

BOGOTÁ_ Cohesion by Polymorphism,

The reinvention of the city's Landscape within the Latin-American Identity

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P4 Report

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"For if these difficulties hinder us, who are of their essence, it is not difficult to understand that the rational talents on this side of the world, fascinated within the contemplation of their own cultures, have been left without a valid method of interpreting us. It is understandable that they insist on measuring us with the same yardstick with which they measure themselves, without remembering that the ravages of life are not the same for everyone, and that the search for self-identity is as arduous and bloody for us as it was for them. The interpretation of our reality with alien schemes only contributes to make us more and more unknown, less and less free, more and more lonely."

"Pues si estas dificultades nos entorpecen a nosotros, que somos de su esencia, no es difícil entender que los talentos racionales de este lado del mundo, extasiados en la contemplación de sus propias culturas, se hayan quedado sin un método válido para interpretarnos. Es comprensible que insistan en medirnos con la misma vara con que se miden a sí mismos, sin recordar que los estragos de la vida no son iguales para todos, y que la búsqueda de la identidad propia es tan ardua y sangrienta para nosotros como lo fue para ellos. La interpretación de nuestra realidad con esquemas ajenos sólo contribuye a hacernos cada vez más desconocidos, cada vez menos libres, cada vez más solitarios."

Gabriel García Márquez_
La soledad de América Latina (1982)

_ABSTRACT The current condition of urban fragmentation in Bogotá is the result of a long and complex historical process that (due to both external pressures related to the urban planning paradigms of modernity, as well as internal pressures from the Colombian armed conflict) has ended up defining a certain stance in the city's development, both towards its natural environment and towards the various social groups inhabiting it. On one hand, the constant imposition of progress models has ended up disintegrating the relationship that the urban fabric has with ecological structures, generating a city that occurs on the margins of landscape dynamics. On the other hand, within the city planning process, the extensive internal cultural diversity of Bogotá has not been taken into account, resulting from forced displacement generated by the armed conflict, which led during the second half of the 20th century to a growing concentration of different communities (originating from different regions) of the country in the main cities.

This thesis contemplates a series of strategies, both participatory and urban renewal, aimed at the urban cohesion of Bogotá. Through the implementation of the theory of "Design for the Pluriverse", social and ecological diversity is embraced as a potential for city planning. This thesis focuses on a historical and spatial analysis of the conditions that led to Bogotá's current condition through a literature review and the use of GIS tools, resulting in a two-part proposal. The first part is a Participatory framework (Bottom-Up) to promote community-led land management. The second part consists of an Urban Design (Top-Down) aimed at rehabilitating the ecosystem in which these communities reside.

_KEYWORDS Identity, Bogotá, Informality, Slums Revitalization, Environmental Resilience, Urban Renewal

_MOTIVATION

Inspired by Gabriel García Márquez's reflection in his acceptance speech for the Nobel Prize in Literature "The Solitude of Latin America" (1982), I posed to myself the question of what could perhaps be the identity of our abandoned land. Certainly, there is an idea of what it means to be Latin American, in the eyes of foreigners. Moreover, I would even dare to say that among the vastness, the expansiveness of our jungles, the unattainability of the mountains, the chaos of the landscapes, the unfathomable flora, the incredible fauna, the chaos of our cities, the revelry, the diversity, the disjointedness, something neglected, something forgotten, with certain mythical, magical traits; the endlessness of life, the celebration, the music, and in its people, there is an idea of Latin American identity. This, indeed, as Gabo said, when trying to be defined in the eyes of experts and anthropologists from remote parts of the world, resists, generates conflict, and does not quite fit with the models they themselves have generated of the world. For the measures they themselves have created are references to their own lands, their landscapes, and their realities that are entirely different and in no way comparable to being Latin American.

Nevertheless, despite the intrinsic richness of this identity we possess, our cities seem to have been built without any consideration for the reality we face. In the case of Bogotá, so similar to other Latin American megalopolises, the geographical condition that has distinguished it among the world's cities seems to be reduced to a mere anecdote resting on the hills as a backdrop upon which it has grown and grown without truly integrating it.

The difficulty of clearly defining the identity of Bogotá (as well as trying to pinpoint the identity of anything concrete, I now realize) is that the city is the amalgamation of different elements coexisting in the same space, but until now they seem forced to relate to each other simply by occupying

the same space, not by an established relationship of its parts. Thus, when attempting to define in a single phrase what all those fragments have in common, it is practically impossible.

But: What purpose does knowing the identity of a place serve when planning a city? Beyond being a question of somewhat philosophical and metaphysical nature, keeping in mind the identity of a space could reveal relationships between elements that (so far, and in the case of Bogotá) have related fragmentarily and even more, generate new developments and propose new ideas that better fit both our natural environment and our own cultural identity.

This quest is nothing new. Naturally romantic, I have lived surrounded by Latin American rock, literature, and poetry. Listening to the laments of cultural movements with a strong social and political charge that, throughout the 20th century, have done nothing more than try to precisely define what it means to be Latin American. Despite the wars, the guerrillas, the paramilitaries, the dictatorships, the massacres, the disappeared, the pain and sorrow, but not forgetting the beauty. Reading fantastic worlds from a "BOOM" of expressiveness that dedicated itself to imagining different but possible scenarios for our future in a globalized world that increasingly flattens cultural diversity and artistic, spatial, and philosophical expressions of different cultures, ethnicities, and races.

Persuaded by others and in their eagerness to encompass all of humanity within a "perfect" system conceived and configured for and by a few, we fell under our own weight into the insurmountable gap left behind by "discovery" and colonization. We realized too late the atrocious consequences of globalization that led (and still lead) to the erasure and even eradication of entire civilizations, with their myths, logics, and worldviews, which had inhabited the continent long before.

Today, we are nothing but the abstract reconstruction of what we have managed to salvage, mixed with what European influence and American presence have left behind after so many years of occupation.

Five years after living in Europe, and comparing my studies here with what my studies were in Latin America, I understand that we were educated under the paradigms of European modernity. It's far from home, when nostalgia hits, that I look and wonder about what I am, about what we are, trying to identify the roots of my identity, and I understand that we don't have them. That we have been educated all our lives to think like Europeans, to think of development as the only path to progress. We have been instilled with a perspective on the world that doesn't quite align with our realities, but rather pursues a vision that was never truly our own. That promise of progress and social well-being of the developed world has fostered a desire to emulate European and American ways, thus pretending to achieve a level of development that guarantees a quality of life similar to that lived in these parts of the world. What would progress and social well-being mean in Latin American terms?

Looking back, from here, from Europe, where the question of identity is so valid and is, to a certain extent, so resolved and validated in the context of the old continent, when asked about the topic for my master's thesis in urban planning, the answer came so naturally that I didn't have to think twice once I managed to formulate it coherently. It's an eagerness to define in urban planning terms what such a project means in Bogotá, as well as a personal quest for what it means to me to be Latin American, Colombian, and Bogotano.

_1. INTRODUCTION

Introduction	014
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Why Bogotá...?	018
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"I am,
I am what they left behind
I am all the leftovers of
[what they stole
A village hidden on the top
My skin is leather, that's
[why it endures any wea-
ther

I am a factory of smoke
Peasant labor for your con-
sumption
A cold front in the middle
of summer
'Love in times of cholera',
my brother!

The sun that is born
and the day that dies
With the best sunsets
I am the development in
[the flesh
A political discourse wi-
thout saliva.

The most beautiful faces I
[have ever known
I am the photograph of a
[missing person
The blood inside your veins
I am a piece of land that is
[worthwhile."

"Soy,
soy lo que dejaron
Soy toda la sobra de lo que se robaron
Un pueblo escondido en la cima
Mi piel es de cuero,
por eso aguanta cualquier clima

Soy una fábrica de humo
Mano de obra campesina
para tu consumo
Frente de frío
en el medio del verano
El amor en los tiempos del cólera,
mi hermano!

El sol que nace,
y el día que muere
con los mejores atardeceres.
Soy el desarrollo en carne viva
Un discurso político sin saliva

Las caras más bonitas que he conocido
Soy la fotografía de un desaparecido
La sangre dentro de tus venas
Soy un pedazo de tierra que vale la
pena"

Calle 13_
Lationamerica (2010)

_INTRODUCTION Of course everything starts with climate change. Nowadays, the problems it poses for humanity and life on Earth in general are undeniable: changes in climate patterns and environmental dynamics. Under the immense pressure of climate change, we have had to reconsider many (if not all) of the processes that we as a species have built and developed throughout our history, leading us to realize that every action has implications and effects on the ecosystem.

The root of the problem seems to be the narrative that we have adopted since industrialization to guide our societies worldwide. This is not a specific problem; wherever we look, we seem to find small contributors to the degradation of the landscape and the collapse of ecosystems. Unbridled production chains, which until today we have decided to maintain under the ideal of progress and development in the globalized world, have completely transformed the realities of millions of people around the world, with catastrophic consequences for both the environment and their life projects. Since 1851, with the International Exhibition and the construction of the Crystal Palace, a series of values founded on overproduction and abundance were crystallized (lack of a better word), which became the measure by which a society would be considered developed above its peers.

It is curious (though not casual) that the imperialist trends of the time were associated with concepts such as development and progress to justify colonialist actions that had been occurring for generations in the Global South. From the Industrial Revolution onwards, Europe would experience another new expansionist boom, in which thanks to the technological advances of the time, they managed to gain control not only of territories and resources necessary to feed the machinery of progress but also over communities, which they argued were beneficiaries, wanting to share the fruits of development and civilization with less

advanced societies, thus laying the foundations for what would later be called globalization. Even more serious, I think, is that along with that expansionist hunger, that vision of the crystal palace in London was also exported, where the aspiration for endless progress and development was the only possible path to achieve a state of social well-being and quality of life.

That worldview would lay the foundations for early modernity. The urbanization processes of the 20th century would be heavily influenced by scientific and technological advances infused by the discourse of progress. The image of a modern city, imbued with the fruits of progress and industrialization, spread across the globe, driven by globalization that used the international style to build a unique and ultimately happy world. But complex and heavy worldviews like these require “necessary sacrifices” to keep moving forward. “There is a sense in which rapid economic progress is impossible without painful adjustments. Ancient philosophies have to be scrapped; old social institutions have to disintegrate; bonds of caste, creed, and race have to burst; and large numbers of persons who cannot keep up with progress have to have their expectations of a comfortable life frustrated.” (United Nations, Department of Social and Economic Affairs, 1951). In this case, that vision of a happy world cost us the unification and homogenization of the cultural and social landscape under the parameters of the West. That conception of happiness and success given under the parameters of the West never considered other ideals, necessarily discarding any vision of the world that did not align perfectly with progress.

Within the vastness encompassed by globalization, there is no room for diversity. It has been necessary to flatten the cultural landscape that naturally emerged in the world to make way for the world of progress, which promised us to be free from all evil. Furthermore, this homogenizing

quality has served the West as a silent and discreet mechanism of control that helps to align every different community under Western interests, justifying to the rest of the world the sacrifice of the cultural identity of each distinct people in the name of progress and happiness. Thus, we have not only allowed the devastation of the natural world, the collapse of ecosystems, and the extinction of species, but also the social crisis, the demonization of different cultures, and the disappearance of cosmologies with ancestral knowledge.

Perhaps it is at this moment, when environmental pressures are so great, that we have the opportunity to subvert this discourse in order to reverse the negative effects of the globalized world. Betting on another narrative that presents an alternative to the modern discourse opens the possibility of reconsidering the role of the communities that have until now been oppressed by globalization. It is also about reconsidering under what values and with what objective we build our cities and how we build them.

In this thesis, I explore one of the many discourses that have emerged from this ontological transition in recent decades. In his book "Design for the Pluriverse," Arturo Escobar presents a new theory for design in which, as a starting point, he questions the decision to opt for a single worldview (that of the West) for the materialization of the world (a single world for the world), over considering cultural diversity and welcoming the multiplicity of cosmologies of the world, for the configuration of a network of possibilities (a world, for all worlds). Escobar does not directly speak of architecture but of design as a human activity, which in modernity was used as a tool to produce the life of modern man and modern man himself. The institutionalization of design as an activity exclusive to experts and specialized groups managed to distance (in the case of urban planning and architecture) communities from territorial planning and decision-making about the space they inhabit. The action of

architecture became exclusionary and oppressive in the sense that urban designs are considered behind closed doors by a select group of experts, to then be imposed on the population, who have to assume a life outlined by strangers.

