





# INHABITING THE CALLE 13

## Bogotá, Colombia

*Urban acupuncture, building city from the public space*

POLITECNICO DI TORINO

Laurea Magistrale in Territorial, Urban, Environmental and Landscape Planning

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*For a balance,  
between urban planning and archi-  
tecture,  
which seeks social actions at the  
pedestrian level*

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*Bogotá,  
my hometown,  
the reason why I decided to study  
architecture,  
is to generate a change in what this  
place can offer*

*the street,  
as the skin of the public space,  
that space  
that is most of the city but is  
invaded by other subjects,  
that place  
that generates relationships and  
must necessarily  
be intervened*

## ABSTRACT

Bogotá-Colombia, known as one of the most populated capitals in the world due to its spontaneous growth (a phenomenon that occurred not only in the capital but throughout the country) offers the opportunity to experience new urbanization strategies. One of the problems that this exponential growth entailed was the impact that urbanizations left on public space, which is one of the key concepts for increasing or reducing people's quality of life. Due to this, the important cities of Colombia, including Bogotá, have gradually tried in recent years to improve the land use plan, including features that help improve the precarious/ephemeral public space that exists. To face this situation, the street is understood as one of the important points of the public space and place where the encounter between people occurs, and for this reason, the proposed strategy consists of an urban development with a pedestrian approach, which provides the opportunity to dissolve the lack of public spaces along an important/historical axis of the city such as Calle 13, to improve the quality of life of citizens. Therefore, the purpose of studying La Calle 13 in its entirety is not only to provide guidelines for an intervention at an urban level that would help improve sustainability in terms of environmental, mobility, and public space, but also to go into detail with the design of different spaces adjacent to the street, to generate a revitalization of the whole by healing the parts. It begins with an environmental proposal on a historic square located at the beginning of Calle 13, which, through the restructuring of the pedestrian route and the use of vegetation, offers spaces of permanence that aim to help the health of the pedestrian also with a path that is aesthetically pleasing. Then in the Plaza de la Mariposa known for its high pedestrian flows due to its commercial nature, two types of intervention are proposed. The first, a little invasive solution, shows the new trend in Bogotá with the use of temporary architecture, the containers, this in order to propose spaces of permanence that give people a reason to appropriate the square in a different way.

The second design refers to the memory of vegetation and water, generating a pocket park, which maintains the identity of a plaza-flow, but offers new characteristics for pedestrians. The last proposal, is the intervention of a private parking lot located in the vicinity of a historic place for citizens such as Savanna Station, bringing with it an example of a participatory design that generates an on-air “museum” open by locals, with a local theme. This thesis proposal provides the opportunity to see how working at different scales improves the understanding of people’s current needs and thus offers more rigorous planning, which satisfies the city through the fulfillment of the basic needs of pedestrians. Finally, the interventions are located in more urbanized areas in order to intervene in spaces that are currently highly frequented, but at the same time, give an indication to continue creating interventions on a pedestrian scale along Calle 13, thus creating a corridor of pedestrian experiences.









*Quality of Life*  
*Art of Walking*  
*Recovery of Public Space*  
*Appropriation*  
*Abandonment*  
*Identity*  
*Pedestrians*  
*Evolution*  
*Progress*  
*Urban Scale*  
*Pedestrian Scale*  
*Creating City*

## INTRODUCTION

*“The more successfully a city mingles everyday diversity of uses and users in its everyday streets, the more successfully, casually (and economically) its people thereby enliven and support well-located parks that can thus give back grace and delight to their neighborhoods instead of vacuity.”<sup>1</sup>*

**T**his thesis is the result of observing the differences in the quality of life between people from different countries in distinction to the benefit of public space, specifically, the street. This question arises during different trips in which the walking qualities proposed by different spaces for pedestrians can be evidenced. The art of walking as stated by Henry Thoreau, “Walking is in itself the company and the adventure of the day”<sup>2</sup>. The manifesto *Walking* (1862, USA), has been lost, due

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<sup>1</sup> Jane Jacobs. (1961). *The Death and Life of Great American Cities*. New York: Random House.

<sup>2</sup> Although the manifesto refers to the life of man with nature, it is worth emphasizing the importance of understanding the action of walking towards the benefit of a person. The walker not as the actor of movement but as a personal experience.

to the physical characteristics of the space, which are not adequate, or the progress that communication between people has had, which reduces the encounter in the street

The thesis is based on investigating phenomena of recovery of public space in the city of Bogotá - Colombia, through small interventions in specific places in order to generate a higher quality of life for citizens. However, from a chaotic context in which the place of study is located, and with a lack of proper appropriation of the public space, the abandonment was imminent, either due to the transformations that the street had, being a more regulated place or as the new street use. Whether it is a loss of identity throughout history, a mismanagement of the overflowing growth of the city or economic crises that do not provide a suitable place for pedestrians, Bogotá continues to be an emerging place for new projects and gradual changes that help to generate city.

The structure of this thesis is based on three questions, which as they are answered give meaning to the realization of the project. The **first chapter**, Where?, gives an approach to the reader about the context where this thesis is going to work. Moreover, From a broader context, explaining the generalities of Bogotá as a capital city, the evolution of Calle 13 and its current state, as it will be the specific workplace.

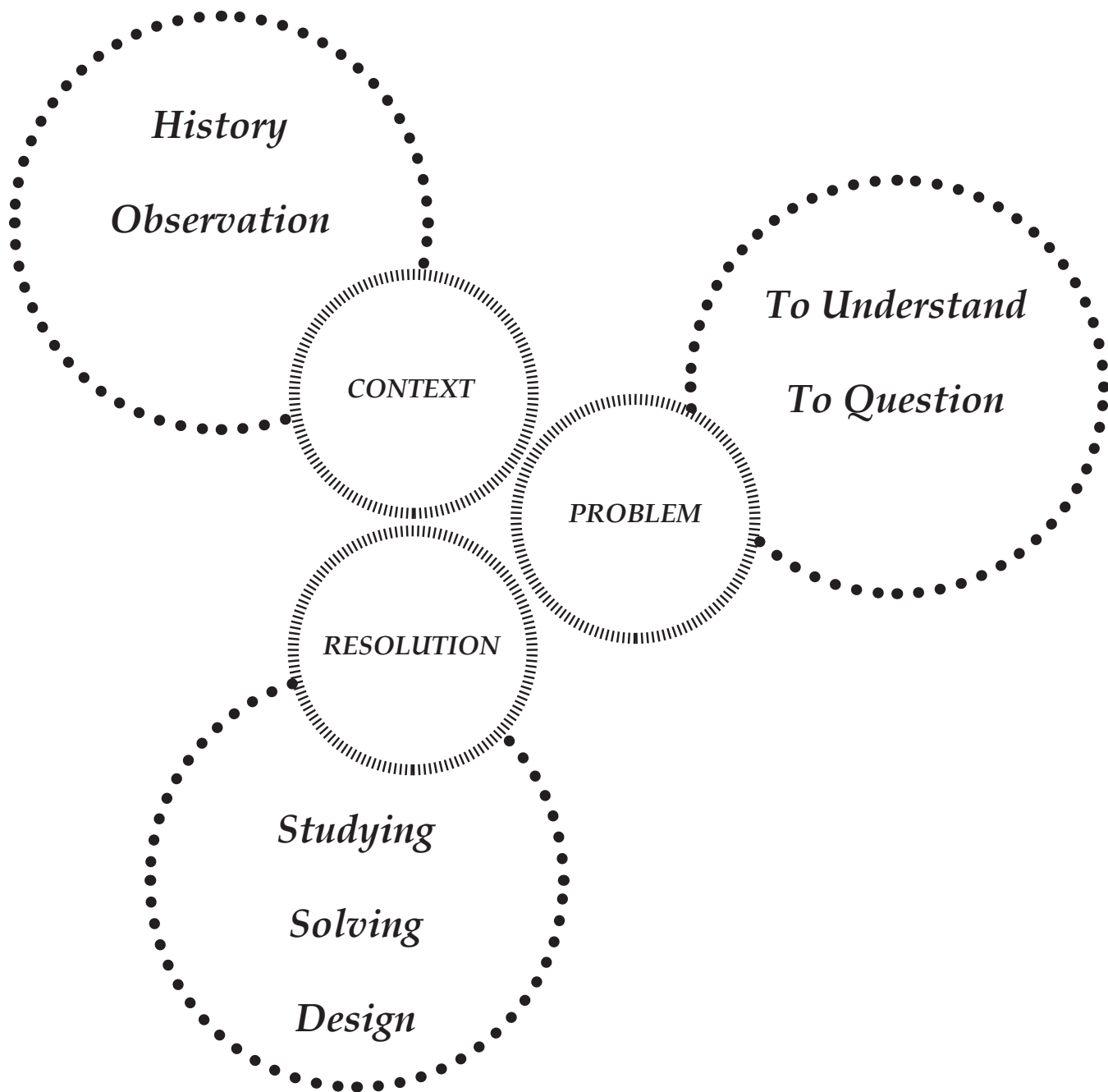
The **second chapter**, Why?, will be the state of the

art of the project. That is, answer the questions / problems (from a general perspective to the approach by sector of Calle 13) through a theoretical framework that provides the basis for the work.

The **last chapter**, How?, reveals the project proposal on an urban and pedestrian scale, thus generating harmony and consistency in the project. In addition to showing how the proposals for the improvement of public space are currently carried out.

Ultimately, some conclusions are generated about the importance of public space and how the intervention of this can improve the quality of life.

In order to enable the reader to have a complete experience about the dynamics that Calle 13 can have, the route that is made by walking it, is shown throughout the thesis through the exposed photos.



*01*

WHERE?





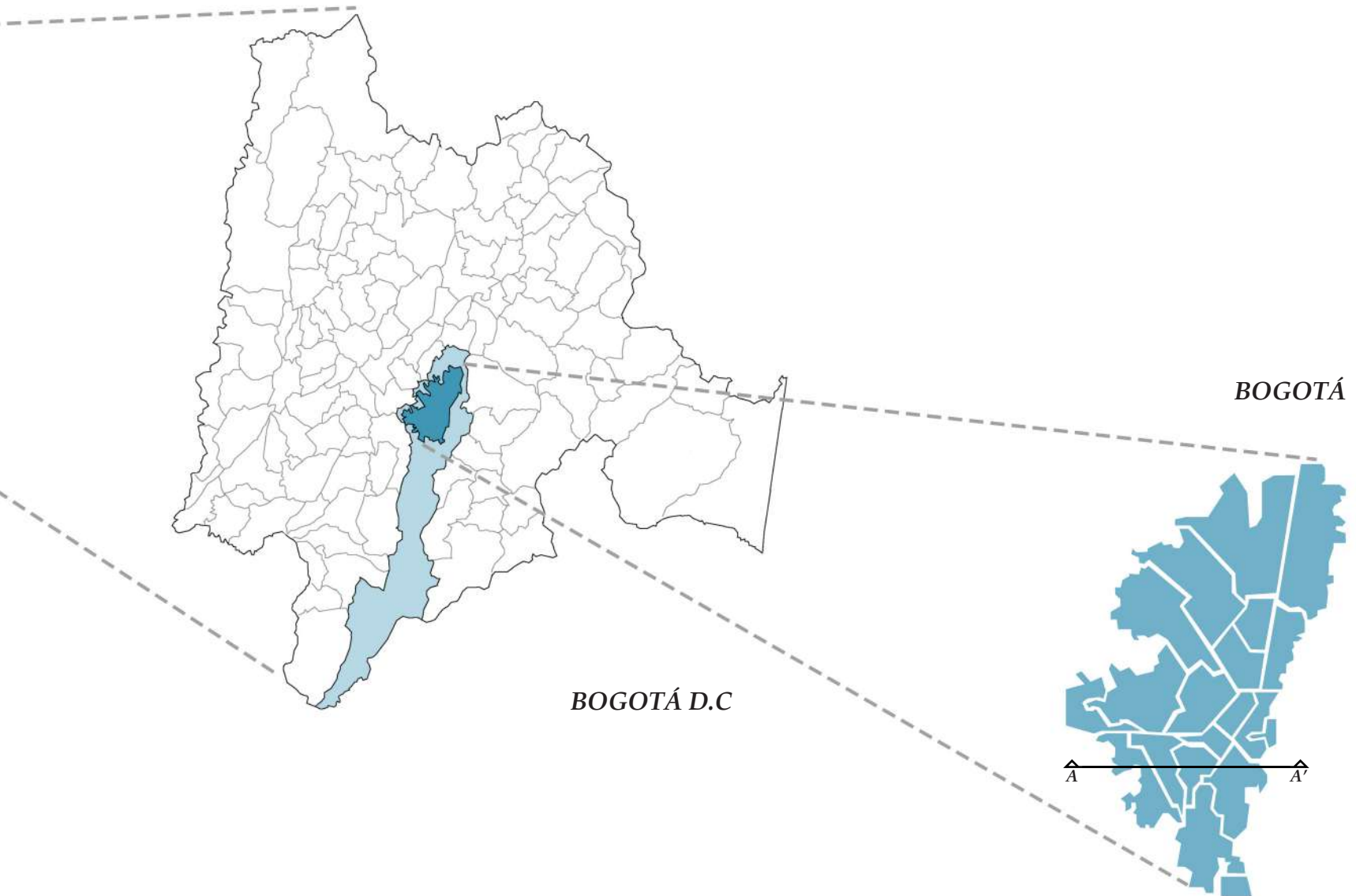
*COLOMBIA*



*CUNDINAMARCA*

*LOCATION*

*Section A-A'*





## 1.1 A Close Up to Bogotá - Colombia

Colombia, located in the northwestern part of South America, bordering Venezuela, Brazil, Ecuador and Panama; strategically positioned and the only nation in South America that can enjoy the benefits of the Atlantic Ocean through the Caribbean Sea and the Pacific Ocean. It is a country organized by 32 departments and the capital district of Bogotá, which extend over an area of 1,141,748 km<sup>2</sup> (IGAC)<sup>3</sup>, with great changes in topography, that is, from Los Andes mountain range (between the group of the most extensive in the world) that runs along the western side of South America, up to the eastern plains that extend towards Venezuela, whose height difference is 5775 meters (but most of the territory is plain), which is the highest peak in Colombia. In addition, it is considered the second most biodiverse country in the world due to its location in the tropics and five natural regions can be evidenced due to the relief it has, although it must

<sup>3</sup> Agustín Codazzi Geographical Institute. The institute separates the surface between maritime and continental, the designated area is only land. The total area is 2,070,409 km<sup>2</sup>



be emphasized that there are problems / conflicts between the inhabitants and environment protection, due to the various informal settlements that occurred in the development of cities in the country and due to the extraction of oil and minerals.

The country has a projection of inhabitants for 2021, 51,049,498 and an estimated density of 44.71 inhabitants/km<sup>2</sup> (DANE)<sup>4</sup>, however, it should be noted that the low percentage of density is linked to being an undeveloped country in its entirety and its morphological characteristics. Furthermore, two development poles are formed at the national level, which are where most of the population is concentrated. The first point is focused on the Caribbean region through cities such as Barranquilla, Santa Marta and Cartagena, and the second pole known as the golden triangle, constituted by Bogotá, Medellín and Cali. Likewise, the variety of the population in cultural terms can be traced back to the pre-Columbian era, of which the indigenous descent of the Tayrona is still present in the Colombian population. The cultural diversity in the country mixed with pre-Columbian and Hispanic history has fostered an approach by UNESCO in certain cities of Colombia, coming to consider them as heritage of humanity, such as, for example: the historic center of Cartagena and Mompox, different parks that seek to preserve the fauna and flora. Therefore, the Colombian mentality has been gradually changing in order to conserve historical

/ natural sites. Lonely Planet, being one of the best travel guide publishers in the world, nominated Colombia in 2006 among the 10 countries as a tourist destination in the world, becoming one of the most important economic factors in the country. However, it should be noted that one of the problems that most affects Colombia is both economic and social inequality, to the extent that 2017 World Bank figures put Colombia as the seventh most unequal country in the world.

Bogotá, located in the center of the country and being the capital of Colombia, has the autonomy to manage its interest within the constitutional framework and the law. It is made up of 20 localities, one of which is rural and several of these in their time became towns near the capital that, due to its growth, became what is currently the locality. The presences of the foothills of the eastern mountain range (part of the Andes Mountain range) defines the North-South direction growth of the city. Currently is materialize in 33 km, but, due to its magnitude it began to distribute its progress also in the West-East direction in a length of around 16 km. Its current surface is distributed in 1775 km<sup>2</sup> (IGAC), of which most of the city is in plain (at an average height of 2600 meters above sea level) with an almost imperceptible minimum slope, but it should be emphasized that there are certain urbanizations located in the mountains which arose from informal settlements that grew overwhelmingly, and the State has gradually formalized them.

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<sup>4</sup> Population Projections DANE, National Administrative Department of Statistics. Colombia had its last census in 2018, which resulted in a population of 48,258,494



*Bogotá - Colomiba, View from the eastern hill, in the church of Monserrate*



*Bogotá - Colombia, View from the hill of Suba neighborhood in the north-west*



The city of Bogotá is the largest in terms of area and population in the country, currently it has approximately 7,743,955 inhabitants (DANE)<sup>5</sup>, and a population density of 16,470 inhabitants/km<sup>2</sup>, exceeds the second by more than 21%. As can be seen in table 1, Bogotá has had an exponential growth in its population that shows an accelerated urbanization process, it not only occurred in the capital but the entire country, however, it is not only due to the industrialization process, but there are also political, social and economic reasons which have motivated migration from rural areas (countryside) to the city. Poverty and violence are the factors that most influence the displacement of the population, the problem lies when they adapt into the capital, where resources are badly distributed. The Consultancy for Human Rights and Displacement (COD-HES)<sup>6</sup> demonstrated that between 1999-2005, more than 260,000 displaced persons arrived in Bogotá, equivalent to 3.8% of the capital's population, thus determining an exponential growth in the peripheral area of the city. Likewise, the city offers people different services which provide a better quality of life for individuals from different regions of the country and citizens of other nations, is another reason why Bogotá becomes the epicenter not only economic, but a multicultural city where the aim is to harmoniously mix all kinds of cultural beliefs and practices and is also known for its cultural agenda. Similarly, the city not only offers work options for an industrial economic, as mentioned

<sup>5</sup> The last Census carried out was in 2018, and resulted in 7,181,469 inhabitants

<sup>6</sup> It is an organization that works for people and groups in situations of displacement and human mobility



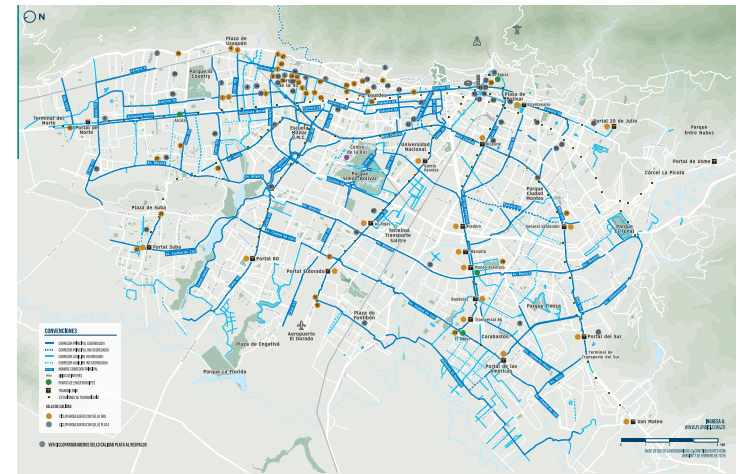
Table 1 - Own illustration, data collected from DANE

above. So much that in 2007 the UCCI (Union of Capital Cities of Ibero-America) awarded the distinction of Ibero-American capital of culture to Bogotá, which is why gradually the offer of scenarios to enjoy public life has been increasing. Due to this, there is a great variety of events throughout the year of national and international scope that host all artistic, sports and gastronomic expressions.

At the same time, to start talking about the central theme of this thesis, the street, it is pertinent to mention that throughout the 21st century the administration of the capital has borne in mind the need to bet on sustainable mobility and has approved policies to favor of an alternative mobility to the vehicle, where economic prospects are influenced by urban transport planning. The capital's commitment to an alternative transport system such as bicycles goes beyond a cultural issue, which has historically made Colombia known, unlike most large cities in Latin America.



Bogotá does not have a metro system, and its only means of public transport is a bus network (Transmilenio included) that accounts for around 40% of city trips. The only thing that this statistic demonstrates is the need for Bogota citizens to use a private vehicle, which, in a metropolis with a not fully developed and congested road system, involves traffic problems, quality of life and public health. According to INRIX (Traffic Data Analysis Company), in 2020, Bogotá ranked first among the most congested cities in the world, where drivers lost approximately 191 hours a year, due to traffic congestion generated in the town. To add, in a 2019 annual report from the Swiss consultancy IQAir, Bogotá ranks as the fourth worst air pollution due to gas emissions, among the capitals of Latin America.



Map 1 - Bike paths in Bogotá

*Source: Alcaldía Mayor de Bogotá - Secretaría de Movilidad*

than mobility. To clarify, **Calle 13** as a case study, has a route of approximately 3 kilometers of bicycle network, which unfortunately is not usable due to an informal appropriation of vendors, whose problems will be explained later. In addition, Calle 13 is not in the network of roads used on Sundays for the “Ciclovía”, which does not provide such a strong relationship in the East-West direction for extracurricular pedestrian activity.

On the other hand, in terms of public space, the city has been slowly evolving in its process of providing quality spaces for its citizens. In the last twenty years the National Government has gradually proposed an advance in urban planning regulations, which consider the issue of public space (Annex 1 - End of Subchapter). This is related to the quantitative and qualitative deficit of public space which has been influenced by an accelerated growth of the city (not only Bogotá was affected by this phenom-

enon), which has brought with it difficulties to control urbanization processes. Most of it was spontaneous and informal, therefore, the conditions in which the public space is found are not adequate.

Finally, there is a planning instrument called the **Territorial Ordering Plan (POT)** which governs the development path that Bogotá will have in the coming years. The last one is entitled the rebirth of Bogotá, which is a 13-year program (2022-2035) that aims to prioritize interventions and general decisions regarding public services and facilities, which allow improving the quality of life of citizens.

*Why should we talk about this planning instrument?  
What is the overall objective of the POT?*

At the time of presenting a proposal at different scales, which is the objective of this document, and whose objectives are based on the same foundation, to provide quality of life through concepts such as environmental sustainability, rational use of land, development of equipment for social services, which can be from the improvement of public space, to a construction of a public nature, the guidelines that the city wants to propose for the future must be clear, in order to propose something innovative, from the urban scale to the scale pedestrian.

## **Annex 1**

Through the years the urban planning guidelines and regulations have been improving with respect to the need to have a better criterion for public space. Next, the normative antecedents that have led Bogotá to be what it is today will be explained in a general way, which come from document 3718 of CONPES (National Council for Economic and Social Policy Republic of Colombia National Planning Department) which establishes the National Policy of Public Space.

In 1989, a law was issued regarding urban reform, which defined what was public space and elements were incorporated to clarify the conception of public areas. Later in 1991, the Political Constitution of Colombia established an article that “It is the duty of the State to ensure the protection of the integrity of public space and its destination for common use ...” For its part, in 1998, the decree “By which regulates the management of Public Space in the Land Use Plans”, in compliance with the public function of urban planning, on the maintenance and protection of public space over other land uses. Finally, in order to complement the decrees approved, in 2005 another decree came to light that established basic criteria aimed at avoiding and suppressing urban and architectural barriers in the design and construction of roads, public spaces, in order to be accessible for people including the population with reduced mobility.



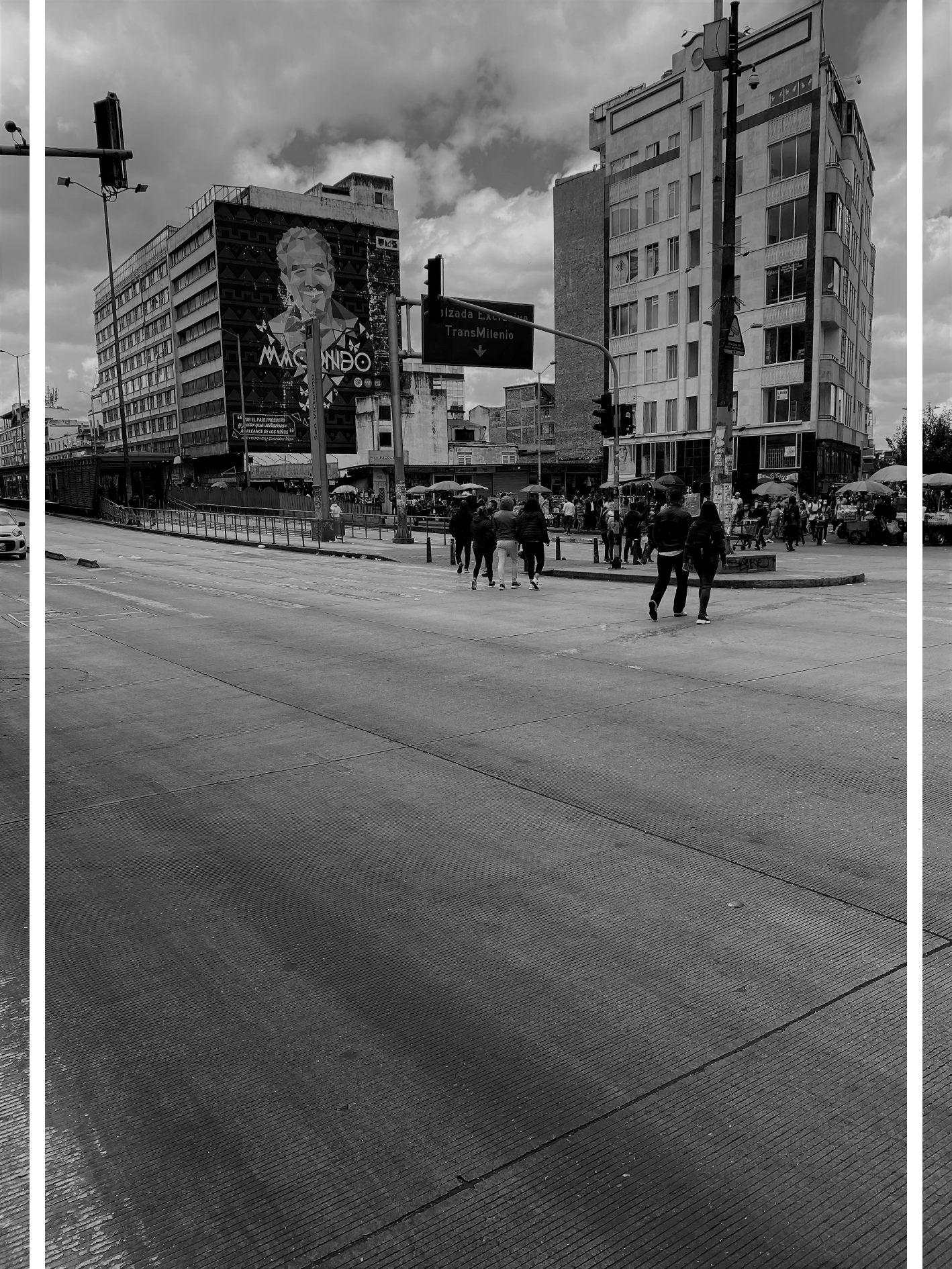


Scale 1:75000









## 1.2 Darwinian flows applied to the Calle 13

**T**he next sub-chapter analyzes the evolution of Calle 13 in relation to the urban growth of the city. For this, a timeline is made that responds through date ranges to a fundamental concept (which marks and solidifies the dynamics of Calle 13. The first part of the timeline, located at the top of the page, refers directly to the events that throughout history clearly influenced Calle 13 within the given concept. On the other hand, the lower part explains the events that influenced the growth of Bogotá and generated drastic changes to the dynamics of the capital. and they are necessary to enunciate, in order to respond to the concept of the Street as a living being. The last part answers how the change of appropriation of the street has generated a loss of identity to the public space, which is reinforced with historical photos of Calle 13.



## *The Origin of Bogotá*

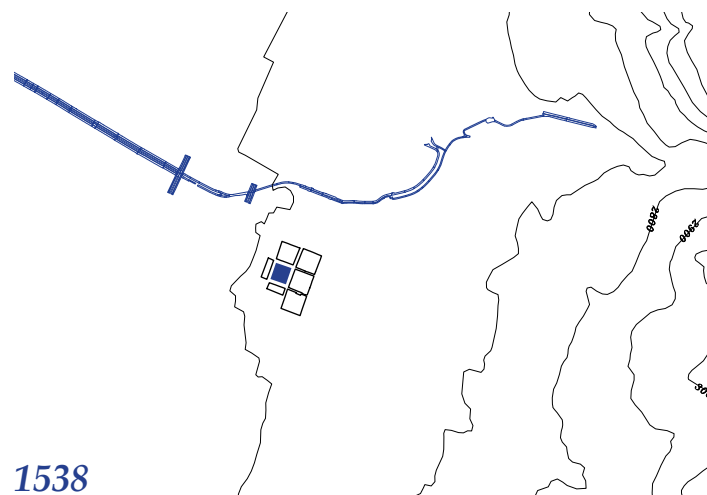
1553

Construction of a bridle path on the road of a trail that connected Honda (small town to the West) with Santa Fe (old name for Bogotá), this would be the gateway to the west.

1560

The first houses were built by carpenters out of stone and durable materials in the vicinity of what would be Calle 13.

■ Calle 13



### **The Foundation**

Bogotá was founded on the 6th of July of 1538 by Gonzalo Jiménez de Quesada. A year later, in 1539, there was a meeting with the conquerors Sebastián de Belalcázar and Nicolás de Federmán to set the basis for a second foundation on April 27th. With this new delimitation, Plaza Mayor (Main Square - Blue in Map), the streets tracing and the land repartition among the founders and its friends in order to set up a social status.

1578

In this sector, houses began to be built and formed a main line between the squares and the San Francisco river (Path of Calle 13).

