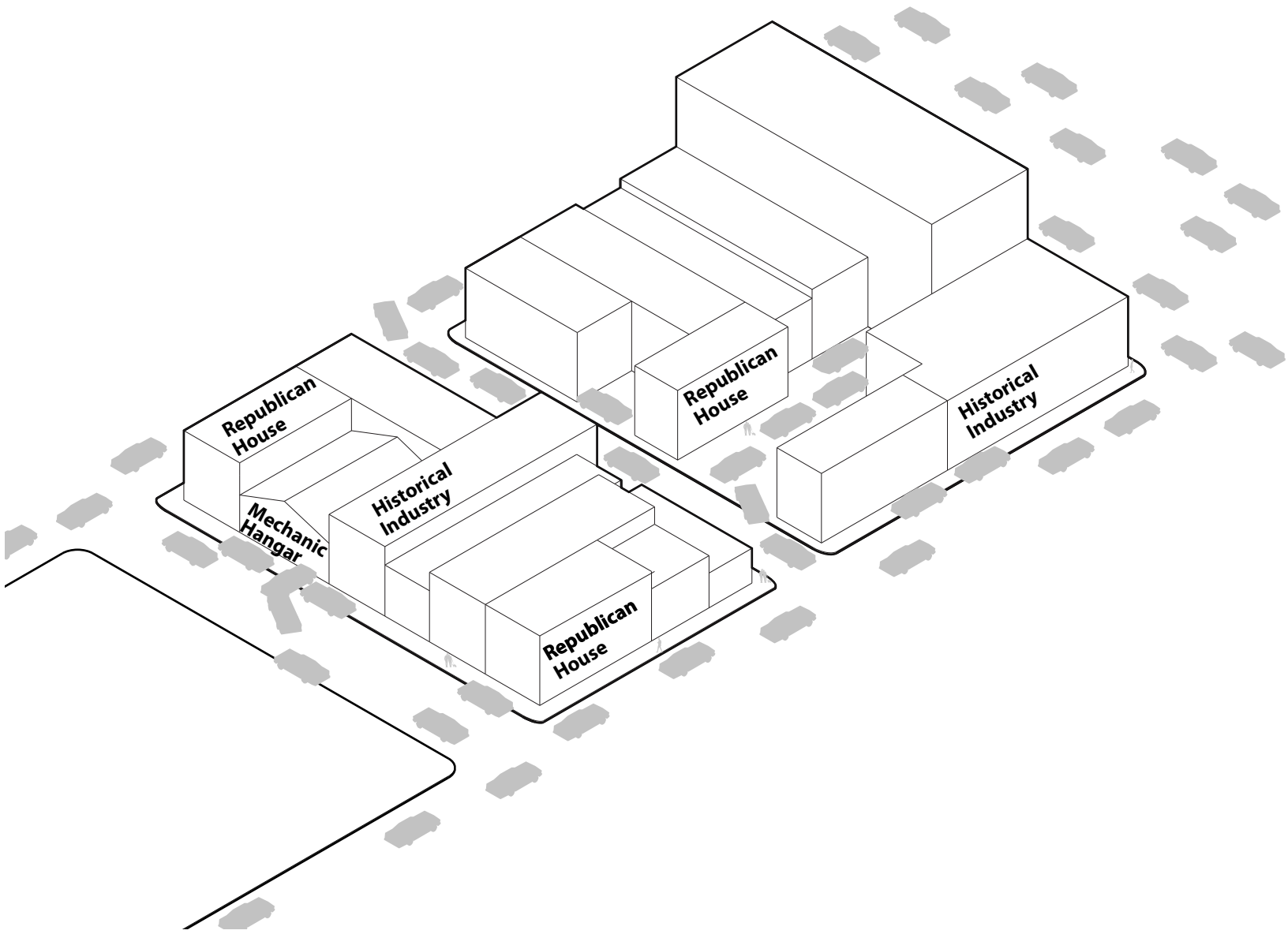


Green Economy Circuit



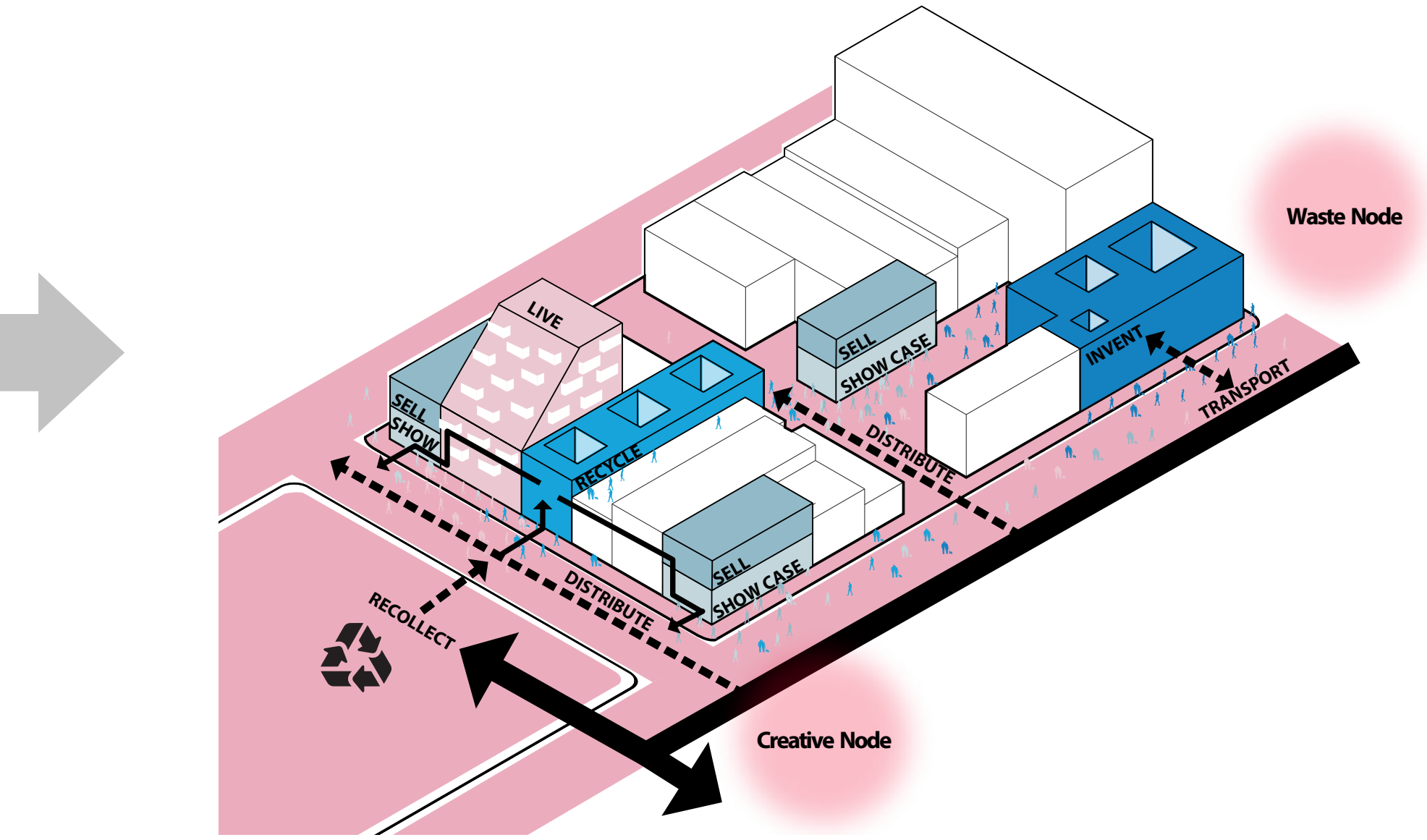
Strategie 3

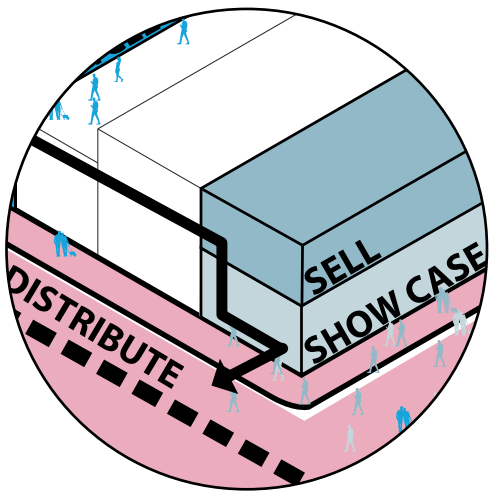
Axonometric Actual Dynamics

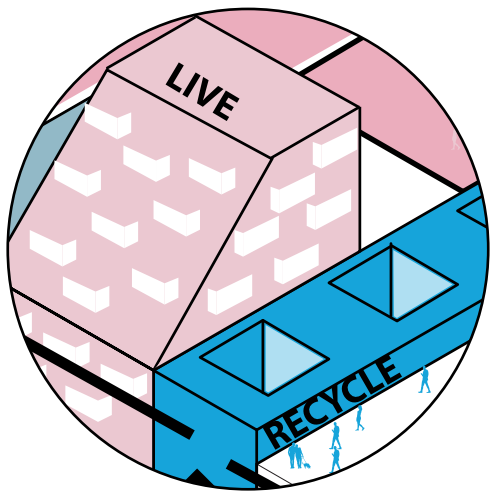


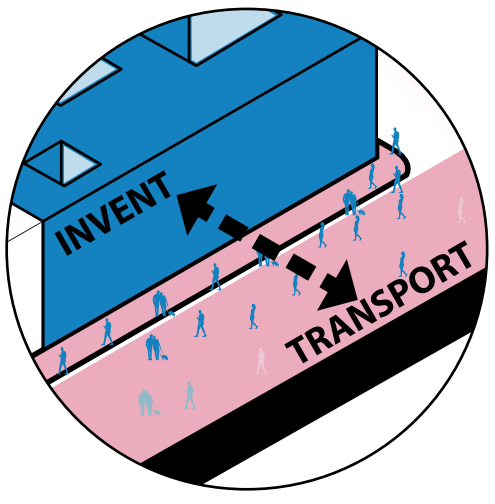
This axonometric doesn't represent an specific block but a diagrammatic conclusion of the territory dinamics and how the strategies are intended to better the territory.

Axonometric Strategie 1









Architectural References

Art Hub Copenhagen

Conservation

Architects: Archival Studies, Pihlmann Architects
Location: Meatpacking District, Copenhagen, Denmark
Date: 2021

Fig 120. Art Hub, Inside the main space/Photo done by Hampus Berndtson

The project today hosts the Modern Art Institute in Copenhagen and was a historical butchery. The Building throughout its history had various uses that altered the building quality. The project goal was to restore the building's character without integrating new materials into it but by giving a reinterpretation to the posterior additions to the building. Ceiling panels, metallic elements, and tiles were reconfigured giving them a new use and aesthetic quality. These interventions where done as an addition to the building