The possibility of giving people the power to act on their territory also implies giving them the power to make decisions about the course of their lives and the freedom to express and develop their own worldview.

Within this possibility, it becomes relevant to ask about the identities of the different communities of the world and how to include them in city planning. Those identities are different from the European, from the Western one that globalization has tried to homogenize, and they probably have a different vision of how to face the pressures of climate change in their own way, making use of their own understanding of what is sustainable, under the concepts of their own mythology.

Perhaps it is in the diversity of the pluriverse where we will find answers and solutions to the pressures of climate change, to extractivist horrors, to the oppression caused by modernity, to the fatal error of exacerbated design, and we will have (finally), from today and forever, a second chance on Earth.

_RELEVANCE

SCIENTIFIC RELEVANCE

The reinterpretation of models and concepts formulated by Europeans (that throughout modernity, and within globalization processes, have been applied indifferently around the globe) does not account for specific social realities that are lived throughout the global south. The identification and understanding (from different perspectives and methodologies that might not only include a scientific approach) of such complex contexts leads to the formulation of models and theories that might adjust better to the unique environment of the global south. Opposite to following the narrative pushed by modernity, in which the only goal of society must be development and progress, the differences that might arise in the different landscapes might lead to the definition of different ideals and narratives, that not necessarily align with the Eurocentric vision.

In the case of Latin America, this considerations have to include the decolonization of the territory, necessary to formulate our own identity and ideals as an autonomous territory.

SOCIAL RELEVANCE

The reinterpretation of models and concepts formulated by Europeans (that throughout modernity, and within globalization processes, have been applied indifferently around the globe) does not account for specific social realities that are lived throughout the global south. The identification and understanding (from different perspectives and methodologies that might not only include a scientific approach) of such complex contexts leads to the formulation of models and theories that might adjust better to the unique environment of the global south. Opposite to following the narrative pushed by modernity, in which the only goal of society must be development and progress, the differences that might arise in the different landscapes might lead to the definition of different ideals and narratives, that not necessarily align with the Eurocentric vision.

In the case of Latin America, this considerations have to include the decolonization of the territory, necessary to formulate our own identity and ideals as an autonomous territory.

ETHICAL CONSIDERATION

"The right to the city" for everyone. People in different Latin American contexts have to exercise for themselves their right for shelter and access to urban services.

In somewhat of an insurgent action, communities that have been displaced from their original territories, end up setting camp and living in slums, in spaces with some environmental risk or just not properly adequate, in the outskirts of big cities like Bogotá.

Going against a silent status quo in very unequal environments, marginalized, seeking refuge and live opportunities.

_WHY BOGOTÁ...? Someone could argue that my decision to choose Bogotá as the case study for my thesis is solely because it is my hometown, and I can say that wouldn't be entirely wrong. Indeed, one of the main reasons for choosing Bogotá is eventually grounded in the fact that I have spent most of my life in this city, and (I confess) I am deeply in love with it. The longing for the hills; for its cold air on sunny mornings and unpredictable weather; the chaos, the shouts, the streets, the buses, the public works, the endless asphalt are things that now, being so far away, become part of my routine. On the trains that take me to the university (from one city to another) in 15 minutes, I find myself remembering the catastrophic traffic at 8 in the morning, of a bus that doesn't move anywhere.

The complaints of my Dutch friends who lament having to endure a 3-hour journey to visit their relatives in "remote" parts of their country make me laugh when I consider that 3 hours is not enough time to cross Bogotá entirely by car (but then I think of the millions of people who make journeys of this length daily, to get to their workplaces, from marginalized areas of the city, in a transportation system that can't cope, and I stop laughing).

It's a matter of perspective, perhaps curious (at least to me), that doesn't seem reciprocal when I talk about my country, my city, my continent to my European colleagues, who are amazed (even frightened) by how many beauties are hidden in the catastrophe of my city. And I am amazed by this fact, considering that as scholars of urban landscape, I am conditioned (I acknowledge, by my own will) to the study of European cities, and this, I believe, has led me to have a certain degree of knowledge of the theory, concepts, history, and practice of urbanism in Europe. But I feel some disappointment when I see that the questioning of the approaches to different territories that, perhaps more than any other European city, urgently

need urban planning and suffer from its lack, is reduced in many cases to a shrug and gestures insinuating ignorance on the subject.

This is another reason for this thesis, the desire to contribute to the opening of this world, and to show and make known the possibilities (and the necessity) for our field that lie hidden among the new world. To quote a fellow student from my semester: "Maybe we are the people we've been waiting for...". Perhaps I shouldn't continue to wait for someone to speak about urbanism in Latin America, maybe it's time for us to raise our voices and speak directly to you.

On the other hand, there is more than these reasons for choosing Bogotá. Bogotá, which today exceeds the 8,000,000 inhabitants, like many other Latin American cities, suffers from exacerbated growth, which in the particular case of Colombia, has been driven by the armed conflict in which the country has been immersed for the last 100 years. This has led Bogotá to be an urban center that internally is extremely diverse, with a large part of its population feeling no attachment to the place they inhabit.

The complexity of this social landscape is only matched by the spatial complexity of the territory within which the city is implanted. The fact that the city is located at 2600 meters above sea level and the extreme topography of the eastern hills, against which the city borders, condition Bogotá within a specific ecosystem that distinguishes it not only from other cities in Colombia but also from other cities in Latin America and the world.

These and several other topics concerning decolonialism, biodiversity, identity, and many others that I touch upon in this thesis make Bogotá the ideal place to explore these issues. I could go on listing here all the reasons why I chose Bogotá, but if I did, I would run out of words for the rest of the report.

Figure_1.

Made by Author

Localization of Bogotá within the Colombian context



1:10.000.000



_PROBLEM STATEMENT

Perhaps the easiest way to center the problem that concerns this thesis is with this phrase: “We are facing modern problems for which there are no longer modern solutions” (Santos 2007). The current state of fragmentation in Bogotá is the result of a territory that has been built blindly following modern paradigms, without considering for a moment the unique conditions of the environment in which the city is located, nor the history or socio-political context under which the city developed. Foreign ideas and concepts were blindly applied, which, along with the rapid expansion of the city and the demographic explosion that took place in the second half of the 20th century, led to the gradual growth of the city (in a very short period of time, barely 30 years), based on large patches of urban fabric that had little or no relationship with each other, other than the fact that they occupied adjacent spaces within the plateau where the city is located.

The two dimensions of this problem (the social and the ecological) are reflected in social segregation and ecological negligence, which resulted in the indiscriminate occupation of spaces unsuitable for housing and with high ecological value due to the functions they fulfill within the ecosystem, such as the case of wetlands. Nowadays, communities displaced by the Colombian conflict reside there to a greater extent, seeking refuge and fleeing from war, settled in these areas where the risk of flooding threatens to affect a large part of the population in these low-lying areas of the city. Likewise, the occupation of these spaces with ecological values ends up reducing the biodiversity of the city and the ecosystem, urbanizing spaces where unique species reside in the country (and likewise on the continent).

ARRIVAL CITY

Expelled from their original lands, millions of people from all over the country, from different geographies

and climates; with different customs; different cultures and beliefs, sought refuge in urban areas, where the presence of the state was greater, and where they hoped to be less vulnerable to the threats of the armed conflict. These communities are in turn a diverse group, coming from different regions of the country and with differences among themselves both culturally, socially, and ethnically, ranging from farmers to indigenous people (Aristizabal Giraldo 2000). This diverse landscape is complex in nature, encompassing both the natural growth of the city, as well as the arrival of populations displaced by the armed conflict, seeking refuge.

Victimized by the conflict, they arrived in cities in precarious states and settled in areas adjacent to the city, forming slums and illegal neighborhoods that grew as more people migrated to Bogotá. Many of these neighborhoods, which grew outside of urban planning and without following the regulations or parameters imposed by urban planning entities, were also located in areas unsuitable for housing. They did so autonomously and driven by the need for housing and settlement.

The low economic capacity of these communities presents a challenge when trying to access basic services and properly integrate into urban space. Therefore, they are trapped between the social vulnerability generated by the conflict and the inaccessibility generated by the high cost of living in Bogotá. Due to these two forces, the migrant population is exposed to natural threats such as landslides and floods, making them vulnerable to environmental issues.

Furthermore, these people have lost all connection with their place of origin, leading to an identity crisis, as they do not see their identities reflected within the public space of the city, both in the public program and in the spatial configuration in a way that allows them to develop their life plans according to their own principles (Ruiz R. 2010).

FRAGMENTED CITY

As a result of the latter, communities also lose a significant portion of their purchasing power, forcing them to resort to informality in their ways of accessing public services, such as the right to decent housing, public transportation, and public space (not to mention health, education, recreation, among others). This ultimately manifests itself within the city as informal and illegal neighborhoods, formed by families and communities acting out of their right and need for refuge, seeing that the municipality cannot act or guarantee the fulfillment of these basic rights (Miraftab 2016). Furthermore, due to the complex process involved for the municipality to intervene in these invasion areas or illegal settlements, many of them lack basic services or an adequate mobility network, or even decent public space.

They virtually function as two parallel cities that differ in the degree of formality of their spaces and services. While the informal city is composed of self-built spaces and self-managed services, the formal city operates under the infrastructure and networks provided by administrative entities. Where one ends, the other begins, and the way of moving, relating, and living changes completely, determining two very different spatial qualities from each other. Thus, these two urban fabrics (highly differentiated from each other) continue to develop in parallel, and as the informal city gathers more and more people, it becomes increasingly indispensable for the municipality to intervene and introduce the necessary services to allow for the proper integration of these communities.

The areas of informal growth in the city are perhaps the most densely populated areas of the city, but they also have the lowest availability of public space, public transportation, and basic services. ("Technical report of public space indicators", 2021). The municipality, responsible for city planning, has both ignored the diversity

and complexity of these marginalized groups. It has ended up large generalizing the nature of these communities and encompassing them within social strata measured based on their economic capacity.. The measurement of social strata as a tool of public management has ended up in an unequal distribution of public goods allowing for certain groups to benefit more than other from the landscape, resulting in the privatization of privileged spaces, benefiting the upper strata, further widening the gap of inequality in the city.

LOST BACKBONE

As the city's population continued to grow during the 20th century, the progressive occupation of the territory did not distinguish or recognize essential natural structures necessary for the normal functioning of the ecosystem. The successive urbanization of natural spaces ended up largely covering the surrounding ecosystem of Bogotá, reducing the main structures of the ecosystem to functional elements within the urban fabric. The rivers and streams, which in natural structures serve the function of natural drainage from the hills, are today channelized open drains, carrying the city's wastewater and pollutants to the Bogotá River. In the case of wetlands, which in their natural state are swampy areas with high and rich biodiversity, they have been fenced off and isolated from the rest of the structures, severing all ecological dynamics between the different structures and affecting the species that inhabit them (Salazar-Salamanca 2014). And the mountains and geological faults were determined as urban boundaries for the city. Natural reserves, always at risk of being lost amidst the extensive urban fabric, have gradually lost area and today are fenced spaces with restricted access and no relationship with the city.

Natural spaces, which should act as connecting and aggregating bodies for the different urban fragments,

ended up being occupied or privatized. This has led to the ecological structures of the city being dissolved within the urban fabric, losing important elements for urban cohesion. Natural physical structures have been lost or excluded from the urban fabric and are now only seen as scattered fragments.

ECOLOGICAL VULNERABILITY

Towards the interior of the city, green spaces also do not have greater prominence. The few metropolitan parks that the city has do not cover the demand for public space from its inhabitants (IDEAM), and most of it is unevenly distributed among different communities, concentrating in high-income areas.

The reduction in the continuity of natural structures jeopardizes the species that inhabit these ecosystems, some of which are unique in the world. Wetlands, which are initially floodable areas with a high content of bird species and endemic plants of the region, have already lost a great capacity to maintain the flora and fauna that inhabit them, as is the case with the Córdoba wetland.

Not only biodiversity is affected, but also the ecological functions that these spaces provide are considerably reduced. Water capture and infiltration (also a vital function of wetlands), for example, have been significantly reduced, as the areas where water used to accumulate have been paved and filled to be urbanized. The capacity to mediate rains and the growth of the river, as well as the function of purifying the city's air. These structures, which could potentially help reduce the urban heat island effect in cities, are not efficient enough to generate cooler microclimates.