1582

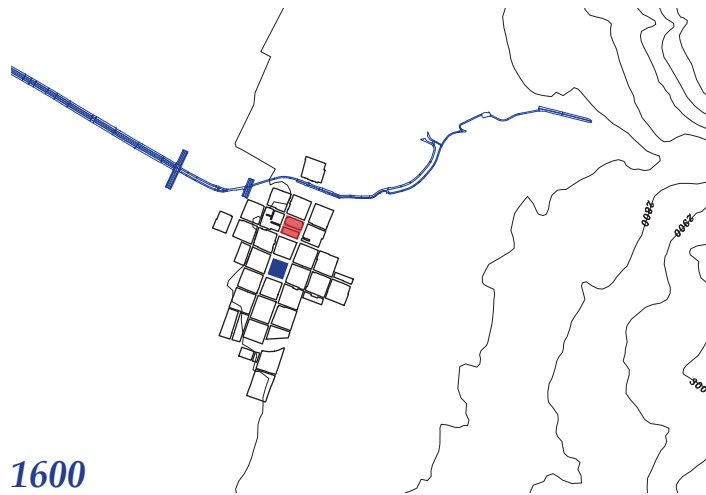
The Plaza Mayor and the so-called Plaza de las Yervas, as meeting points for the inhabitants. Calle 13 as an intermediate point.

1625

Calle 13 sits on the San Francisco River and adopts a pedestrian characteristic

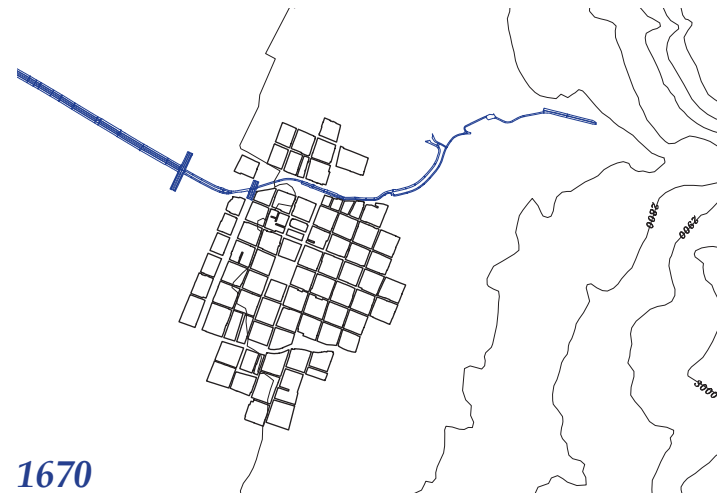
1660

Calle 13 becomes a boundary which stops the growth of Bogotá towards the north and looks more developed towards the south.



### Bogotá, the colony

During the XVI Century the urban development of Bogotá was limited between the Main Square and Herb Square (Plaza de las Hierbas - Red square); however, with time, throughout Street 9 independent constructions and other buildings began to appear to the occident. As part of the colonial architecture, religious buildings were crucial for the people and its daily life, besides other central buildings with political, administrative, and social purposes.



### Years of Urban Development

The new limits of the city were traced according to the new churches: Las Nieves, Santa Barbara, and San Victorino, places in which the natives of the region could be indoctrinated. These places began to have a good reception among the community and with this more constructions were being built around these places, the most important edifications were: the city council, La Real Audiencia, the jail, and other religious buildings. At the same time, natives were brought to work in the city.



1791

A road improvement project was started with which many roads were paved, including Calle 13. Enhancing its pedestrian character with the river on its side

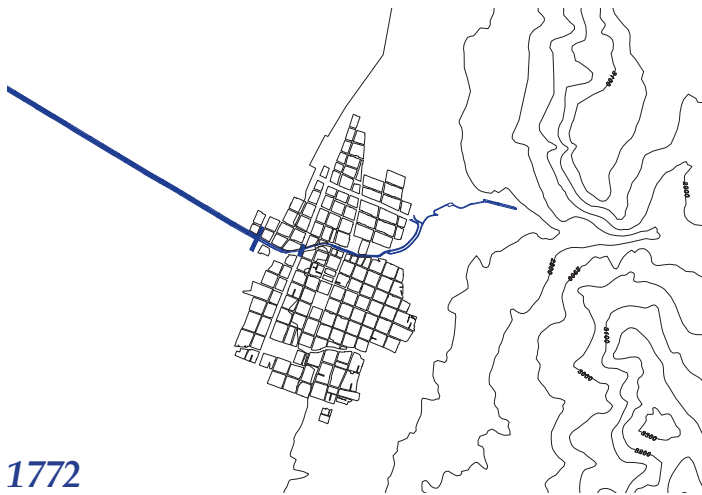
1800

The surrounding buildings began to respect the physical shape of the street.

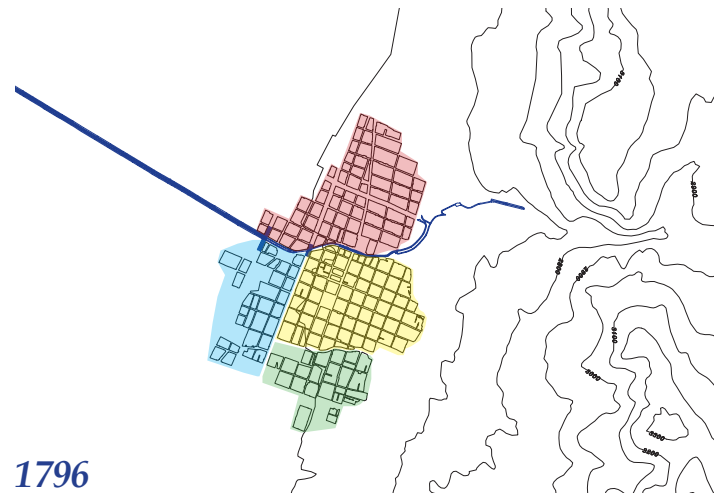
1820

The refusal of the landowners to urbanize the lands they had adjoining the city was the reason for the stagnation of urban growth,. Therefore, Calle 13 becomes the main axis of the East - West.

1772



1796



## Bogotá's Attractiveness

Throughout this period, there was a quick increase in the population thanks to the "attractiveness" that the city would produce due to its constant expansion. The consolidation of several neighborhoods such as San Victorino, gave the opportunity to establish the first points of commerce of the city. Furthermore, a process of renovation began by adding cobblestone streets, the aqueduct, and bridges with the purpose of improving the life conditions in the city.

## The City Sectors

During this time, the city keeps experiencing a huge increase in the amount of people living in it. With these new plans of growth, the city is divided into 4 sectors: the city center was held in between the rivers San Francisco and San Agustín and between Carrera 5 and 10. The north, that would begin from San Francisco River up to San Diego and from the hills to Carrera 13. The south would be defined by the constructions to the south of San Agustín River and the occident sector would be San Victorino to Carrera 10.

1825

The Plazuela de San Victorino is created, currently known as Plaza de la Mariposa.

1850

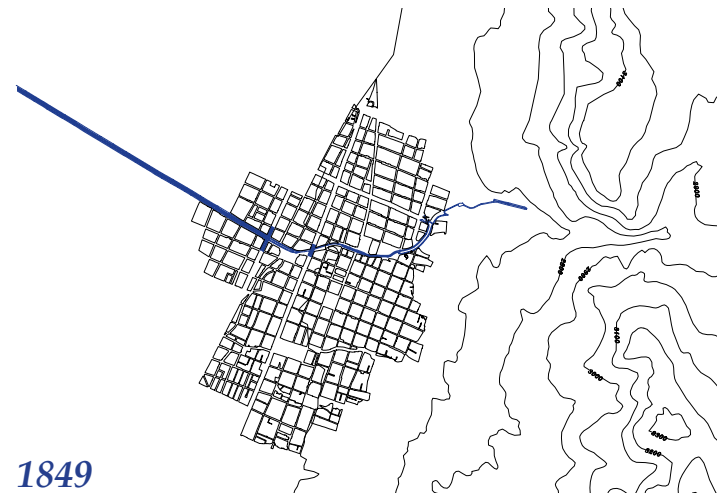
Calle 13 became the axis of growth to the west, with the construction of the plaza Los Mártires.

## Urban Consolidation



### Commerce + Immigrants

The increment of commerce, the arrival of immigrants and the absence of epidemics meant a huge increment in the total population of Bogotá. Nevertheless, Bogotá's extension was good for the actual population at the time thanks to the dimensions of the houses and the creation of new neighborhoods adding up the construction of public buildings and churches. The populated area of Bogotá would go from street 3 to the 24 from north to south and from Carrera 2 to 12 from east to west.

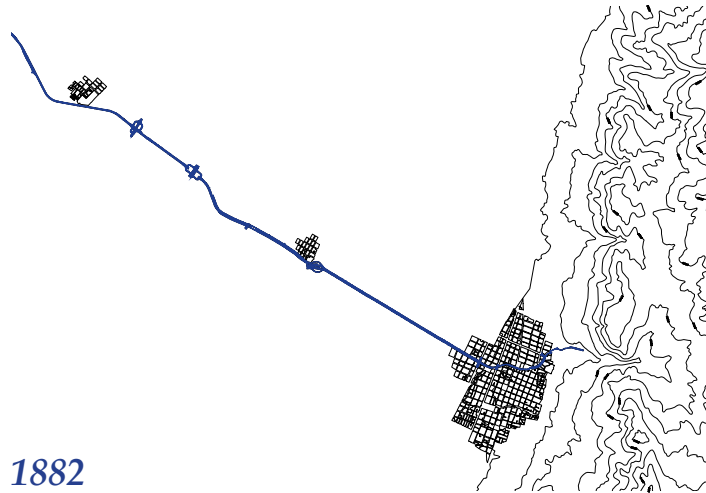


### The Increase in Population

Throughout the previous 50 years, the demographic data shows that the population doubled due to the people that were coming to the city seeking a better future. During that time, there was a common custom between the medium and high-class families, and it was to split their houses to receive people who were coming to the city; therefore, the amount of people living in the city increased drastically but the city did not expand furthermore throughout this time.

## Mobility as a method of growth

1882



### Expansion to the North

During the XIX century, Bogotá had kept almost the same city limits, however, it is becoming quite evident that there is an intention to expand to the north since there is an increase in the constructions of houses and villas from those rich citizens; those houses became recreation points for those with wealth. With this, the construction of the tram through Carrera 7 heading up north boosted the growth of the city to the newly established sector called Chapinero.

1853

The construction of bridges over the San Francisco River was imminent, this in order to improve the connectivity of the North and South areas of the capital.

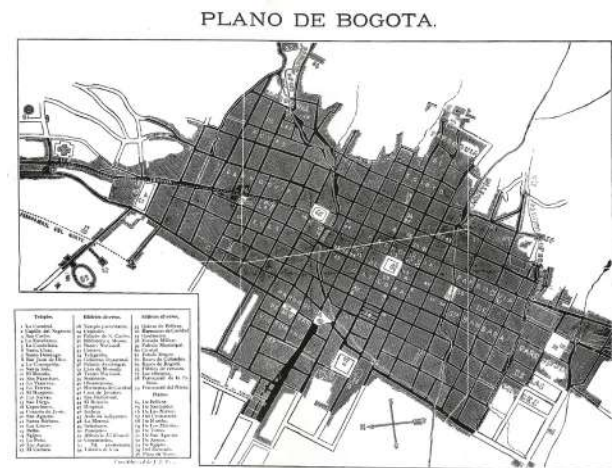
1887

Calle 13 as the only urban connector of different towns in the West with Bogota.

Source:

- Francisco Javier Vergara y Velasco

- Personal Collection 1891



### Transport as a growth promoter

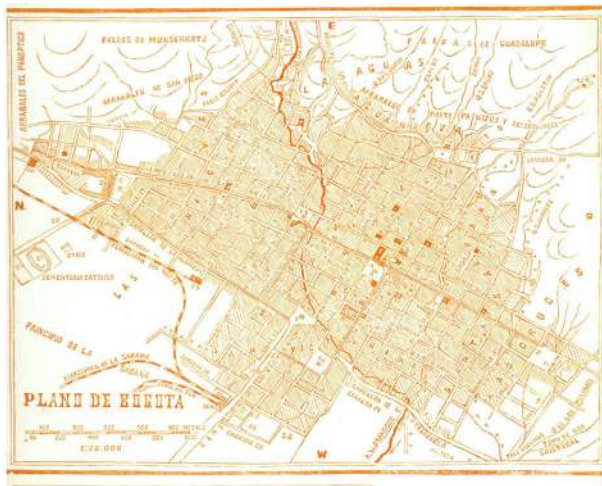
The development of public transportation began to influence the urban growth of the city, with this, the tram began to expand and to promote construction through Carrera 13. In order to cope with the demand, 5 more tram lines were built in the city centre and besides that the construction of the railway between Bogotá and the municipality of Facatativa was inaugurated. On the other hand, the theatre and the telephone centre were inaugurated as well.

1891

The San Victorino sector (leaving the capital on Calle 13) is transformed into a highly urbanized area due to its industrial importance.

1900

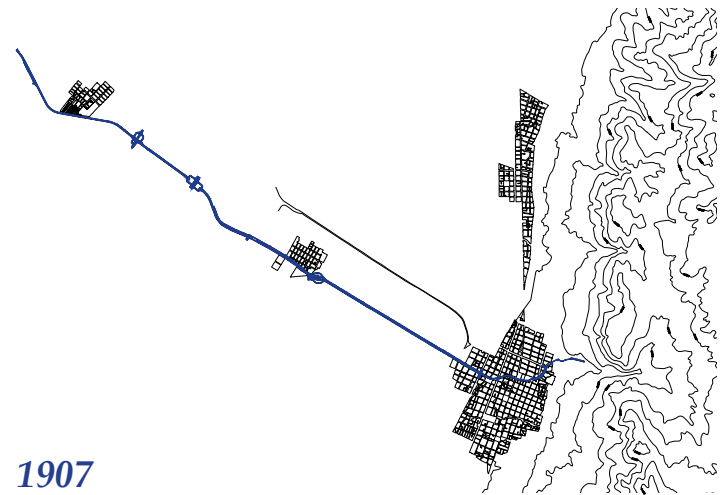
Calle 13 becomes a focal point in the mobility of Bogotá since both the railroad that connected to the north with Chapinero, and to the west with Facatativá, had as their arrival point Calle 13 in the San Victorino area.



Source:

- Francisco Javier Vergara y Velasco

- Library Luis Ángel Arango 1903



1907

## Money means more construction

Thanks to the consolidation of the commercial and industrial sectors, the city experienced an economic growth in which more construction licenses were given and for the time this was an exponential growth; at the beginning of the decade, they gave 33 permits compared with 120 permits in 1897. This was a crucial year since the number of houses increased giving more housing opportunities for the upcoming years and at the same time diminished the number of overcrowded houses.

## Expansions and Defined Uses.

The importance of the railway at the beginning of the XX century determined the new expansions of the city, the line of the occidente brought with it the adequacy of lands for warehouses and for wholesalers that would access and leave the city from this point. On the other hand, the northern line connected with Chapinero since the urban development of the villas to the east of the way. This set the ground for future development: industrial to the east and for housing to the north.

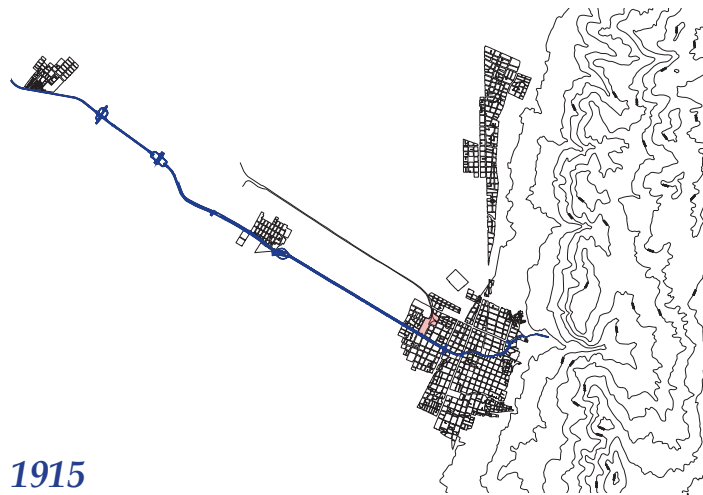


1917

The current Savanna Station (Red box) is completed, located where the capital's railways arrived and thus generating greater importance to the San Victorino sector and its industrial nature would become commercial and residential.

1925

At this time the canalization works of the San Francisco River began since it was understood as a need which would provide another character to the beginning of Calle 13.



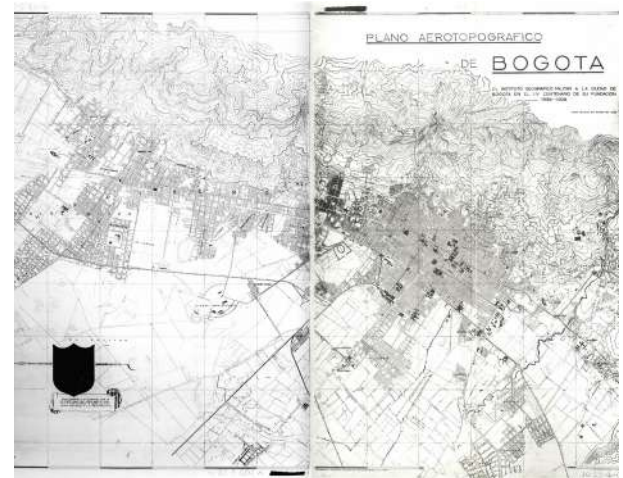
1915

## North-South

It became an evident tendency of movement between north and south to have very different conditions on each of its ends. The north was showing a fast-paced urbanization, increasing the housing constructions while the south was still showing characteristics presented throughout the XIX century, the concentration of the population in areas highly densified. The population growth rate in this year began an accelerated increase, establishing a relation between the physical space and the number of people living within the city.

### Source:

- Geographic Military Institute
- Instituto Geográfico Agustín Codazzi 1938



## A Green City

During this year, the change became evident since the old roads of the colony were overlapped by the implementation of avenues in the city and a little intervention of nature. The change began in neighborhoods like Bosque Izquierdo, Palermo, El Retiro and El Centenario where the urbanization of these areas took into account trails and parks full of trees. Additionally, this year the Urbanism Manual was published in order to regulate urban construction in Colombia.

1933

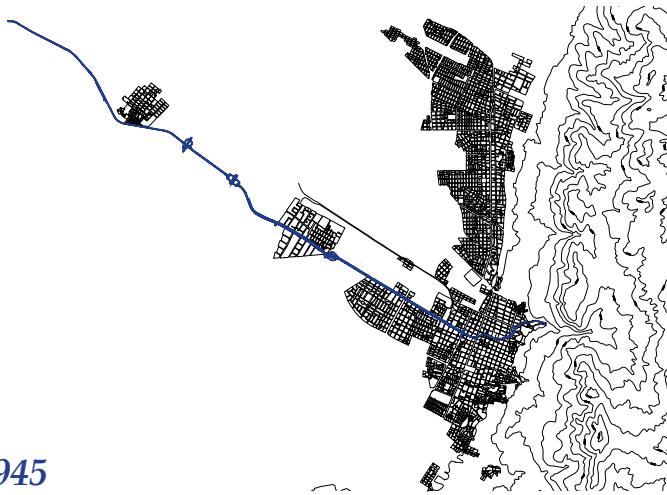
Towards the west, housing projects and the extension of the roads were promoted, taking Calle 13 as a guide.

1946

The use of vehicles was frequent and Calle 13, due to its extension, caused the development towards the West with a mentality of mobility by means of the car, which caused the settlement of neighborhoods along its route.

## *Depredation of the territory*

1945



### **The IV Centenary**

During the last years, the government created a plan to celebrate the IV centenary of the city. The outcome of this plan was to intervene in the so called "Paseo de Bolivar," throughout this trail the government decides to build schools, sports complexes, and the investment on roads and the sewage. The most important point of this project was to make some roads bigger (Calle 13 included to improve the connection with Puente Aranda) and to connect with those points of the city that had a difficult access.

## *Loss of Identity*

In the case of Bogotá and as shown in the 1985 map, the city developed with the idea of hierarchical mobility by the automobile, bringing with it a series of problems that the city was neither prepared nor capable of solving in a near future. One of the frequent problems brought by the vehicle and is evident in the capital, is the segregation of some sectors of the city since its accessibility becomes limited, drastically reducing the quality of life of the people. Consequently, Calle 13 becomes a boundary that divides the north-west and the south-east of Bogotá due to its importance, dimension, extension and continuity as a street. It generates the partition of the city that, in the overflowing growth that Bogotá had towards the peripheries. In particular, settlements conceived in the south, have a shortage of the services necessary for life and the quality of life of the people is limited in this area of the city.

Calle 13 has a transformation, starting from a historic street with importance in its meaning for the reasons already mentioned, to a merely functional street, in which its identity is tarnished by the disproportionate progress that most Latin American cities had in the twentieth century. For all that has been commented above, two questions arise:

*Why should the Street be seen as a living being? Calle 13 as a Darwinian flow?*

To answer the above questions, the theory of evolution described in the book *The Origin of Species*

introduced by Charles Darwin must first be explained. Basically it talks about how populations evolve over the generations through a process called natural selection. When dealing with a physical object, we adopt the key facts such as:

- A struggle for survival ensues
- Individuals in a population vary considerably from one to another.
- As natural selection is a slow process, it results in changes in populations to adapt to their environments.

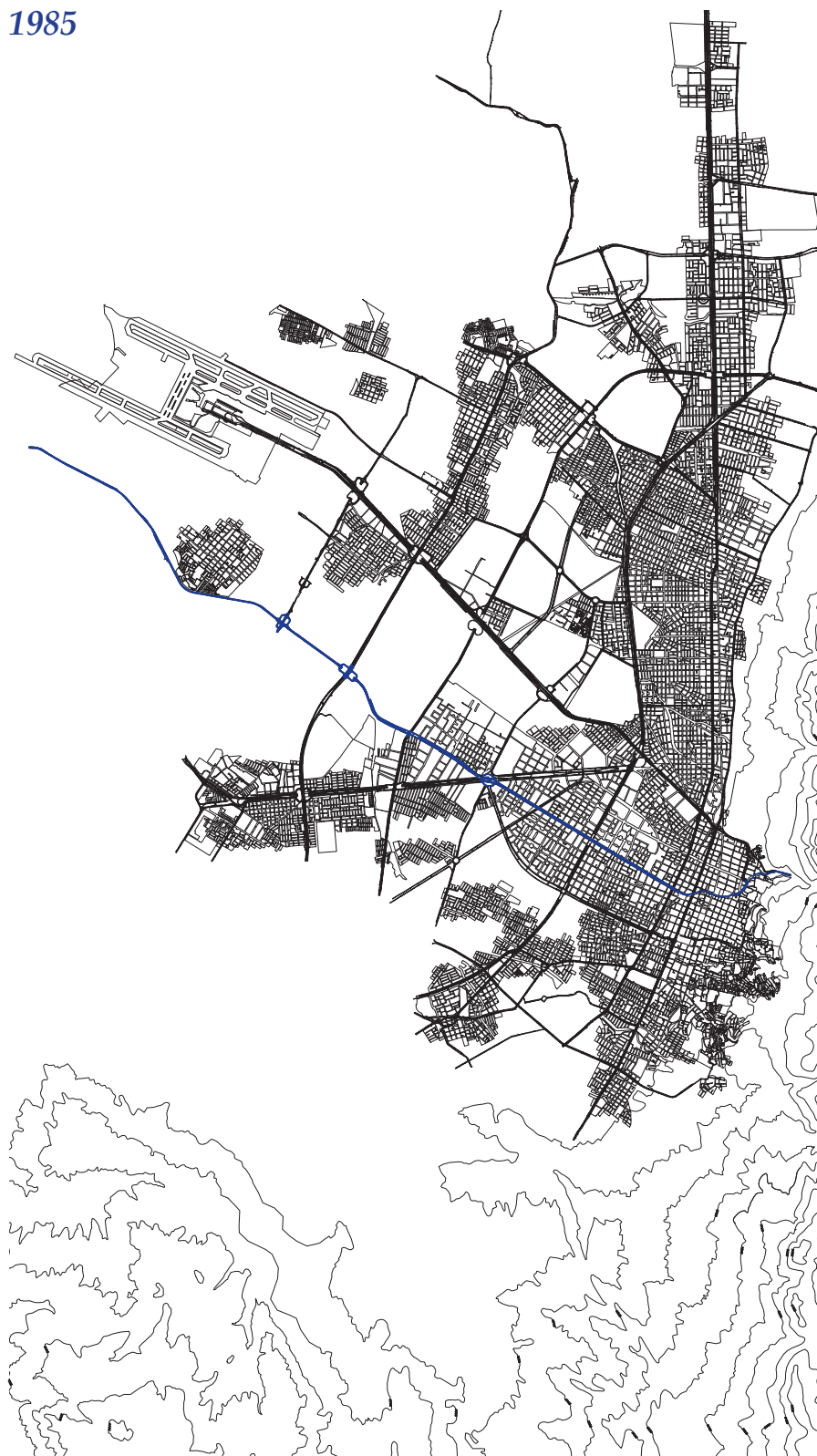
Understanding that Calle 13 has undergone transformations as shown in the timeline, which happened due to the need to adapt to its surroundings, in which the strongest dynamics, in this case the predominant uses of the city, made the street will change its essence and physical characteristics, it can be said that the street is alive, which can help the growth of other living systems, such as public space. Despite its deterioration, risks and current dynamics, what is fascinating is the history that Calle 13 has, being one of the main access avenues to the country's capital, starting its journey from Honda, a path was opened that gave character to what would be called the city gate. Calling it Camino de Occidente, and without a doubt, being the most representative and useful axis for different places of public interest to emerge in the city, the street was beginning to be renamed. Highlighting the importance of the street not only in terms of connectivity to the west, but also with the develop-

ment sectors that brought together metropolitan services, such as the San José Hospital, the Hierbas market square, the San Façon Novitiate, the Sabana Station, among others, which generated city.

This action of generating a city from the appropriation of public space, can be related to the definition of walking as defined by Henry Thoreau, “Walking is in itself the company and the adventure of the day” where, the street take the importance appart of the mobility. But the question that arises due to this phenomenon is: *How can a city be formed from public space?* Hence the importance of emphasizing and describing what the street was like and the essence it had. As it was a space of permanence, in which people met and appropriated the place, giving a unique identity to the street, the square, the environment where the daily life of the people passed, it could offer a response to the identity currently being sought for Calle 13.

Affirming that the street can be considered as the skin of the public space, in which its extension provides the opportunity to generate diverse spaces, diverse dynamics, diverse forms of appropriation, the street allows people to generate experiences while moving from one point to another. That perspective is the one we want to return to, since in its beginnings Calle 13 provided citizens with a way to generate a city, which was gradually being lost for “necessary” reasons, for the overlap of different functional options (industry, urban tertiary service, commerce, residences).

1985







*Source:*

*National Library of Colombia  
Collection, 1932, La Sabana  
Station*



*Source:*

*Personal Photography of Mar-  
tin Horst, 1934, Avenida Colon  
(Nowadays, Calle 13)*



*Source:*

*National Library of Colombia  
Collection, 1936, Avenida Co-  
lon (Nowadays, Calle 13)*

*Source:*

*District Institute of Cultural  
Heritage, 1950, Jiménez Avenue  
with seventh race*



*Source:*

*District Institute of Cultural  
Heritage, 1952, Santander Park  
from Calle 13*

*Source:*

*Bogota History Workshop,  
1986, Calle 13*







### 1.3 Diagnosis of the 13th street

**T**o explain the current state of the Street, we must return to the basic argument of the preliminary subchapter, the street as a living being. *Why should the street be seen as a subject in constant change?*

The previous question is based on the result of observing the street from a complete perspective and understanding that as the street continues its dynamics vary. Having said that, this chapter focuses on showing how the street is currently understood in their respective sectors, in order to give an idea of the final objective, which is to intervene in the street at certain points to improve people's quality of life. In this case, the street is divided into 5 sectors in which both its physical form and its appropriation change. Culture, commerce, barriers, transition and threshold are the concepts that identify the characteristics in each sector and just by looking at the tittle, you can understand the contrast between the parts of the street.





*Legend*

-  *Culture - History*
-  *Commerce - Conglomeration*
-  *Industry - Barriers*
-  *Transition*
-  *Threshold*







## Culture - History

*"The transformation of Avenida Jiménez into a pedestrian promenade, full of history and urban beauty is taking the first steps."*<sup>7</sup>

To start talking about this sector of Calle 13, it is necessary to emphasize two details, its name, Avenida Jiménez and the importance of water. From the path of the San Francisco River located in the upper part of the eastern hill (Chorro de Padilla), a place for pedestrians emerges, in not so favorable conditions, but with an indication of collaboration between nature and humanity, whose dynamics extends over Avenida Jiménez in the proposal made by the architect Rogelio Salmona.

Since the recovery of the memory of water due to the river being channeled and paved, as well as the reintroduction of the wax palm (National Tree), the environmental axis emphasizes the importance of the street as a public space for pedestrians. In addition, it forced a reformulation of the vehicle in the center where it loses its hierarchy and the different systems in this sector are more sensitively articulated. After the intervention carried out, this part of the center changed its image from a dangerous place to a place of attraction not only for citizens of Bogotá, but also for foreigners. It must be emphasized that the street is perceived as an endless public space. The street that plunges between the historical and modern buildings of Bogotá.

<sup>7</sup> El Tiempo. (29 Abril 1996). SE AVECINA EL CAMBIO EN LA JIMÉNEZ. El Tiempo, 1.