that could be easily disassembled to not harm the historical building. This project recycles the harmful posterior transformations into a delicate intervention that returns the building character.

Fig 121. Disassemblable

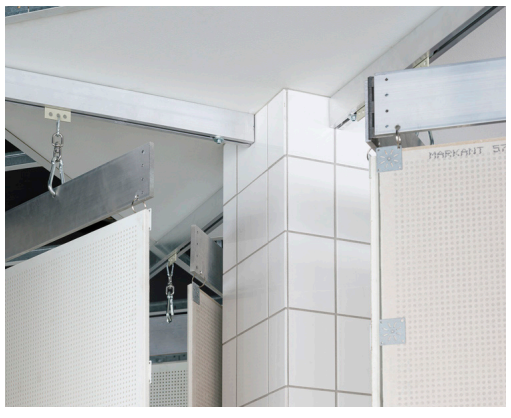


Fig 122. Recycled Materials

Fig 123. Restored Character

Sjakket Community Building
Transformation

Architects: BIG, JDS
Location: Nordvest, Copenhagen, Denmark
Date: 2007

Fig 124. Exterior gables and structural walls subject to strict rules of preservation

The project is located in a historical Industrial neighborhood that developed into a residential low-income area. The building was a historically enclosed industry suffering high decay, which forced its transformation into Community Center for young immigrants and low-income households. The building is transformed delicately, preserving its character and architectural qualities but adding a new futuristic and playful layer meant to attract a young public allowing a diversity of activities and spaces in its interior. This is achieved using diverse lights, textures, and colors that consolidate unique communal spaces. This project transforms the building with minimum interventions sustainably enhancing its quality.