This, coupled with the pressures of climate change and increases in rainfall throughout the year, causes Bogotá to suffer from annual floods that mainly affect marginalized communities loca-

ted to the west of the city, adjacent to the Bogotá River (IDEAM).

Earlier this year, Bogotá suffered the effects of the El Niño phenomenon, which increased the temperatures of the capital (considered one of the coldest cities in Colombia) to over 25°C. Much higher than Bogotá's average temperature, this triggered a series of fires in the eastern hills, leading the city to declare a red alert in several areas. Although the fires were eventually controlled, the city spent over a month breathing air that became increasingly heavy with smoke emanating from the main ecological structure. Now, Bogotá is under an environmental alert due to the drought caused by the El Niño phenomenon across the country.

All these factors add up and complement each other to generate a city fragmented in these two fundamental dimensions, social and ecological. Social segregation has ended up generating different city typologies that do not interact with each other and a clear differentiation between the communities that reside in them. Basic services are accessible to only a fraction of the city's population, and the benefits of privileged spaces within the city have ended up being privatized for the upper classes.

Ecological neglect has ended up severing the relationships between the city and its natural environment, reducing ecological reserves to residual spaces that languish within the urban fabric and do not fulfill their main functions within the ecosystem of which they are part. Within the urban fabric, the main structures that connect the city with its surrounding natural environment are not recognized, and they potentially could connect the different urban fragments with each other.

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"This country is
 divided in two: those who
 are afraid and those who
 are angry.
 You, bourgeois, are the
 [ones who are afraid.
 Afraid of losing your jewel-
 ry, your expensive watches,
 your cell phones.
 Afraid of your daughters
 [being raped.
 Afraid of your sons being
 [kidnapped.
 Afraid of being killed.
 You live prisoners of your
 [fear.
 Locked up in your armored
 cars, your restaurants, your
 dens, your stupid shopping
 malls.
 Entrenched.
 Terrified.
 We live with rage.
 Always with rage.
 We own nothing.
 Our daughters are born
 [raped.
 Our sons are kidnapped.
 We are born without life,
 without a future, without
 anything
 .But we are free because
 [we are not afraid.
 We don't care about
 growing up between the
 mud and the shit, or being
 thrown into your jails, or
 ending up in your morgues
 as anonymous corpses.
 We are free."

"Este país se divide en dos: en
 los que tienen miedo y en los que tie-
 nen rabia.
 Ustedes, burgueses, son los que tienen
 miedo.
 Miedo a perder sus joyas, sus relojes
 caros, sus celulares.
 Miedo a que violen a sus hijas.
 Miedo a que secuestren a sus hijos.
 Miedo a que los maten.
 Viven presos de su miedo.
 Encerrados en sus autos blindados, sus
 restaurantes, sus antros, sus estúpidos
 centros comerciales.
 Atrincherados.
 Aterrados.
 Nosotros vivimos con rabia.
 Siempre con rabia.
 Nada poseemos.
 Nuestras hijas nacen violadas.
 Nuestros hijos secuestrados.
 Nacemos sin vida, sin futuro, sin nada.
 Pero somos libres porque no tenemos
 miedo.
 No nos importa crecer entre el fango y
 la mierda, ni que nos refundan en sus
 cárceles, ni terminar en sus morgues
 como cadáveres anónimos.
 Somos libres."

Guillermo Arriaga_
Salvar el Fuego (2020)

_INTRODUCTION In the next chapter, I will present a research plan for the body of this thesis. Starting with the research questions and the theoretical framework on which I am basing the investigation, I will develop the concepts to be used to answer the questions that will arise throughout the thesis. I will explain how I will conduct the research and the context in which I pose the underlying problem. Additionally, I will determine the scales at which I will analyze the historical aspects, map the territory, and apply the social reading to the studied concepts. Subsequently, I will present a general methodology outlining how I intend to address the questions posed at the beginning of the research and provide a timeline estimating the duration of the different stages of the methodology. To conclude, I will outline the outcomes of this work and explain how they address the questions and issues raised in my thesis.

_MAIN STRUCTURE

The logical structure of this thesis begins by recognizing problem areas within the spatial spectrum between the social and ecological dimensions. These areas are then situated within the context of Bogotá, to provide a framework for relating and defining the logics under which these terms are addressed. These specific conditions are the focal point around which the Problem Statement is formulated, and they also define a certain perspective, a lens through which to begin analyzing the issues of the place to which this thesis refers (the fragmented city), and under which urban and participatory proposals can subsequently be formulated to address the initial problem. The Research Aim is a general and intuitive response to the problem statement, attempting to formulate a direction for the research. By formulating it in the form of a question, the main question of the thesis emerges, which, upon delving into the various aspects it encompasses, results in the Sub-questions.

In the line of inquiry, a line of discourse is quickly inferred under which the rest of this report will be structured. The different sub-questions correspond to different chapters, each group of which constitutes a thematic (and scale) of analysis. Analyze provides a general framework determining the initial causes and the broad context in which the current conditions of the problem were generated. In the Expose section, the current conditions are directly analyzed, highlighting for the case of Bogotá where the greatest challenges lie, as well as the opportunities and possibilities they generate. Propose directly corresponds to the thesis proposal. And finally, Politicize brings together a comprehensive view of the final result, as a possible way to address the problem and formulate a new solution to it.

Figure_2.
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Logic structure under
which the Thesis was for-
mulated.

Marginalized Groups Formal / Informal City Paradigm	Spatial Injustice Inequality in accesibility to urban services	Lack of Indentity Selfrecognition, Identification, De-colonization Clash of Cosmovisions	Climate Crisis adaptation, Landscape regeneration, Ecology Resilience
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Identity, Informality, Slums Revitalization, Bogotá, Environmental Resilience, Sponge cities

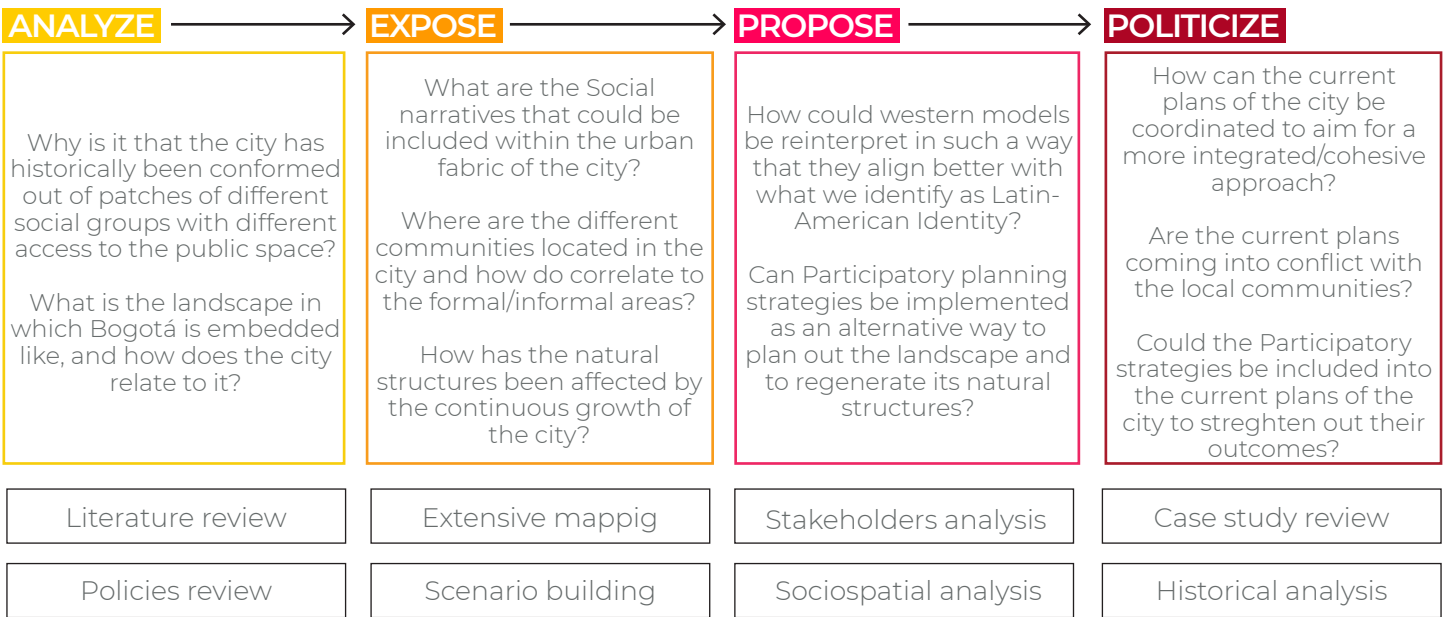
Bogotá, Colombia, Latinoamerica

The Historical process by which Bogotá developed in the 20th century, heavily influenced by Western narratives of “Progress” and the migration communities (displaced by the ongoing Colombian conflict) led to a very fragmented urban fabric where the different social groups compete for the access to urban services and natural resources. Due to the necessity of shelter and housing the natural space was either occupied (and disregarded) by marginalized groups, or privatized by high income societies to profit from it leading to a dramatic shift on the environmental dynamics of the landscape. The natural cycle of the city’s ecosystem is not being taken into account within the current planning practices of the municipality, neither regards the necessities nor the narratives of the social groups that inhabitant the space. The most affected by this are the marginalized groups, occupying the western side of the city (previously flooding planes) next to the already contaminated Bogotá River.

To come up with a Socio-ecological approach for the panning of the city, that regards the necessities of the natural environment and the social fabric, relating the ecological functions with the narratives of identity of the people, leading (facilitate the cohesion of the city) to a more cohesive city.

How can a socio-ecological approach for the planning of Bogotá, regard (and integrate) both the necessities of the social fabric and the natural environment to come up with a more cohesive landscape?

Socio-Ecological justice, Pluriverse, Design for Transition



_RESEARCH QUESTIONS

MAIN RESEARCH QUESTION

SUB-QUESTIONS



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Formulation of the questions posted throughout the analysis and proposal for the Thesis.

ANSWERED IN

METHODS



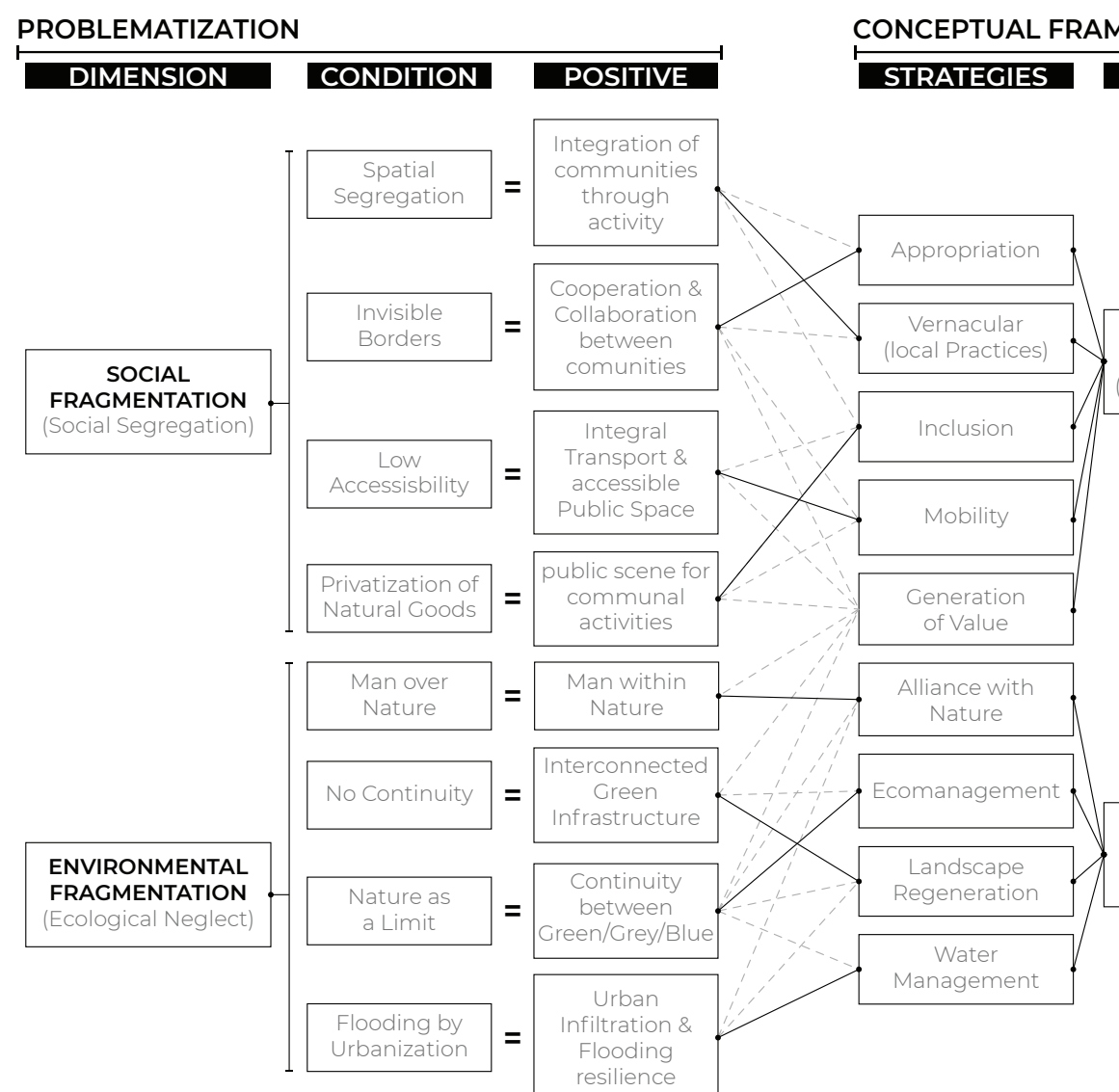
METHODOLOGY The methodology is divided into 4 important parts. The first part involves problematizing the thesis and formulating questions based on an initial and general analysis of the context. Here, considering the 2 dimensions of socio-ecological justice, the formulation of the problem within the structure of Bogota, will be done. Then, by formulating a positive scenario for each of them, the conceptualization of the necessary transformations becomes easier and connects with the conceptual framework.