1

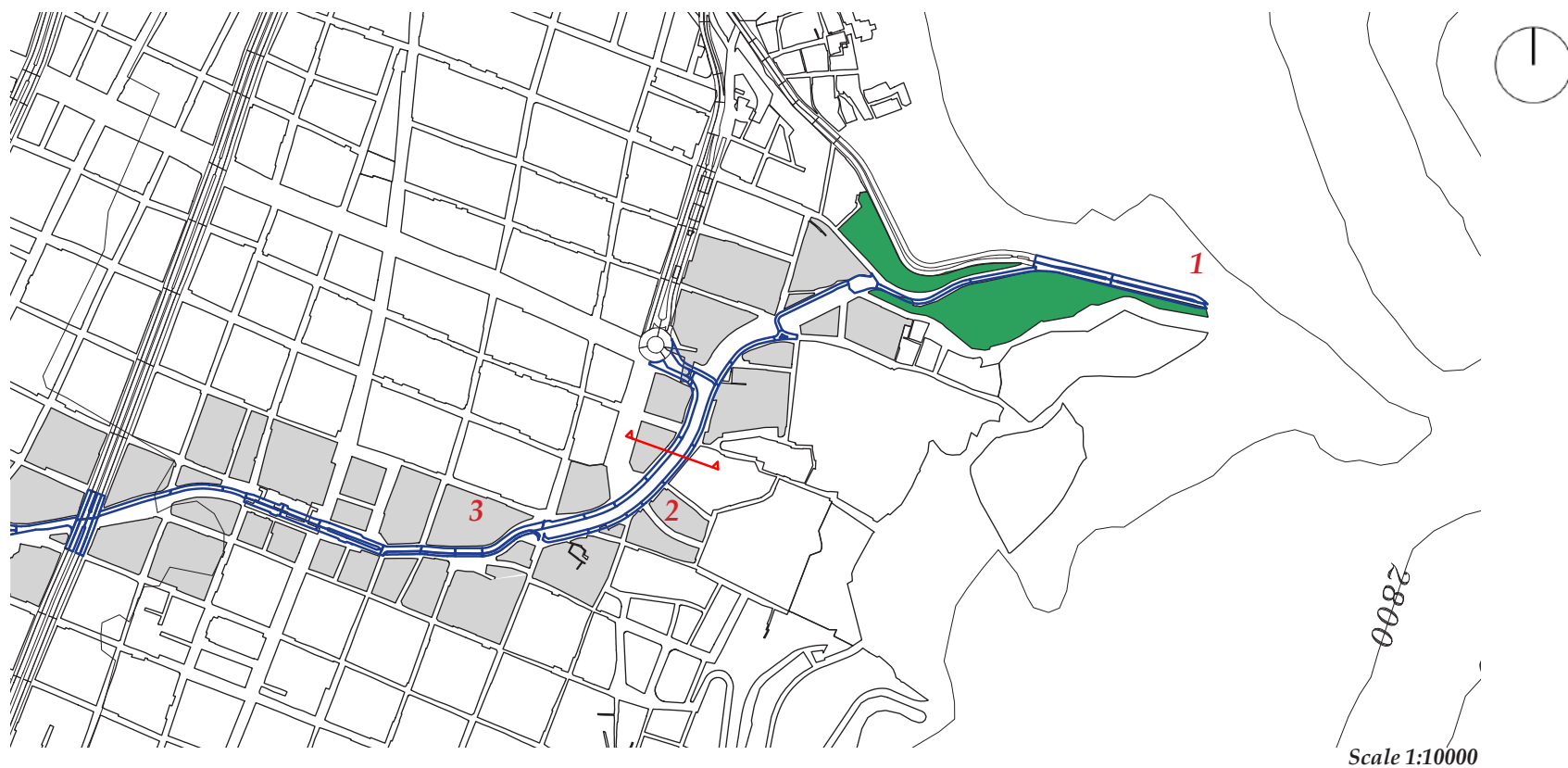


2



3





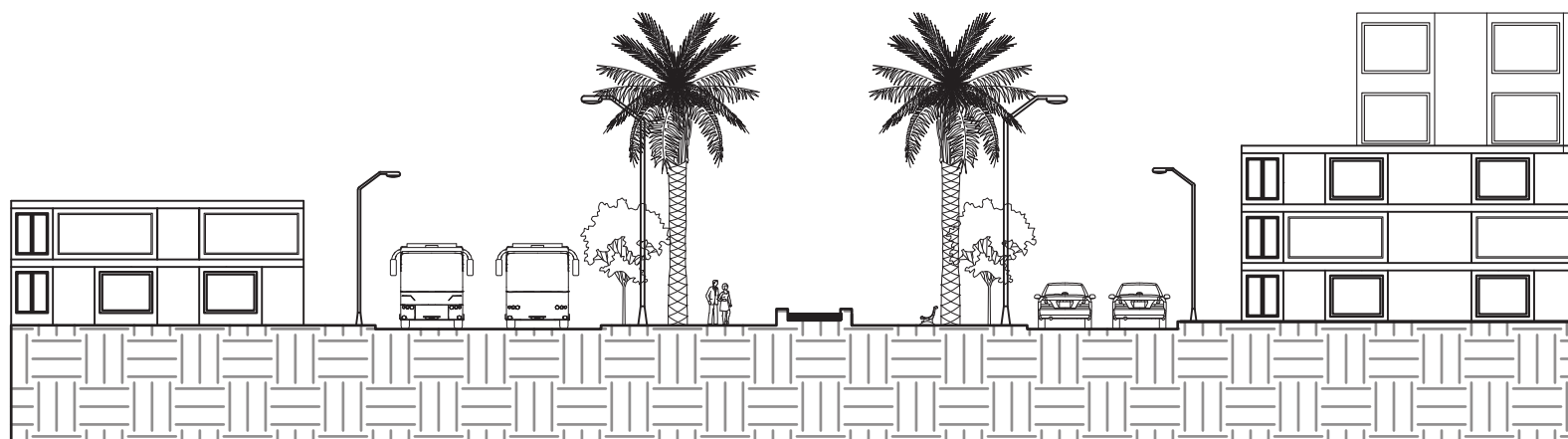
Low constructions that respect the Hispanic American memory. Residence, Commerce, Culture are the uses found

Exclusive route for the Transmilenio (Public Transport)

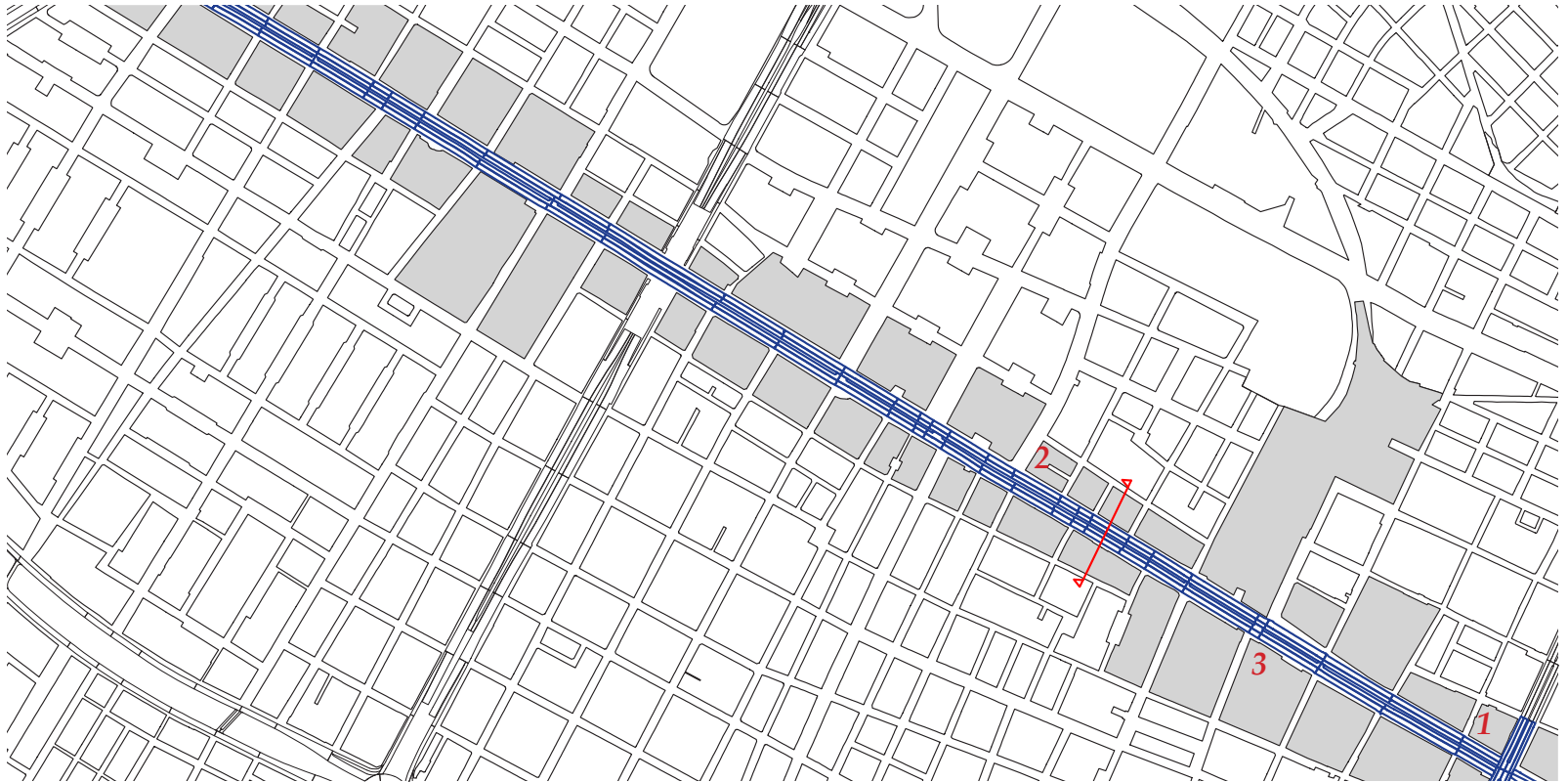
Environmental axis developed by Rogelio Salmons, which extends throughout this journey, reduces its dimensions as it enters the city

Road for vehicles, which is fragmented in a sector of this route

Slightly taller buildings, which allow greater densification and commerce on the first floor







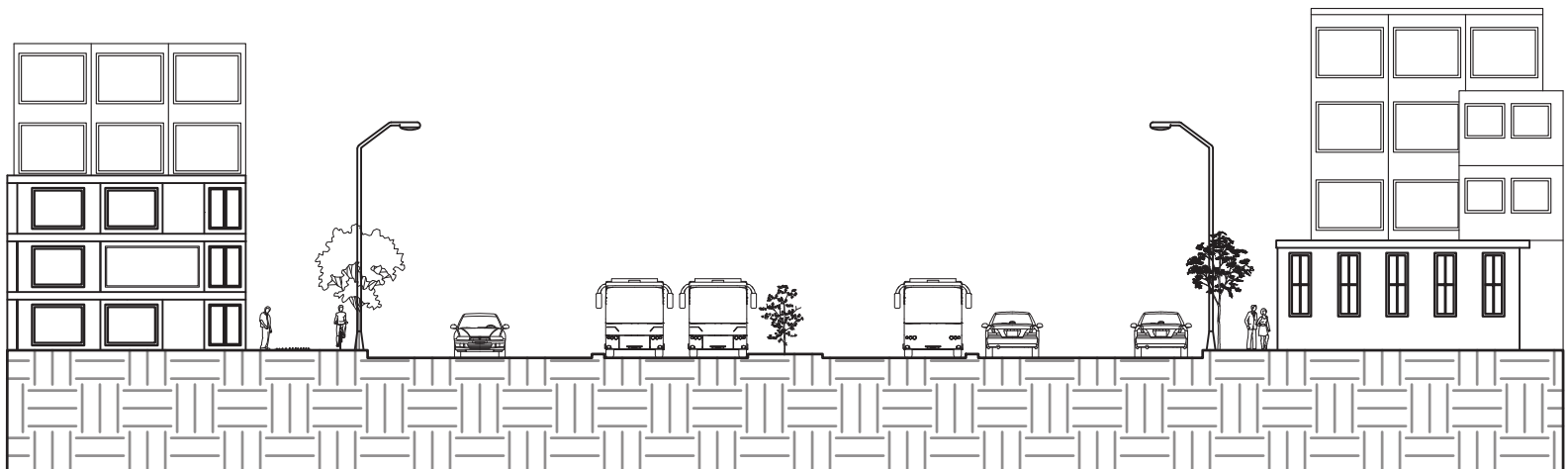
Scale 1:10000

Mixed-use building  
(Residence and Commerce) whose height  
varies depending on  
the area

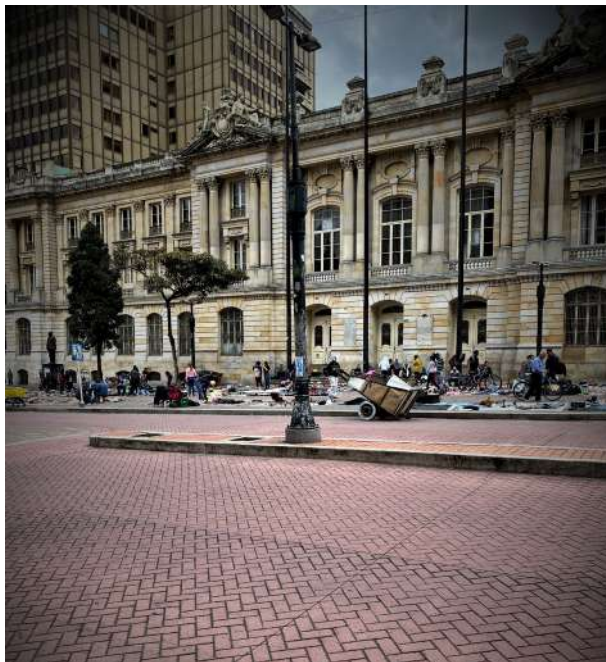
Pedestrian walkway  
that partly contains  
a bicycle lane, but  
is appropriated by  
street vendors

Calle 13 is transformed into an avenue  
with 3 lanes for vehicles and 2 for public  
transport, in which the natural system is  
devoured in hierarchy to the point that its  
functions are not at the necessary demands

Pedestrian walkway, which has  
a green strip that decreases along  
the way with a facade of build-  
ings that vary in height from 1  
floor to 5



Scale 1:300



1

## Commerce - Conglomeration

The second part of the street, which has a considerable distance, is specifically based on commerce, both formal and informal, in which both generate dynamics of accumulation of people, but in a way that is not adequate for the public space it offers. One of the biggest problems that this sector has and that develops due to the same commerce identity, is the appropriation of the pedestrian pathway for the sale of stolen / informal material, space in which the person offers the products in this area. Consequently, the balance between the size of the car's space and that of the pedestrian becomes clouded, providing greater importance to the vehicle, when the reality is that in this sector there is an attempt to continue the philosophy of Avenida Jiménez but with a different approach. On the other hand, there is the formal commerce and one of the most important points of Bogotá, due to its history, size and identity, San Victorino. In addition, having one of the most expensive square meters in Bogotá, San Victorino becomes a place of agglomeration in which the exchange and the phenomenon of person interaction is unprecedented.

2



3



An important point that must be emphasized is the location of the Savanna Station, which, although it does not currently propose a relationship with pedestrians and public space, is an icon of the city, and where the different social and cultural collectives that are located in it (The company of the Savanna Station, an emerging circus) can irrigate the concept of public space as life for the citizen.



## Industry - Barriers

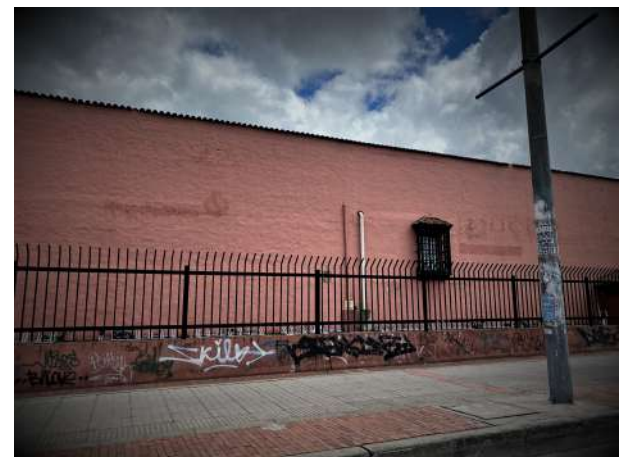
This sector of the street is possibly one of the most critical along the route, in terms of quality of life for pedestrians. This is because it reaches the industrial zone of Bogotá, whose principle of clusters, which completely close life to the outside and are limited to exerting the action of production. Long walls emerge and extend through the platform parameter, extensive routes and narrow spaces are the dimension that the walker of the city has to live, which, by a route between isolated islands in its own dynamics, the industrial sector lags behind the new characteristics that a city must offer its citizens, mainly providing insecurity. On the other hand, visual, olfactory and auditory contamination is imminent, the amount of traffic that gathers in the area not only because of the private car, but also because of the Transmilenio (public transport) that is not in the best possible condition and as you can see in the section, the proportion between the street and the pedestrian platform is abysmal.

Visual and physical barriers as evidenced in the photos, which in addition to affecting the citizen, natural life is precarious in this area. In addition, it must be emphasized that, due to these physical characteristics of the area, the nightlife generates dynamics of danger such as robbery, assault, etc. Which are actions that occur frequently in Bogotá but not only in this area, but in places with characteristics like this one.

1

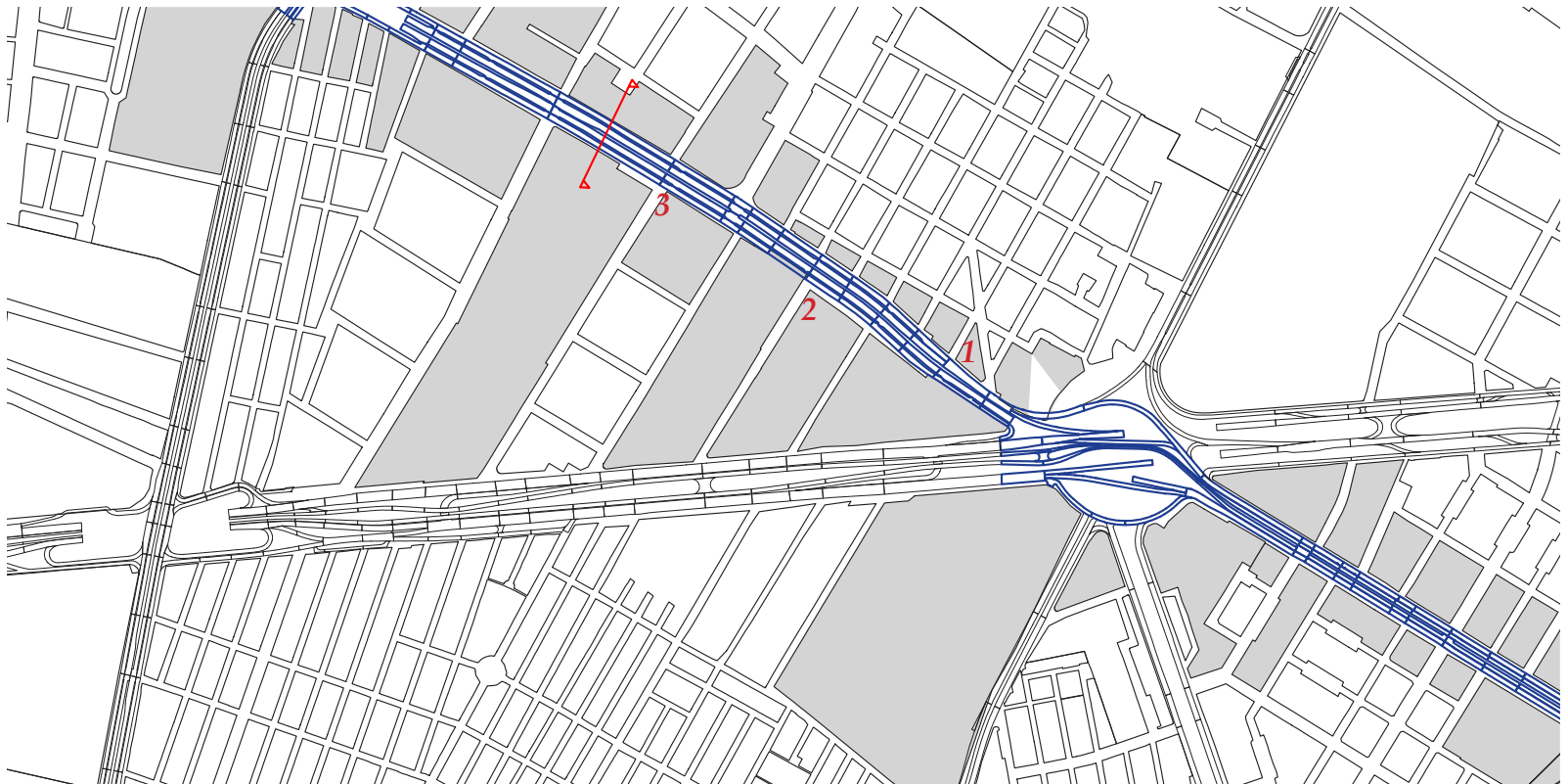


2



3





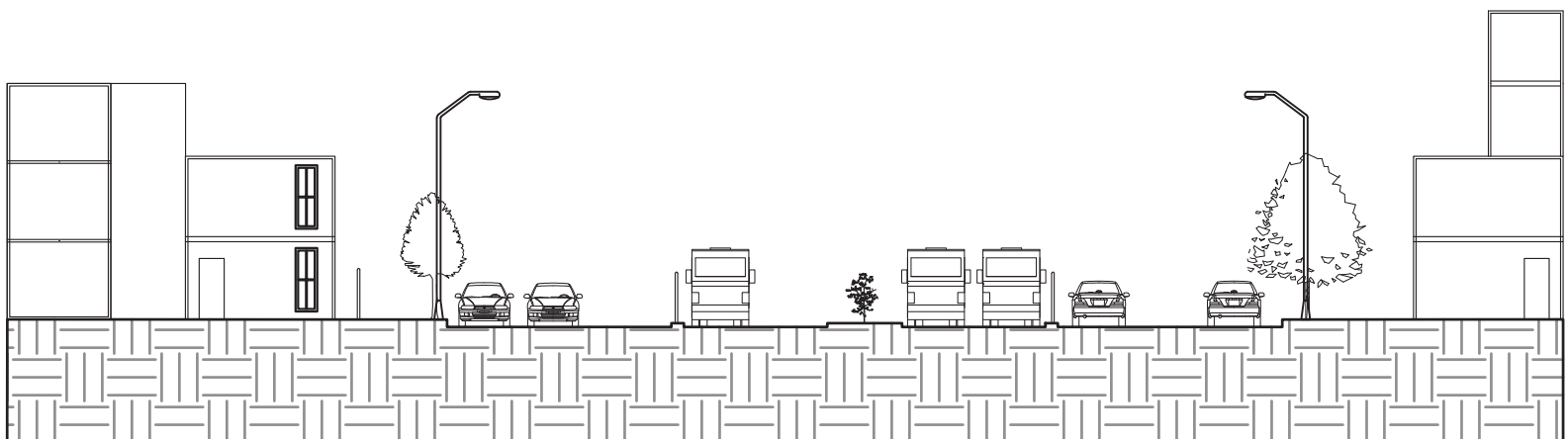
Scale 1:10000

Low rise buildings that become warehouses due to the nature of the sector that is industrial

Deserted and unsafe pedestrian areas due to barriers provided by industrial buildings

Environmental axis developed by Rogelio Salmona, which extends throughout this journey, reduces its dimensions as it enters the city

Buildings with facades without any relation to the pedestrian, which generates a completely identical path without any grace



Scale 1:300

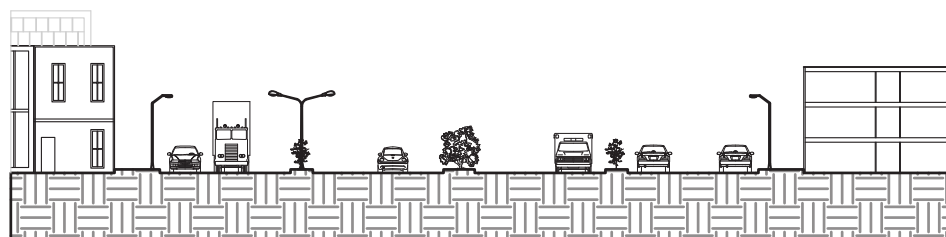


Scale 1:15000

The buildings maintain the height of the industrial zone but with a mixture of uses

The street increases its dimensions, the delimited lane for the Transmilenio vanishes, and it is used for private vehicles. Nature is still few and does not respond to the necessary conditions

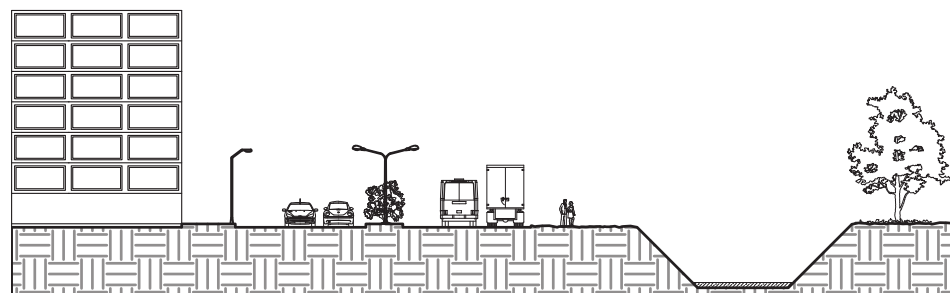
Section A-A'  
Scale 1:300



New developments with high densification with residential use

The size of the street is reduced to 6 lanes, mostly for private cars

A banished pedestrian strip that becomes the river bank, but with poor conditions for pedestrians



Section B-B'  
Scale 1:300

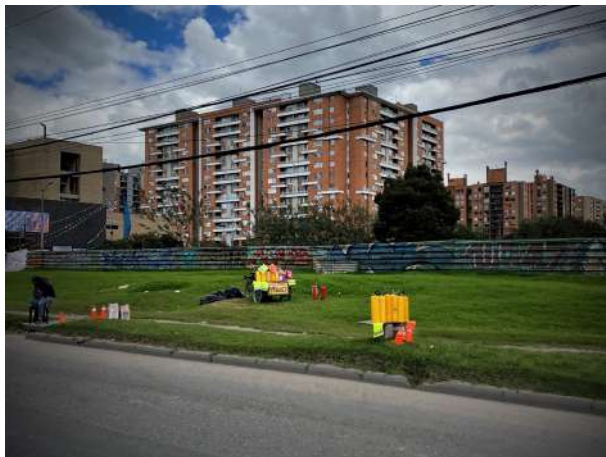




1

## Transition

You reach a sector of the city, which is currently in a physical change, in which there are various dynamics that generate a mixture of unfavorable dynamics with the pedestrian or his public life. In the first part, residential buildings are born with a considerable height as seen in the section, which are considered islands in the city, medium-high social level, whose purpose of self-satisfaction becomes imminent, avoiding the relationship with the outside (gated community continuing the ideology of barriers). In addition, the palpable difference between the constructions is seen and there is no homogeneity in the dimension of the buildings, which generates residual spaces between constructions, which are used for illegal dynamics.



2

As a second measure, we have a street hierarchical by vehicular flow, in which 13th street gives indications of forgetfulness towards the pedestrian path, which, although there are no precise meeting places for pedestrians, the streets must always be walkable. However, it must be emphasized that being a transitional site where the need for a car is imminent, a small hint of a relationship with nature can be evidenced to compensate for the lack of life with the pedestrian. In addition, we can see that this natural part refers to the proximity to a meander of the San Francisco River, which later empties into the Bogotá River, but is overshadowed by parking spaces.



3



## Threshold

The concept of threshold is taken not from its own definition as the Royal Spanish Academy (RAE) says, “First and main step or entry of anything.” But beyond a physical place it is the threshold of the creation of new possible spaces in the experience. In other words, through its physical form, it wants to change the experience, the feelings, the routine of the people who go through it.

The end or the beginning of Calle 13 depending on the perspective, is a space of flow, in which not only dynamics of movement are found, but also being a regional axis of development, the progress that is proposed for this area is high. Currently it is still a place of passage, in which the relationship with the pedestrian is so deplorable that there is no paved sidewalk as seen in the photo, and the vehicle continues to predominate. On the other hand, an important characteristic to emphasize in this area is the presence of the Bogotá River, which could be said to be in a regular state, but with the potential to strengthen its relationship with pedestrians and be the beginning of the ideology of water is life for people. To add, and as can be seen in the photos, the constructions surrounding the street in this sector are not so consolidated, which facilitates the transformation of this area, turning the place into the threshold between a regional axis and a metropolitan axis, whose objective is to improve the quality of life of people through their most important qualities, which would be culture, sport and relationship with nature.