Fig 125. Communal Rooftop

Fig 126. Textures and Space

Fig 126. Light and Space

Resource Rows
Recycling

Architects: Lendager
Location: Orestad, Copenhagen, Denmark
Date: 2020

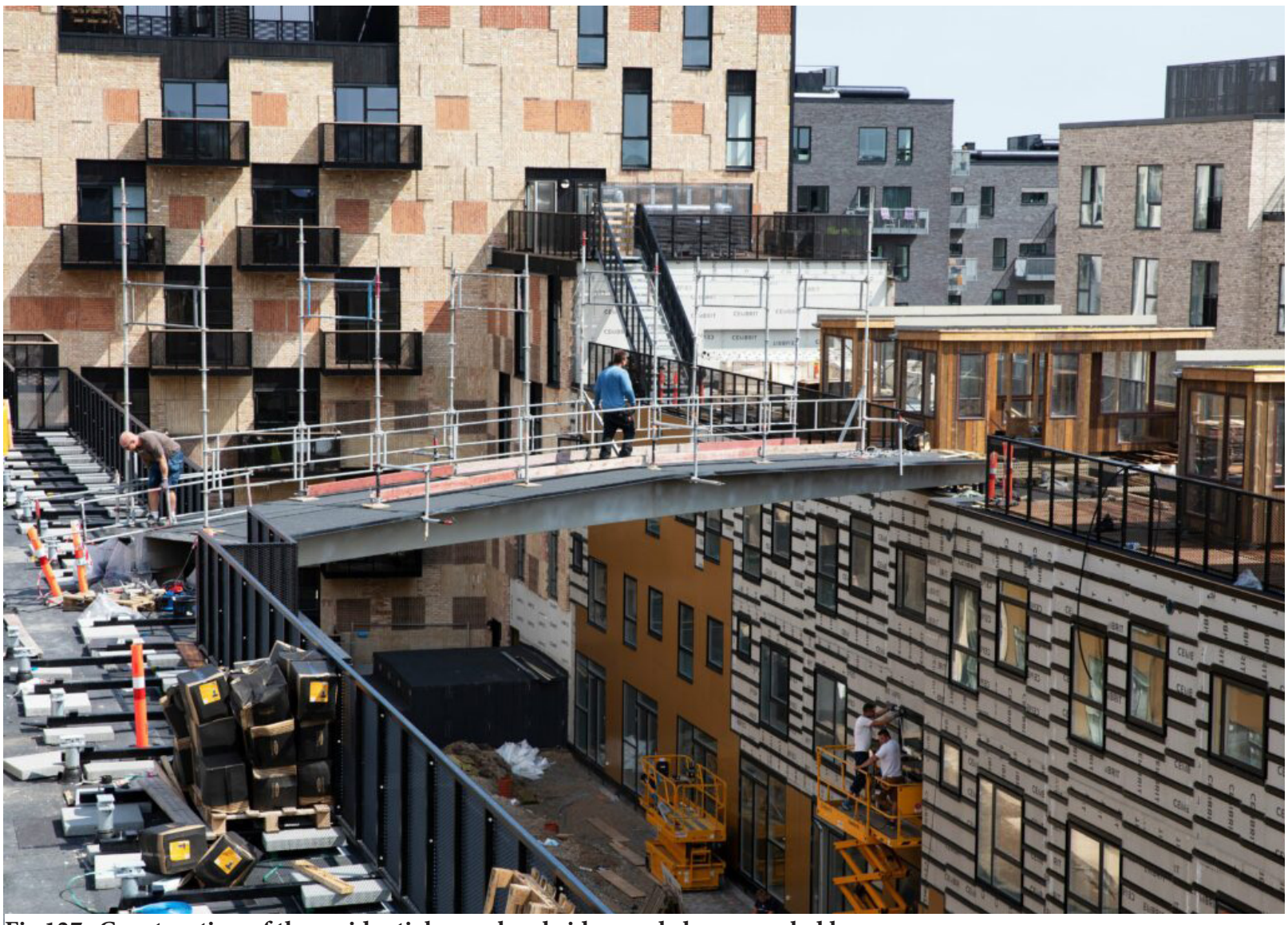


Fig 127. Construction of the residential complex, bridge made by a recycled beam

Resource Rows new residential development recycles existing building waste transforming it into unique sustainable architecture as Lendage architects state “The Resource Rows is using upcycled bricks and waste wood, a recycled concrete beam used as a bridge and old windows and waste wood as rooftop community gardens huts with an atmosphere of allotment gardens. A significant and innovative concept is to reuse brick facades from abandoned structures in the new building, saving as much as 29% CO2 by upcycling only 10% of all building materials.”

Fig 128. Used Building Waste

Fig 129. Cutouts from Old

Fig 130. New from Old

Superkilen
Hyper Local Interventions

Architects: BIG, Superflex, Topotek
Location: Norrebro
Date: 2012

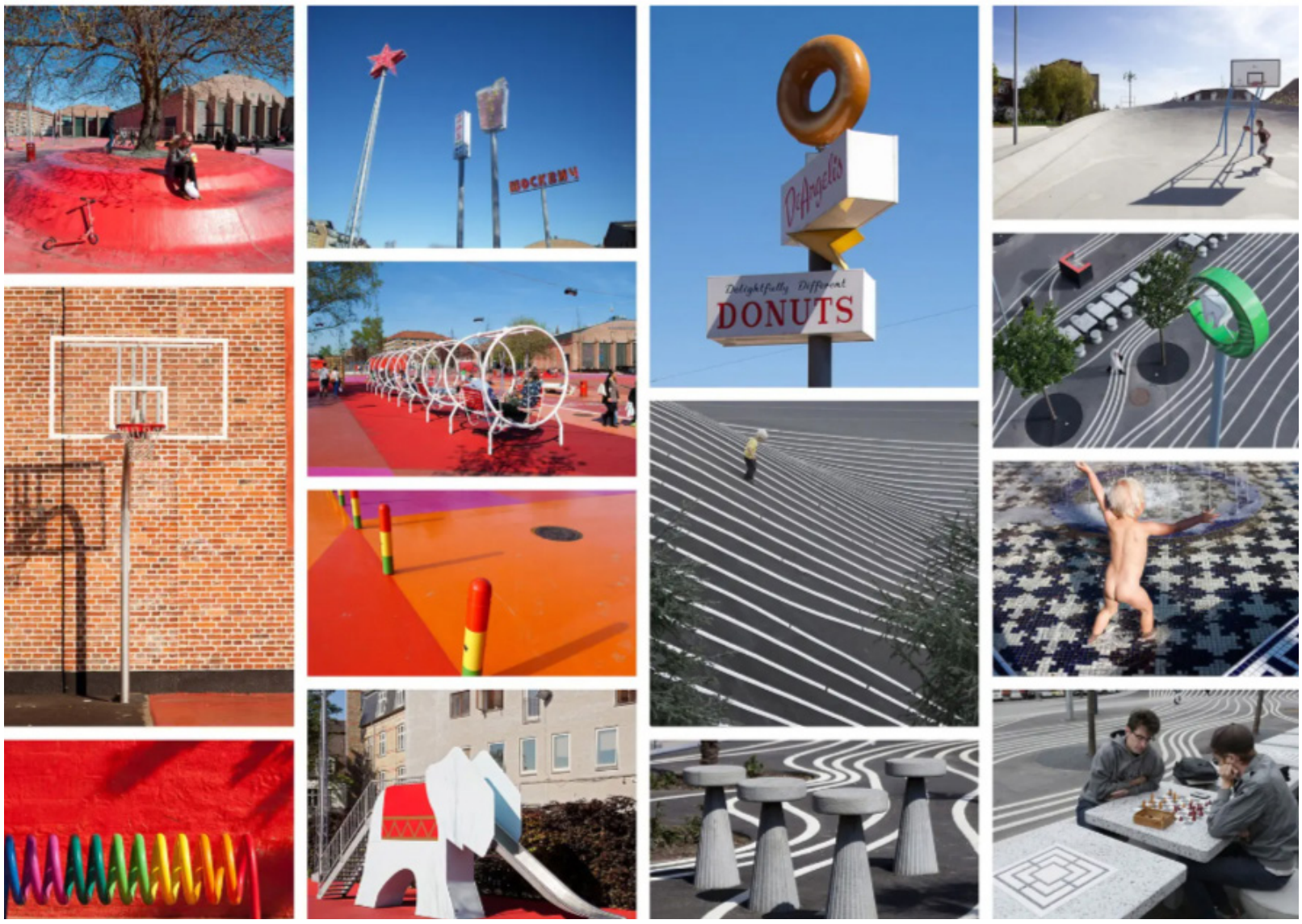


Fig 130. Images from Superkillen entertainment interventions

Superkilen is located in a former complicated conflicted area in the Norrebro neighborhood which was revitalized by articulating a series of hyper-local interventions in a lineal park. This punctual object intervention's purpose was to culturally relate with the highly diverse and rival immigrant population. These interventions activate the public space with active, passive, and appreciative leisure activities that encourage cultural mixture and dialogue. reducing violence and rivalry. Superkilen uses very precise objects and interventions and articulates them in a complex system that gives life to the public space.

Fig 132. Community Engaged

Fig 132. Urban Dialogue

Fig 133. Diverse and Mixed

Master Plan

70 Recycled Structures

34 Restore Structures

8 Transformed Structures

Public spaces that articulate to the main squares of the sector

Green Infrastructure that connects and enhaces the neighborhood life

Complement retail use on the ground floors of the building adjacent to main squares and pedestrian passages

Green communal spaces and green terraces that provides greenery to all residents

Parking lots to keep people on the streets and cars outside the neighborhood

Restored republicn houses into shops, showrooms and atelieers reating entairtainment axis and sgowcasing local dynamics

Phase 1: developed from 2025-2035 concentrates on activating the main project
axis connecting the territory with the existing surrounding activity nucleus.