Next, the second part of the methodology focuses on the development of the territory analysis. This

includes the analysis of existing conditions and the collection of relevant data. This is where the theoretical framework of socio-ecological justice and Transition Design is applied to understand and analyze both the social and ecological dimensions of the territory. Interconnections between the population and the natural environment will be evaluated, identifying existing disparities and tensions.

The third part is dedicated to the project proposal. The results of the territory analysis and the strategies defined in the conceptual framework are used to propose specific interventions. This is where the principles of Partici-

INPUT



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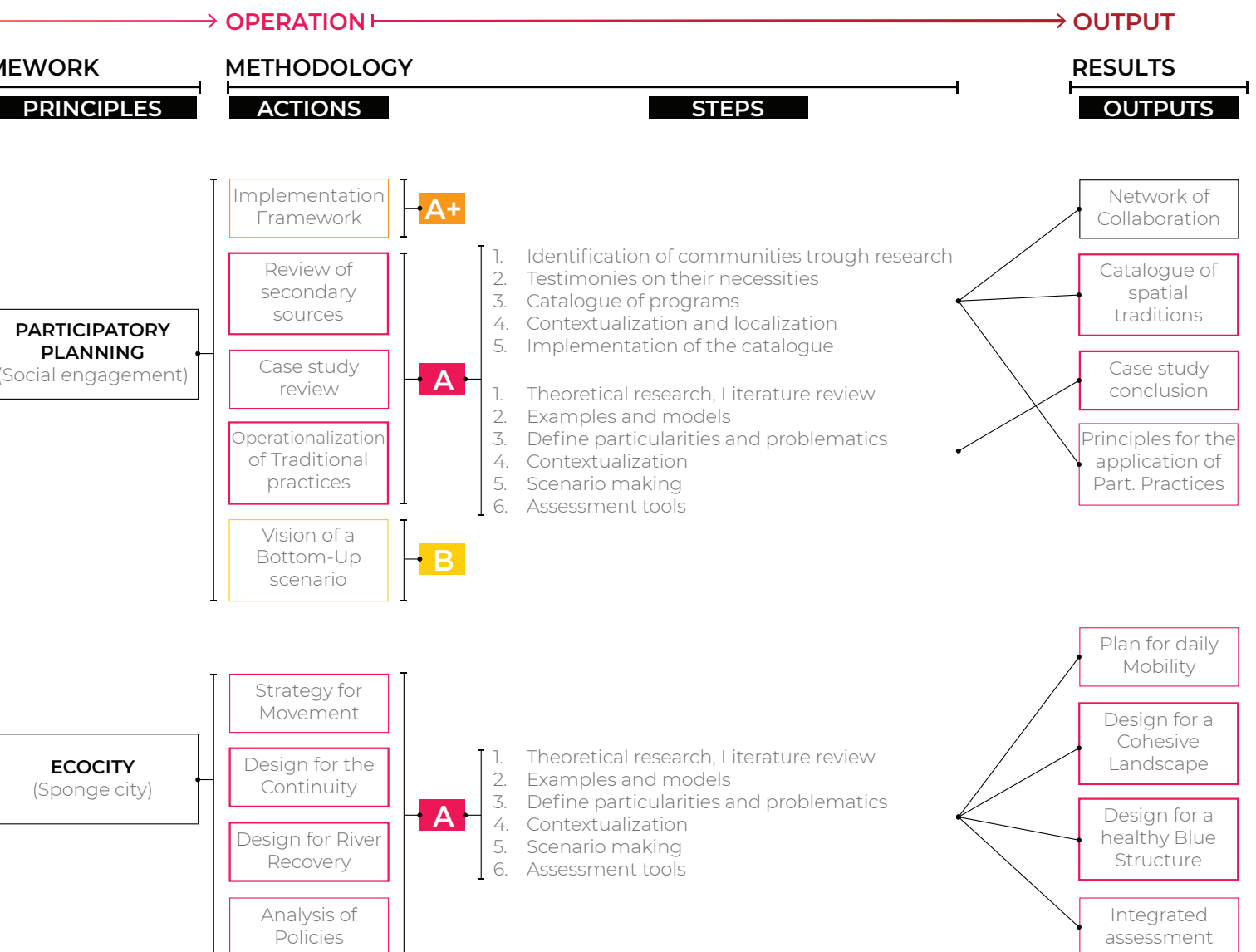
Methodology of the Thesis.

partory Design and Ecocity are applied to address the social and ecological dimensions of the project. Concrete proposals will be developed to revitalize the river, improve mobility, and promote community participation.

I define 3 possible courses of action for the project's scope, which will be determined by the project's reach, depending on the time management throughout the process. In Plan **A** (the plan I am adhering to, and depending on which I may move to Plan **A+** if I end up with more time or move to Plan **B** if I cannot fully develop it), I will operationalize traditional practices and formulate a participation framework to

be applied in the context. On the larger scale, I focus on the landscape and urban design of the river revitalization, including the mobility plan and the analysis of existing district plans.

In summary, the methodology spans from problem identification to the proposal of concrete solutions, always maintaining a participatory and ecological focus in line with the principles of socio-ecological justice and Transition Design.



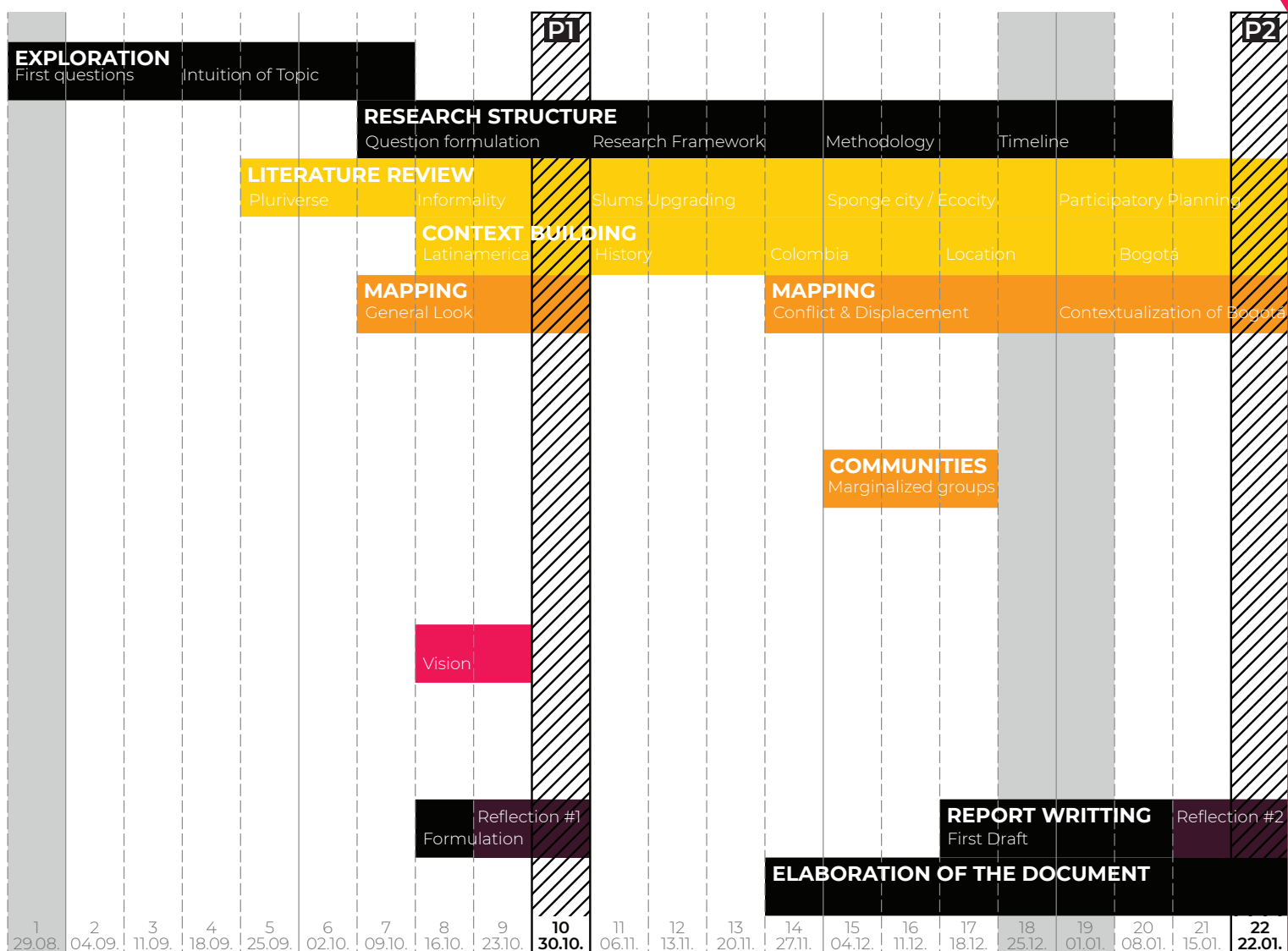
_TIMELINE In the timeline for the thesis, I represent the steps to follow within the analysis process of the thesis and the established methodology for the project's development, in chronological order, according to the timeframe of the submissions and the academic semester.