1

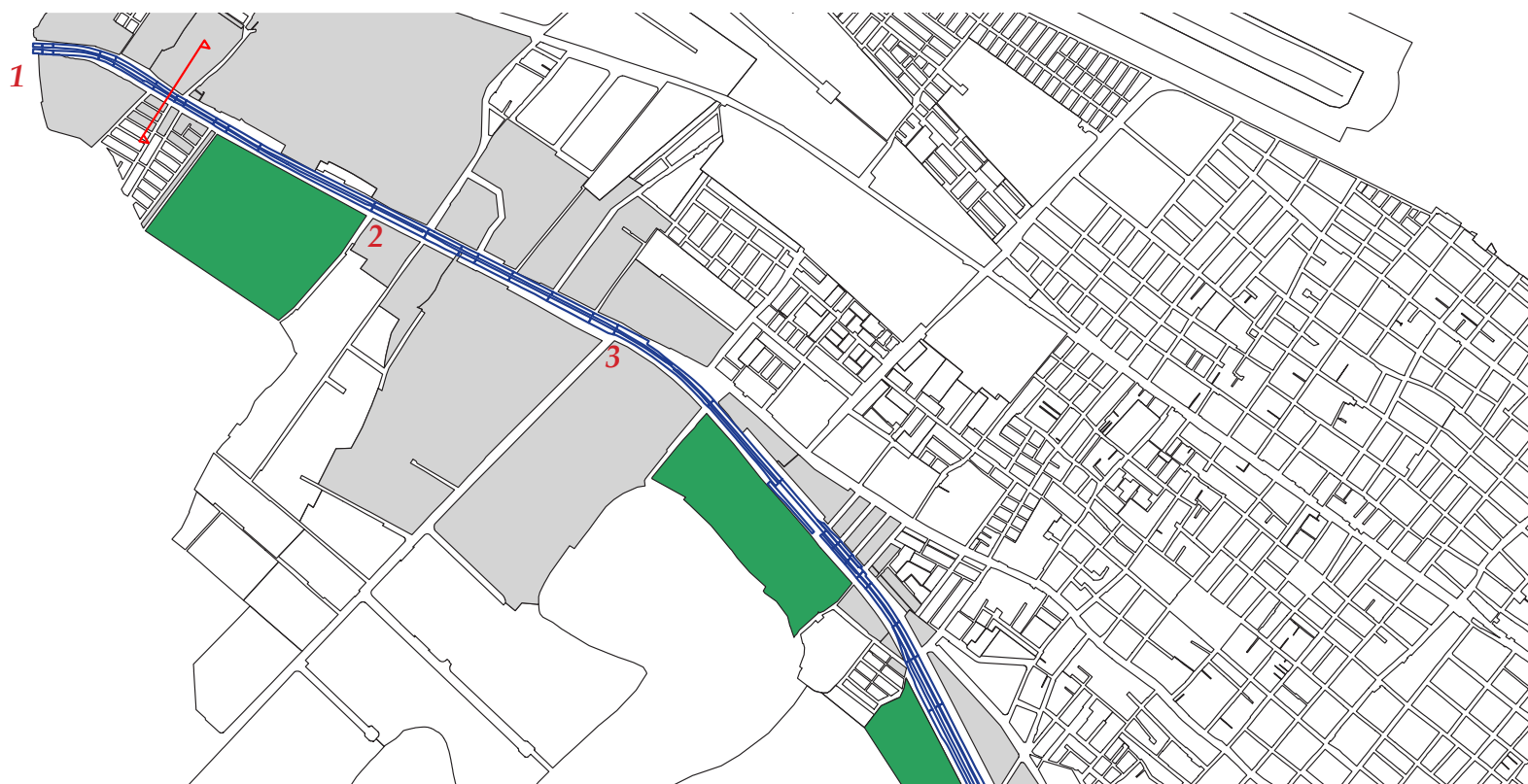


2



3





Scale 1:15000

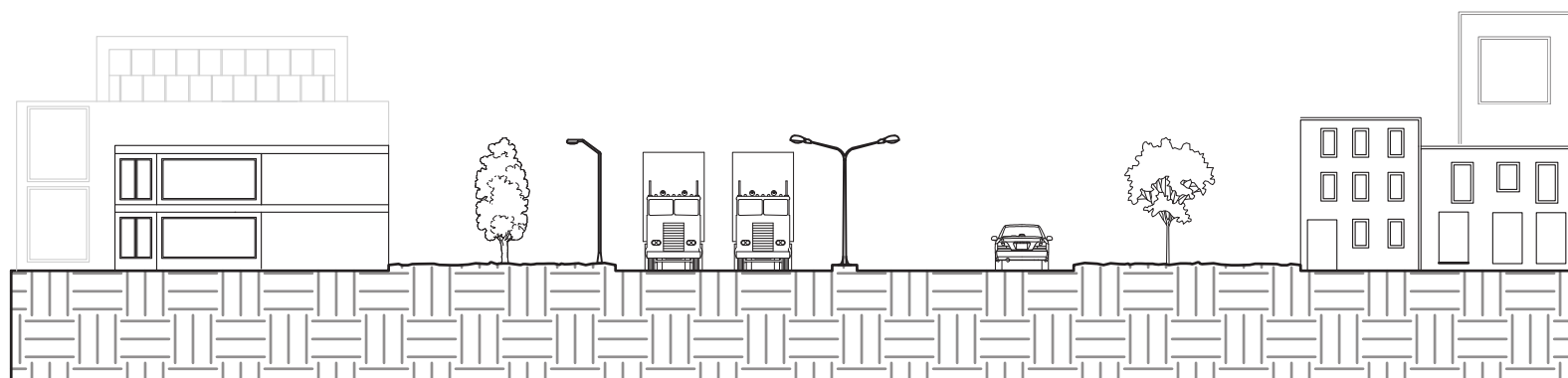
Low rise buildings that become warehouses due to the nature of the sector that is industrial

Deserted and unsafe pedestrian areas due to barriers provided by industrial

Environmental axis developed by Rogelio Salmona, which extends throughout this journey, reduces its dimensions as it enters the city

Deserted and unsafe pedestrian areas due to barriers provided by industrial

Buildings with facades without any relation to the pedestrian, which generates a completely identical path without any grace



Scale 1:300

*02*

**WHY?**





## 2.1 The Essence of Public Space

**B**efore giving a proposal that tries to generate a city from the intervention of public space, it is necessary to clarify the considered concept of public space. The city is seen as a set of buildings and people who inhabit it, but in reality, the city is defined through the relationships that exist in place between all the existing parts. Therefore, public space can be considered as the system that articulates what is built with the various functions, uses, activities and movements that people develop around it.

*“A vibrant urban life is, in my way of thinking, the essential ingredient of a good city. However, this quality is increasingly disappearing. The public life of a city is constituted in its streets, squares, paths and parks, and it is in these spaces that the public domain is formed. This domain is an entire institution in itself, it belongs to the community, and like any institution, it can stimulate or frustrate our existence”<sup>8</sup>*

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<sup>8</sup> Rogers, Richard. (1995). Cities for a Small planet. New York. The Monacelli Press



The urban public space can be configured as an open, enclosed, collective and / or diversified void, in which it arises from the articulation and complementation of what is built, and which becomes spaces for human activities. Likewise, there are definitions that argue it as a filter space between private and public property, but at the same time it is also called a meeting place. Thus, having the possibility of combining the physical system, which is characterized by the tangible characteristics of the space and the social system that is delimited to the way of using the space.

On the other hand, public space has been analyzed and seen from different angles, in which it goes from being a physical element, linked to the spatial component and which is directly part of the urban fabric, to being a more complex space and one of the more important, because in these fundamental activities for the urban and daily life of the people are developed. In addition, characteristics were gradually added to the importance and dynamics of public space, such as political aspects that contribute to social cohesion, economic development<sup>9</sup>, and accessibility to counteract segregation in what is called the "right to the city".<sup>10</sup>

Likewise, public space has been linked to the existence of the city since its beginnings as an urbanization, in which it was known as that space capable of making the meeting and exchange between

citizens effective / pleasant. In the same way, the public space is transformed hand in hand with the growth of the city, emphasizing that, with the arrival of industrialization in the 19th century, urban centers have an uncontrolled growth with the need to build and locate facilities that allowed to create spaces that linked the residence with these new spaces that were arriving. Among these, new forms of socialization were created such as boulevards, wide, tree-lined sidewalks, illuminated and furnished as Gamboa would say<sup>11</sup>.

This is how modern public space should be understood, as a fundamental role not only with its wide urban voids but also as the result of the connection it makes with other spaces to generate meeting points in the city that enrich people's possibilities. From the street and the platform to metropolitan parks in the city, it is the range which the public space has available to act. However, it goes into the background at the moment in which the modern city makes a turn to the perspective on the importance that public space has with the city, due to the car being the main protagonist as a reference for progress<sup>12</sup>. This is due to the need to mobilize people and needs (goods) with respect to the increase that occurred in urban areas of cities, developing spaces specifically dedicated to the car, such as large road networks (highways), which implement dynamics in the city as are zoning and, most critically, segregation. In the same way, with the appearance of

9 Bauman, Z. (2005). Postmodern ethics. XXI century. Mexico

10 Borja, J. Forn, M. (1996). Europe and State Policies for Cities.

Space and Debates, year XVI, n. 39.

11 Gamboa Samper, P. (2003). The urban sense of public space. Bitácora Urbano Territorial

12 Marinetti, F. T. (Ed.). (1909). Il futurismo. A. Martini.

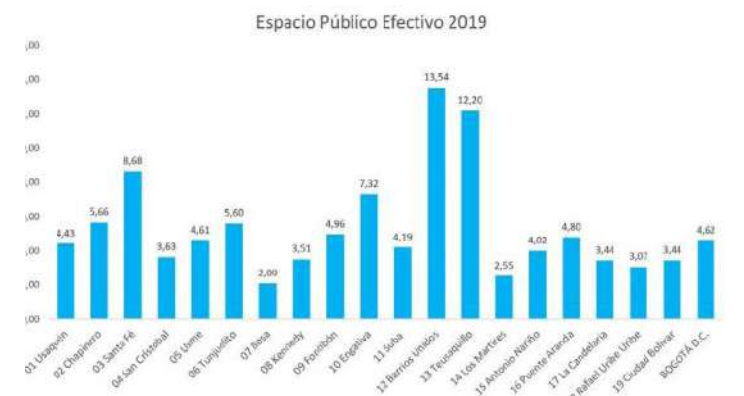
shopping centers, closed housing complexes, and renovation projects that generate exclusion and social inequality, whose thinking and execution are focused on vehicular mobility, public spaces are transformed into the leftovers of the lot, reducing thus, its ability to improve people's quality of life.

*How is the Public Space in Bogotá? What is the current essence of that space?*

The central problem of public space in Bogotá is the quantitative and qualitative deficit that exists. This is due to the fact that the transformations that occurred throughout the urbanization of the city, the modes of appropriation, occupation and use of the territory, with poor planning, resulted in a shortage of land for public domain and use to propose spaces that articulate what was built. Likewise, having such a large main ecological structure, it would be thought that it would supply the public space indexes. Actually, the ecological system of Bogotá is greatly reduced for the loss or deterioration of natural resources due to pollution, the same occupations of the river rounds, such as the filling of wetlands for urban growth.

According to the World Health Organization, an indicator of green areas per inhabitant is fixed, in which for them between 10m<sup>2</sup> and 15m<sup>2</sup> is an optimal interval, which can mitigate the impacts generated by the pollution of the city and fulfill the buffer function. It should be noted that, from what has been observed, it can be said that at the

**Table 2. Data on effective public space by location, valid for 2019**



Source: IDRD. Data Collected: DADEP, 2020.

international level the indicator varies according to the city and the way it is measured. But as can be seen in table 2, Bogotá for 2006 had an indicator of 3.3m<sup>2</sup> per inhabitant. However, new measurements were made in which for 2019 it corresponded to 4.62m<sup>2</sup> per inhabitant, giving hope that the guidelines being few are having a positive effect. However, it should be noted that in addition to the quantitative deficit in public spaces, the quality of the spaces is not very good, due to the low maintenance that is done to them and poor appropriation by citizens several years ago.

Presenting data of such magnitude in which the indicator is 10m<sup>2</sup> below the optimum, only shows why public space in Bogotá must be worked urgently, not only in urban strategy measures, but also focus on current spaces that provide a guideline for the continuous change of Bogotá.





## 2.2 Importance of Public Space in Cities

Through the years and with the increase in modern movements on the part of architects, urban planners, planners, sociologists, geographers and environmentalists, studies are carried out more frequently in which the relationship between private space and public space with pedestrians is examined. Generating interest again in how the urban fabric is integrating a continuous system of open spaces, such as those with squares, parks and streets in the city. That is, to return to the thought of how the urban qualities and qualities of a city depend to a large extent on the public space system. Authors such as Sennett, Borja, Carrión, Gehl, Jacobs, among others, continue to evolve the concept of public space in order to make it polysemic, where they claim public space as a social construction and as that active space for social practices, which they can change the physical structure and urban image of the sector. Likewise, the public space should not only change the physical characteristics, but it is



also the architect of intervening human activities, giving an identity to the city / sector, and improving the emotional situation of the people who pass the public space.

Currently worldwide, when the concept of public space is discussed, the problem of the importance of decent (public) spaces for the quality of life in conditions of equality, reaffirming the proposals made by Borja on the right to the city, and how the right to public space must be included as a human right emerges. It is necessary to speak of both tangible and intangible qualities of public space, such as accessibility, comfort, physical and mental health, the adaptive reuse of open spaces, among others.

In 2015, the United Nations General Assembly approved the 2030 Agenda for Sustainable Development, and the preparation of the New Urban Agenda began, where the 17 Sustainable Development Goals are planted. In the one that has the most importance with respect to sustainability components of cities and regions, in terms of planning, housing, transport and public space in cities, it is objective 11, “to make cities and human settlements inclusive, safe, resilient and sustainable”<sup>13</sup>. Within this objective, it is proposed that from 2015 to 2030, universal access to safe, inclusive and accessible green areas and public spaces should be provided for all types of people (women, children, the elderly or people with some disability). One of the important characteristics of the New Urban Agenda is the need

and commitment of governments to work at different scales, in which a paradigm shift in the way of planning aims to achieve a better and sustainable future. It can be summarized in three commitments that transform the city: the first, a sustainable urban development that allows social inclusion and the elimination of poverty; the second, urban prosperity and opportunities for all; and the last one, an environmentally sustainable and resilient urban development.

It is for these reasons that the concept of public space has gained relevance worldwide, but not only as a way to improve the well-being and quality of life of the inhabitants but also as a fundamental asset for the city. It should be noted that the actions of the Urban Agenda become more relevant when seeing how the city is lived, but in the same way, it must be gradually reviewed in order to incorporate aspects that the current pandemic has evidenced and exposed to local governments.

In addition, as already well said, urban quality represents one of the key elements for improving safety among the users of an urban space, which could be considered as the contemporary city. Therefore, the need to act on the public space which represents one of the key points for the quality of life of people and that, through design directed at different scales, it is possible to shape the large or small voids of the city, in which the birth of a new approach is the solution to problems of social and physical factors. In summary, 5 subsystems that in-

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13 United Nations (2015). Sustainable Development Goals Program. Goal 11

teract directly or indirectly with the quality of public space were chosen:

- Importance at an urban level for sustainable mobility
- Importance at a social level that guarantee interaction between people
- Importance at an environmental level in order to improve urban comfort and reduce impacts
- Importance of public health for the physical and mental well-being of people
- Economic importance through adaptive reuse of open spaces

### Urban Development - Sustainable Mobility

To begin to talk about the importance of public space in cities, we begin from an urban point of view, in which it becomes a fundamental part of the city, due to its role, which is to organize and articulate the urban weft. Thus, on an Urban - Metropolitan scale, public space becomes necessary to build an urban tissue with a vocation to improve quality of life, with the ability to articulate the pieces and the different urban systems.

It is that system that is essential to generate the balance between what is public and what is private, in which it becomes necessary to guarantee the versatility of uses of public space and private buildings; the variety and accessibility with the road network not only for the vehicle, but for sustainable mobil-

ity; the use of space such as squares, urban parks and transitional spaces in order to provide an air not only to the pedestrian, but also to the city. The public space becomes the tool that can guarantee urban justice within the localities and in this sense, it is necessary to plan public spaces in advance in order to guarantee better results in relation to the quality of urban life.

In addition, the urban public land, made up of streets, sidewalks and squares, is the place where mobility occurs at all levels, from the private vehicle to walking. Sustainable mobility can come to have a place through a different distribution of the modes of transport and displacement that the city offers. However, it should be emphasized that it would not only be a strategy that implies a transformation of the urban infrastructure, but also in the habits / culture of the citizens.

The Urban Plans for Sustainable Mobility (PUMS)<sup>14</sup> contemplate tools which allow the creation of a comprehensive vision of urban mobility, obtaining with it environmental, economic and social sustainability objectives. Citizens are at the center of urban policies, which seek to guarantee the fundamental right to health and mobility, redesigning urban public spaces. Their plans focus on traffic problems, which decrease the quality of life, since people spend an unnecessary amount of hours inside in a vehicle that can be private or public. The

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<sup>14</sup> The European Commission published its Urban Mobility Package in 2013, but until 2017 it made PUMS mandatory. Which are plans that could be applied to the mobility of Colombia



PUMS organize their proposals in three levels: the sustainable logistics plan, with collaborative systems where different actors intervene; the traffic plan; finally, the bike-plan, focused on a sustainable mobility option. Solutions such as limiting the parking space and the driveway of cars to improve the infrastructure of public services; private car sharing to reduce the number of cars on the street; the offering of a bicycle system that is available for less favored groups; the use of electric cars for private/share mobility. They are proposals that begin to generate change in the public space of the city with a positive effect on people's quality of life.

However, it is necessary to involve citizens in the activities that are developed, in order to sensitize them about the problems that the city has and the situation in which they live. The civic commitment so that it reaches a point of change in the thinking of the people, there must be a sustainable model at the city administration level, in which the relationship between citizens and the institution is carried out, thus generating a better use of public space, creating a balance between the mobility needs of people and the reduction of the impacts derived from them.

On the other hand, in terms of sustainable mobility at the urban level but which is applied on a pedestrian scale, it is the concept of **walkability**, which is a measure that evaluates how friendly an area is for walking. As mentioned above, walking is an activity that goes beyond moving from one point

to another, it is a social and recreational activity that improves people's quality of life. It is necessary to understand the path not only quantitatively but also in its qualitative elements, correlated to people's perception. What the road generates for the pedestrian, which includes concepts such as safety, well-being, aesthetic sensitivity, which affect the history that is created when walking. Giving support to this concept at the city level allows the design of urban spaces that are enhanced by a relationship with the pedestrian, both in terms of movement and their habitability.

## Social

The importance of public space at a social level lies in the fact that a large part of the human relationships that give an identity, meaning, permanence and / or appropriation happens in these spaces, which can be the street, the square or an empty space. In addition, public spaces serve so that citizens can express themselves in different political, cultural, sporting and cultural ways. Then it could be said that the public space is mean to be meeting places with an open character in order to exercise life in society, which through this use of public space allows generating a link between the citizen with the space, generating a possible change in the physical form of the space due to the appropriation and necessity of the people.

The street and the sidewalk as the first place that

gives a spatial identity meant by the citizens, since relationships and interactions are exercised in a continuous and permanent way that are generating a conception of citizenship. But likewise, an important issue that must be discussed is about the security or insecurity that happens in public space, in which the perception that citizens have about the space generates changes in the way in which they act and behave. relate to space, with an opportunity to combat insecurity through the constant presence of people using public space in different ways. On the other hand, in negative terms, abandoned spaces that generate fear or rejection, due to social or territorial fragmentation, directly affect social relations not only in space, but also in the sector, thus reducing interactions between people.

So, we can say that public spaces must be a support for social relations that occur in the city, and for these to be of quality, they must provide multifunctional and quality spaces where citizens can meet and thus generate an identity and roots to the place, "The safest, most supportive and healthy spaces are those where the greatest number of people have access, of very diverse origins, economic power and life trajectories"<sup>15</sup>.

## Environmental

Faced with the environmental issue, it could be said that public space is of vital importance for cit-

ies and pedestrians, this is because public space is the articulator of the different urban systems. Starting with the environmental structure (considered as public space) at the urban level, one of its objectives is to be a buffer zone to the negative dynamics that the built system brings. In addition to providing ecological protection, such as flood prevention in high-risk areas, such as collecting rainwater and recharging groundwater.

In addition, cities operate on the basis of different types of fuels and energy, the use of which emits carbon dioxide for the most part, among other gases, which, combined with microscopic sands, are the pollutants of the atmosphere, drastically modifying the climate. The green system at the urban level fulfills the function of reducing the level of pollution damage, either by fixing the CO<sub>2</sub> or trapping several of these components, minimizing the harmful effects on people's health or global warming. These green areas that are depleted in pocket, neighborhood, metropolitan parks, end up contributing to the improvement of urban environmental conditions, such as the increase in air quality, the reduction of the greenhouse effect and the capture of carbon. As well as, reduce the heat island effect produced by the concentration of pavements and asphalt; reduce air pollution as smoke particles that mainly come from vehicles are trapped by vegetation; reduce noise pollution not only from the car, but also from other people activities; offer spaces with lower temperatures influencing the degree of solar radiation; providing spaces with protection

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<sup>15</sup> Jane Jacobs. (1961). *The Death and Life of Great American Cities*. New York: Random House.

from heavy rain and air flows; provide visual satisfaction through the use of greenery enhanced by state-proposed lighting.

All the above characteristics are intended to offer an improvement in the comfort of people when using the public spaces that the city offers, which can be from an urban scale with a demarcated ecological structure (in the case of Bogotá, the hills oriental and rivers), up to a pedestrian scale through a neighborhood park that does not exceed 100 m<sup>2</sup>.

## Public Health

For several years, the World Health Organization has declared the need for public spaces and green spaces as elements that favor and facilitate activities that minimize health problems such as depression, diabetes and obesity, among others. In this way, public health is a fundamental element when designing and proposing a public space, which helps not only social well-being as mentioned above but also mental and physical well-being, "Public space favors not only well-being, but also diversity, accessibility and an active life as a trigger for healthy behaviors"<sup>16</sup>. The public spaces must have the various and integrated systems, such as a safe and adequate physical environment for physical activity, a different place that allows social exchange, a combination of sustainable mobility and accessibility for everyone, are those spaces that allow citizens to

improve their physical condition, reducing stress, proposing an active life, which begins to be considered as a lifestyle for citizens in which the most normal activities such as going for a walk, taking the dog, they become beneficial for both mental and physical health of people.

## Economic

At an economic level, two concepts are proposed which can be related to public space, the first through urban reuse, which is a tool aimed at repairing spaces without significant functions. The second is to understand that the public space and the economic sector have a close relationship.

Urban reuse, which can be on a large scale, through the intervention of an urban void of the city or interstitial and marginal spaces between the densest consolidations of the city. This concept arises from the understanding of public space in its entirety, in which it is possible to activate unused spaces capable of contemplating a spatial transformation that has economic, social and environmental repercussions. By reusing either the building adjacent to the space or the unused space itself, with a different purpose than that for which they were originally built, the objective is to obtain an increase in the potential value of the space. Likewise, the reuse of a monument, which only with the improvement of its physical appearance, provides a new identity to the public space, bringing with it the opportunity

16 Leandro-Rojas, M. (2014). Potential of public space as a facilitator of well-being and mental health. Costa Rican Journal of Psychology

to exercise new social relationships.

On the other hand, although it is not so common to hear the relationship that public spaces have at the economic level of a city, especially the street, they play an important role in this, due to the goods and services that it can offer on a lot. This is why the public space, and the economic sector of the city must have an obligatory relationship, in order to generate vital and diverse spaces that constitute a wide range of goods and services for the community.

The symbiosis between commerce and public space, as proposed by Gehl and UNDP, provides the opportunity to improve the quality of the sector through safe and accessible public spaces that benefit the neighboring commercial network. In addition, the use of craft fairs, allow generating processes of revitalization of empty spaces and thus generate a constant flow of people in the space (squares or parks).







## 2.3 Public Space after the Pandemic

Since last March 11, 2020, when the World Health Organization declared the disease spread by the Coronavirus a pandemic, people have realized the importance of urban spaces in daily life, having the dislike of seeing scenarios Utopian as empty and silent cities, in which the absence is palpable. This health emergency has only highlighted the need for the state to take preventive measures, thus avoiding the increase in morbidity indicators for their territories, leading to isolation. Mainly affecting the population of large cities and highly densified areas, where the spread was imminent.

In addition, countries like Colombia where it has dynamics in which a large number of the population has the need to go to work every day in order to survive basic needs, the country's contagion and mortality process increased rapidly. However, for the other part of the Colombian population and

which was applied worldwide, the instinctual desire (Man is a social being by nature as proposed by Aristotle) for contact with others has led to the rediscovery of new spaces for relationship, such as balconies, terraces, patios, even virtual spaces. This health emergency has only highlighted the need to think differently about the future of cities in the face of mobility, pollution, urbanization, housing, and especially public space.

In addition, these confinement measures caused different obtaining of data in the public space, which showed an improvement in urban comfort in cities, due to the reduction of dynamics that constitute the displacement of human beings outside the residence. With respect to Bogotá, figures were obtained for some aspects in which the city changed its dynamics due to loneliness. Starting with air quality and with the information provided by the Bogotá Air Quality Monitoring Network, it was observed that the quarantine notably favored the reduction of concentrations of particulate material, due to the restriction of vehicles in the city. In parallel, the auditory impacts in the capital decreased dramatically, in which the data from the Bogotá Environmental Noise Monitoring Network show a decrease between 5 and 10 decibels during daytime hours, while at night there were a reduction between 10 and 15 decibels.

Por otro lado, uno de los temas más importantes que la pandemia trajo consigo, fue la movilidad en Bogotá, ya que, para los ciudadanos, la acción

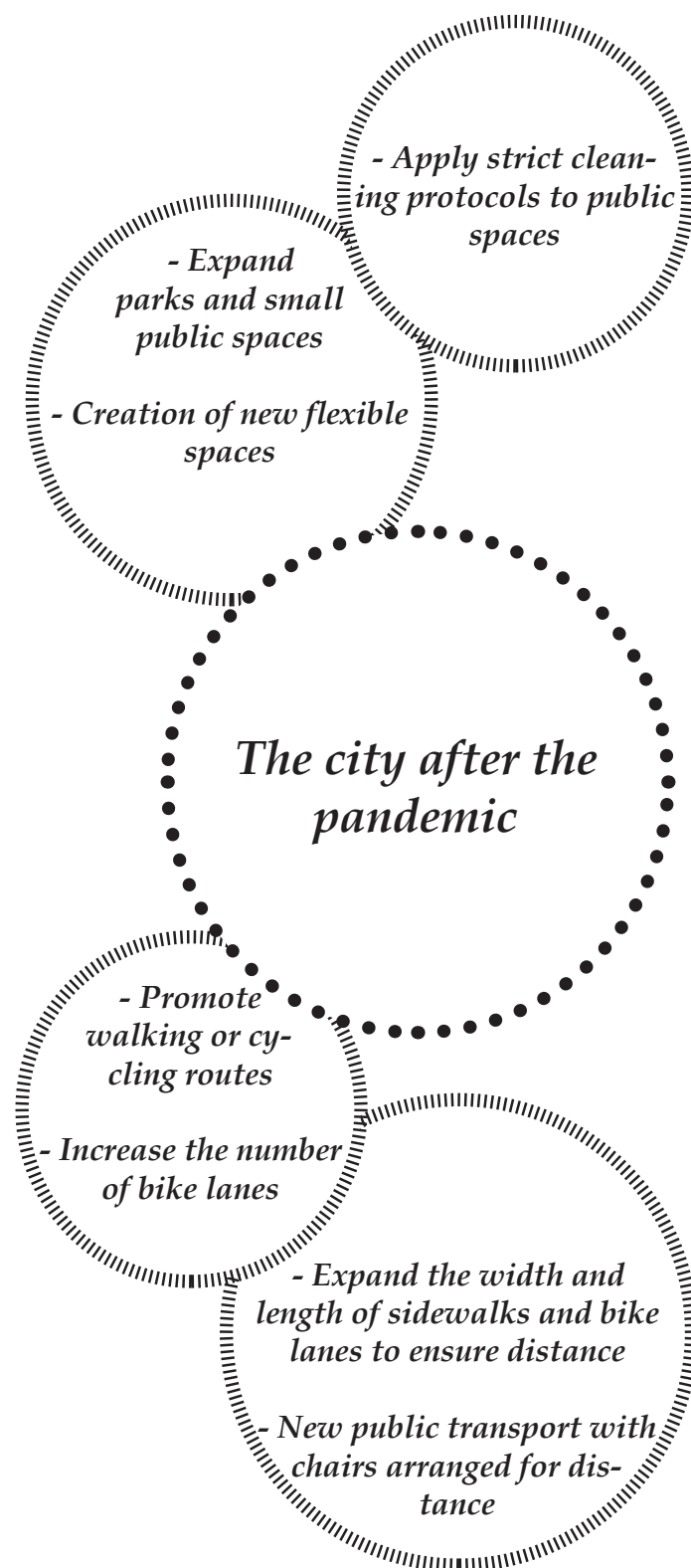
de transportarse representa un reto debido al crecimiento constante que tiene la población (también la huella urbana), de la cual un 67% utiliza el transporte público o un método de sistema sostenible. Con la cuarentena y la obligación de quedarse en los hogares, la salida en carro privado era muchísimo menor, reduciendo así el tráfico en las calles bogotanas. Asimismo, el número de pasajeros que utilizaban el sistema integrado de transporte público se redujo un 51,2%, el cual disminuía la necesidad de ofrecer por parte del estado trayectos frecuentes por parte de transporte público. Por último, con el fin de facilitar una movilidad sostenible y que cumplía con el distanciamiento social, la Alcaldía de Bogotá dispuso 120 kilómetros de nuevos carriles temporales para biciusuarios en las principales vías de la ciudad.

Consequently, this pandemic puts us in a new situation, which is learning to live and use the city in a different way, in which public space and facilities are part of the response to the virus, either to limit the spread of this virus. or at the same time, provide different ways for people to change their lockdown routine. A possible simplification of places, to ensure flexible forms that open up to new opportunities for appropriation. Through this utopian process, it is possible to imagine solutions that point to the creation of new models of interaction. Starting with the strategic reconfiguration of the mobility system, due to the reduction of both the private car and the public. Such as adaptive reuse in some spaces that guarantee the safety of citizens,

but with controlled habitability and economic recovery.

It is necessary to clarify that the new lifestyles that come not only concern public environments, but also the restructuring of homes, and private spaces, in which through more flexible environments it can be allow the interaction of people on a local scale. This quarantine has personally allowed me to notice the lack of connections that exist on this scale, and I realized because of the lack of adequate public spaces accessible to all the citizens, and because of the fact that up to now the POT of Bogotá is beginning to advance in this dynamic.

It is clear that sustainability in every sense of the word is the key concept with which future designs must be approached. In which sustainability is not only the concept that we have been dealing with, but also an integration of various fields of action such as medicine and psychology, which are sciences that allow increasing the richness of the project for these new challenges.





*03*

HOW?

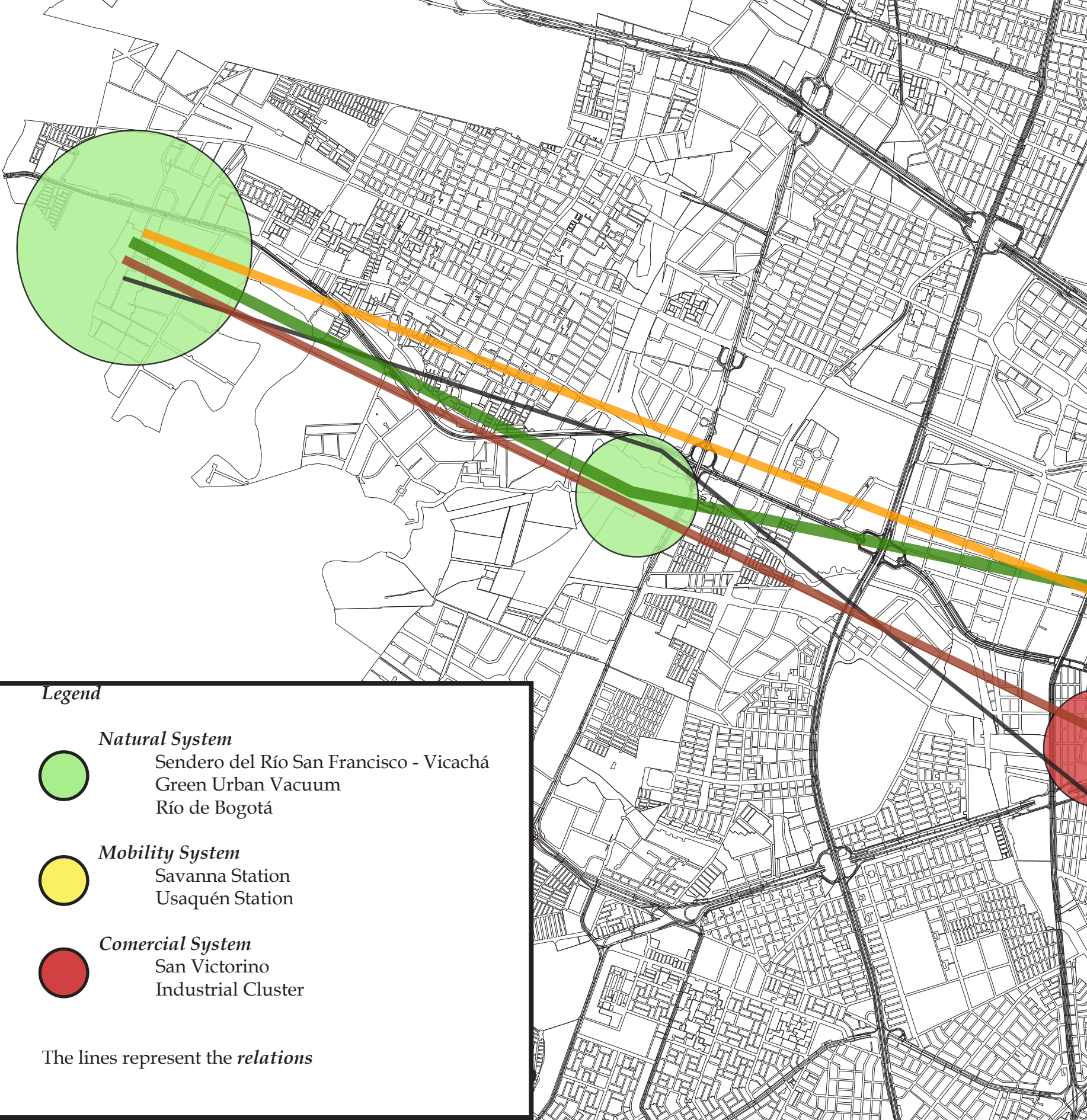




### 3.1 Urban strategies on Calle 13

**I**n this subchapter what is intended to show are the strategies to be adopted in order to generate a comprehensive project, which has urban bases, but resolutions on a pedestrian scale. For this we must focus on the new Territorial Ordering Plan (POT) which aims to revive Bogotá, in which they present strategies to exercise until 2035, in order to improve the current state of the city. What concerns us is to implement new strategies on Calle 13 that are presented around the world and little by little cultivate an urban transformation to improve the quality of life of the people of the city.