Phase 3: takes care of areas that are currently working but that will need to adapt to a future territory of new dynamics, this phase will be done from 2045-2055

Phase 2: complement this main axis and historical buildings with some secondary corridors and new projects that will boost the new attractive neighborhood character to develop more expensive interventions.

Phases
Phase 1
Phase 2
Phase 3

The master plan develops in 3 strategic phases, each developed in a 10-year time frame meant to enhance the territory gradually. Phase one, developed from 2025-2035 concentrates on activating the main project axis connecting the territory with the existing surrounding activity nucleus. In this way the first stage will work as the structuring vertebra, reactivating the main historical buildings and public spaces part of this strategic axis. This will reshape the area's dangerous perception into a connected vibrant sector. The second phase will complement this main axis and historical buildings with some secondary corridors and new projects that will boost the new attractive neighborhood character to develop more expensive interventions. The third and final stage takes care of areas that are currently working but that will need to adapt to a future territory of new dynamics, this phase will be done from 2045-2055

Before:

2 % Green Areas

1.5% Public Space

Area Population 6.000 Inhabitants

1 m2/hab Green Space per Habitant

After:

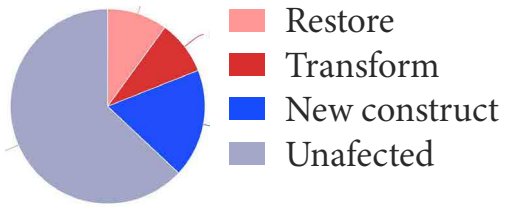
15% Softscape

20% Hardscape

+1.000 Arrival of Young Population

10 m2/hab Green Space per Habitant

Costs



Area Chart			
		Area m2	%
1	AREA Master Plan Los Martires	400.000	100,00
2	AREA INTERVENIDA A URBANIZADA Y CONSTRUIDA	293.000	73,25
3	AREA CONSERVADA	107.000	26,75
4	AREA URBANIZADA	139.000	34,75
5	AREA CONSTRUIDA	154.000	38,50

Urabnization Costs						
	Project Basis	Area m2	Price per m2 COP	Total Cost COP		%
1	Soft Scape	45.000	$ 250.000,00	$ 11.250.000.000,00	€ 2.250.000,00	11,25
2	Vehicular road	14.000	$ 357.000,00	$ 4.998.000.000,00	€ 999.600,00	3,50
3	HardScape	80.000	$ 1.200.000,00	$ 96.000.000.000,00	€ 19.200.000	20,00
	Total	**139.000**	**$ 1.807.000,00**	**$ 112.248.000.000,00**	€ 22.449.600	**34,75**

Construction Costs						
	Project Basis	Area m2	Price per m2 COP	Total Cost COP		%
1	Restored	43.000	$ 5.000.000,00	$ 215.000.000.000,00	€ 43.000.000,00	10,75
2	Transformed	37.000	$ 3.000.000,00	$ 111.000.000.000,00	€ 22.200.000,00	9,25
3	Demolished	74.000	$ 500.000,00	$ 37.000.000.000,00	€ 7.400.000,00	0,00
4	New Constructed	74.000	$ 2.500.000,00	$ 185.000.000.000,00	€ 37.000.000,00	18,50
5	Lotes	154.000	$ 2.000.000,00	$ 308.000.000.000,00	€ 61.600.000,00	0,00
	Total	**154.000**	**$ 13.000.000,00**	**$ 856.000.000.000,00**	€ 171.200.000,00	**38,50**
	TOTAL URBANIZADO Y CONSTRUIDO	**293.000**	**$ 3.304.600,68**	**$ 968.248.000.000,00**	€ 193.649.600,00	**73,25**

Chosen Corner

Fig 134. Fachas El Cielo

Chosen Corner
Explanation

For the proposal development, a specific corner is chosen in which the urban dynamics and architecture relationship interfaces can be appreciated and analyzed in more detail to design the proposal. The chosen block shown on the map was selected due to its location on front of the Plaza Espana and how it relates with the neighborhood with a metropolitan and local scale at the same time. Also the block is chosen due to the urban structures the block has supported and currently supports such as the antique industry of pastas el gallo, deposit hangars and hreitage republican houses.

Fig 135. Southern side of the chosen block, face of the industry Pastas el Gallo next to groundfloor parking

Fig 136. Western side of chosen block, showing commerce and hangars

Fig 137. Heritage Republican houses on west side of chosen block.

Fig 138. Aerial view of the chosen Corner

The Plaza España
plays a very important role in the neighborhood, it keeps connected the entire neighborhood on one place and supports working, cultural and social dynqmics. However, its size represents a metropolitan scale which the area does not handle today, keeping the plaza spaces most of time unhabited and unused due to its size and the social dynamics of the area, remarking the sensation of an empty area not only because od the abandoned industries but because the miss scale appropiation and management.

Chosen Corner
Main Elements

As mentioned before the chosen corner was selected due to the role it curently plays in the neighborhood. Its a corner that supports two scales, firslty the metropolitan scale due to the presence of The Industry Pastas el Gallo, the relation to the Plaza Espana and the big malls present in the block. In the other hand the neighborhood scale is present in the area through the republican houses, the small commerce houses and the current infrastructure. Another important aspect of the selected corner is the presence of the church on front of the plaza which keeps the are active through culture bringing diverse dynamics of social interactions in the area. The chosen corner is equipped of specific architecture pieces that makes the area a perfect reference for the proposal for the neighborhood.

Fig 139. Pastas el Gallo Industry
Big scale structures unused and abandoned in the area, ocuupying one whole block making los Martires an unattractive zone

Fig 141. Republican Houses
Keeps the neighborhood scale dynamics and the historic identity of it, however many of them are found half abandoned and half for commerce

Fig 140. The Church
keeps the area alive in not working schedules, also brings cultural and social interactions to the neighborhood

Fig 142. The Corner House
A typical phenomenon of the area in which the corner of the blocks are curved to allow commercial activities and welcoming from all sides

Analysis and Design Principles

Corner Urban State

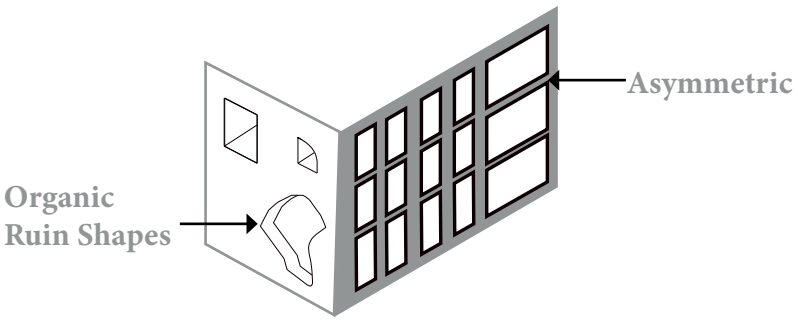
1. Huge scale Plaza without a character or structure to provide and attractive area for social interactions
2. Public space as a resultant of the abandoned areas with dynamics of rejection
3. Unused area from the plaza
4. Active church that brings social interactions to the area.
5. Parking Lot
6. Abandoned heritage industry
7. Caotic street dominated by cars.
8. Textile specialized shops.
9. Unused rooftops
10. Heavily deteriorated industrial structure
11. Side walks invaded by cars and commadity.
12. High vehicular traffic on small neighborhood scale.
13. Warehouses
14. Hangars
15. Highly transformed republican house.
16. Mall

Chosen Corner
Analysis

The chosen corner is equipped of architecture with specific details characterictic from the area representing its identity and history. An architecture analysis is made for understanding the main features of each piece and identify which are representative and remarkable. Due to the architecutre diversity that currently the neighborhood supports, as an advantage it creates a very complex and interesting environment to activate the zone and create an attractive area.