The body of the thesis consists of 4 phases (differentiated by color). In the first phase, I started with the analysis of the historical and geographical context with the literature review and extensive mapping, respectively. These processes continue during the second

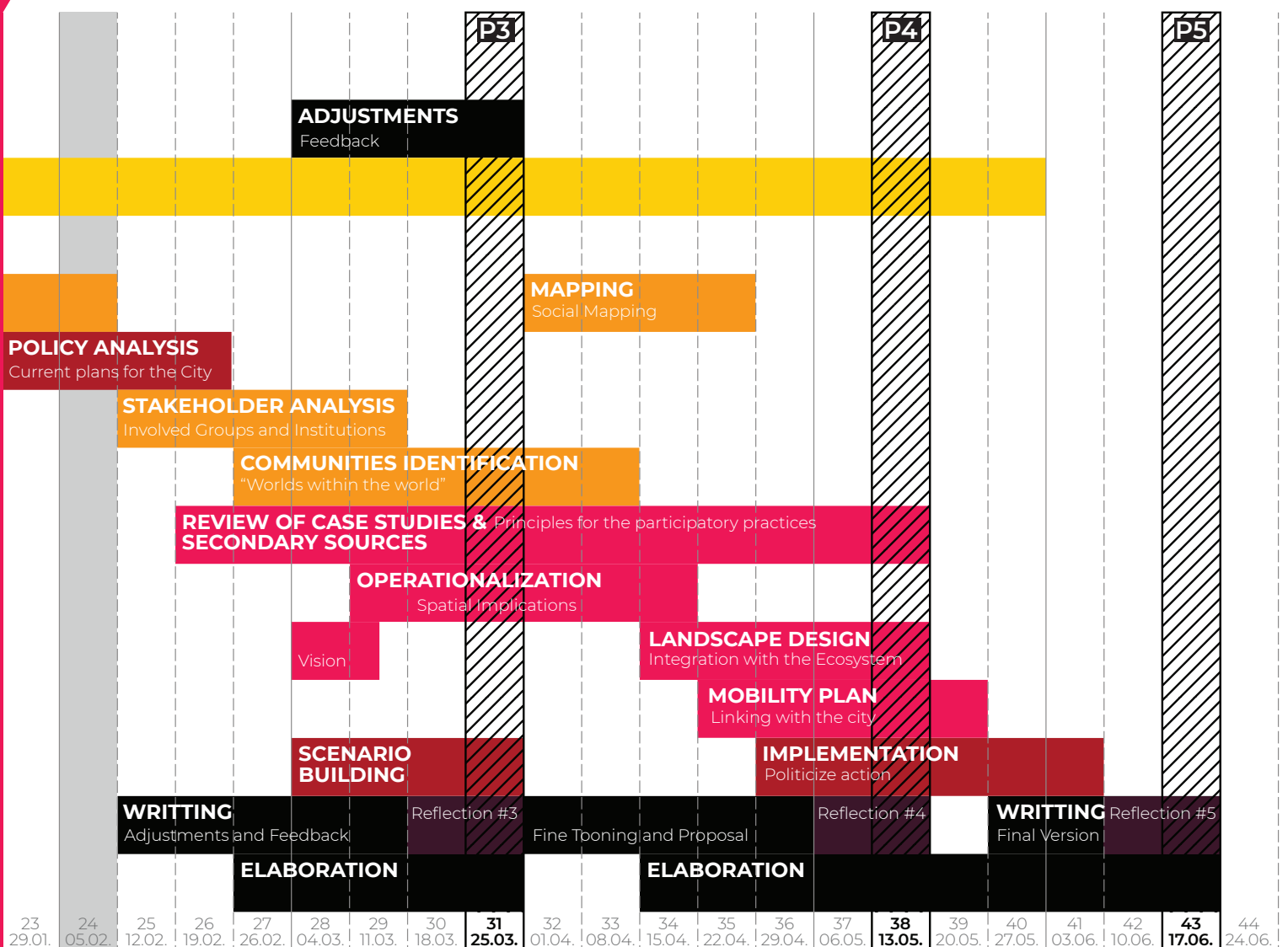
phase and will conclude after P2. For the third phase (between P2 and P3), I hope to have the context analysis completed to focus only on the Zoom In to identify local communities and analyze stakeholders and existing policies. With this, I also begin the formulation of a Participatory framework that is already part of the formal project proposal. The fourth and final phase of the thesis focuses on designing and developing the two outcomes of this project.

Figure_5.
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Timeline illustrating the duration of the Thesis and the process of its formulation.



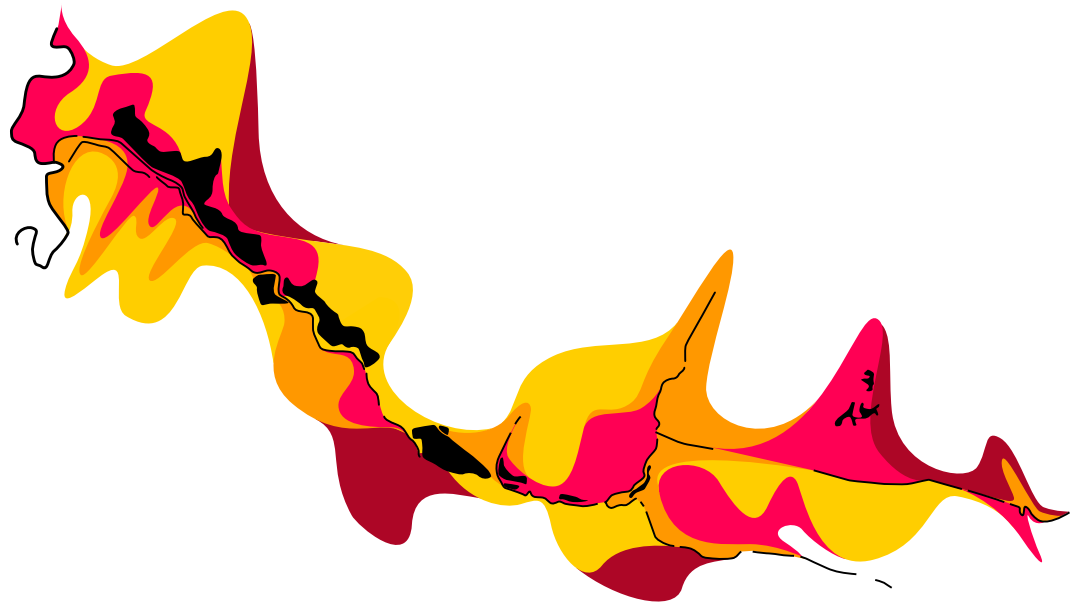
It is important to emphasize that despite reading linearly, this is not a linear process. I will be jumping back and forth between the processes to reach important conclusions within the project design. Presentations become moments of synthesis and recapitulation of what has been done so far.



_INTENDED OUTPUTS

OUTPUT 1 _TOP-DOWN

The first outcome of the project is dimensioned at an urban scale, proposing a regenerative urban intervention aimed at creating a spatial continuity between the Gray, Green, and Blue structures. This part of the project has a Top-Down approach, and I will execute it as a planning agent and as the designer. It is oriented from East to West, connecting parts of the city's marginal communities with the main ecological structures to the east. The main axes of the proposal include community mobility within the space and the regeneration of the river, along with the continuity of the surrounding green areas to the east.

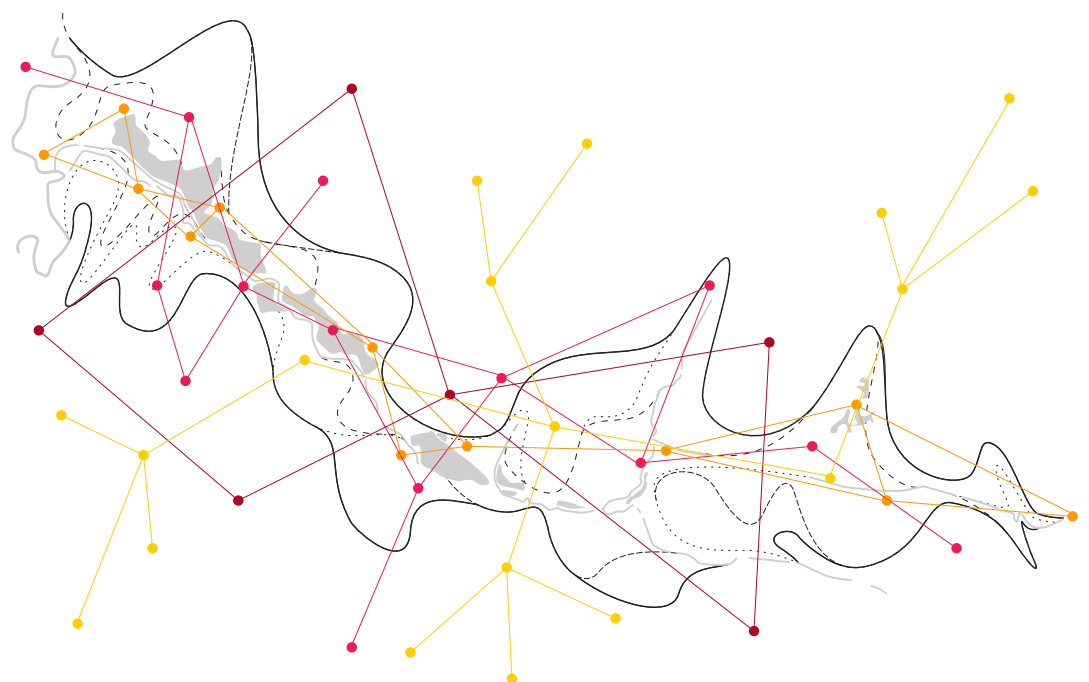


Figure_6.
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Illustration of Outcome 1

OUTPUT 2_BOTTOM-UP

The second is implemented within the first outcome as a collaborative network between communities located along the river and the operationalization of their traditional practices. Specifically (due to the reach of the thesis), I will formulate only a framework for the implementation of participatory strategies in the planning and management of the marginalized communities in Bogotá. Considering the theoretical framework centered around Arturo Escobar's concept of the Pluriverse, the values sought to be highlighted with this framework are linked to the socio-ecological justice perspective that this project adopts to approach the analyzed context.



Figure_7.
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Illustration of Outcome 2

_3. FRAMEWORKS

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Socio-Ecological Justice	040
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Conceptual Framework	048



"No one will have failed to observe that frequently the ground is folded in such a way that one part rises at a right angle to the plane of the ground, and then the next part is placed parallel to this plane, to give way to a new perpendicular plane, a conduct which is repeated in a spiral or broken line to widely varying heights. By bending down and placing the left hand on one of the vertical parts, and the right hand on the corresponding horizontal part, one is in momentary possession of a step or rung. Each of these steps, formed as it is seen by two elements, was placed somewhat higher and forward than the previous one, a principle that gives meaning to the staircase, since any other combination will produce forms perhaps more beautiful or picturesque, but incapable of moving from a first floor to a second floor."

"Nadie habrá dejado de observar que con frecuencia el suelo se pliega de manera tal que una parte sube en ángulo recto con el plano del suelo, y luego la parte siguiente se coloca paralela a este plano, para dar paso a una nueva perpendicular, conducta que se repite en espiral o en línea quebrada hasta alturas sumamente variables. Agachándose y poniendo la mano izquierda en una de las partes verticales, y la derecha en la horizontal correspondiente, se está en posesión momentánea de un peldaño o escalón. Cada uno de estos peldaños, formados como se ve por dos elementos, se situó un tanto más arriba y adelante que el anterior, principio que da sentido a la escalera, ya que cualquiera otra combinación producirá formas quizá más bellas o pintorescas, pero incapaces de trasladar de una planta baja a un primer piso."

Julio Cortazar_
Instrucciones para subir una Escalera_
Historias de Cronopios y de famas (1962)

_INTRODUCTION In this chapter, I will provide a detailed explanation of the concepts and theories upon which I am basing this thesis. The two main frameworks upon which I will subsequently build the analysis and propose a design as a result of the research are:

1.The Theoretical Framework, which encompasses all the important theories and terms that guide the entire conception of the thesis. This is mainly centered on Arturo Escobar's book "Designs for the Pluriverse," from which I identify key themes such as "One World World," "Transition Design," and "Many Worlds World" (or Pluriverse). Building upon this foundational body, I added "Identity" as an attempt to delve deeper into the social aspect and intrinsic value of the communities discussed by Escobar in his book. Finally, I included the two terms I am coining to describe the core of my work: "Polymorphism" and "Urban Cohesion," referring to the diverse physical and morphological expression through which those communities appropriate space, and the desirable spatial quality of continuity within an urban space, respectively.

2.The Conceptual Framework constructed for this thesis makes use of certain concepts and tools within the field of urbanism, which could be related to the theoretical framework constructed. The conceptual framework not only gathers these concepts but also functions as an operational tool to translate the theoretical body into a physical proposal, which in the case of this thesis is located and contextualized in Bogotá.

These two frameworks operate under the lens of socio-ecological justice, which, rather than determining the two dimensions within which the thesis unfolds, is a perspective from which all interactions between spatial elements are read, the relationships between them, and the assessment of the social and ecological vulnerabilities that the interaction between them may generate.

SOCIO-ECOLOGICAL JUSTICE

Today, the impact of ecosystem health and the environment on social dynamics and the functioning and development of communities around the globe is undeniable. The pressures of climate change have highlighted the intrinsic relationship between the carrying capacity of different ecological systems and the social well-being of populations dependent on these ecosystems. This dependency is measured not only in terms of agricultural production and resource exploitation but also in the vulnerabilities and the risk of collapse and/or disruption that exist in the alteration of this delicate balance between the ecosystem and social structures (often represented in the built environment)(Berrouet 2017).