The new POT that runs from 2022 to 2035 will try to consolidate Bogotá through 3 strategies, reactivate, re-green and revitalize, thanks to the implementation of the new model of occupation of the territory. The capital seeks to position itself as a city of productivity, socioeconomic inclusion, inclusive and green public spaces, of the decarbonization of mo-



*Legend*

*Natural System*



Sendero del Río San Francisco - Vicachá  
Green Urban Vacuum  
Río de Bogotá

*Mobility System*



Savanna Station  
Usaquén Station

*Comercial System*



San Victorino  
Industrial Cluster

The lines represent the *relations*







bility. In addition, “A responsible territory in the face of the climate crisis with implemented ecourbanism and risk management measures. A city for everyone, where women feel safe, and infrastructures support a territory of care. Bogotá is organized around areas of environmental importance and their heritage as the foundation of sustainable development that contributes to the construction of the Metropolitan Region”<sup>17</sup>. **So, the urban objective of this thesis is to be able to include Calle 13 in the strategies of the new POT as a fundamental axis of public space that promotes social relations in Bogotá.**

To start our urban planning process on Calle 13, we must return to the concept of seeing the street as if it had life, but in this case we must emphasize that it is not the only system which maintains constant change. We will focus on 3 systems which directly affect the dynamics of Calle 13; the first is the *Natural System*, then comes the *Mobility System*, and the last is the *Commercial System*. What is intended at the urban scale is to create relationships between the three systems and not see them as loose parts in the city, where each part is strengthened by its relationship with other parts creating a symbiotic system. For biology, the concept of symbiosis deals with an associative link developed by specimens of different species. The term is used primarily when the organisms involved (known as symbionts) derive a benefit from that common existence. To connect symbiotically it is need link parts to oth-

er parts; making separate systems a necessity for the other system, applying it to urban strategies, it could be said that it is trying to have a harmonious relationship between the new systems, the environment and the citizens.

The strategies for *The Natural System* are centered on the connectivity of Calle 13 in the West-East direction, in which the two main ecological structures of Bogotá are connected through a paved road, which are the eastern hills and the Bogotá River. The proposal is to gradually organize the city around this existing connectivity, which can be transformed into an **environmental corridor** that provides an ecosystem balance in the territory. Beginning with the recovery of the San Francisco-Vicachá River path, which gushes from the eastern hills and was one of the first sources of water for the city, in which it supplied the downtown sector and San Victorino (urbanized sectors for which Calle 13 cross). Improving their physical condition and both the pedestrian path and the vegetation present, the first natural intervention would be located.

The second major project is to recover the area of the Bogotá River, proposing a regional park that proposes a harmonious relationship with the capital and the new peripheral areas, imposing itself as the ecosystem articulator. Through this park it is intended to enhance the well-being of life forms (human, plant, animal) and that of future generations, as well as guarantee the possibility of better management of rainwater drainage and the op-

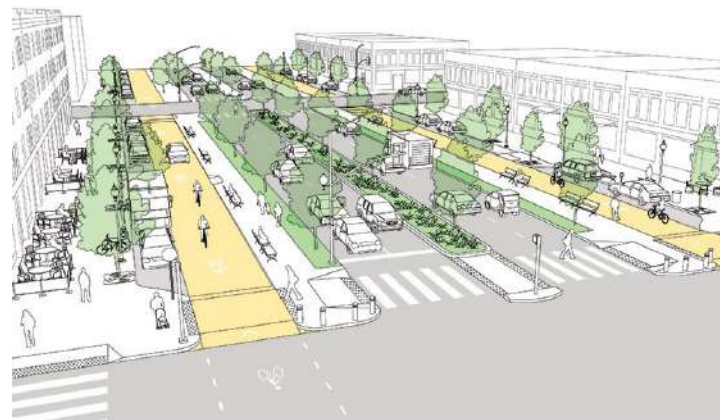
17 District Planning Secretariat. Territorial Organization Plan (POT), The rebirth of Bogotá 2022-2035.

portunity to have new areas for arborization and planting.

By adding a focal point in the ecological system located on the outskirts of Bogotá, it is intended to generate evident east-west relationships, but at the same time plant the idea of exercising these relationships in the north-south sense. Similarly, create an environmental axis throughout Calle 13 in which the characteristics left by the pandemic are taken advantage of, such as the reduction of private cars and greater use of public transport, to expand the green strip that currently exists in the street, reducing the vehicular lanes, this in order to see, a true environmental connection through Calle 13. Introducing vegetation on the street through strips that are located on a pedestrian walkway, or in the same vehicular lane, giving the sensation that Calle 13 is transformed into a boulevard in the city.

“Transportation and transit agencies around the world are leading the response with bold, creative and rapid steps to reshape their streets, and by using their existing assets differently. [...] Adaptive use of streets can lead the global response and recovery to the crisis, keeping people safe and moving while holding cities together.”<sup>18</sup>

The National Association of City Transportation Officials has some basic guidelines to transform the streets of the city more friendly and inclusive for citizens in the city, hence our strategies that correspond to transforming the street into an environ-



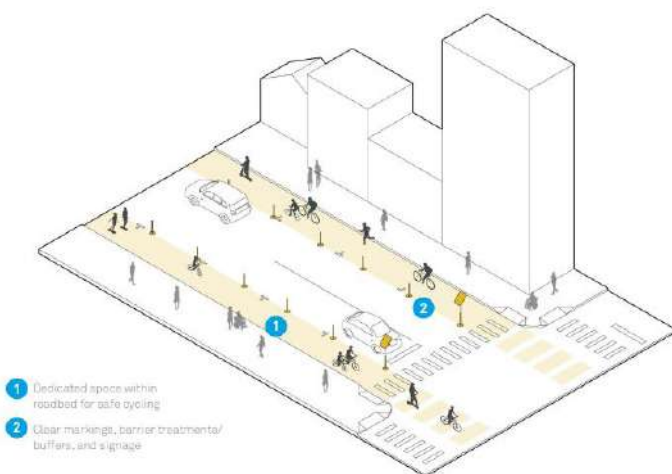
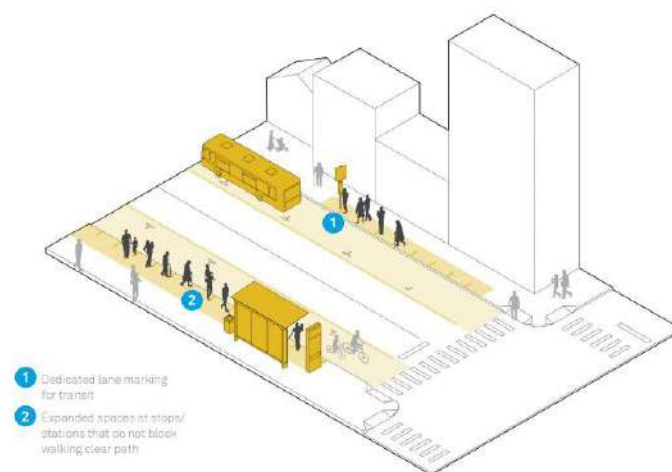
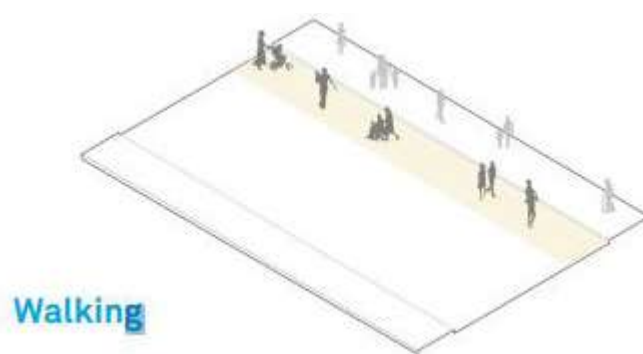
*Urban Street Design Guide*  
**Source:** NACTO

<sup>18</sup> Janette Sadik-Khan. National Association of City Transportation Officials, (NACTO) Streets for Pandemic Response & Recovery.

mental axis are adapted. The photos on the right show from a larger scale how the strategies that NACTO offers on Calle 13 would be, where the areas start with an urban scale to the streets that are added to the road.

In Bogotá we are more than 9 million inhabitants, which we live in a space that does not allow optimal access to the basic services that a person should have. Within the new POT, a **30-minute city** is proposed which allows to improve the quality of life, through new experiences of time. Through the *Mobility System* whose strategies are to reduce vehicular use, having as a culture the use of shared cars; The use of the existing railroad which has as its starting point the Sabana Station, thus improving the public area of the sector, and generating connections at a regional level. Creation of bicycle lanes along Calle 13, which promotes cleaner and more sustainable mobility, and by generating hydration points, public bike parking and some incentive for citizens who move through this method, the image of a bicycle city could be strengthened and improves the quality of life of citizens. Not only integrating bicycles into the route of Calle 13, but offering safer spaces and for a post-pandemic city are the strategies to be integrated, as can be seen in the images on the right.

Finally, the Commerce System, which aims to use the first part of Calle 13 as a meeting place, places of recreation and leisure, retaking the ideology of the street as a public space for social interaction, where it is related directly with the identity of San



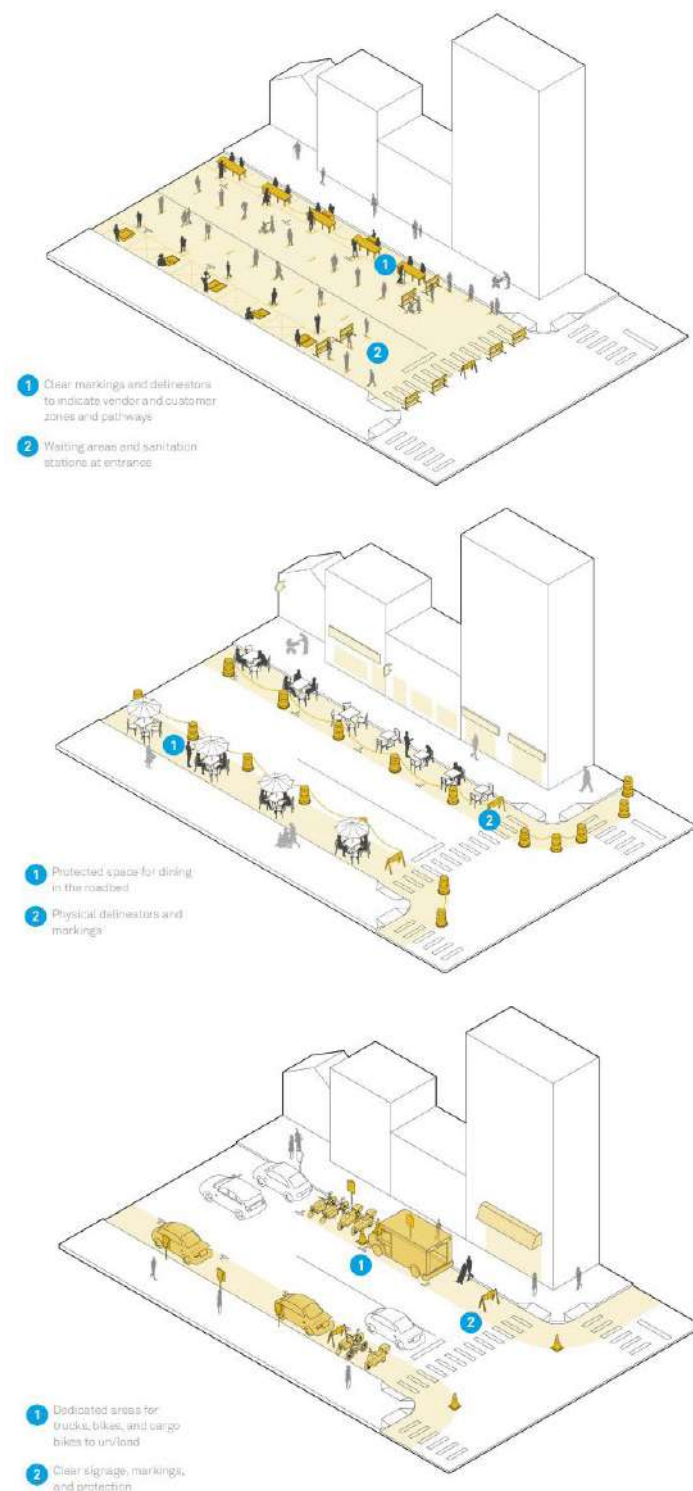
*Streets for Pandemic Response & Recovery*  
Source: NACTO



Victorino, allowing new uses for commerce in order to reactivate and develop an economy in favor of improving Bogotá after its pandemic. Likewise, a more equitable city is being guaranteed in which all citizens have the same opportunity to access decent public spaces. The first two images on the right-hand side are still schematic proposals of how the street space can be appropriate for commercial methods, such as the more centralized market or commerce.

On the other hand, the second part of the Street aims to generate a better connection with the industrial sector, in which the street, in addition to serving as the place of transport, offers better qualities for the quality of life of the workers, having more suitable spaces for work and the daily relationship between people. In addition, it should be noted that in places where the space on Calle 13 cannot be reduced, what is attempted as a strategy is to use the perpendicular roads to carry out different types of uses, in which it generates a larger area of intervention. The last image shows how when using a specialized lane for either parking or dedicated for trucks, it integrates the use of the street in the daily life of people without invading the pedestrian sidewalk, a problem that occurs today along the industrial zone.

In the map below, what he intends to show is the location where the strategies would have action and see how you are on Calle 13, improve the connection of the city and improve the quality of life of the people.



*Streets for Pandemic Response & Recovery*  
**Source:** NACTO



# BOGOTA RIVER



## Legend

### Natural System

- Recovery of the Sendero del Río San Francisco - Vicachá
- Proposal for the Bogotá River Metropolitan Park
- Environmental axis

### Mobility System

- New bike path
- Recovery of railways

### Comercial System

- New commercial uses



# SENDERO DEL RIO





## One vision - 4 strategies - Our right of street

### Calle 13 as the hub of the city

#### *FOSTER HUMAN AND ECOLOGICAL HEALTH*

Within this vision, the importance of the Main Ecological Structure of the city is understood, where there is a potential for the generation or consolidation of urban forests along Calle 13. Which can contribute to the well-being of life forms and to the generations to come, as well as guaranteeing the possibility of natural drainage of rainwater in the highly hardened territory of Bogotá. In addition, to generate a green connection from east to west, in which through small transformations it is transformed into a linear axis that allows the ecological connection between the eastern hills and the Bogotá River. Likewise, through the benefits of vegetation, increase people's public health and have a balance between an urban dense city with an ecological density.

#### *ENCOURAGE ACTIVE AND SUSTAINABLE TRANSPORTATION*

One of the important issues that has been discussed throughout this thesis is transportation, where citizens of Bogotá prefer private vehicles, thus generating large-scale congestion and reducing people's quality of life. Being Calle 13 one of the roads that cross Bogotá completely from east to west, it has the factor of offering interventions that support walkability and bikeability, which provide benefits for human health while reducing CO2 pollution (gas emissions from cars) and congestion. Likewise, with the increase in the use of sustainable transport, the speeds of the city are reduced, reducing the number of accidents. On the other hand, try to increase the culture of using the shared car and the use of public transport.

*People can meet and interact in the streets? People can walk and ride in the streets? people can use the street differently to transport? People and the environment are healthier?*

## **STRENGTHEN NEIGHBORHOOD INTERACTION**

One of the main problems that Calle 13 has are the marked changes in uses that currently exist. What is currently intended is to integrate through the dynamics of Calle 13 into a relationship that is irrigated in a north-south direction, in which people stay and interact on the street, giving vitality, dynamism and livability to the surrounding neighborhoods. the street. These changes would provide a measurable economic and social return on investment for both local businesses and residents. In addition, allow a better relationship between the sectors that the street has, thus generating an extensive road which crosses specific uses, but at the same time that the residents of each sector have the opportunity to increase their social interaction.

## **ACTIVE STREETS FOR NEW USES, AND SAFER FOR THE CITIZEN**

Likewise, activating the streets for a use other than mobility is something that post-pandemic cities should consider, in that parking spaces up to entire blocks of streets can serve a variety of functions, which improve the social interaction. Spaces on Calle 13 can be adapted to start the functions that extend through streets of lower hierarchy so as not to block the mobility of the city, in which these perpendicular roads can be programmed as places to play and socialize, adopting combinations of strategies to have variety of entertainment venues.







## 3.2 A General Idea of References and Strategies

**I**n order to have a clear continuity in the project, it must be understood that, through interventions on a pedestrian scale, the comfort of urban spaces can be improved, thus creating a diversity of social meeting places and favoring the different uses that the city proposes, with the aim of improving the quality of life of people through the recovery of public space. By implementing some pedestrian-scale strategies on the physical system of urban space, the social needs that the city lacks are also satisfied, and that is why in this subchapter what is intended is to expose the techniques and strategies that are currently adopted by architects worldwide, and present examples that provide a guide when proposing a design for spaces in Bogotá.

Likewise, as mentioned in chapter 2, the fundamental reason why public space should be treated, which is to improve people's quality of life (sus-

tainable development objective), also wants to adapt the impact that spaces have pedestrian with the city in general, going from an Active-Negative role due to its current conditions to an Active-Positive one, due to the new strategies that allow to experiment with the adaptability of pedestrian spaces. The strategies are divided into three categories so that integral projects can be generated in the aspects for sustainable development. The first part, Natural, refers to strategies that by means of trees and water management help to have a better control of the atmosphere. The second, Paving, in which the appropriate use of the material helps to increase the effects of a microenvironment and an aesthetic improvement. Finally, the third strategy, Team, which generates a unit of the project and responds to the uses that should be given to the spaces.

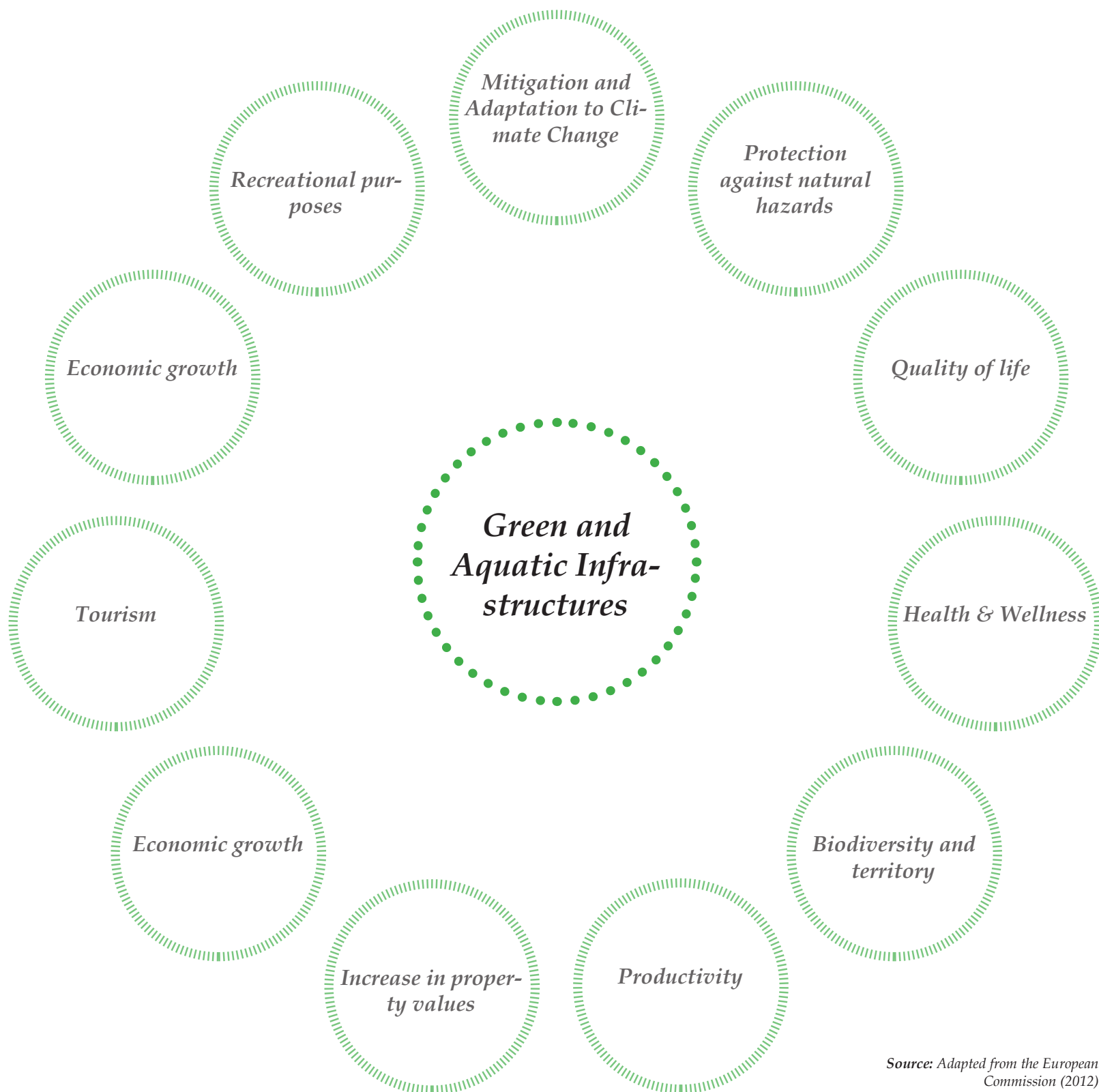
### 3.2.1 Natural (Green - Water)

The strategies aimed at the construction of green and aquatic infrastructures aim to have greater control over mitigation and adaptation to climate change based on nature, this is because they are capable of improving environmental and ecological quality. These infrastructures, both green and aquatic, contribute to the improvement of environmental conditions not only of space, but also irrigated to an urban environment, because of their ecological properties and their mitigating effects, in fact, they can defend natural capital from the aggression of

climate change and atmospheric, acoustic and light pollution. In addition, they are elements that can be used both as a space temperature mitigator to increase thermal comfort, and as an aesthetic improvement for social and leisure purposes.

- Mitigation of urban heat islands through the inclusion of vegetation in urban environments. The formation of some shady areas reduces the need for air conditioning, improving the urban microclimate.
- Improved air quality and greenhouse gas emissions due to respiration and photosynthesis processes, green elements sequester carbon dioxide and absorb atmospheric pollutants from the air.
- Reduction of noise pollution by using vegetation as a barrier, isolating areas of the city with a high percentage of noise.
- It improves the quality of life of people through an increase in the aesthetic value of the place and offering isolated places from the urban forest of the buildings.
- Retention of rainwater through vegetable channels that slow down the flow of water and impervious surfaces that reduce the toxic pollutants accumulated in the street

The strategies and references that will be presented below are not the only possibilities that exist today in the use of vegetation and water, but they are those that served as the basis for the design of the intervened spaces on Calle 13 that will be shown. in the next sub-chapter.



Source: Adapted from the European Commission (2012)



## Vertical Green

There are different types of green murals, or vertical green roofs, each of which brings important benefits to the quality of urban space. One of its main benefits is the increase in humidity and decrease in temperature, thus improving thermal comfort. A second quality is the purification of the air of pollutants and the absorption of carbon dioxide due to the presence of vegetation, it should be clarified that it is on a smaller scale. In addition, it can be used as a noise attenuation technique, given its ability to absorb sound waves. On the other hand, when used as a green wall, it becomes a second skin of the building, which improves thermal insulation due to solar rays and reduces heat dispersion from the building. Finally, on an aesthetic level, depending on the plants used, a mural can be created that visually attracts the pedestrian.

As well as in the project by Herzog and De Meuron, which proposes only a green mural in a historical context, which accentuates the vegetation in an urban context and provides a better experience with the public space, which in this case is a square in front of the historic building.

## Renaturation in Public Spaces

Many of the spaces in Bogotá of toponymy plaza provide an introduction of arboreal elements, in order to create pleasant / healthy urban environments. This with the aim of counteracting the atmospheric pollution produced by the same activity in the city. The important thing about this renaturation of public spaces of this nature is to understand the choice and arrangement of the type of tree since there must be coherence with the function of the context. The choice to create public spaces with trees must fulfill the environmental purposes already mentioned.

Martha Schwartz's proposal for the Plaza de la República faithfully understands the meaning and dynamics of that plaza, which aims to restore the relevance of the plaza and improve its ability to sustain a population in movement, but at the same time offer a possibility of being static. This is achieved by introducing trees of an appropriate size and linearly positioned in order to keep the plaza mobile, but at the same time generating microclimates for the opportunity to meet.



*CAIXAFORUM, Madrid - By Herzog y De Meuron*  
**Source:** Fundación la Caixa



*Place de la République, Paris - Martha Schwartz*  
**Source:** MSP



*Futako Tamagawa, Tokyo - By Conran and Partners*  
**Source:** Edmund Sumner



*Showroom in Parets del Vallès, Barcelona - Enric Miralles*  
**Source:** Enric Miralles Foundation



## Shading System

There are several shading systems which can be linear or punctual and are intended to protect the specific area where it is located. In the case of Bogotá, being a rainy city, the Shading systems have two qualities, which is to modify the underlying microclimate, regulating the temperature for the pedestrian, but at the same time it serves as a cover for the water. They can be of different types, which expand the variety in the design, from pergolas, fixed or variable covers which can be added the green element, which adapt well to the climatic needs of the space. The integration of different plant species, in the roofs / pergolas are mostly climbing plants that adapt in a positive way to the proposed structure. The trees themselves serve as a shading element, since they create a bubble of darkness, the size of which depends on the specimen of the tree and increases the thermal comfort of the space. The cooling efficiency of a plant element is given by the sum of the evapotranspiration and the shading effect, the smaller the distance between the trees, the greater the thermoregulatory efficiency.

The first project is located on the outskirts of Tokyo, which creates a transition between the city and nature. Developing an urban regeneration, the project comprises a mixed-use development, but with the essential characteristic of a landscaping design that brings together the different elements necessary to improve the public space, united by a covered path through a pergola lined with plants, which pro-

vides the opportunity to reduce the temperature of the spaces along the route.

The second project, carried out by Eric Miralles, offers the opportunity to see how the use of a pergola helps to exercise a route in a completely deserted square. The fundamental characteristic of the pergola, in addition to being made of wood, is the modulation. In this case, by means of a variable module, thermal comfort can be obtained, since the cover is adjustable according to the temperature and insolation.

## Healing Gardens

“The garden has once again become a place of survival [...] against today’s chemical, optical, sound contamination [...], vital oasis to physically recreate [...].”<sup>19</sup>

There are 6 different types of gardens which provide different qualities to the space. There are the Historical gardens, to understand the evolution of how people live and the thinking of the time to which it refers. The Technical gardens, for the knowledge of plants, shrubs and flowers. Botanical Gardens, whose characteristic is to present a great variety of characteristics and plant species. Utility Gardens, which respond to orchards, aromatic and / or medicinal plants. Aesthetic Gardens, whose objective is the personal use of public or private gardens. Finally, we have the Philosophical Gardens, which are those on which we are going to focus, which seek to find well-being and improve people’s daily lives.

The curative gardens, or therapeutic garden, has its connotation in a green space (frequently associated with health or social welfare structures such as hospitals) thought and designed to improve the quality of life and well-being of people. Its benefits can be obtained through a passive experience (observing or being near the garden) and / or through an active experience (gardening, rehabilitation therapy and other occupations). Also, the healing

garden can provide lasting benefits over time, depending on how often it is visited. Reducing the sensation of stress, fatigue and improving the state of mind through the use of plants (with their colors, shapes and aromas), adding recreational and social activities (rest areas for meeting and socializing), increasing the safety and multifunctionality of a green space, the healing garden should not only be used in medical structures, but also in public spaces. This type of garden should be seen as a set of activities and elements designed in order to stimulate the senses of the human being, leading to psycho-emotional well-being. Visual well-being through colors, olfactory well-being with the fragrances that plants emit, social well-being with spaces for meeting and passive activities such as yoga, or open-air theater.

Both examples presented have the objective of offering a space to help two different types of community (Academic and Hospital), even for a short time. The Milan Garden has a purpose more towards the olfactory and visual stimulation part, since they designed from the different colors that the plants can offer in the different seasons. The second project in Boston aims to achieve social well-being through open spaces, so that students and teachers have the opportunity to generate relationships other than the daily ones in a classroom.

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19 Carola Lodari. (2000). *Che cos'è il giardino?*. Italia: Allemandi.



*Giardino degli abbracci, Milano - Prof. Giulio Senes*  
**Source:** HEALING GARDENSItalia



*Sensory Garden, Boston - By W.E. Carter School*  
**Source:** W.E. Carter School





*Exchange Square, Manchester - Martha Schwartz*  
**Source:** MSP



*Rain Garden Design - NYC Environmental Protection*  
**Source:** NYC Water Staff



*Banyoles old town, Girona - MIAS Architects*  
**Source:** Adria Goula

## Rainy Gardens

Characterized by being linear gardens of small dimensions (ponds or depressions) with vegetation that collect / absorb / capture rainwater (runoff from roofs and sidewalks), which filters through several draining layers before reaching the aquifer, counteracting the phenomenon flood. By allowing water to infiltrate the ground, they help treat pollution and recharge groundwater. Additionally, aquatic plants that are self-sufficient as they will be watered by captured runoff can be used. They are usually located along roads or in parking lots where they can more easily divert water from sidewalks / vehicular roads, having an integrated approach to urban adaptation, mitigating the heat island effect with the flow of water rains through the subsoil.