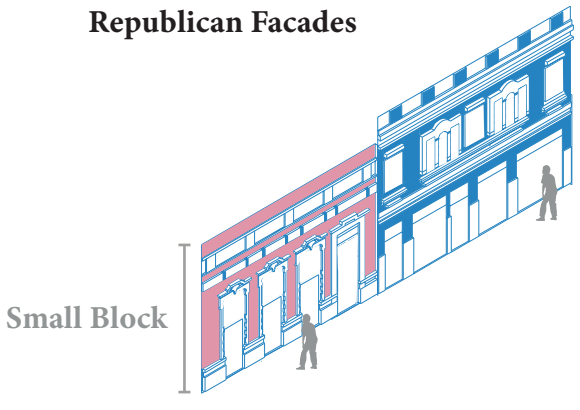
Corner Architecture Identity

Fabrica Pastas el Gallo



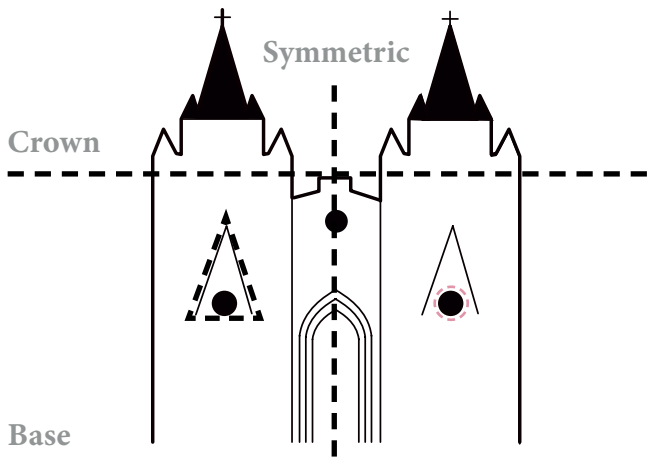
Asymmetric and Organic

Republican Facades



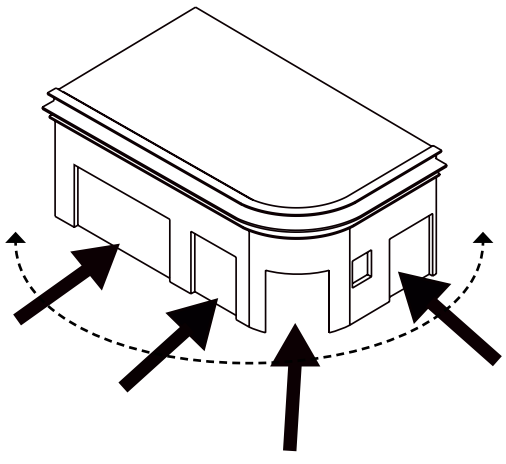
Textures and Colors

Iglesia Nuestra Señora De Los Huerfanos

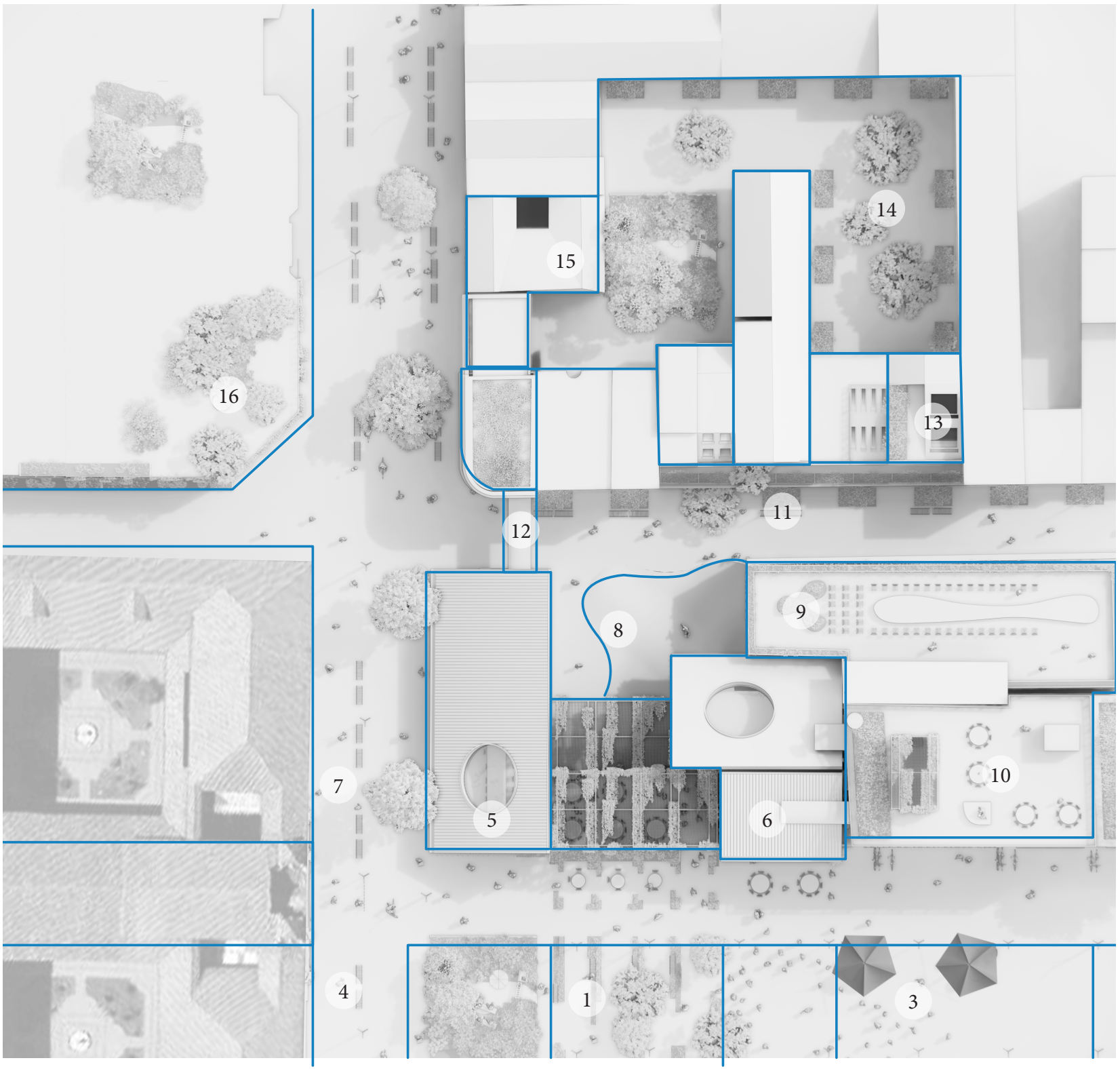


Circles and triangles

Corner Buildings



Open Rounded Corners



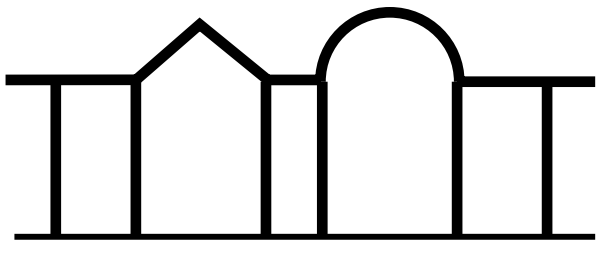
Corner Urban Proposal

1. Spain square relates to the building's by **programatic stripes.**
2. **Comercial edge zones create filterd public private spaces.**
3. **Comercial devices** for ropaviejeros (second hand seller)
4. **Green axis and public spaces** replacing the existing vehicular streets.
5. **Clothing store on ground floor and student workshop spaces on first floor** new building.
6. **Transformed industrial structure** into atelier and urban lab with leissure and entertainment spaces
7. **Ground floor retail passage** with bike path.
8. **Communal spaces of Active Leissure for the young public: Skate Park**
9. **Communal spaces** in higher levels, allowing also an appreciative leissure of the church, heritage and the mountains.
10. **Communal spaces for passive and appreciative leissure** and night entertainment
11. **Residential green edges** create a filter between housing and the public space.
12. **Ground floor passage** give continuity to the block while allowing porosity.
13. **Recycled hangars** converted into housing for new residents, artists and students.
14. **Communal green spaces** inside blocks creating a urban connections and passages for resting and nature actuvation
15. **Restored republican houses** as showrooms and shops
16. **Transformed mall** into parking building with an active green rooftop.

Architecture Brief
Chosen Corner

Following the architecture analysis, the design of the proposal follows the characteristic architecture feautures as design principles to create a local environment from the people and to the people taking the exhisting identity of the place to give it a twist that enhaces the architecture to create a creative hub and attractive neighborhood.