As a starting point, this perspective seeks to highlight the risks and vulnerabilities existing in the interactions between the social dimension and the ecological dimension of any system, analyzing the complexity and interdependence between these two (Berrouet 2017). On one hand, human activity has modified natural environments to such an extent that the dynamics of different ecosystems around the globe have been significantly affected. On the other hand, environmental pressures often result in sudden outbursts that affect large populations (often from disadvantaged communities) around the globe. Climate change emphasizes and exacerbates these catastrophes, destabilizing the patterns to which different communities were accustomed and intensifying the intensities with which natural phenomena occur.

Frameworks and approaches from this angle tend to aim for ecological and social resilience and allow for greater flexibility between these two systems (Berrouet 2017). For this, complementarity between them is indispensable, generating new synergies that allow for better utilization of the ecological services that the environment has to offer and that social dynamics develop hand in hand with natural processes to ensure the integration of

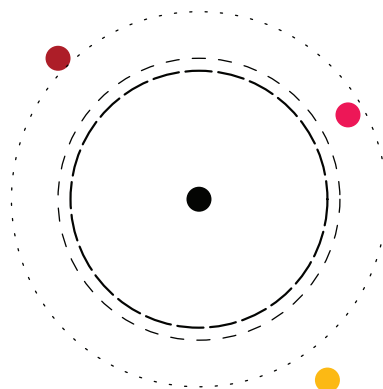
the environment by the communities inhabiting their daily spaces.

The interventions necessary to achieve greater resilience within urban structures occur at all levels within territorial planning. From the physical modifications occurring within the urban fabric to the reformulations of normative and regulatory discourses that planning institutions have to encourage integration between the two dimensions (Berrouet 2017).

_THEORETICAL FRAMEWORK

ONE world WORLD

This literal conception of the world, under the parameters of the modern man, spread across the globe, along with the ideals of progress and development that industrialization delegated to modernity. Brown concludes: “the world of the South has in large part been an ontological designing consequence of the Eurocentric world of the North” (Brown 2009). In this, he understands how, under colonialist and oppressive pressures that have occurred throughout history from the Global North onto the Global South, the Western view has been imposed on a world where worlds operated very differently. In this action, the West flattened and homogenized the cultural landscape of the world, aligning cultures and societies with what the modern man should be, imposing the measure of progress and bringing with it the “benefits of civilization” to those “wild worlds.”



Figure_8.
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Illustration of the “One world World” Concept.

“If we start with the presupposition, striking perhaps but not totally far-fetched, that the contemporary world can be considered a massive design failure, certainly the result of particular design decisions, is it a matter of designing our way out of it?” (Escobar 2017). In this, Escobar has managed to elucidate that the entire conception under which the contemporary world has been built follows a series of erroneous operating principles that require complex apparatuses of oppression and social coercion to keep them

functioning. “Destruction progressively became the program to be advanced, contradictorily in the name of creating life;...” (Escobar 2017)

He then questions the ability of modernity to generate new forms with which it can confront the social and ecological crises that it has generated on the planet. The investment of resources and effort necessary to maintain these oppressive apparatuses justifies questioning the possibility of turning to other non-modern or more-than-modern worlds and cosmologies for solutions and answers.

TRANSITION DESIGN

Escobar recognizes that, considering the realities of transformed worlds due to the development discourse and the degradation and pollution of their landscapes largely caused by extractivist devastation, we are forced to finally accept that the modern project is a colossal design error that could not have had any other outcome than the environmental crisis we are facing today. The project for humanity conceived by modernity goes against the rights and interests of nature and the planet as a metabolic system.

In this regard, transition discourses take as their starting point the relationship between the lifestyle that has become predominant in recent centuries and the environmental and social crises humanity is facing. Maintaining a modern lifestyle implies the sacrifice of thousands of communities around the globe that must give up their life projects and the possibility of a dignified and healthy life to continue feeding the dream of modernity. “Transition discourses take as their point of departure the notion that the contemporary ecological and social crises are inseparable from the model of social life that has become dominant over the past few centuries...” (Escobar 2015).

Transition discourses are emerging stances from communities that have recognized the inherently paradoxical nature of the progress narrative

and must therefore propose alternatives to development as the only possibility to “move forward.” Transition discourses constantly evolve and consolidate in an ongoing dialogue between academia and social and environmental activism, promoting new ideas and concepts. Thomas Berry has expressed it eloquently and simply: “We are in between stories. The old story, the account of how the world came to be and how we fit into it, is no longer effective. Yet we have not learned the new story” (Berry 1988).



Figure_9.
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Illustration of the “Transition Design” Concept.

The streams of thought and the concepts used to address discussions about transition are different between the Global North and the Global South, as the implications of one or the other are distinct for the realities experienced in each of these “hemispheres” of the globe (Escobar 2017).

For the Global North, the new era is described in terms of post-growth, post-capitalist, and post-human. Authors from this perspective, such as Giorgos Kallis, describe it as: “living with less and differently, about downscaling while fostering the flourishing life in other terms” (Kallis, Demaria, D’Alisa 2015).

From the perspective of the Global South, degrowth does not seem to be an option. The need to continue building a better future for communities calls for another type of discourse that sets an alternative for

development. This alternative, framed as post-development, post-extractivist, and biocentric, emphasizes the need to move away from the traditional modern discourse and turn to seek alternatives within our own environment. In regions like Latin America, this includes the possibility of exalting the diversity of communities with different knowledge, more in harmony with the environment, allowing for symbiotic relationships with nature. Discourses such as Buen Vivir in Bolivia and Peru follow this perspective (Escobar 2017).

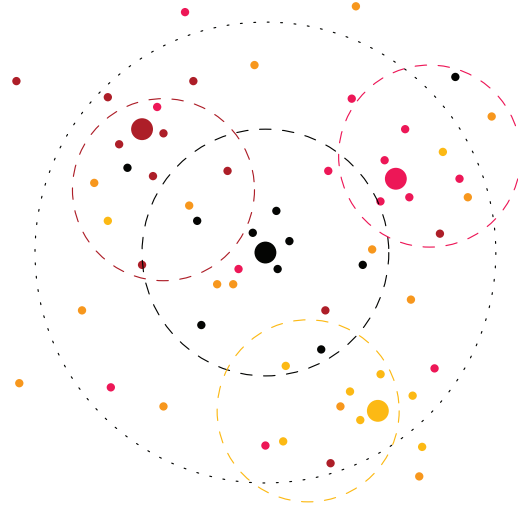
However, Escobar emphasizes that these two perspectives are not divergent from each other. They parallelly resort to different tools to address similar problems. A possible alliance between these two perspectives could also help both sides tackle the difficulties each of them faces, respectively.

MANY worlds WORLD

So, facing the transition we are experiencing right now, we have to ask ourselves: “What world do we want to build? What kinds of futures do people really want?” (Thackara 2004). What values and objectives are we constructing the world to come upon? Within the Global South, it seems clearer that the major issue with the discourse of modernity, particularly with globalization, is this trend of homogenization and unification of worlds under the same motto. The absorptive capacity of capitalism and the particular civilizational model stemming from development and progress is something activists from various communities in Latin America have repeatedly emphasized, questioning the need for the implementation of a single, particular model: “..., that of patriarchal Western capitalist modernity.” (Escobar 2017).

Modernity (and particularly progress) thus robs communities and societies with a different worldview than that of the West of the possibility to direct their own life projects. Under the banner of a globalized world, it invalidates any discourse that is different from the homogeneous development of the

globe, painting a single possible world where all of humanity is heading in



Figure_10.
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Illustration of the "Many worlds World" Concept.

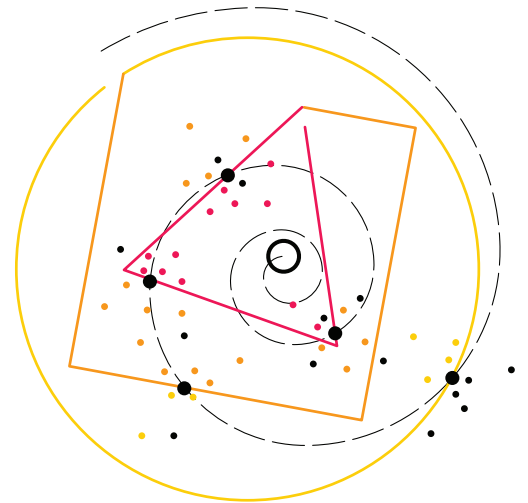
unison. The resistance mounted throughout Latin America by many indigenous groups, Afro-descendants, peasants, and marginalized urban groups is, in part, the struggle to defend their resources and territories, but it is also the fight to defend their life projects (Escobar 2017). The diversity of possible discourses, of narratives different from development and modernity, is where Escobar extracts the term "Pluriverse," alluding to the different realities that even today coexist on the continent.

"'Queremos un mundo donde quepan muchos mundos' (We want a world where many worlds fit)... 'Queremos ser nosotros los que diseñemos y controlemos nuestros proyectos de vida' (We ourselves want to be those who design and control our life projects), says the Mapuche poet Elicura Chihuailaf (quoted in Rocha 2015, 97)." (Escobar 2017)

This term, Escobar clarifies, embraces difference. Starting from a realm of cultural difference, of an ontological difference that recognizes human existence from different perspectives and concepts. But likewise, it must acknowledge that the human condition is not exclusive within the experience of existence. Thus, it includes expressions of life itself in all its forms, opening a field of action within the biological and ecological world extremely broad.

IDENTITY

Within this thesis, I consider the concept of identity as the precursor to Polymorphism, elaborating on the concept of the Pluriverse as the identities of the different communities and their worldviews that make up this pluriverse. Although I do not delve deeply into this concept, as it is not the main focus of my project, it is essential in conceptualizing the proposal and understanding the direction in which the resolution of the analyzed problem is headed. This could be a point to be further elaborated on and as a continuation of the research in this project. Investigating the identities of populations entails work in itself that requires studies beyond the scope of this project and necessitates the inclusion of other fields such as anthropology,



Figure_11.
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Illustration of the "Identity" Concept.

sociology, and other humanities capable of discerning and studying the different social groups and communities I am referring to.

Nevertheless, in order to provide an idea of what I am talking about, I define identity here as the quality that differentiates communities from others and makes one group recognizable to another and among themselves. This quality includes various factors (but is not limited to) such as culture, gastronomy, practices, ethnicity, beliefs, religion, language, among others,

making its specification a complex study in itself.

It is also a philosophical question that can be reevaluated and considered from various points of view, as identity is usually nested within levels of analysis, giving different scales and layers to discuss specific or general identities.

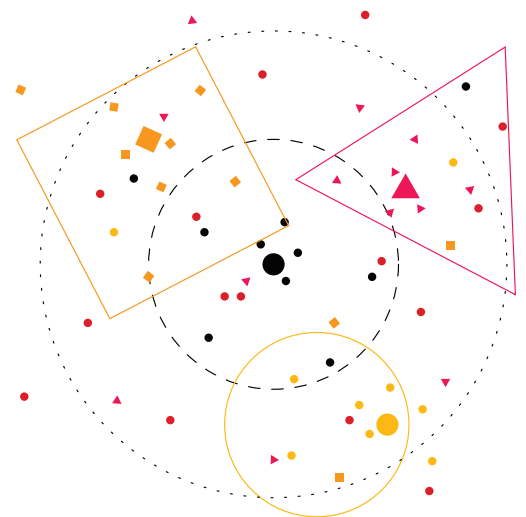
POLYMORPHISM

In Biology, the term Polymorphism describes the simultaneous occurrence of two or more distinct forms of the same species within the same space. This diverse phenomenological expression can be due to two main causes. The first, in which alterations in the environment cause different genes to begin expressing themselves through generations, indicating slight adaptations of the initial population to environmental pressures. The second, in which a genetic mutation is maintained and remains in the same habitat within a particular population. In both cases, it is implicitly understood that in an initial situation there is a monomorphic population that through an extended process of differentiation could (but not necessarily) lead to the differentiation of a new species. This principle is one of the basic pillars of organism evolution that gives rise to the diversity of species inhabiting the planet and also the diversity of sub-genres within the species themselves (Ford 1945).

At first glance, this term seems as far removed from urbanism as possible, but the principle it describes can be applied (essentially) to any complex structure that is formally expressed in space, with a certain degree of variability and with an initial input of information that defines the parameters under which it is expressed in one way or another. What I mean is that in the case of a set of complex elements, there is the possibility of formal variability as a result of exposure to different environmental conditions, or the specific selection of certain inputs, which define the shape that the structures

take, while necessarily being part of a whole.