The example used is the basic design of New York City, which has proven to be an effective way to improve water quality and reduce pollution levels. The important thing is to see how this model can be adapted to public spaces that are adjacent to the road in order to generate a complete model.

## Water Elements

The presence of water in an urban space has positive effects in terms of thermal balance, as well as on the well-being of users. Likewise, the micro-climate contribution has many variables, among them, the flow of the water if it is in motion, the proportion of water with respect to the built part. There are many styles used in the urban environment such as: fountains, water mirrors, channels, “waterfalls” in which the water flows through a vertical element providing a different experience. Also, more advanced mechanisms (fogging) can be found in order to cool public spaces, especially in summer. Likewise, they are used for aesthetic purposes in open spaces or in terms of memory that provides a variety of social interaction.

Two examples of different use of water are presented to see the variety that can be offered to a public space, enriching it in a social and aesthetic way. The first, located in Girona, which uses various methods of channels throughout the space of the historic center to offer variety in public spaces, be it street (long channels) or squares (depressions) that provide a different image to the city. The second proposed project, located in Manchester, gives memory to water through soil treatment, thus providing an aesthetic experience, but at the same time it serves to collect rainwater.

### 3.2.2 Paving

One cannot think of improving the quality of life of people through public space without taking into account the concept of paving. Currently, paving at the urban level is one of the spaces with the largest area, which becomes a daily characteristic that generates an identity of the sector / city. Whose aesthetic qualities are not favorable, and the comfort characteristics are minimal, which diminishes the taste / art of walking. The microclimate is given by the interaction of the elements that make up the public space, which has already been mentioned about natural elements as an indispensable source, but likewise, the proper use of materials characterized by their physical and optical properties help to provide an entire space in its entirety. For this reason, the EPA (US Environmental Protection Agency) takes into consideration pavements as one of the factors that most influences the thermal comfort of the space, but they explain that there are three reasons why it took a back seat:

- “1. The floors are complex. Among the conditions that affect the surface temperatures of pavements are the ease of wear due to pedestrian and vehicular traffic, energy flows by convention due to the movement of traffic and finally, shading.
2. The temperature of the pavement is influenced by the thermal and radiative characteristics.
3. The floors host different functions and are made with different materials, with different albedo and

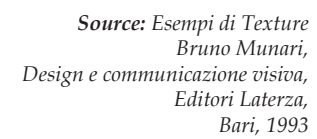
emissivity values. “<sup>20</sup>

Therefore, the use of materials not only in the building and barrier project, but also in the paving, can worsen or mitigate the effect of the energy flows present in the urban space, contributing positively or negatively to the heat island effect. Dark and rough materials, such as asphalt commonly found on city streets, have low permeability surfaces and result in an increase in site temperature. On the contrary, clear materials with a cold designation are mainly used to reduce the effects on the urban microclimate. Likewise, one must think about the aesthetic level of the material, since, like natural elements, paving has an impact on people’s senses, influencing the frequency of transit of the space.

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20 Environmental Agency EPA. (2008). Reducing urban heat islands: compendium of strategies. U.S







*Mineral Roof Garden, Sao Paolo - Roberto Burle Marx*  
**Source:** Leonardo Finotti



*Superkilen, Copenhagen - BIG*  
**Source:** BIG



## De-Paving

The concept aims to eliminate layers, such as asphalt or concrete (those waterproofing used for heavy traffic), tilling the soil and restoring its previous permeable profile or inserting vegetation. This is to filter and drain rainwater, improving thermal comfort and the physical appearance of the space. Likewise, depending on the vegetation used, microhabitats can be created, providing a possibility of decontamination of the soil and a more harmonious relationship between what is built and what is natural.

## Ornamental Paving

They are pavements normally used in areas that are not so extensive due to the price, but that resist a high flow of people. With this type of paving, the aim is to seek an aesthetic improvement without neglecting the functionality of the route, that is, to provide the pedestrian with a project that starts from the ground and blends in with the space, but at the same time gives a visual and thermal comfort due to the materiality used.

The first example located in Brazil shows one of the spaces intervened by the plastic artist and naturalist who achieved international renown as landscape architect Roberto Burle Marx, who clearly specifies through its geometry and materiality the routes that the pedestrian must take through the space public, thus exercising a movement path,

but at the same time scenes that are framed for the walker. Likewise, he creates spaces that allow the meeting within a plant enclave, thus giving a distinction to the spaces of permanence, in which he increases the quality of life, due to the microclimate that it raises.

The second example made by the architectural firm BIG, in Copenhagen, aims to unify the Nørrebro neighborhood in both materiality and color. The same dimensions of the flooring material is what gives the pedestrian the idea which spaces are for commerce, culture, or physical activity, thus giving another method of functionality to the pavement. By expanding this materiality to the facades of the surrounding buildings, what was intended is to go from a two-dimensional project to a three-dimensional one, giving the greatest importance to the paving.

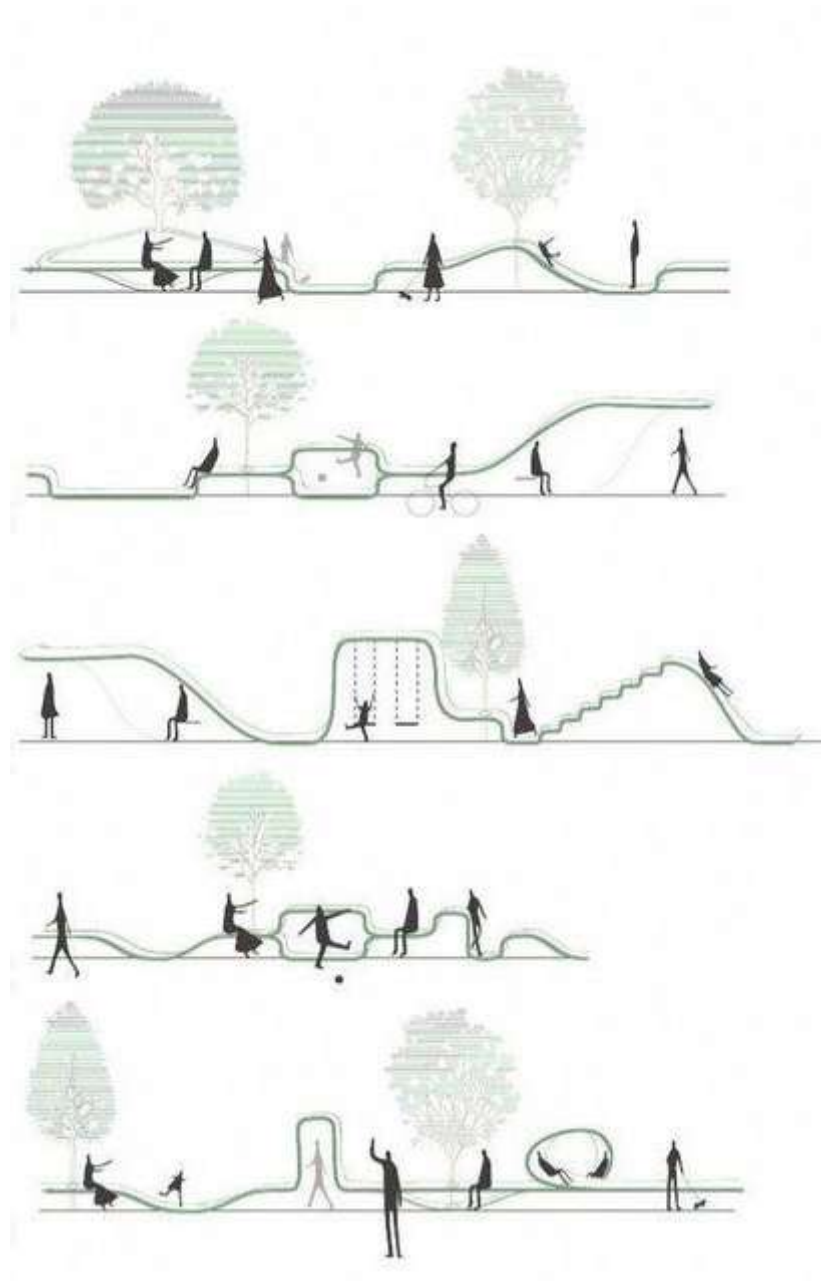


### 3.2.3 Equipment

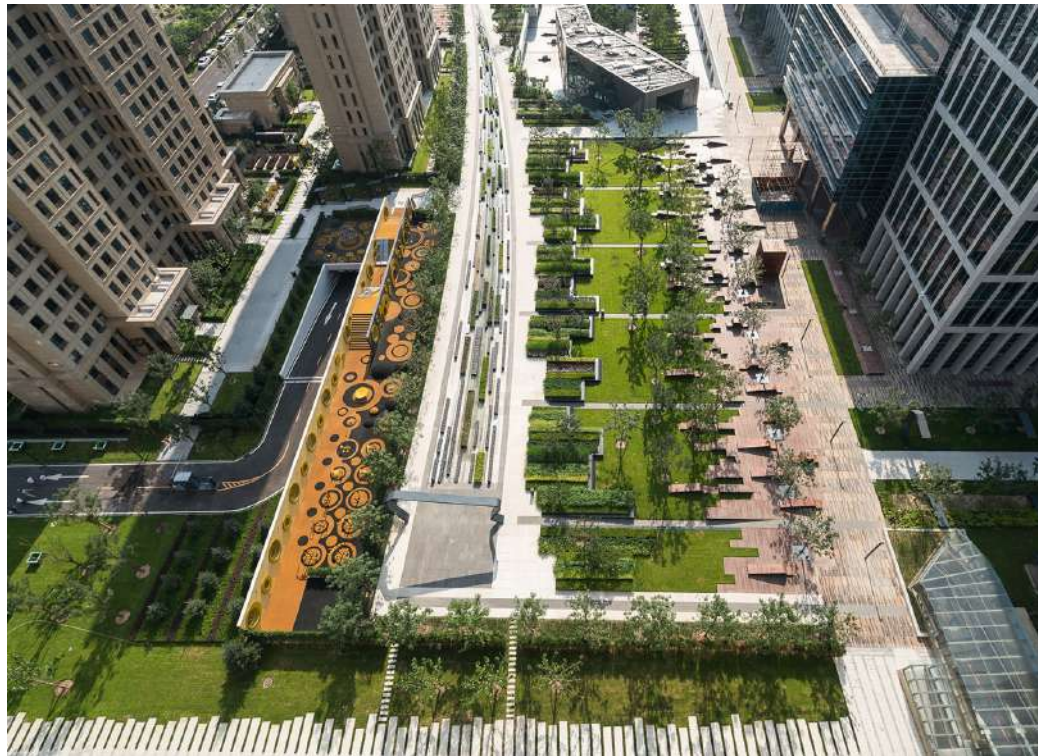
The presence of furniture in public space has a direct impact on the use of the place, but at the same time on the habits of users. It is so much the impact that the user's perception of the comfort of the space changes, thus generating positive or negative sensations of the context where it is located. Given that public spaces are within the reach of the entire population, the furniture it includes must be designed in an inclusive way, which fosters relationships with different users, and it is an ideology that has begun to appear in the planning plans. It is clear that furniture responds to a specific use that relates the public space to its immediate context, but at the same time it must be accessible and practicable for all categories of users in order to improve life for the city and not for a privileged sector. In this perspective, it is necessary to clarify that the concept of accessibility refers to eliminating existing architectural barriers, which are not only physical factors, but also more cultural / cognitive aspects (cultural barriers, language, religion, education, economic). In addition, the furniture present in the space greatly affects its habitability, so they are decisive factors both in its definition as space, and in the opportunity to generate an adequate social habitat to produce urban experiences, regulating interpersonal relationships between individuals. As these constant interactions between subjects occur, the context and identity of the space is defined and through the appropriation of the environmental, social and cultural elements that

characterize the place, the quality of life of people changes dramatically.

We must think that a furniture plan that is included in the territorial urban design increases the functionality of the public spaces of the city, thus managing to cover the basic needs and offering different services that are frequented at home. In the same way, as of today, it is not possible to continue with the guidelines proposed by the cities, because it is necessary to think about Post-Covid furniture. A pandemic for which cities were not prepared, but as mentioned in Chapter 2, the importance of public space for the health and well-being of people is fundamental, but it must respond to new needs.



*Source: Diagrama de Mobiliario urbano,  
Jacqueline Zambrano*



*Beiqijia Technology Business, Beijing - Martha Schwartz*  
**Source:** MSP



*Nierika, Mexico - Boa Mistura*  
**Source:** BOA MISTURA



## Urban Furniture

Street furniture, that system that encompasses a generality of small designs ranging from bench to lighting, must be designed in a sustainable way, because it can help make the space more livable. Ergonomic and durable elements designed so that they can be integrated with natural elements, with social participation, that favor the aesthetics of the place, but not leaving aside social interaction.

Intelligent lighting that allows the city to reduce electricity consumption and CO2 emissions, limiting light pollution and maintenance costs. In addition, with the use of solar panels, not only energy savings are guaranteed, but also greater safety for the users of the space. An example of light poles would be those with dimmers, which can control the intensity of the light when there is little flow of people.

Public benches that support a distancing design due to the Post-Covid era, but that at the same time are of high comfort, sustainable materiality and a design that adapts to existing and proposed plant elements. Martha Schwartz shows in her project in Beijing, how seating furniture is a system that can serve as an integrator with the natural system, as a separator between circulation and permanent spaces and as an aesthetic system which complements its functionality.

Public art that improves the perspective and iden-

tity of the place, but that has an adequate intervention regarding the use and that is participatory, that is, that the community itself feels part of the project. Like the example used, a Spanish collective, Boa Mistura, offers a new physical aspect to a space that is already marginalized or in the process of recovery, but at the same time, public opinion is essential in order not to change the identity of the sector. From the coloring of the façades that continues on the ground, telling a story that comes from the population that inhabits the sector.







### 3.3 Architectural Project- Recovery of Public Space- Urban Acupuncture

**I**n the previous subchapter it is spoken about strategies and examples that have been implemented in public spaces, the result of which favored people's quality of life, improving their physical aspects related to the perception of users, using natural characteristics, paving and furniture, this in order to ensure a high level of urban comfort. These strategies represent specific interventions that, if implemented with adequate synergy, can trigger a true urban transformation.

By interpreting public space (empty / abandoned spaces, devoid of identity, lacking social opportunity) as a place to improve people's quality of life, they can become a network that, through careful planning aimed at coordinated actions, can avoid the fragmentation of town. This type of intervention methodology that we want to reach on Calle 13, which we will explore below and is the one that occurs through specific operations, is called urban



acupuncture, concrete actions for a plural improvement.

“In the same way that medicine needs the interaction between the doctor and the patient, in urban planning, it is also necessary to make the city react. Touching an area in such a way that it can help heal, improve, create positive chain reactions. It is necessary to intervene to revitalize, to make the organism work in a different way”<sup>21</sup>

Both Jaime Lerner and Marco Casagrande, authors who work with the concept of Urban Acupuncture, start from the same etymology of alternative medicine, which is an ancient Chinese technique that is based on seeing the interconnected body where there are channels that connect the different organs internal Whose healing method consists of the insertion of needles in the acupuncture points (doors that manage to balance the energy), making the pain disappear and recovering one's health.

Certainly, to be able to apply this type of medicine in the city, Casagrande explains that the city must be seen as a living being and in constant change (in this case Calle 13), with the ability to breathe, but highlights the areas that need a repair. Casagrande proposes the “Sustainable Project” as the needle that revitalizes the area of the body that is damaged or in poor condition, and thus offers a possible cure for the city and its citizens. Likewise, the theory of urban acupuncture shares similarities with the current

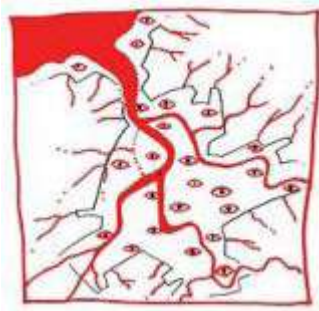
movement of tactical urbanism, in which it focuses a series of resources of local origin, resulting in the promotion of citizens with more interest in the city.

In this specific case, as mentioned in the first chapter, Calle 13 is understood as it is lived and that throughout its journey its dynamics changes, this in order to respond to the dynamics that the areas of the city have . Therefore, in order to avoid a mere project of renewal strategies on an urban scale, three points on Calle 13 are selected (Map next page) that currently do not contribute to improve people's quality of life. Likewise, with a current crisis in public projects of the state with the city, these proposed designs with a more community and local approach can offer a democratic and economic solution to the state.

Urban acupuncture is a term that aims to intervene in specific strategies, characterized by being small-scale, but with great potential for regeneration, not only instead of intervention, but can extend its benefits to the rest of the city. The Brazilian architect Lerner introduces into the concept of urban acupuncture an interest in the reinforcement of cultural identity and the recovery of historical memory that had not been present in previous works. To this is added the trend towards an architecture framed in a sustainable urbanism that responds to the 17 sustainable development goals.

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21 Jaime Lerner. (2005). *Acupuntura urbana*. Barcelona: Institut d'Arquitectura Avançada de Catalunya.



Source: *Urban Acupuncture Scheme in Taipei*,  
Marco Casagrande

In the same way, the idea of this thesis is not limited to offering a design for these spaces, but also to propose a dynamic that can be repeated along Calle 13, and thus recover the importance that Calle 13 had for the town. Likewise, through projects of this scale, generate what Bernard Tschumi explains in his book *Architecture and Disjunction*, about shock and the event, where the event is not only a logical sequence of words or actions, but that moment where it occurs the drama causing something different to the citizen. However, shock is that surprise factor that allows a space to stand out for the pedestrian.

“... That in an age of pure information the only thing that counted was the “ shock ” - the shock of images, their surprise factor. This shock factor was what allowed an image to stand out...”<sup>22</sup>

The purpose of this is to transform Calle 13 into a theater in which, as it is traveled, either by bicycle or walking through sectors, it has places that intervene in people’s daily lives. Offer a diver-

sity of spaces, which are surprising the citizen since they are thought and possibly designed in a participatory way, this in order to respond not only to the basic need to increase the square meter of public space per person, but also adequate for so that when it arrives it is a different surprise that generates an event when it is appropriated.





This part of the thesis will show the intervention of 3 spaces that are located along Calle 13 as can be seen in the following map. The three spaces have in common that they have the potential to attract people due to their identity, one of university culture, the second commercial , and the other of historical culture, but it should be noted that the dimensions and physical characteristics of the three spaces vary completely. The three spaces currently have physical conditions which do not help to improve people’s quality of life, on the contrary, they affect their safety, thus leaving a great margin for their intervention. In addition, by being located in the urbanized part of the city, they can give the guideline, to continue carrying out local interventions along Calle 13, and be able to achieve the main objective of making the city through the recovery of the public space of Calle 13.

<sup>22</sup> Bernard Tschumi. (1996). *Architecture and Disjunction*. Cambridge, MA: The MIT Press.

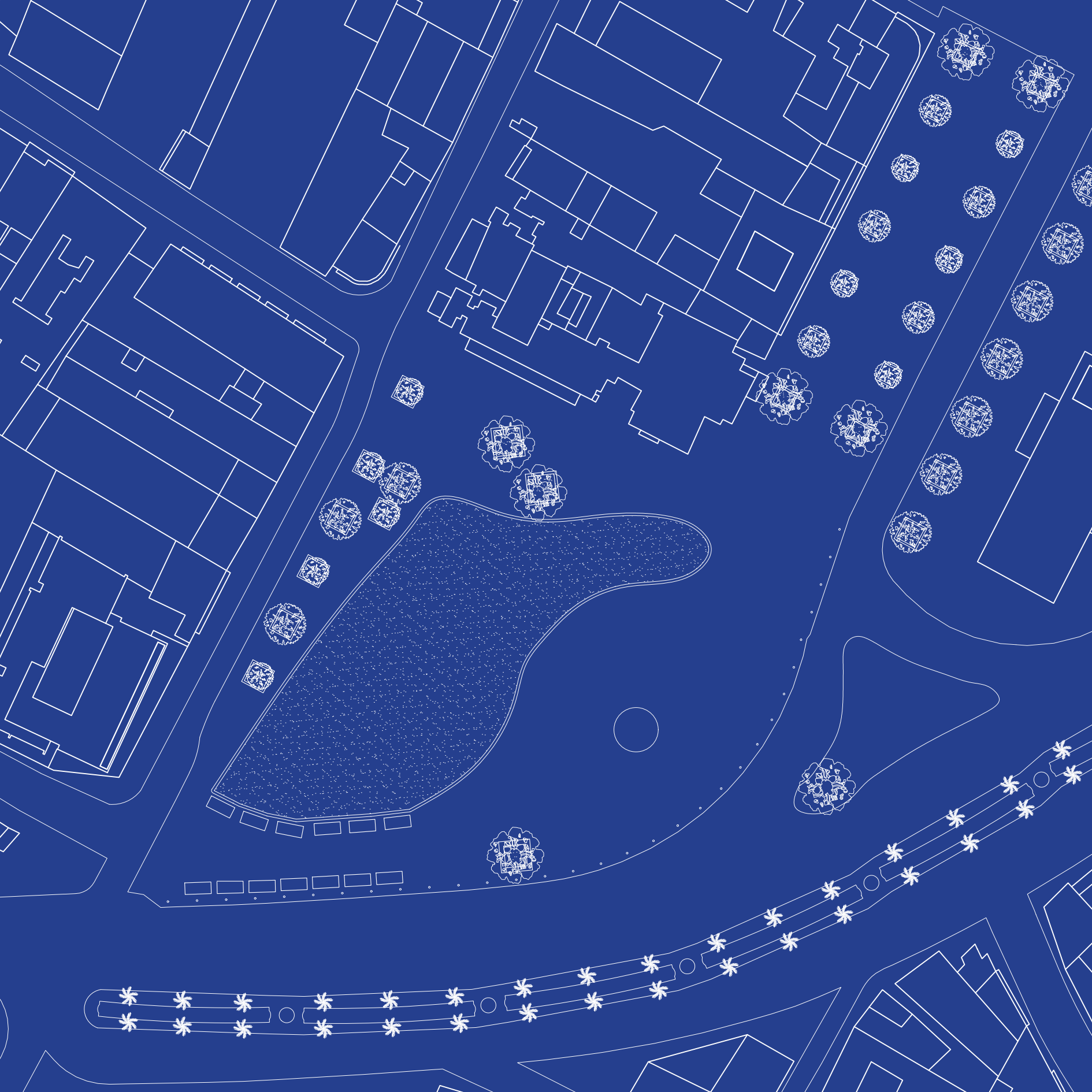




**LEGEND**

-  *Calle 13*
-  *Plaza los Periodistas*
-  *Plaza de la Mariposa*
-  *Corner Savanna Station*





### 3.3.1 Architectural Project- Recovery of Public Space- Urban Acupuncture

**T**o begin our journey of interventions on Calle 13, we choose a historic square located in the initial part of the street (Eastern Part of the city - At the foot of the eastern hills), which is called Plaza de los Periodistas. The name comes from the fact that there, in the 1960s, journalists, poets and writers who worked in the city's media located in the surroundings used to meet.

It is important to emphasize that the area where the square is located is in the course of the environmental axis (Project carried out by the architect Rogelio Salmona), which offers a pedestrian nature to the sector and defines the physical form of the square. Likewise, it is directly related to the Transmilenio station, Las Aguas, and becomes a focal point for students, professors or administrators of universities such as El externado or La Universidad de los Andes. In its surroundings are the facilities of the ICFES (Colombian Institute for the Promo-







tion of Higher Education), the Hotel Continental, the Colombian Academy of Language, and the Colombia Americano center, which are buildings of an important character for the citizens of Bogota.

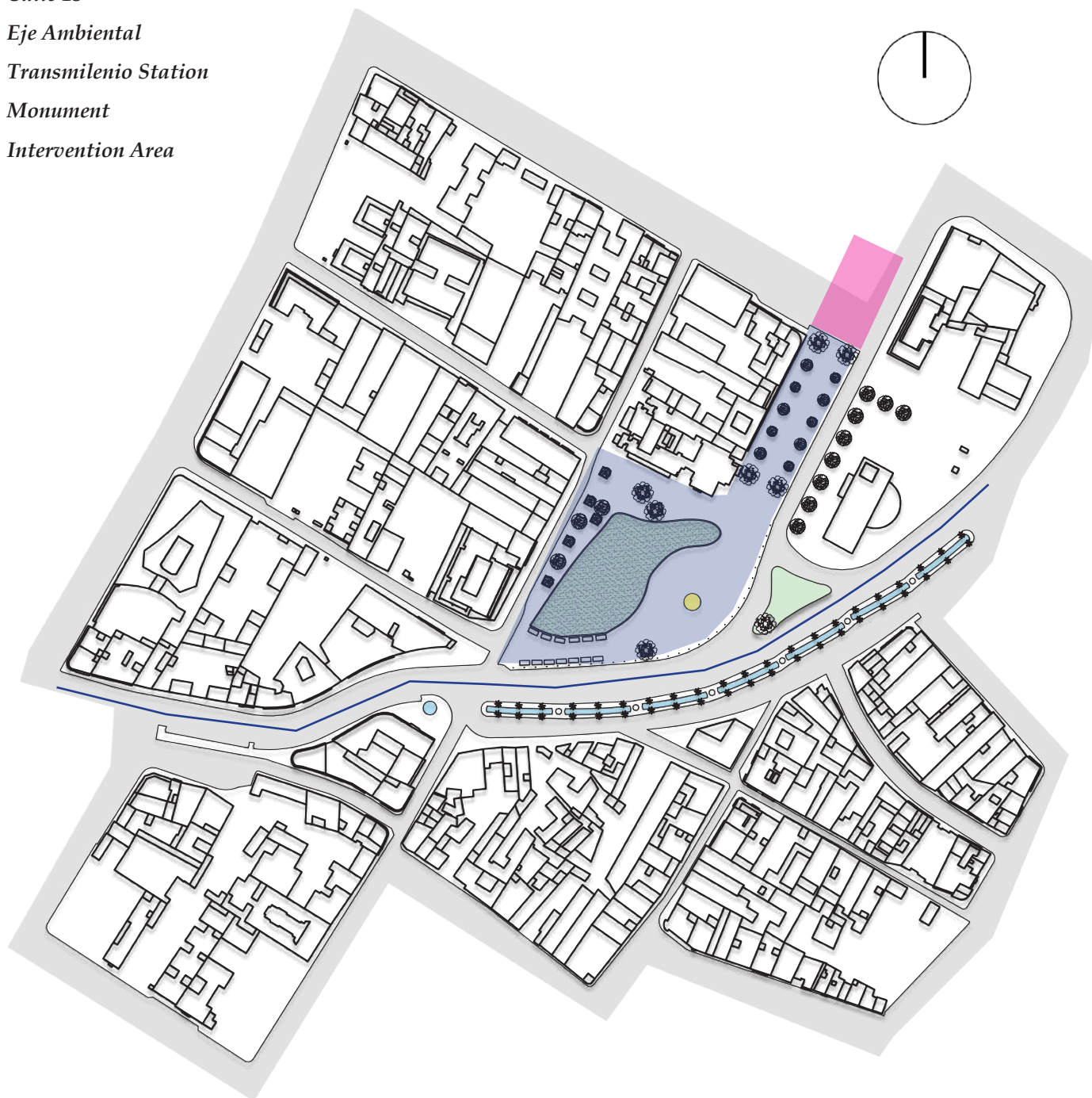
In addition, in the center of the square, the Liberator's Temple (Work of the architect Pietro Cantini, inspired by the temple of Vesta in Rome) is striking, it is a monument to Bolivar, which is shaped like a temple on a reduced scale, that in its center houses a sculpture of the liberator, and on it, a statue of a condor of the Andes (Animal of the country) was placed. Also, an "informal" trade area is located, which improvised with a large number of tents is set up what is known as a flea market, whose concept is to sell accessories native to the country. In addition, the square currently has a green area not suitable for the use of people, and with a scarcity of vegetation, which gives the image of a dead zone without any clear use.

The purpose of the proposed intervention is to use the square as a healing garden for the city, but specifically for the people who frequent it, most of whom are university students or tourists. Recalling the concept of curative gardens, which can provide benefits to people's health in a passive or active way, the proposed design tries to implement both actions with different spaces designed. This in order that the pedestrian has the option of using the square not only for flow, which is what is currently happening, but also has spaces of permanence, so that the appropriation of the square is different, and increases the quality of life of citizens.