Breaking the Scale

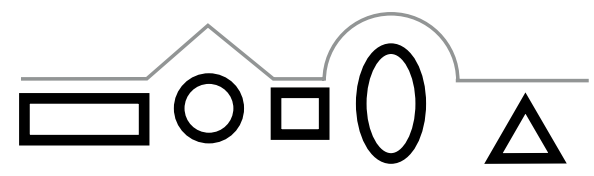


Diverse and Continuous

Vertical Composition

Asymmetric Crown - Symmetric Base

Formal Composition



Curved + Orthogonal

Architectue Composition

Recycle and Reuse local waste + Colorfull and Textures

Proposal

Flexible and modular structures activating the area with entairtainment and daily activities. A landscapes connecting the industy activity with public space of the Plaza Espana

Skate Park as an extend of the public space, also edge zones relation with the buildings.

Urban elements complementing the public space, creating resting spots and bike parking

Promenade of workshops, shops and leissure connecting with the groundfloor levels of the surrounding buildings

Proposal
Explanation

The Intervention approaches the territory through punctual interventions that create one whole system, through the transformation, rehabilitation and recycling of structures the area transforms into a circular economy machine with spaces for exhibition, innovation, and entertainment keeping the industrial character from the place and creating a creative Hub industry that encourages the people to live in the neighborhood in an urban way.

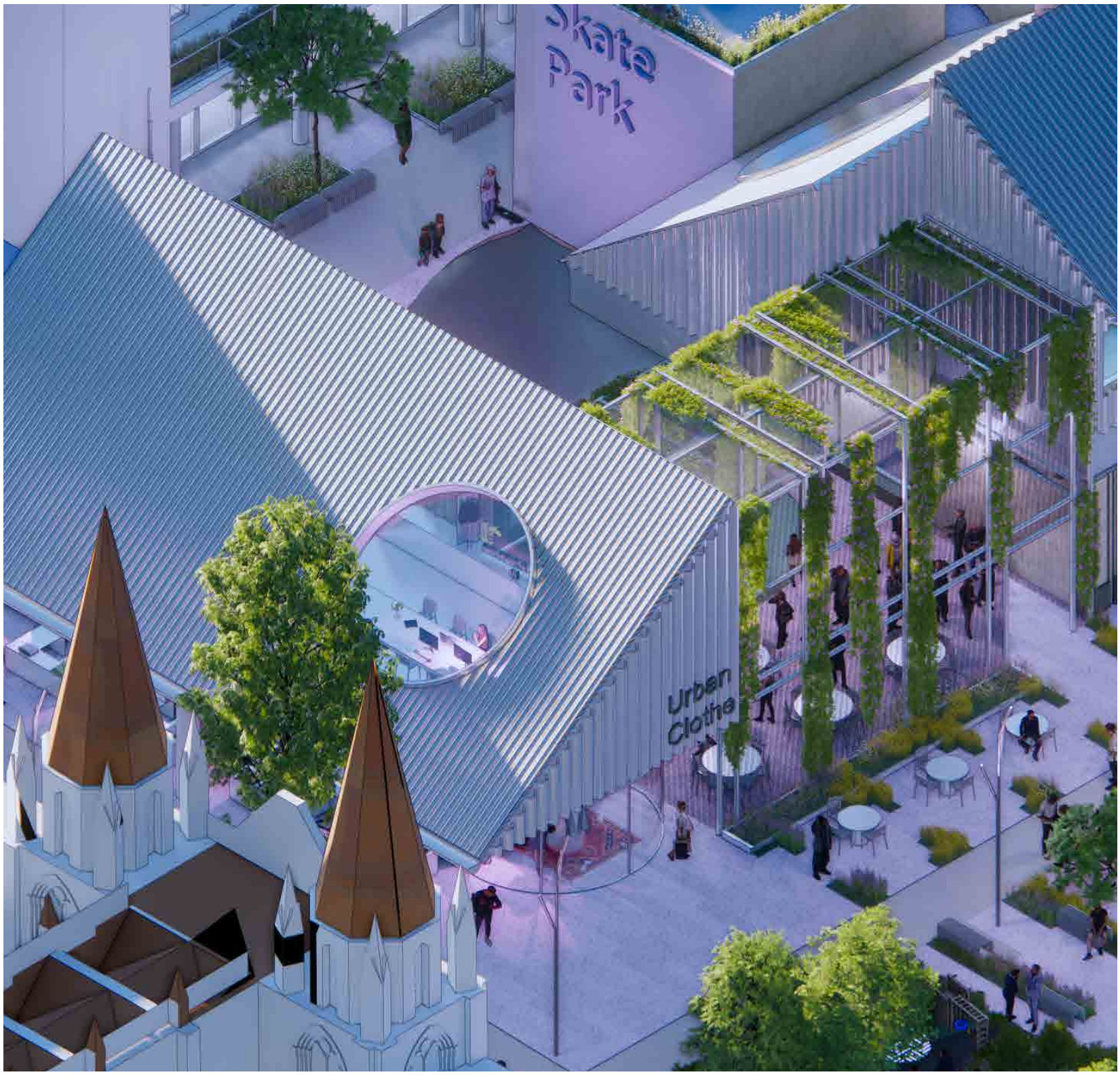
This circular economy machine is programmed in a sustainable way, through the re-utilization of materials from the waste produced by the car repair hangars used to create architecture and interactive spaces with fewer materials and with a social impact. The public spaces take over the existing vehicular streets creating a promenades and ground floor passages and shared spaces with activities that attract people to enjoy the public space and creates community. This shared spaces for leisure, rest, and social interactions will be integrated with the working and innovation working areas, in which the architecture will not require huge structures of towers of 30 floor levels, but instead a light modular and flexible architecture easy to construct that can be also adapted and applied to other areas to create an urban impact and active spaces.