In the specific case of urbanism, we could speak of a city as an organism in itself (an analogy that has been extensively used throughout the theory of architecture and contemporary urbanism, alluding to how complex processes tend to resemble organic processes such as metabolism), or we could elevate it and consider each sector of the city as a part of this whole (the city) that coexists in the same space and relates to each other. In this sense, polymorphism refers to the morphological diversity expressed by the different sectors of the city. The morphology of each of these sectors depends in turn on different factors such as function, specific cultural expressions, historical processes, topography, geographical faults, natural structures, among many other possible influences on how the city is built. These determining factors are like the genes of a species, while urban morphology is like the various expressions of the same species.



Now, depending on what is taken as a determining factor, morphology can vary, resulting in different urban expressions that depend either on environmental conditions or on customs and cultural symbolologies. Generally, these determining factors tend to vary at larger scales, responding to climatic or geographical variations

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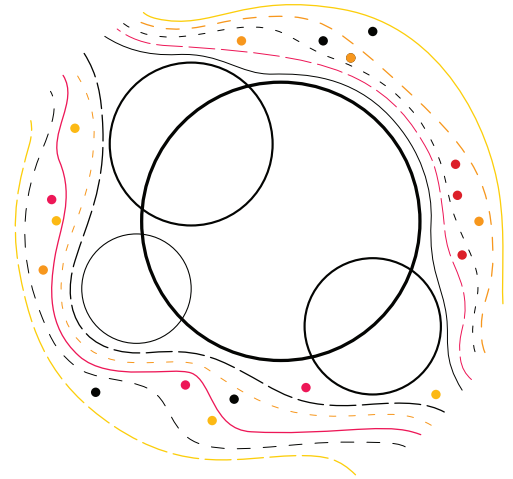
Illustration of the "Polymorphism" Concept.

between regions, and to the cultural differences that may exist between them.

Thus, the cultural identity of a community becomes a determining factor of extreme importance, which determines not only urban morphology but also functions, arrangements, proportions, spaces, materials, symbolologies, and relationships between buildings. Historically, this has been one of the determining elements that have differentiated the spatial quality in cities from culture to culture. This ultimately turns cities into a physical representation of the intrinsic values of the community and virtually makes them unique from one another.

Urban polymorphism, of course, is an inherent response to the social and environmental diversity to which cities and the different sectors that compose them are subjected.

enables free movement throughout the urban space. This is what I define as urban cohesion, an inherent quality of a consolidated urban fabric that enables free mobility through the continuity of public space.



Figure_13.

Made by Author

Illustration of the "Urban Cohesion" Concept.

URBAN COHESION

With the concept of urban cohesion, I want to allude to the opposite condition of urban fragmentation. In chemistry, it is understood as the condition of particles of the same substance remaining together, and the Cambridge Dictionary defines cohesion as the act of forming a united whole. Like with Polymorphism, I draw upon this idea from another field of knowledge to refer to a property that, at first glance, might be difficult to apply to urban planning and the built environment. Nonetheless, I believe that this property can also be translated into a spatial condition expressed by cities oriented towards people and the human scale, where the way of traversing the city demonstrates a certain coherence among its constituent spaces. Regardless of how different the sectors may be, through the urban space, a network is woven that allows experiencing the city as a single structure. This is achieved through pedestrian zones, green spaces, open areas, plazas, parks intersecting with each other, generating a complex and continuous network that

_CONCEPTUAL FRAMEWORK

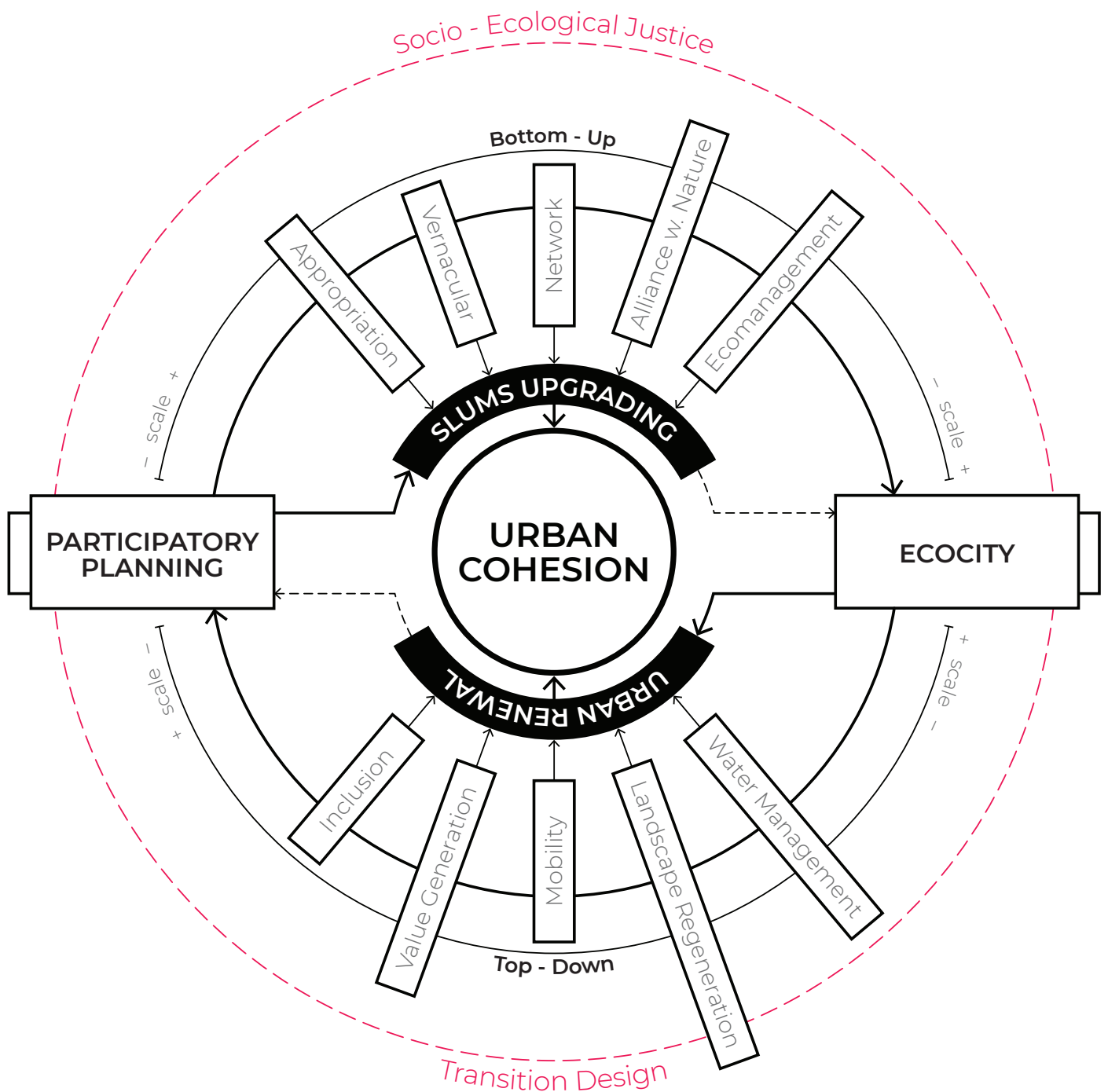
The conceptual framework designed for this thesis is organized in a circular manner, hinting at a certain cyclical condition in the implementation process of different concepts throughout the project. The diagram illustrating it follows this cyclical logic, starting from the outer circle. As one follows the correlations of the concepts, it gradually moves inward, beginning with the principles and ending with the final outcome of the project: Urban Cohesion.

The framework is designed to operate in two dimensions simultaneously, considering both the approaches and scales at which different strategies and principles operate. The principles tend toward each other from their extremes, mutually influencing each other through strategies.

The first principle, Participatory design, operates from a Bottom-Up approach, starting from a local scale that can develop throughout the territory and scale up to encompass the city through cooperative networks with different purposes on a collaborative basis. From the other end, the principle of Ecocity operates from a Top-Down approach, seeking to establish the foundations of a healthy territory through landscape regeneration strategies to enable mobility and inclusion of all its inhabitants. In this way, no matter where one starts reading the framework, both principles end up developing the foundations for the other.

Figure 14.
Made by Author

Illustration of the Conceptual framework, showing the relations and causalities between concepts.



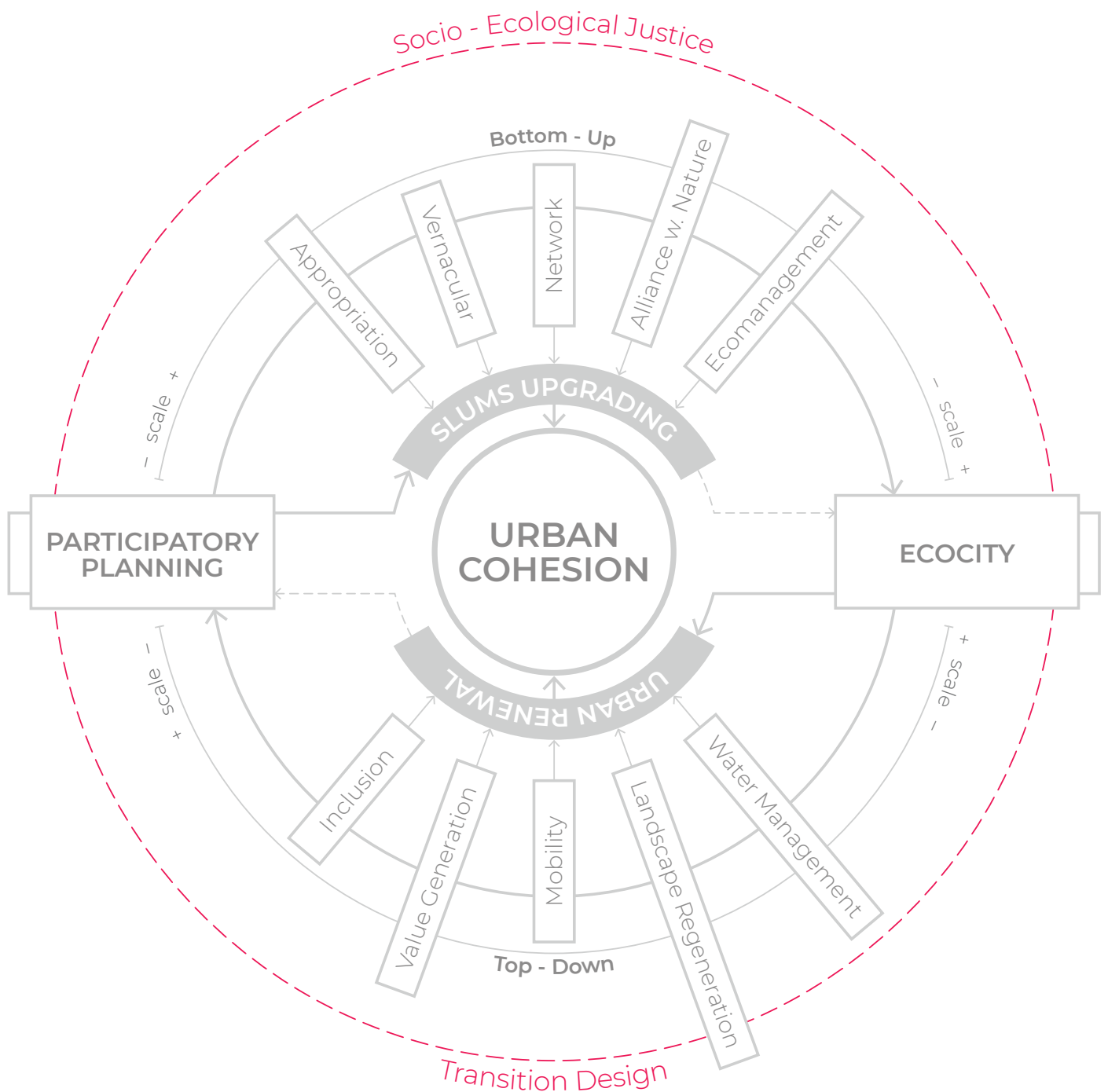
FRAMEWORK

The framework is the container for the entire project, providing a perspective through which all other concepts are visualized. The framework presented by Arturo Escobar of Transition Design intersects with the perspective of socio-ecological justice to guide the design and objectives in these two specific dimensions.