## LEGEND

-  *Calle 13*
-  *Eje Ambiental*
-  *Transmilenio Station*
-  *Monument*
-  *Intervention Area*



Scale 1:3500







## LEGEND

-  *Path for the pedestrian*
-  *Permanence spaces*
-  *Rain Gardens*
-  *Healing Gardens*
-  *Commerce stores*



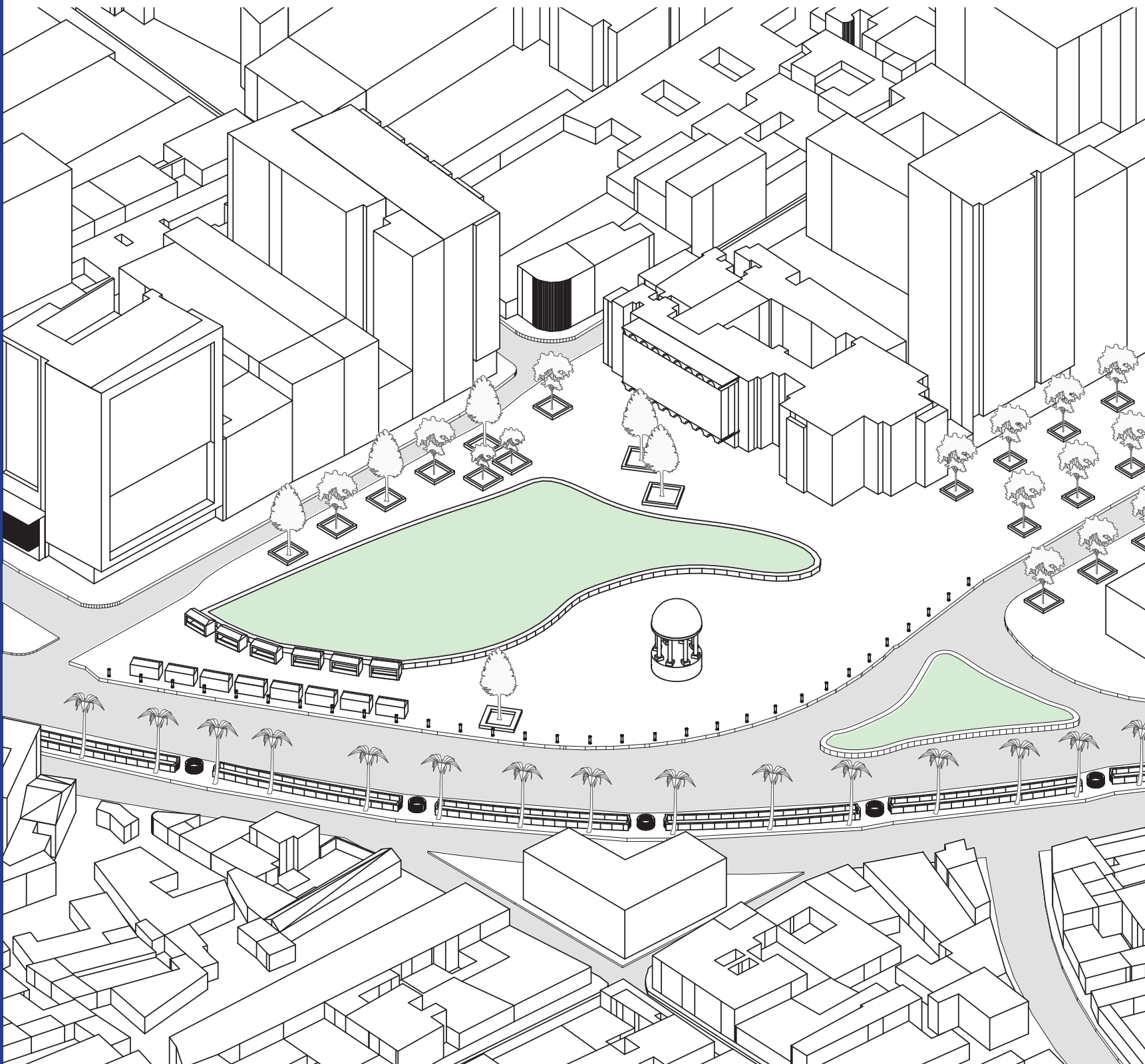
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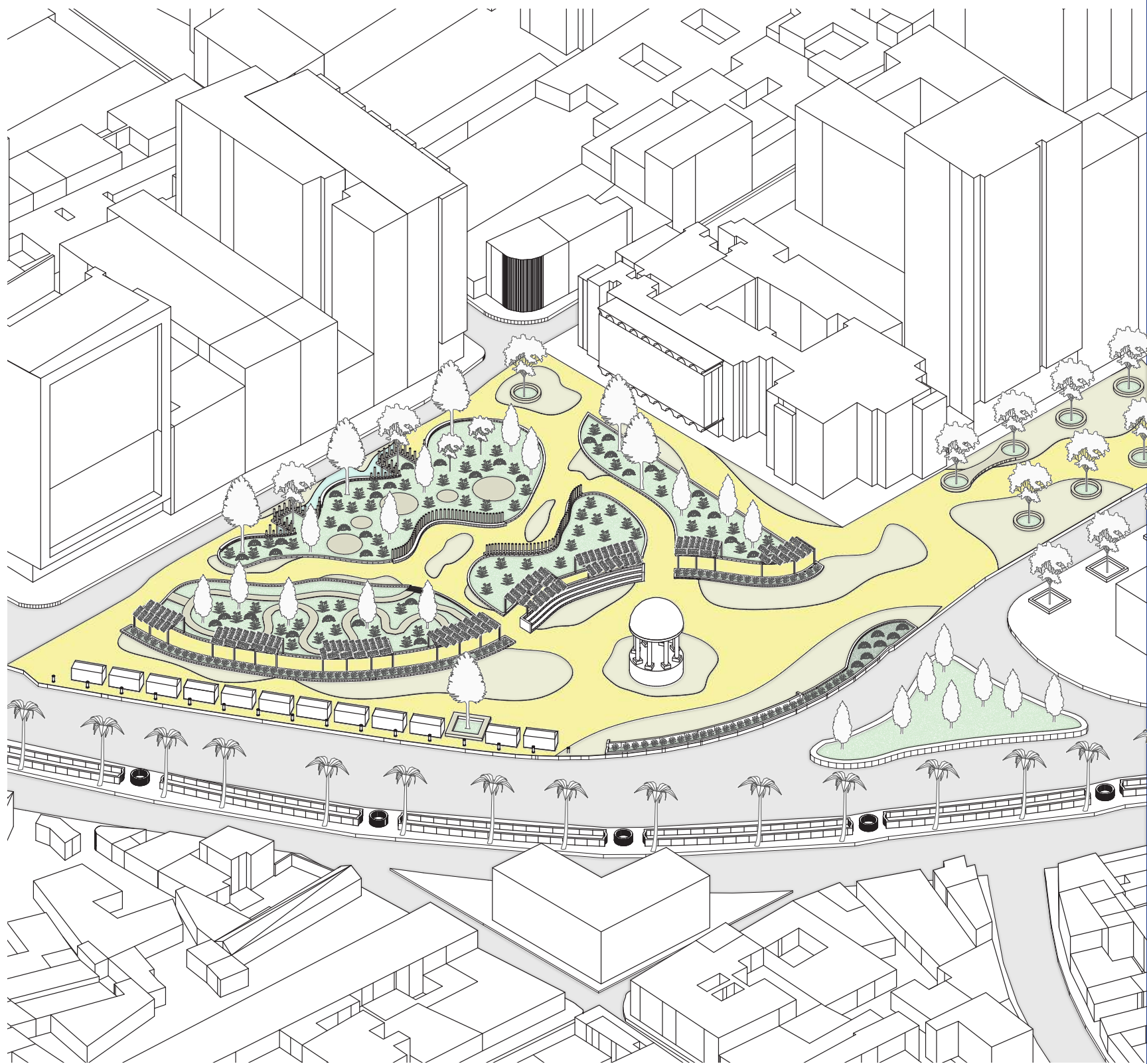
Starting with a change in the materiality of the ground, which clearly demarcates and separates the spaces for travel and permanence that the project has, this with the intention of aesthetically improving the square, but in turn, improving the comfort of citizens enrich the sustainability of the area. The materials used for the tour can be clay or colorful socks, first because they belong to semi-permeable surfaces. Second, because it favors evaporation, feeding the aquifer and surface water runoff, counteracting the negative effects of the waterproofing soils of the built city. With respect to the areas of permanence, which have a different character, the use of colorful mosaics is proposed, as used by Brule Marx, because these can withstand the dead load from people (market area), but at the same time at the same time they visually attract the pedestrian.

Second, the use of a pergola in sustainable elements such as wood and covered with vegetation (climbing plants), is intended to generate shady areas throughout the day, not only on the proposed route, but also, in the space given for the “open theater”, which is a furniture proposed in such a way that people can make events in the open air.

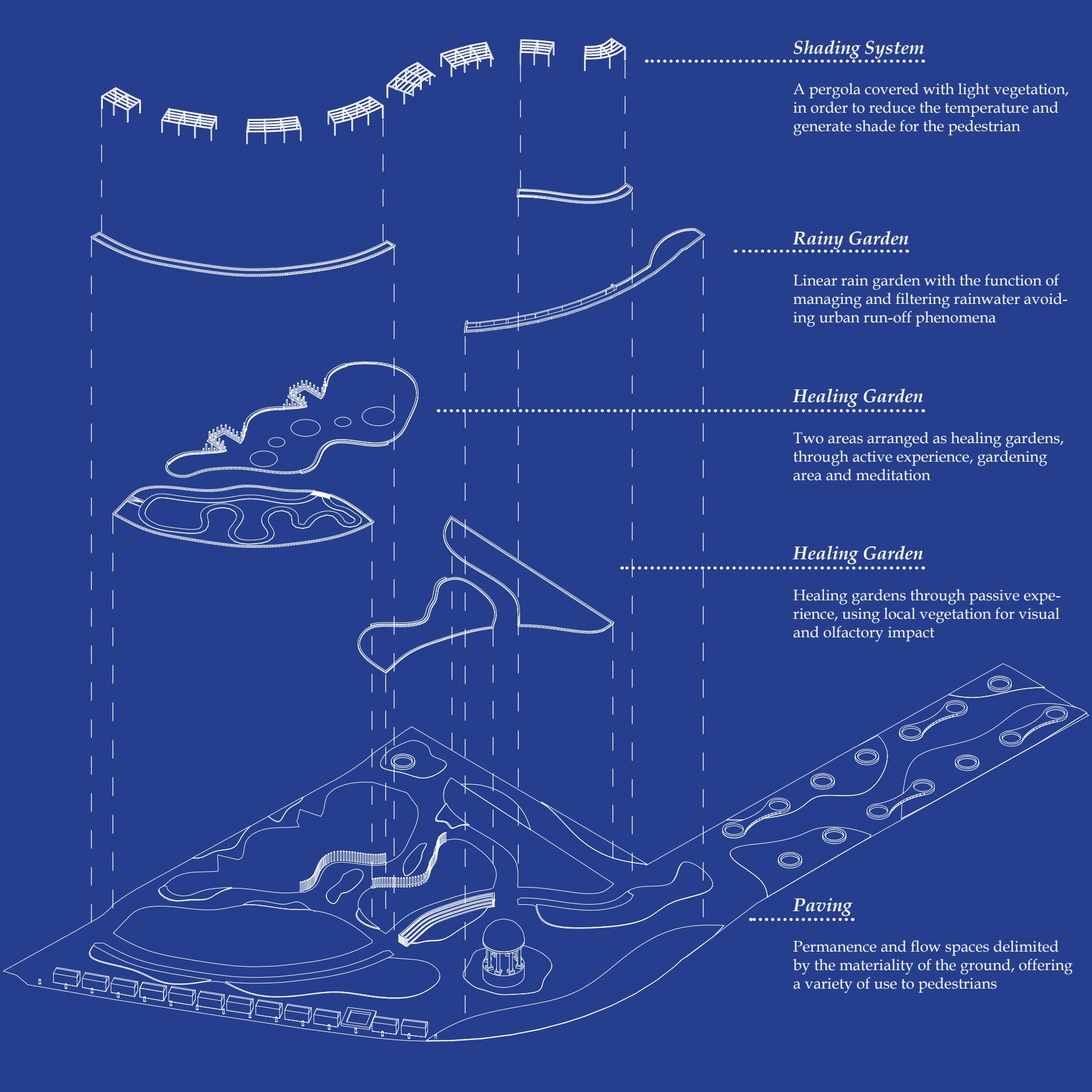
Third, the use of rain gardens located in a linear way, of small dimensions that are distributed throughout the project. The use of this strategy is proposed due to the rainy climate of Bogotá, which directly affects the comfort of the space and through the use of these basins it is intended to capture and absorb rainwater and reduce pollution.

Finally, the two types of curative gardens are considered, whose dimension is the predominant one in the project. The passive, with the use of local plants is intended to alter the emotions of citizens through sight and smell. On the other hand, the asset, permanent spaces are offered to carry out gardening or meditation activities, in order to fulfill the main objective, which is to improve people’s well-being. Likewise, the project would have an informative guide (interactive Totem) that will allow pedestrians to have the necessary information about the project available. Offering information on the plants used and the benefits that each one has, up to the calendar of events or activities that both the curative gardens and the “Open Theater” can offer.









### *Shading System*

A pergola covered with light vegetation, in order to reduce the temperature and generate shade for the pedestrian

### *Rainy Garden*

Linear rain garden with the function of managing and filtering rainwater avoiding urban run-off phenomena

### *Healing Garden*

Two areas arranged as healing gardens, through active experience, gardening area and meditation

### *Healing Garden*

Healing gardens through passive experience, using local vegetation for visual and olfactory impact

### *Paving*

Permanence and flow spaces delimited by the materiality of the ground, offering a variety of use to pedestrians









### 3.3.2 Plaza de la Mariposa - Commercial or Memory Plaza?

**T**he next place chosen to intervene is the Plaza de la Mariposa, which, of the three intervened places, is the one of greatest historical importance. Located in the San Victorino sector, known as the commercial sector of Bogotá, where the productive hours are from 6am- 6pm. It is a sector which has a pre-established schedule, leaving night life aside and bringing insecurity to the sector. On the other hand, the square is currently used only as a transition between spaces, and it is not a place that provides characteristics for citizens to appropriate it, thus generating a residual space that does not contribute to people's quality of life.





The Plaza de la Mariposa is named after Edgar Negret's sculpture, "Great Butterfly", which is a monument made in 2000, and represents a modern abstract sculpture. It is made from assembled, welded and painted steel sheets and it is the main icon of the square, unfortunately, it has no object that makes it stand out from a wide square. In addition, it has a

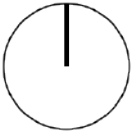
not very adequate natural system in which 9 palms are established as vegetation as the end of the environmental axis and a green area which cannot be used because both the meadow and the existing vegetation are in deterioration. It should be noted that there is a subtraction in the ground, not very large, which is assimilated to a channel, which is appropriate by citizens as furniture to sit in during the daytime, on rainy days it fulfills the function of collecting water, but it does not supply the entire plaza. In addition to the commerce that is generated in the area, the square does not have a well planned urban furniture and that is why is invaded by informal merchants. What this produces is contaminating the existing plant system, visually polluting the square with the disorder of the merchants, and an auditory contamination by the same ones that try to attract customers through their voice.

Two types of intervention are proposed, one more invasive to make a complete change in the way of appropriating the square, the other consists of a slightly more subtle design that only aims to raise awareness among the citizens of Bogotá. Two types of design are proposed due to the identity of the square, in which its dynamics are so demarcated that either of the two designs could help improve the quality of the public space in the area. In addition, by showing two types of intervention, it is intended to expand the way in which the public space can be intervened and to understand that the quality of life of people can be improved in various ways.



LEGEND

-  Calle 13
-  Flow of People
-  Eje Ambiental
-  San Victorino Shopping Mall



Scale 1:3500





## LEGEND

-  *Path for the pedestrian*
-  *Permanence spaces*
-  *Water Mirror*
-  *Livable Gardens*
-  *Commerce stores*



Scale 1:500

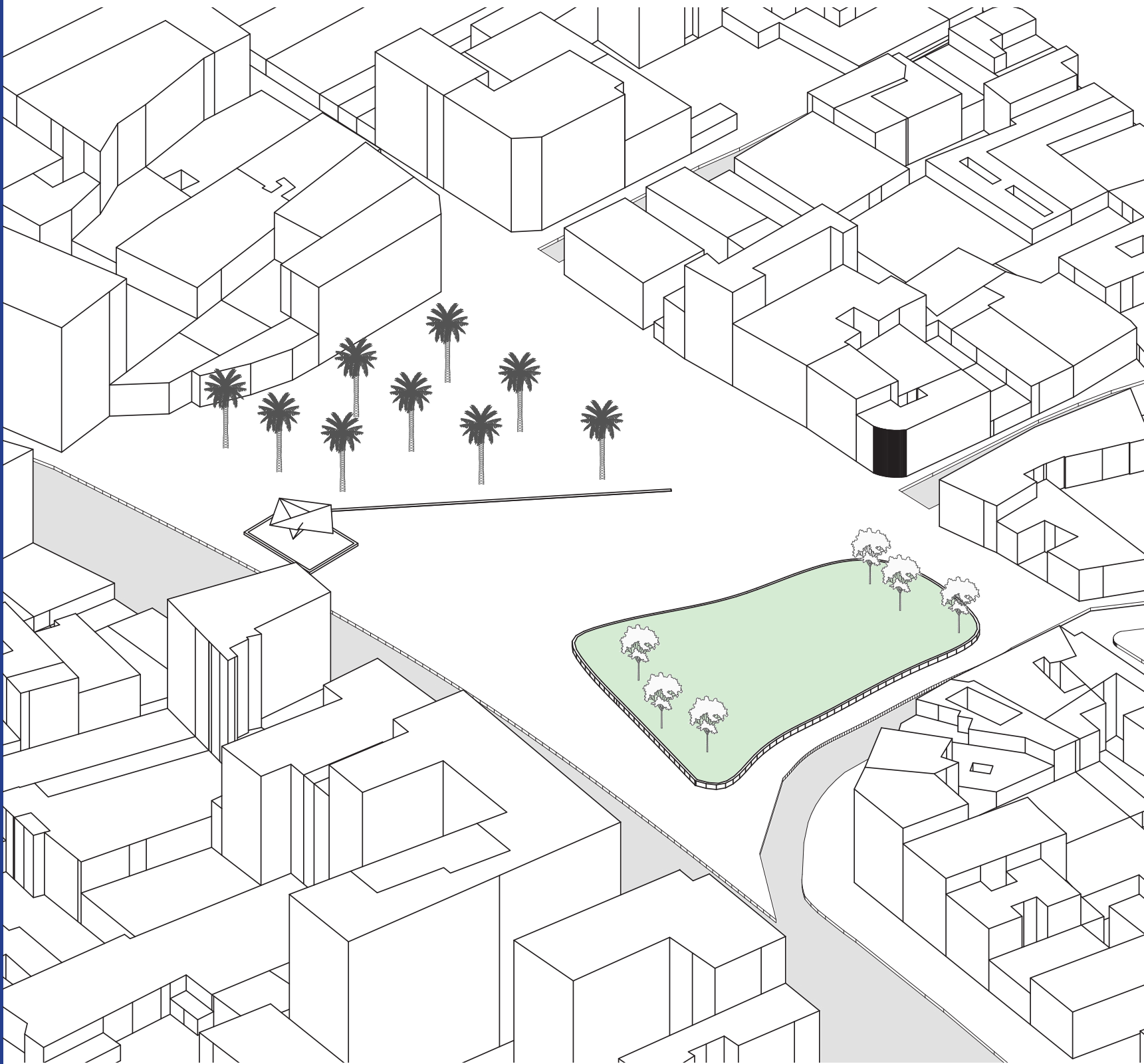
The first design focuses on the commercial identity of the area, and tries to potentiate that exchange capacity, but in a more personal relationship. In which it is not the trade that is seen every day in San Victorino, of wholesale purchases, but one more trade towards the pedestrian's experience with the square, an exchange of sensations in an iconic square. To achieve this, the square is divided into 3 sectors, in order to comply with the dynamics that currently exist, but introducing new spaces.

The first sector, the natural part whose task is to allow the use of the green area for recreation. Whether for young people who go with their relatives, as an adult, the proposed green area tries to attract people not only by its shading system because of the new tree plantations, but at the same time for the leisure spaces that they could come to realize. Likewise, have ample spaces to be used on Sunday

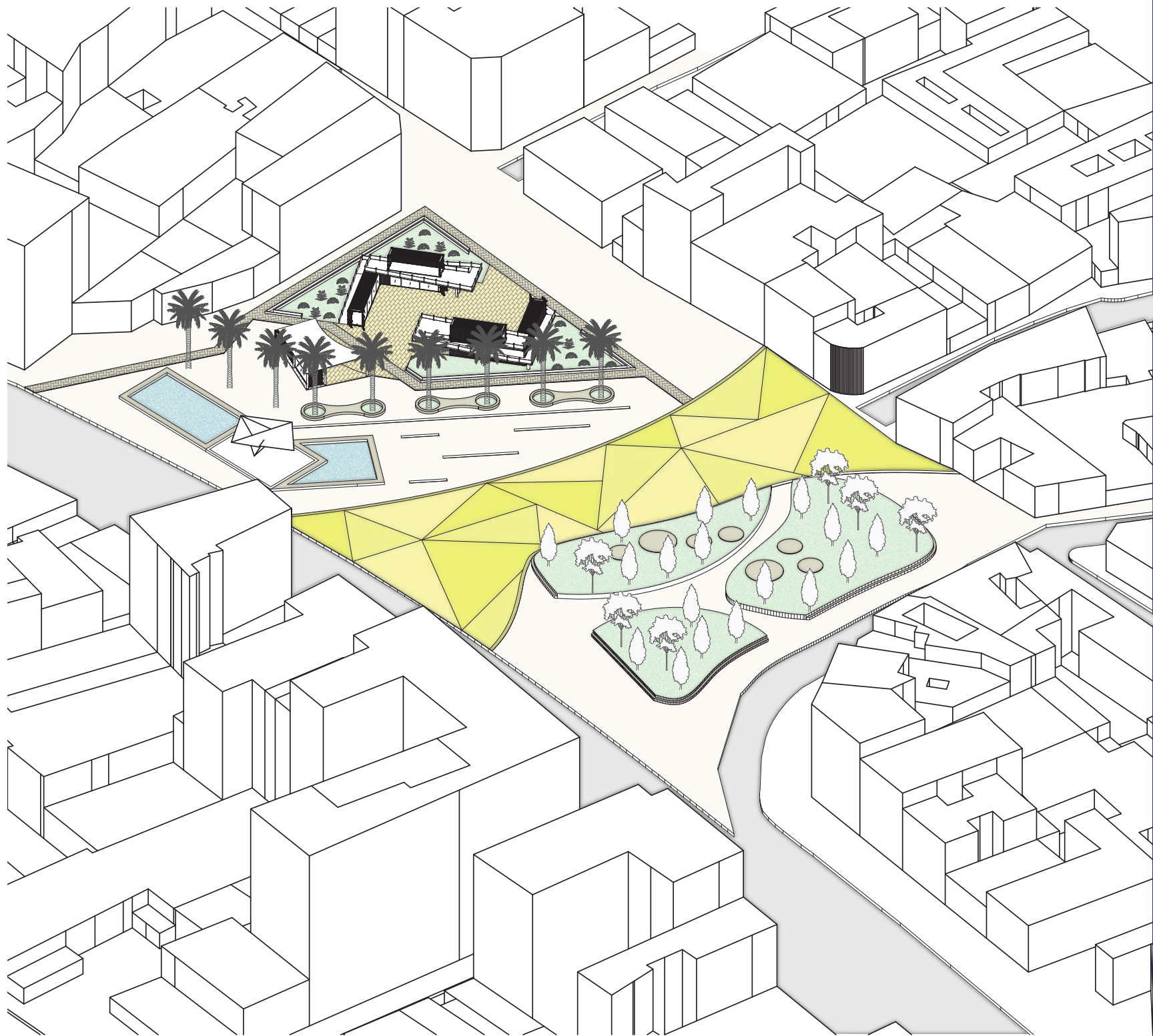
in the "ciclovía" by integrating Calle 13 into the "ciclovía" circuit, the state can generate physical activities in the open air of this area.

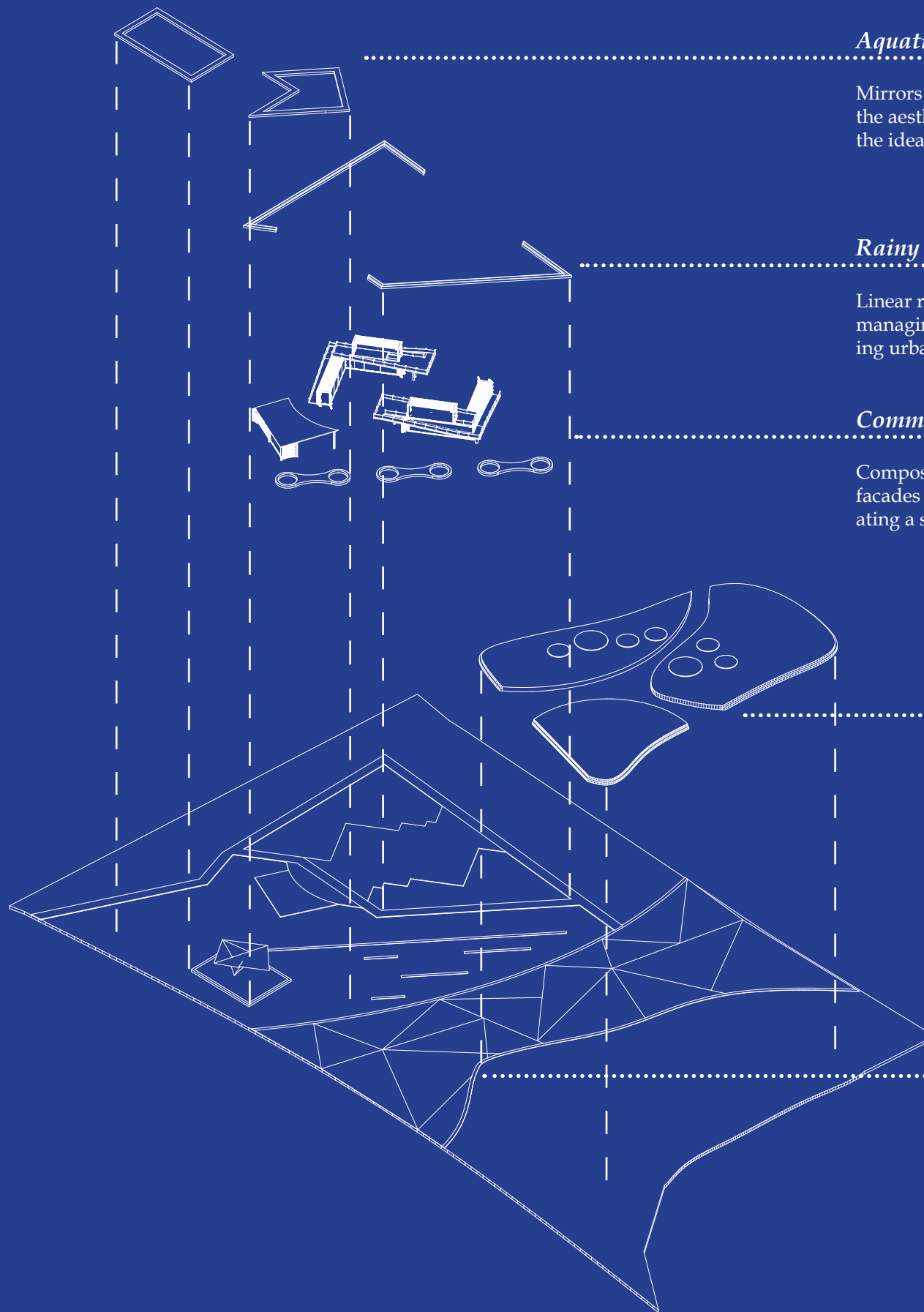
The second sector is a space of flow, which aims to demarcate the main route that the square currently has. This in order not to break with the dynamics of movement of the square generating stagnation, since it is a square which around 200 thousand people pass daily. In the same style in which BIG raises a floor to give character to the square in Copenhagen, using the same color, this design focuses on changing the materiality and color of the flow area, with the idea of meeting the requirements of resistance and avoid accidents that occur due to the poor condition of the tiles.

Finally, a commercial area is proposed, rethinking the position of the current vegetation and bringing with it new green spaces that interact with the area of permanence that is delimited by the composition of containers. Used due to the new fashion that is arriving in Bogotá, but at the same time to have a relationship of materiality with the monument, the containers intend to offer an open space of permanence, in which their structure is modified to avoid heaviness and with the use of glass bring spaces that allow the meeting in the square in a more comfortable way. In addition, an area of canals is proposed that continue with their main function, which is the collection of rainwater with the addition of two rain gardens, but in times of hot days, they can be used as furniture to sit on.









### *Aquatic Elements*

Mirrors of water, which help to improve the aesthetics of the square and enhance the idea of the memory of the river

### *Rainy Garden*

Linear rain garden with the function of managing and filtering rainwater avoiding urban run-off phenomena

### *Commercial space*

Composition of containers with glass facades to maintain horizontality, generating a space of permanence for citizens

### *Renaturation*

Improvement of the existing green space through the implantation of trees, and enable the use for rest and shading area

### *Paving*

Through the use of color, demarcate the greater flow that the square has, and avoid congestion












## LEGEND

-  *Permanence space*
-  *Water Mirror*
-  *Livable Gardens*



*Scale 1:500*

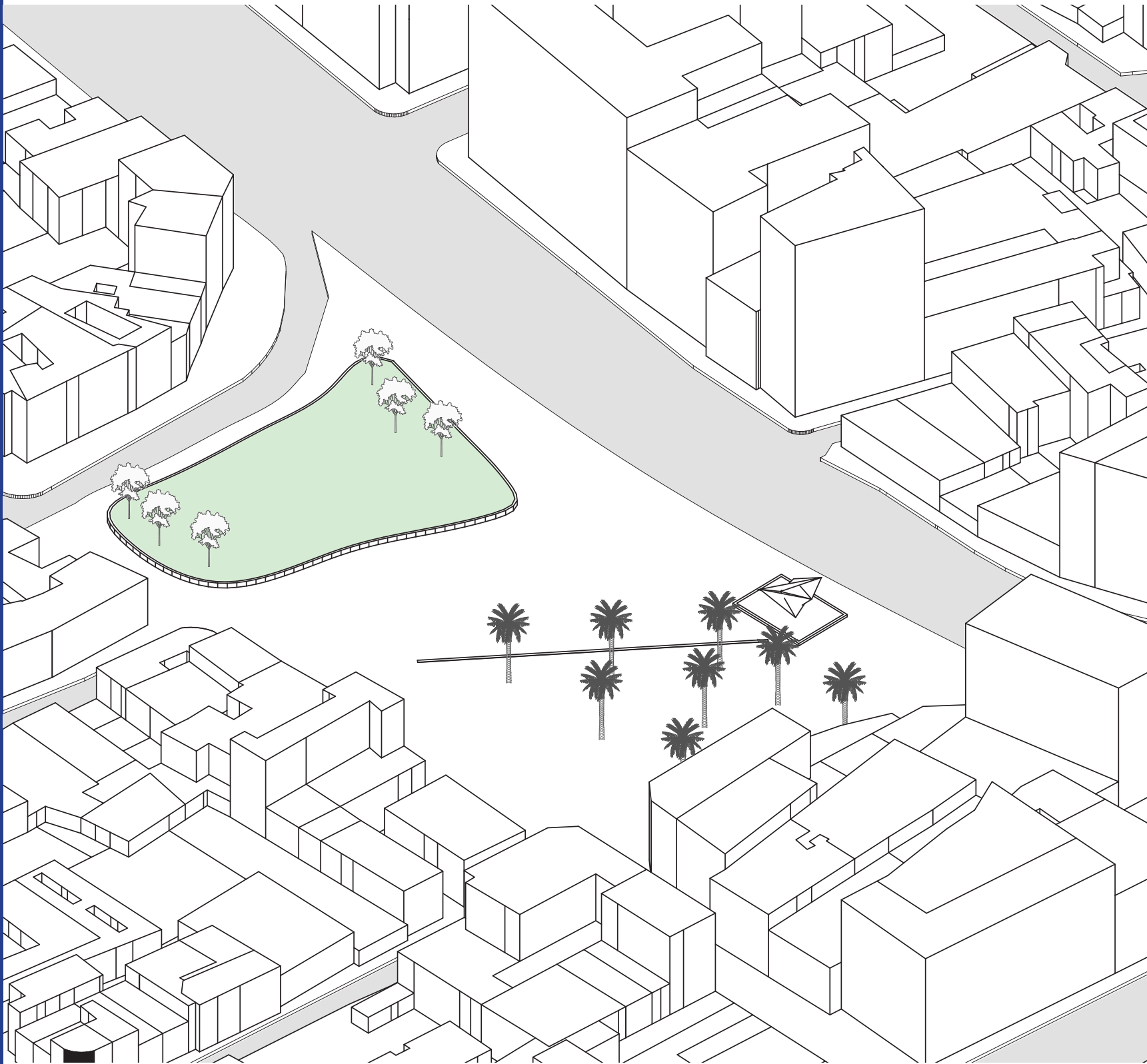
The second design which aims to raise awareness about what Bogotá was like before its colonization. We return to a place of wetlands and rivers that descended from the eastern hills and took over the entire plain in which the city of Bogotá is currently located, and that currently both rivers and wetlands for urbanization reasons were channeled and destroyed without leaving a memory of this. The project tries to sensitize the Bogotá citizen, proposing a memory space facing the water, in which the flow dynamics is maintained and avoids bringing constructions to the square, but which, at the same time by proposing a pocket park as a solution, improves the quality of public space.