Facade View of Proposal Block


Skate Park
Urban Lab
Urban Clothe
FABRICA DE PASTAS EL GALLO

Active leissure as a highlight of the public spaces as construction of a sharing community and foster better interactions. It creates an attractive place that invites the society to enjoy and live the spaces given. Raising a feeling appropiation of the area. The publi space proposed not only provides a greater public accesibility, it offers spaces that encourages a daily use at any time that are designed for a variety of users.

The Recycled auto mechanic hangar structures into housing that encourages the arrival of new residents as artists, artisans, and students.



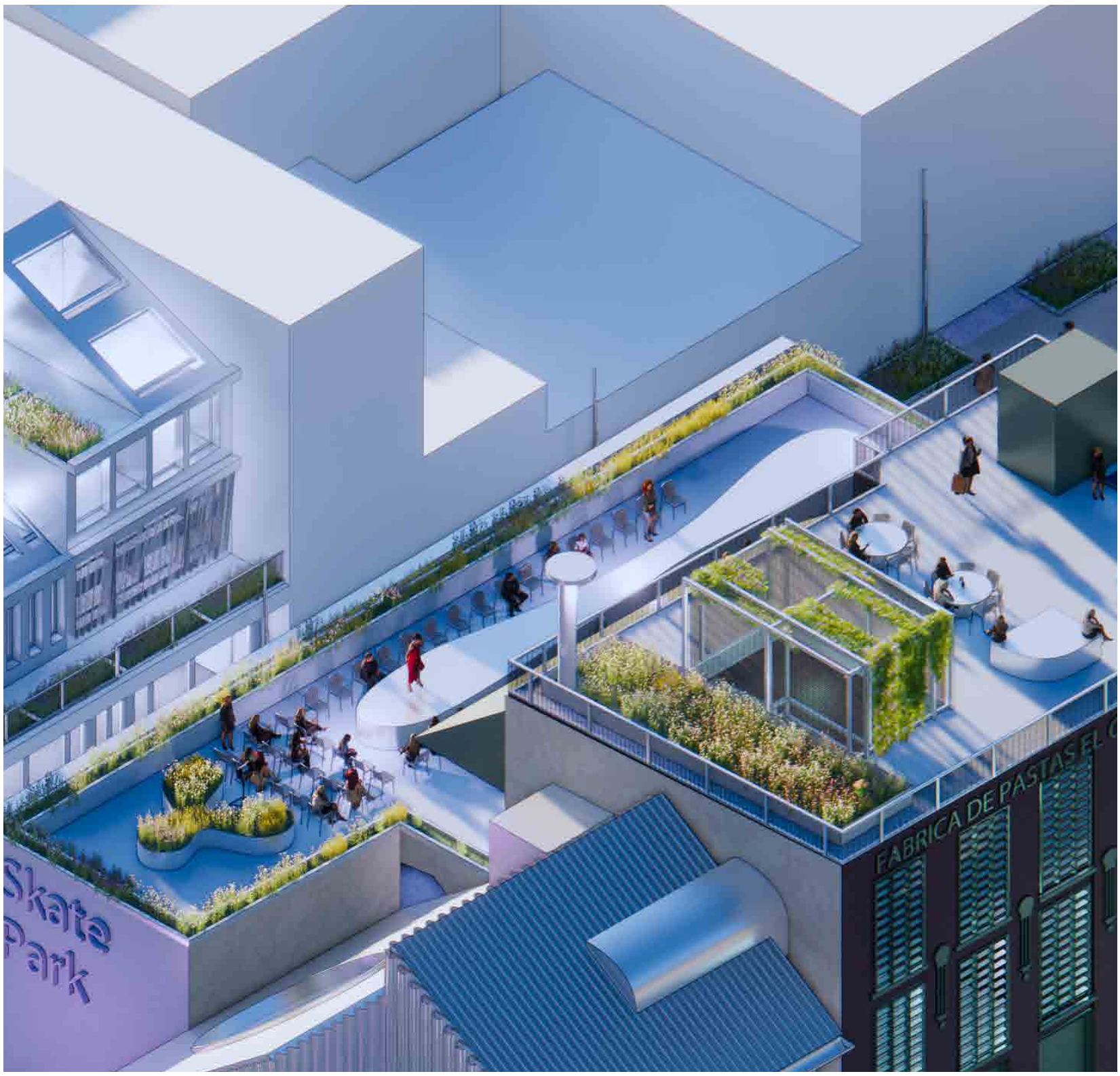
Communal green spaces to transform spaces to connect people to a healthier, greener and appealing environment. This spaces provides a reduction in pollution from the ir of the city, extending the green parks into the architecture and making it accesible for everyone.

Industrial buildings are transformed into a circular economy machine with spaces for exhibition, innovation, and entertainment. Spaces for leisure, rest, and social interactions integrated with the working and innovation spaces build in a light modular and flexible architecture that can be easily assembled, dissasembled and reassembled. an adaptable architecture that encourages a waste reuse like the materials waste from the mecanic hangars.

Approching the Plaza Espana through a **redistribution of the scale into smaller interventions** that relates with the surrounding architecture and activities, creating and extension of it towards the plaza.

Passive leissure as Restaurant tables, and **active leissure** such as the stands for the ‘‘Ropa Viejeros’’for creating market in the plaza.

The **public spaces** take over the existing vehicular streets creating a promenade and ground floor passages with activities and urban spaces that attract people to enjoy the public space and connects the sire, creating a neighborhood that is easy to walk arround and access to all activities. Also shared streets of pedestrian and bycicles. **Heritage houses conserved and restored** into shops and workshops ateliers mantaining alive the historic identity of the neighborhood.



Activation of all floors and creating attractive rooftops terraces that creates a compact, shared and creates a multilevel connectivity and activation for entairtainment and appreciative leissure of the surrounding environemnt of the area such as the church Nuestra senora de los Huerfanos, the conservation houses, the Bogotá characteristic mountains and the innovative architecture.