In this design we continue to demarcate the flow zones that the plaza currently has, but in a more subtle way, in which, through the use of a semi-permeable pavement, nature can act as a visual limit of the project spaces. That is why the project focuses on floor treatment, not only in the change of ma-

teriality, but also in the creation of channels that allow the collection of rainwater and that its shape resembles the rivers that were in Bogotá. Taking this shape, it is intended to create channels with stone formations inside so that the passage of people is not interrupted, but at the same time they show how the urbanization of cities has gradually destroyed the city's water system.

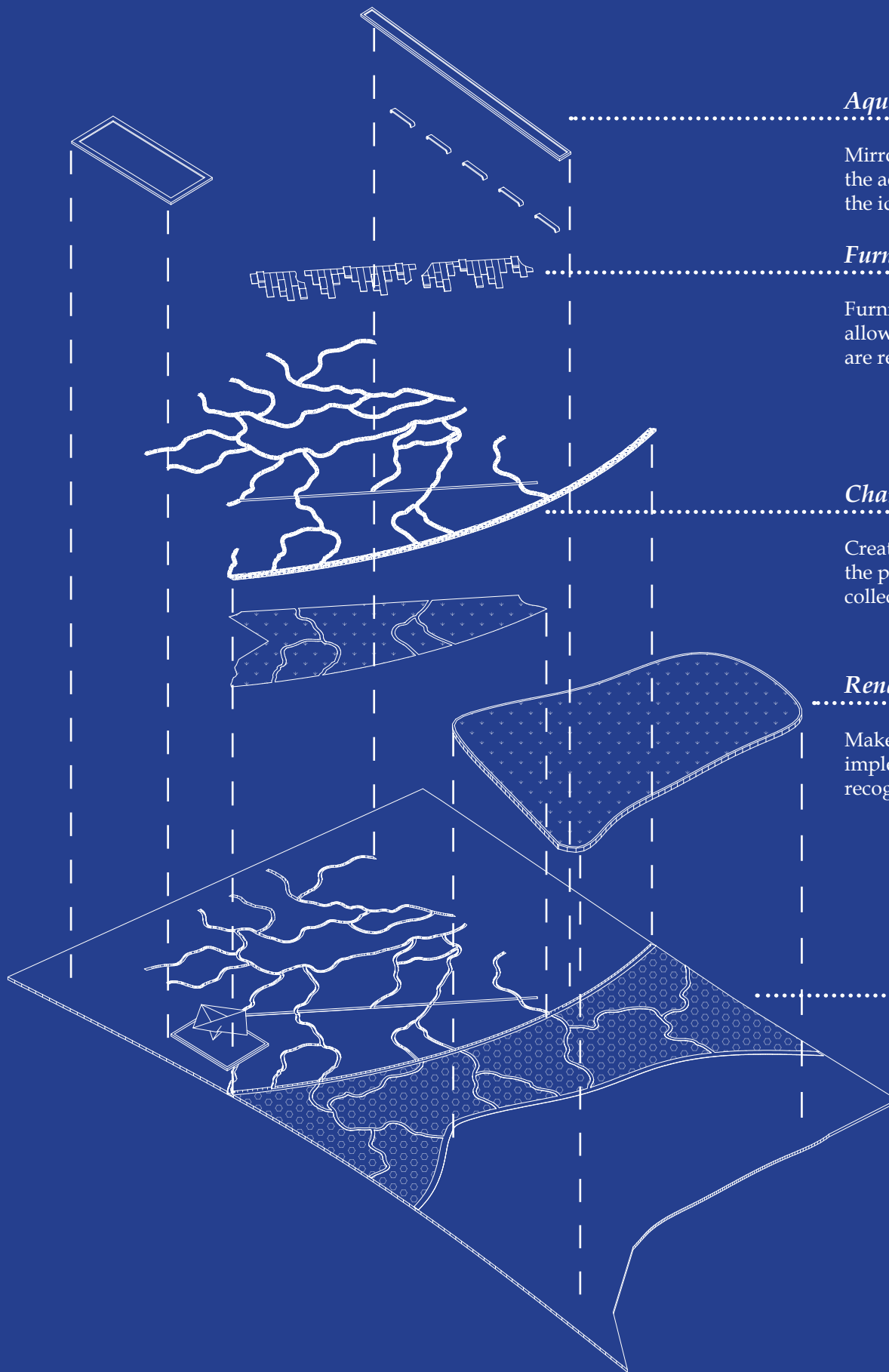
On the other hand, the current green area that is in the square is used as a delimiter for the planting of lush vegetation, which allows to reduce the temperature of the square and generate shade in the afternoon. Thus transforming this desert green space into a place that improves the quality of life for the community through the intervention of an area of less than 1000 m<sup>2</sup>. This pocket park that has access from all parts of the city, is intended to be used primarily for the recreational use of children and the elderly, thus providing a space for residents of the area, who live in a commercial cluster.

Finally, a permanence area is proposed that serves as a barrier between the part of the water channels and the main flow, in which people can use the square in a more appropriate way. Using green areas and wooden furniture, this area allows the post-pandemic distancing to be fulfilled, but at the same time gives an opportunity to appreciate both spaces of the square, the pocket park showing vegetation as an important system of Bogotá and canals of water catchment that are aesthetically pleasing to the pedestrian.









### *Aquatic Elements*

Mirrors of water, which help to improve the aesthetics of the square and enhance the idea of the memory of the river

### *Furniture*

Furniture in sustainable materials, which allow physical comfort for people and are related to other systems

### *Channels*

Creation of channels that do not affect the pedestrian flow, but that serve to collect rainwater

### *Renaturation*

Make better use of green areas, but implementing a tree system that can be recognized as a pocket park

### *Paving*

Change to a more permeable soil that is friendly to the natural system and using lines of nature on the floor, the uses of the palza are demarcated









### 3.3.3 Private Parking Savanna Station - Participatory Museum

*F*inally, we have the project designed on an urban void, which is currently used as a private parking lot. The importance of this place lies in its proximity to the Savanna Station, and as mentioned above, it is one of the iconic buildings in the city that has the potential to increase people's quality of life. Taking into account that at present it does not fulfill its central transport function, the Station continues to attract people for mobility reasons, creating sporadic trips that normally take place on Sundays and are a tourist plan for citizens. Likewise, at the moment the station does not have a space for the meeting of people, since it was intended to be at the main access, but it was transform to the parking lot of the workers, and is for this reason that the lot selected for the project contains potentialize characteristics.

In reality, the space of the project has an information space related to Savanna Station, which is only

enabled on Sundays for the sale of tickets, but it must be mentioned that it is enclosed by a perimeter wall, which first makes the flow of pedestrian restricted and second, there is a visual barrier that affects the sidewalk, generating abandonment by pedestrians in the sector. However, the lot is located in Los Mártires neighborhood, which has a strong residential and commercial presence, the area does maintain a high pedestrian flow, but at the same time it should be noted that the people who live in the neighborhood shows important roots with the sector and with the public space.



In this case, the project aims to offer a space related to the Savanna Station and Calle 13 but at the sidewalk level. Provide a space for the community of Los Mártires specifically, which combines the positive qualities of flow and permanence, in which the lot becomes an extension of the Savanna Station, but at the same time responds to the needs of a public space on Calle 13. Thus, a project is proposed which supports participatory design as a basis due to the roots that the inhabitants of this neighborhood have, but at the same time invites the citizens of Bogotá and tourists to observe a public space dedicated to social coexistence.

In order to achieve the objective, the space is divided into 3 systems in which if they are well executed, it would generate the necessary synergy to attract not only the inhabitants of the Los Mártires neighborhood, but also the space is transformed into an attraction of the city.



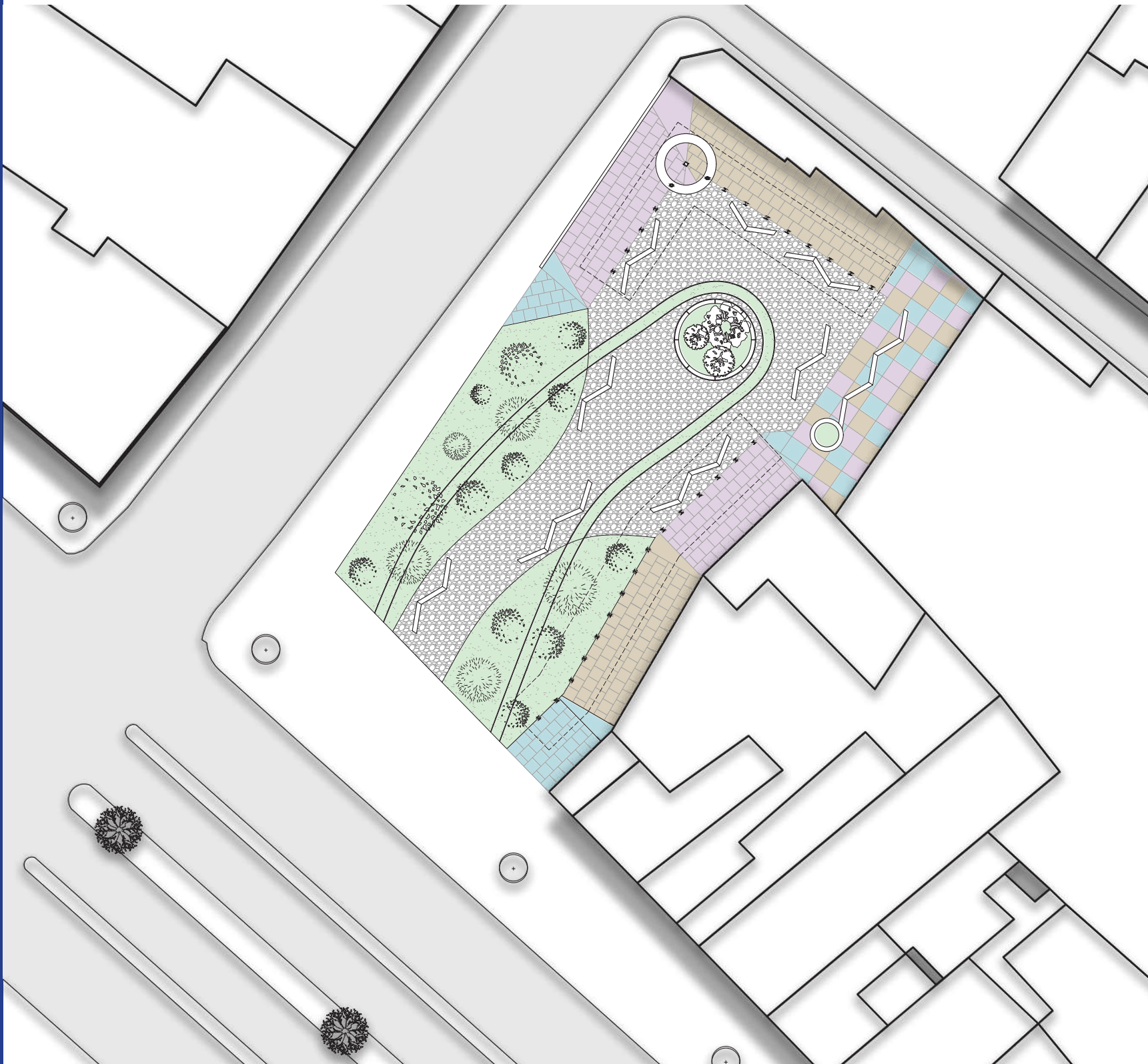


LEGEND

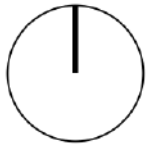
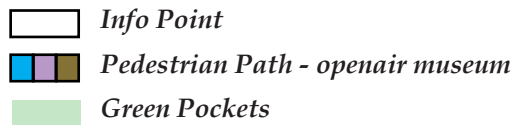
-  *Intervention Area*
-  *Estación de la Sabana*



Scale 1:5000



## LEGEND



Scale 1:500

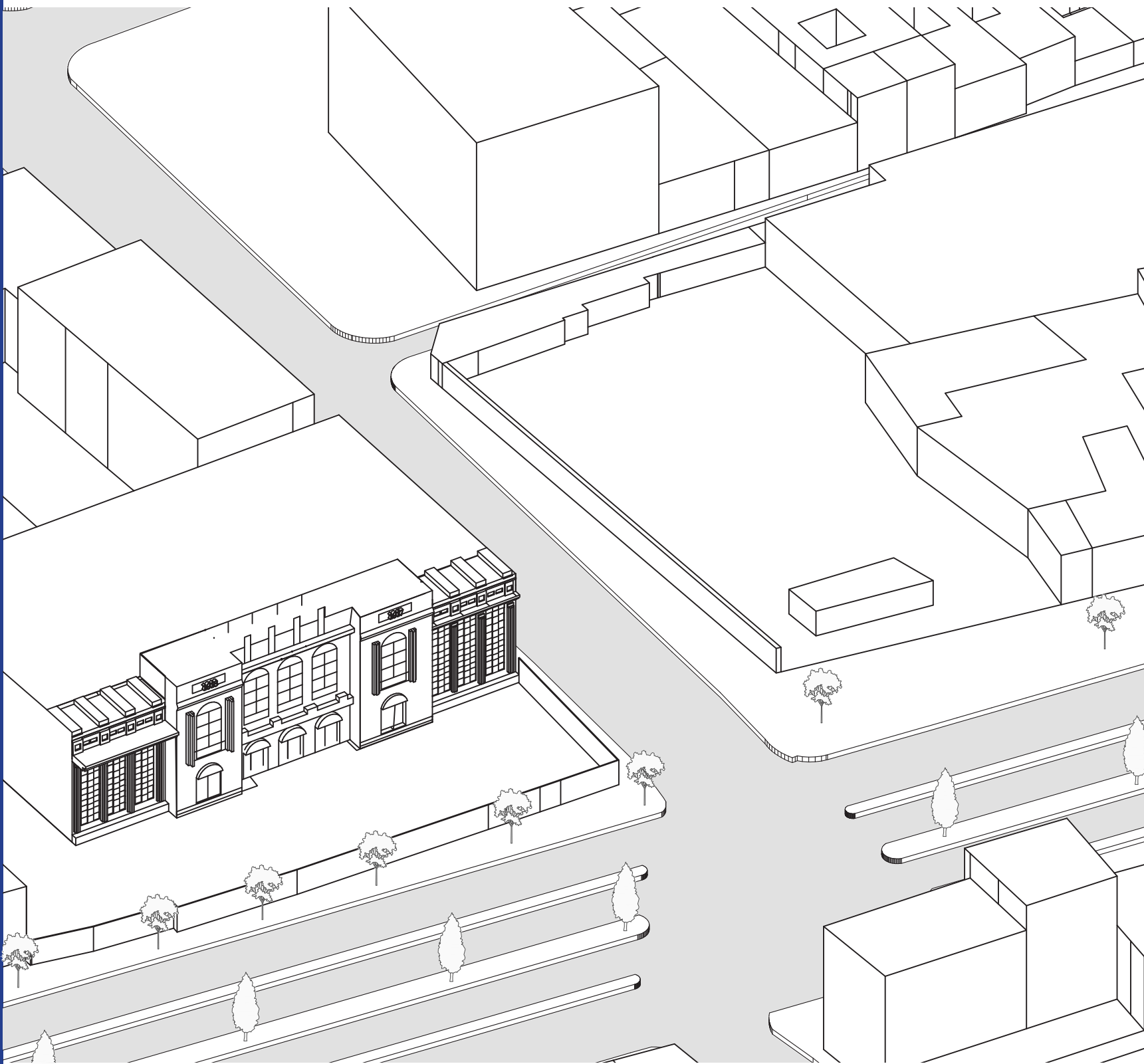
The first system, The Social, by creating a space for travel and a space of permanence, the inclusion of the inhabitants of the neighborhood in the design part of the project. A participatory design which offers the people of the neighborhood the opportunity to create an open-air museum, by using the walls adjacent to the lot as canvas in order to be an urban art. By proposing this type of art, the aim is to find a diversity of styles that can present the concept of the museum in alternative ways, including the participation of people so that the space has the identity of the neighborhood and is a site that increases the roots of the sector. In addition, to maintain the versatility and ease for changing the urban art, the space would never remain static and serious the opportunity to offer something dynamic for the citizens and being able to generate unlimited experiences.

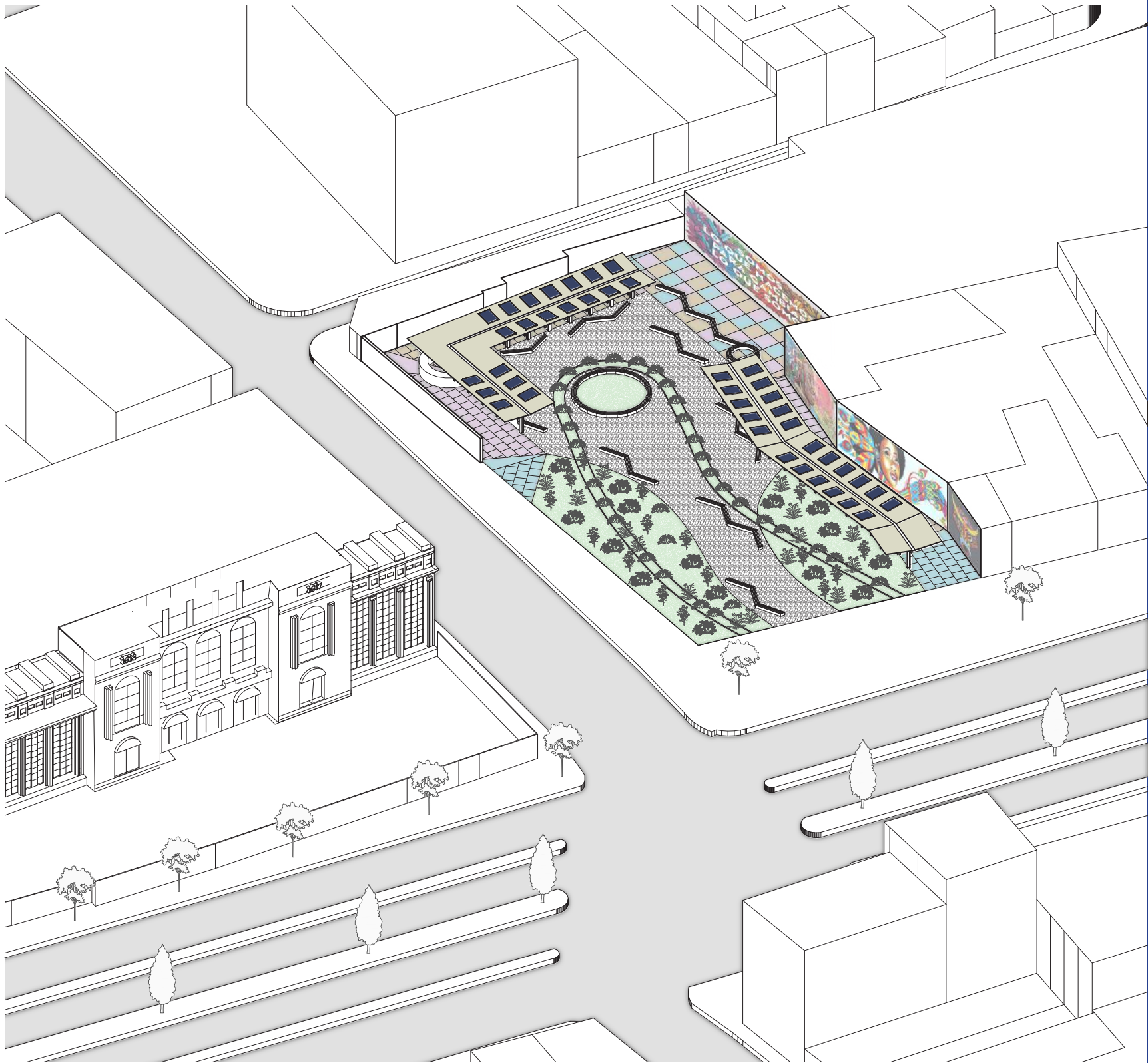
The second system, the equipment, provides an open space which, with the proposed furniture, what is intended to offer a place for the citizen to increase the experience of the open museum, and

to carry out interventions in the space. For this, the project proposes an area of leisure which can be used to project images/movies against the wall and create nocturnal events, or the use of scaffolding which freely allows the appropriation of both horizontal and vertical space. On the other hand, a roof is created with the same design as the platforms of the Savanna station, which allows to generate shade and improve urban comfort, but at the same time the structure is used to display works of art. In addition, a system of solar panels was planted on the upper part of the roof to generate the electricity for the project. Being an open museum, and having works exhibited, therefore, an information point is necessary which facilitates the explanation of the project to the people who use it. At ground level, the place of permanence uses semi-permeable soils that allow the irrigation of the green area, and it becomes a more recreational space. On the other hand, the floor destined for exhibition uses a non-permeable floor, with opaque tones, to highlight the path that people must do, but at the same time it does not diminish the importance of the urban art.

Finally, we have the natural system that is proposed as the gateway of the project and serves as a pocket park, in which the vegetation in addition to its constant work of reducing CO<sub>2</sub>, local plants that have vibrant colors are proposed. In addition, with a focal point located in the middle of the project, a set of trees are planted in order to generate shade for the dwelling space.







### *Solar Panels*

Implementation of solar panels to produce electricity for the intervention space

### *Shading System*

A roof that provides coverage from the sun and rain for the pedestrian path

### *Train Station Memory*

Metallic structures that resemble the one used in Estacion de la Sabana, used to hang art samples

### *Paving*

Painted permeable pavement, to give a visual aesthetic and demarcate the flow /tmuseum space

### *Permanence Place*

Space arranged for people to have the opportunity to create things in the open air

### *Renaturation*

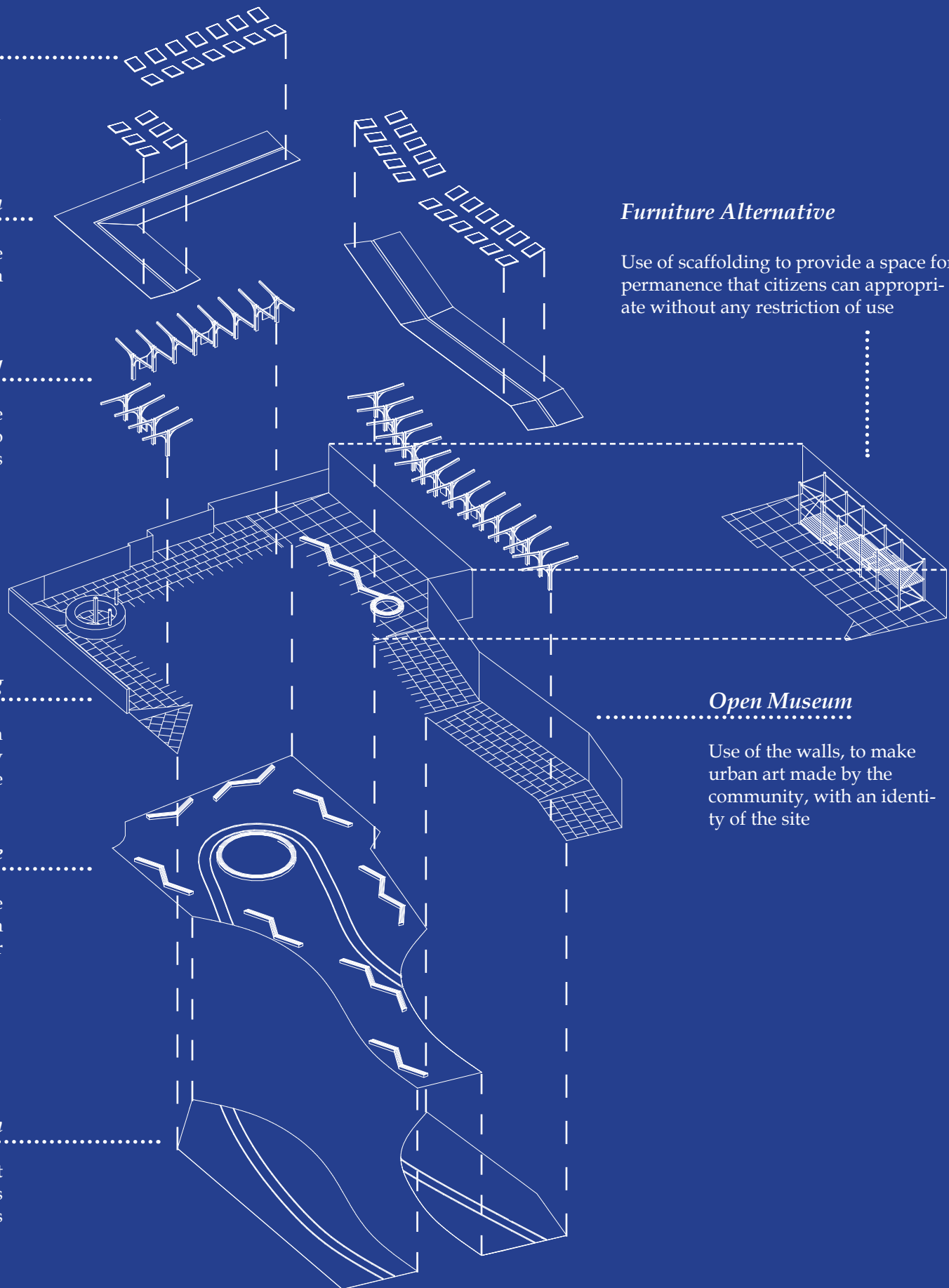
Change from rigid soil to vegetation that helps capture rainwater and improves aesthetics

### *Furniture Alternative*

Use of scaffolding to provide a space for permanence that citizens can appropriate without any restriction of use

### *Open Museum*

Use of the walls, to make urban art made by the community, with an identity of the site











## CONCLUSIONS

**T**he public space is the place where human activities and relationships occur, where these social functions depend directly on the care of the space, so it is necessary to take care of the physical form of those already built, but to the spaces to project think about them with a Open mentality. The objective being to recover the public space to allocate it to the city, with the intention of maximizing its beneficial qualities with respect to the health and well-being of the citizens. For this, the space must be seen in a more detailed way, based on various factors, such as mobility, the natural system, the ability to generate encounter (social relationships), which are factors that are directly related to the characteristics of the contemporary cities. In addition, there are subsystems such as urban comfort, mobility structure, water management, furniture and equipment, aesthetic value, among others, which allow to provide a better perception for the user and guarantee their safety.



In order for the public space to generate a city (those encounters between people), the problem must be dealt with from different scales, which allows a slow change but that step by step generates citizen awareness. For this, strategies that allow the integration of the public space system as an articulator of the city, where it generates a symbiosis between the systems. In an analogous way, at an urban scale where the options to make changes in the city become more complicated, but at the same time being able to offer a change in the city planning plan, allows a restructuring that facilitates the renewal of plans that benefit the quality of life of the people.

On the other hand, at a pedestrian scale, it is necessary to be more precise in the application of strategies since it is the exact place where the personal exchanges will take place. They must be spaces that aim to improve people's quality of life, and for this, concepts such as:

At a natural level, whose objective is to improve environmental conditions, both plant and aquatic. Starting with the thought of mitigating the phenomenon of heat islands, through the use of vegetation; Improve the quality of the air through the capture of the gases emitted most of the vehicle; Reduce noise pollution and landscape with the use of vegetation. On the other hand, we have strategies that manage rainwater flows, reducing runoff; The use of vegetation as protection against rain at the pedestrian level; The creation of permeable or

semi-permeable soils that allow water to be filtered in a natural way to reduce its contamination.

The second concept is the floor, this is due to how a floor material can be chosen in order to contain the temperatures in the spaces, thus reducing the heat island effect. In addition, adding the aesthetic factor which for the human eye will always be something that can stand out from the space.

Finally, we have the furniture, which is what conditions the use and perception of space. With the variety of furniture in the space, its appropriation will be diverse, since it offers different ways of social interaction.

Similarly, pedestrian-scale projects must be based on accessibility and usability for all types of citizens, whether women or men, elderly people or young children, people with some type of disability. In addition, presenting the idea of urban acupuncture, which show specific but coordinated actions, have the objective of unleashing a process of urban regeneration, in which the pedestrian space becomes an articulator of the urban system.

Likewise, we must emphasize the importance of having a transdisciplinary approach when generating a project since it is the reality of how you work in life. A single planner is not capable of solving the needs of citizens, however in an environment where architects, sociologists, psychologists, engineers, among others, are found, the solutions and

intervention proposals become more complete and with a broader focus. In addition, the city would have diversity in public spaces which would generate an attraction for different types of users. Thus, giving another meaning to the space, as a welcoming place, in which the city becomes the same house, but with different qualities than those posed by the home.

To conclude, after a short life of confinement, where no citizen could imagine how long it would last, and that it has brought with it negative factors for the city, it provides the space to change the paradigm of how public space should be intervened. Where architects, planners, sociologists and psychologists work together to improve the quality and quantity of spaces necessary for urban encounters, since these, in the end, are an important point to create a city.

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