Section B

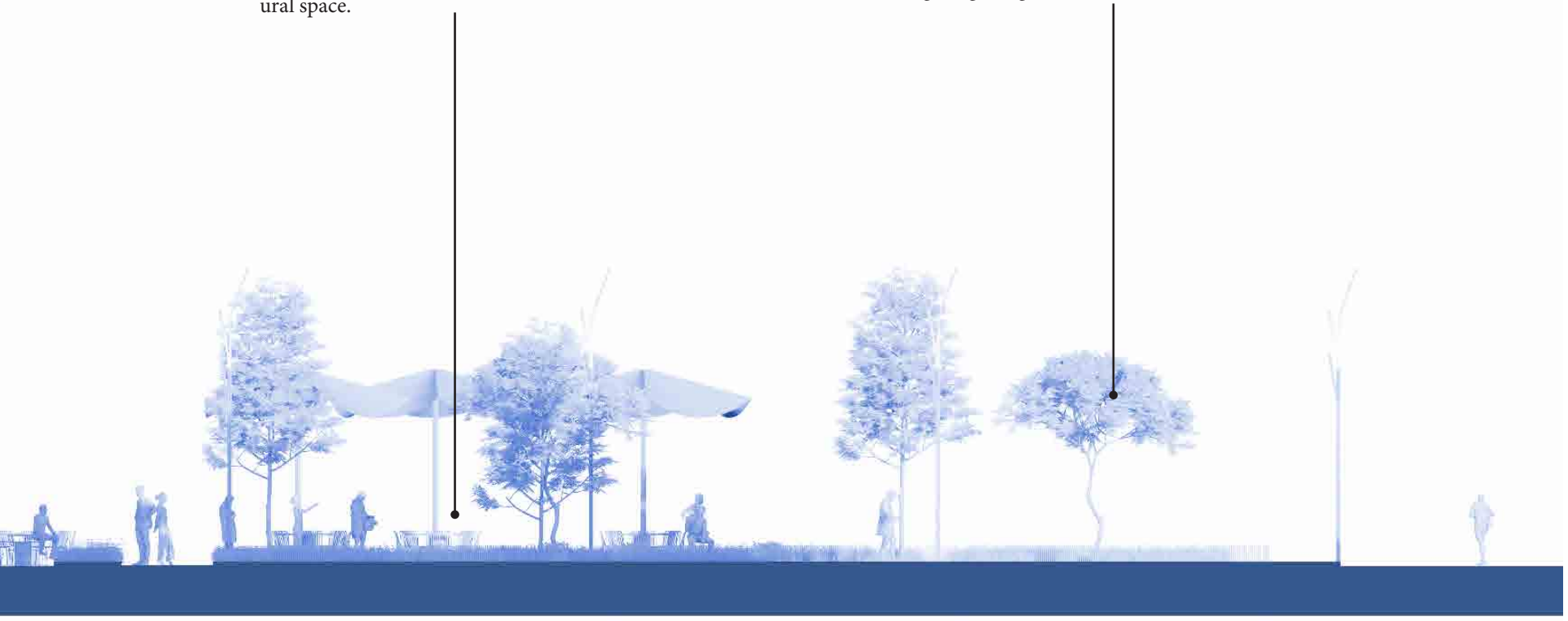
Scale 1:100

The green corridors creates a more sensorial and enjoyable area to create a major connection with the society and its surroundings

Integrating new uses that supplies recreational activities and innovative for the place. It integrates the constructed urban area with a extended natural space.

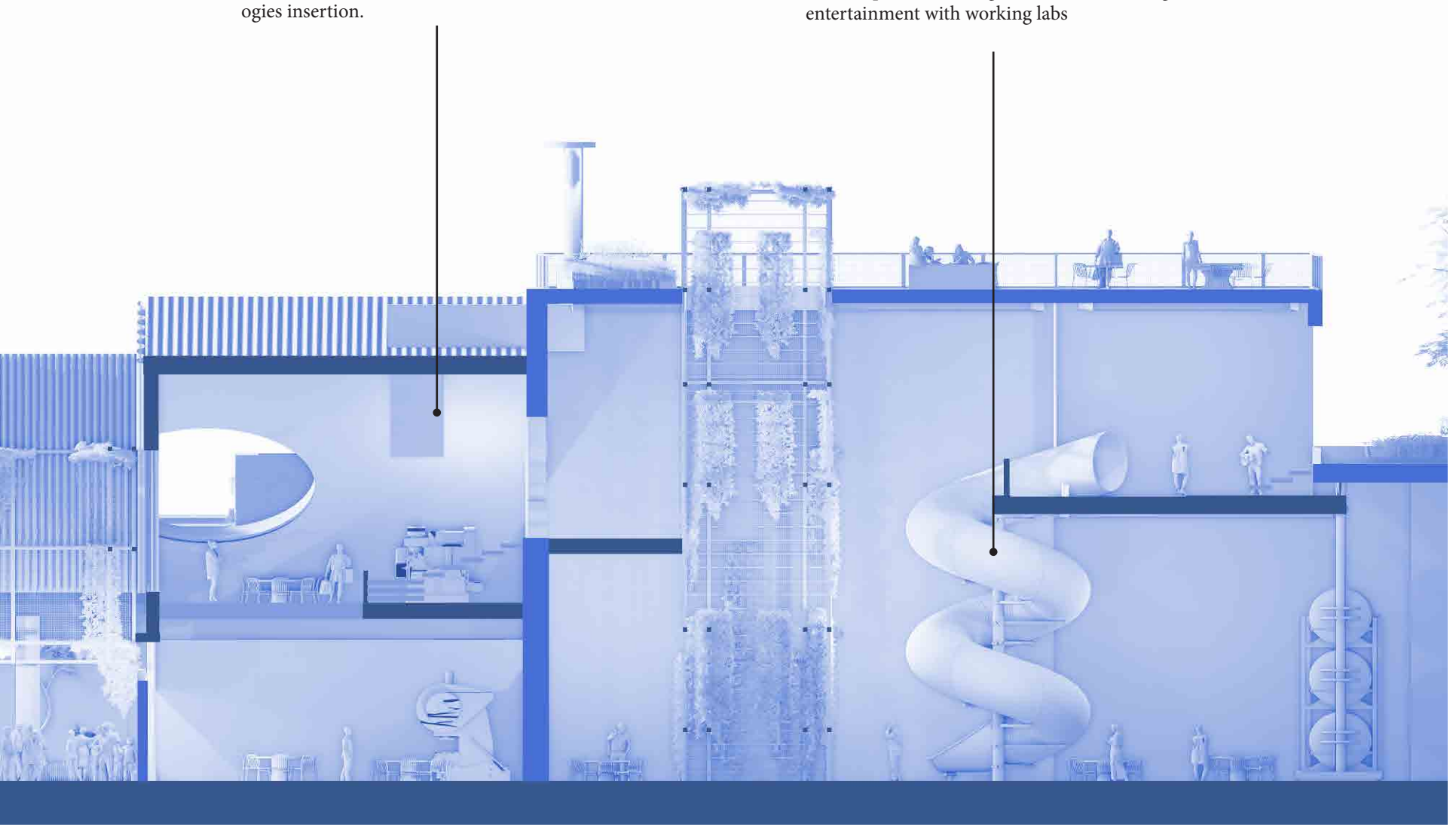
Integrating new uses that supplies recreational activities and innovative for the place. It integrates the constructed urban area with a extended natural space.

Shared spaces with proper urban elements that helps to keep the place alive and attractive such a lighting design



The proyect uses the urban diversity of the place to create spaces that activate co-working dynamics, exposition zones, research labs and new technologies insertion.

Shared spaces that integrates leisssure, resting and entertainment with working labs



Shared spaces that creates community and connections

Conclution

Conclusion
Explanation

Threw a critical analysis and understanding of Nordhavn's history and its current dynamics (using both theoretical sources and self-experience in this part of Copenhagen city), a consolidated view of post-industrial cities was achieved. The view is constructed in 7 principles that structure this kind of city. By establishing these seven principles as the reading glasses to analyze Los Martires the investigation presents a unique, and paradoxically, local diagnosis. By achieving a unique territorial diagnosis the general post-industrial city vision is reshaped to the specific conditions of Los Martires, which allows the construction of 3 strategies. The strategies are developed to evolve the specific territory, knitting the 7 principles in a pattern that can enhance the territory in a sensitive sustainable way, understanding its history, present, and possible future. These strategies were unravel into physical mechanisms that became architecture and urbanism. The architecture exploration was evidence of the sensibility of the análisis and the duality of architecture rooted in the sector but shaped by a Danish post-industrial future city vision.

The final results and investigation addressed important questions about how to approach industrial heritage context, the thesis encourages a sensitive, and therefore naturally sustainable evolution of Historical Industrial contexts. This evolution is meant to adapt the territory to today's challenges but mostly forsaking future possibilities and challenges. The thesis highlights the importance of protecting industrial urban and architectural territorial identity and character but also addresses the importance of its sensitive evolution and transformation, enhancing uniquely rooted territories, into a more sustainable and lively future.

Conclusion
Diagram

Nordhavn

Diverse

Shared

Resourcefull

Biodiverse

Complex

Compact

Accesible

Toolbox

Los Martires

Future Cities

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