Figure_14.1

Made by Author

Illustration of the Conceptual framework, emphasizing on the Framework



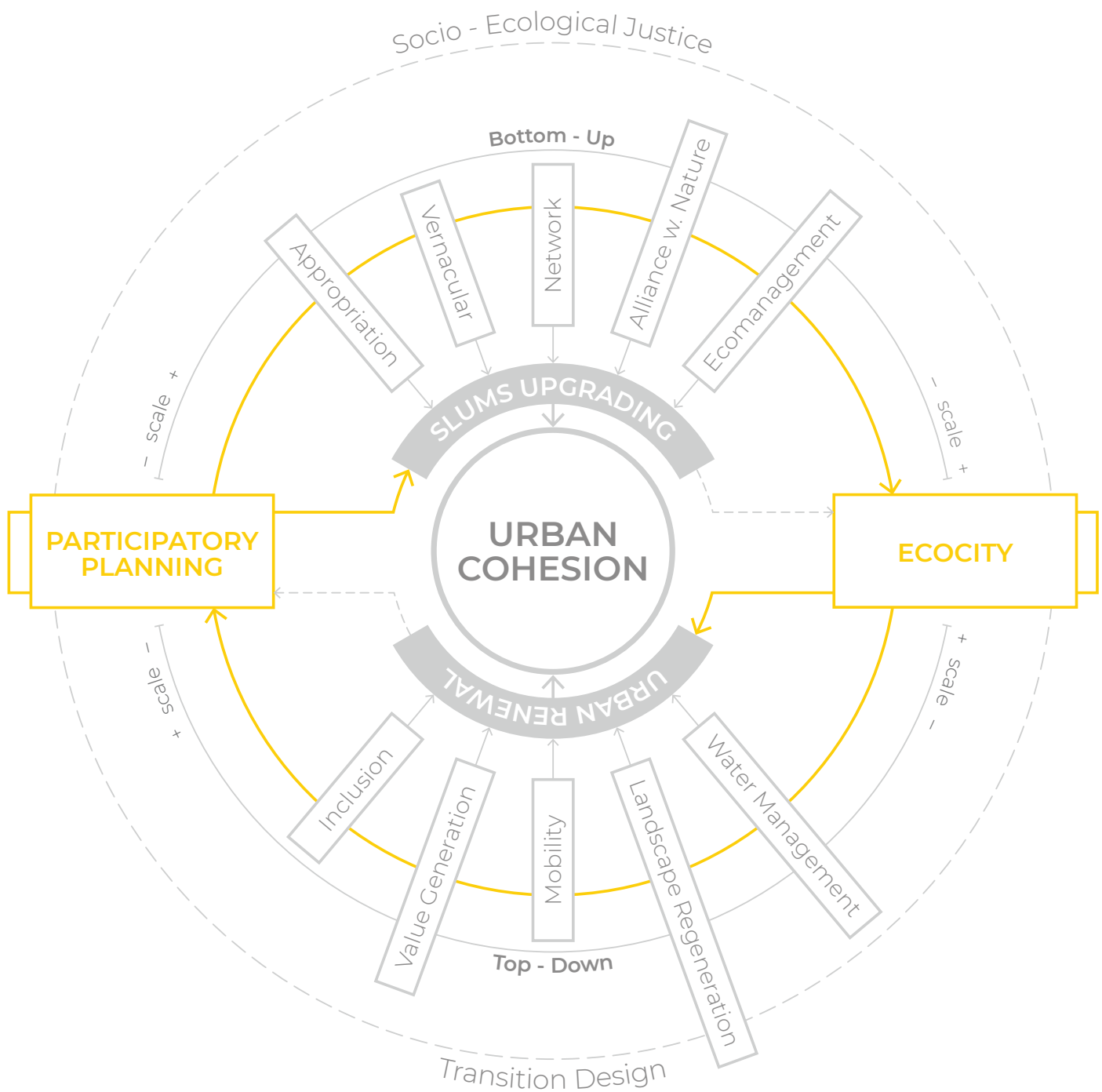
PRINCIPLES

The two principles that open the reading of the conceptual framework correspond to the two dimensions upon which both the analysis of the context and the urban proposal of the project will be based. 1. Participatory Planning, within the social dimension, and 2. Ecocity within the ecological dimension.

Figure_14.2

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Illustration of the Conceptual framework, emphasizing on the Principles



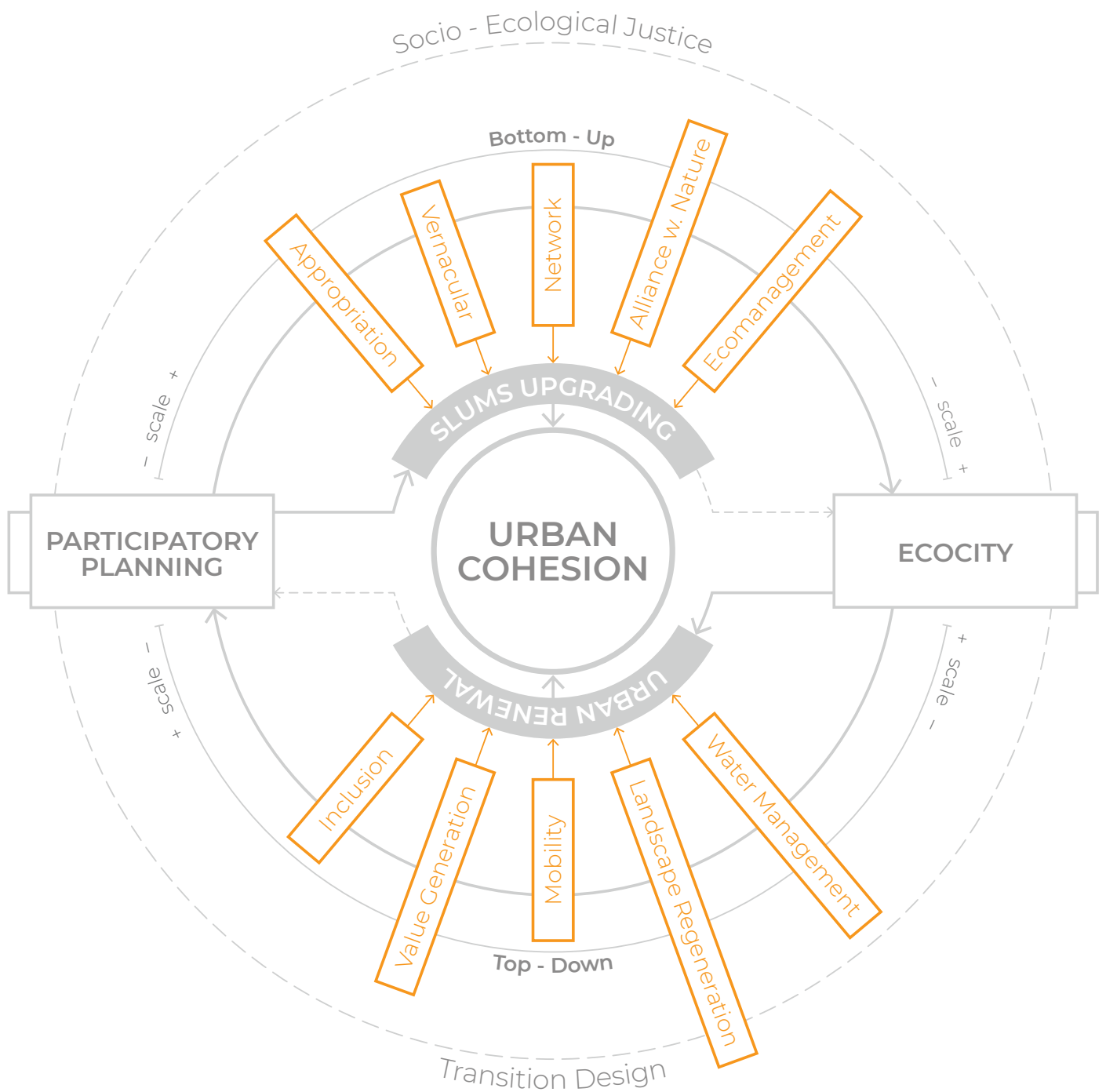
STRATEGIES

The strategies, as the name suggests, are specific actions through which the two principles are implemented. The intention of the strategies within the project leads to the objectives.

Figure_14.3

Made by Author

Illustration of the Conceptual framework, emphasizing on the Strategies



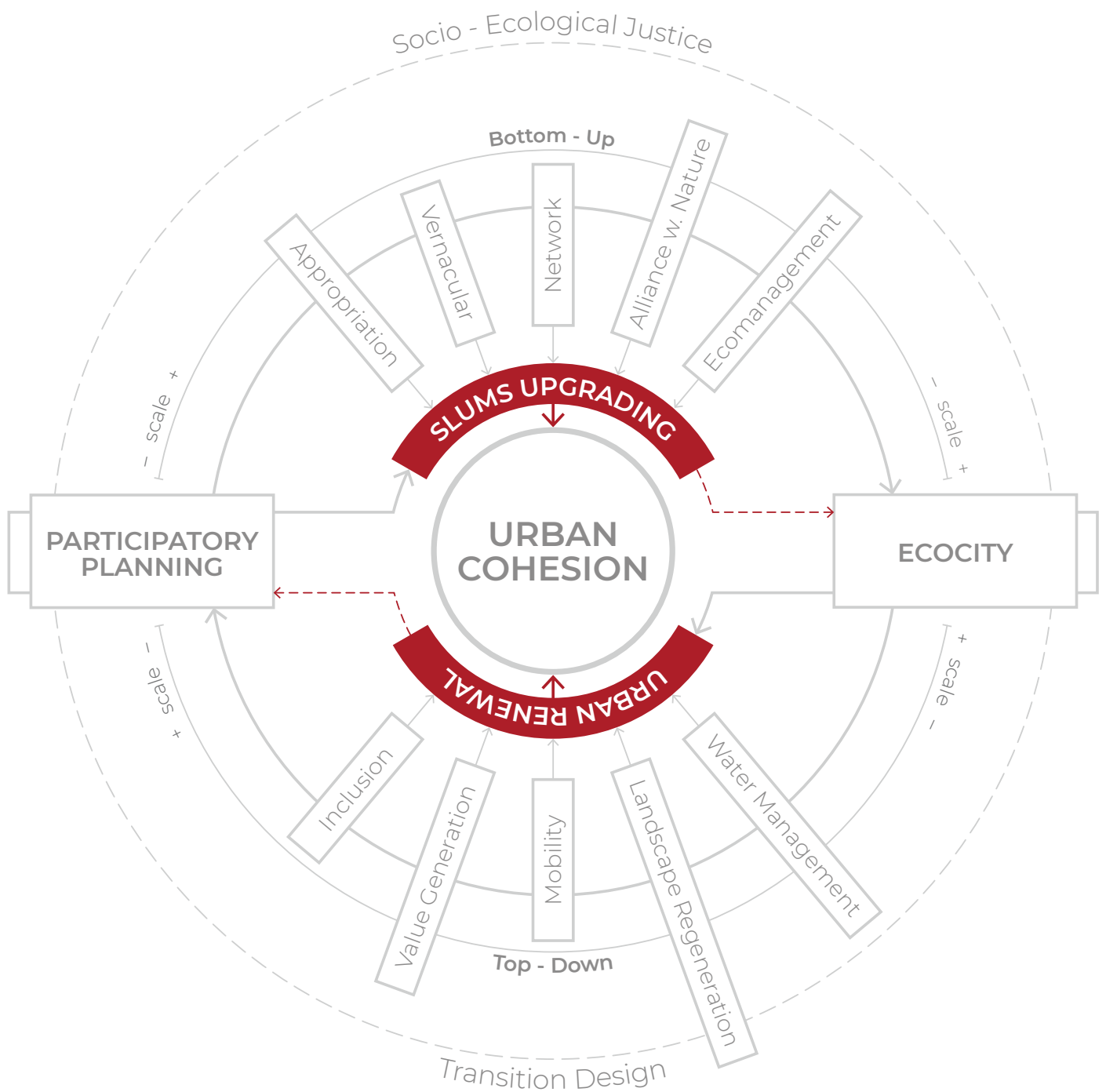
OBJECTIVES

The objectives, like the principles, operate within the dimensions of analysis guided by the framework. They result from the combined implementation of the strategies and serve as two different perspectives (scales) of the final outcome of the project.

Figure_14.4

Made by Author

Illustration of the Conceptual framework, emphasising on the Objectives

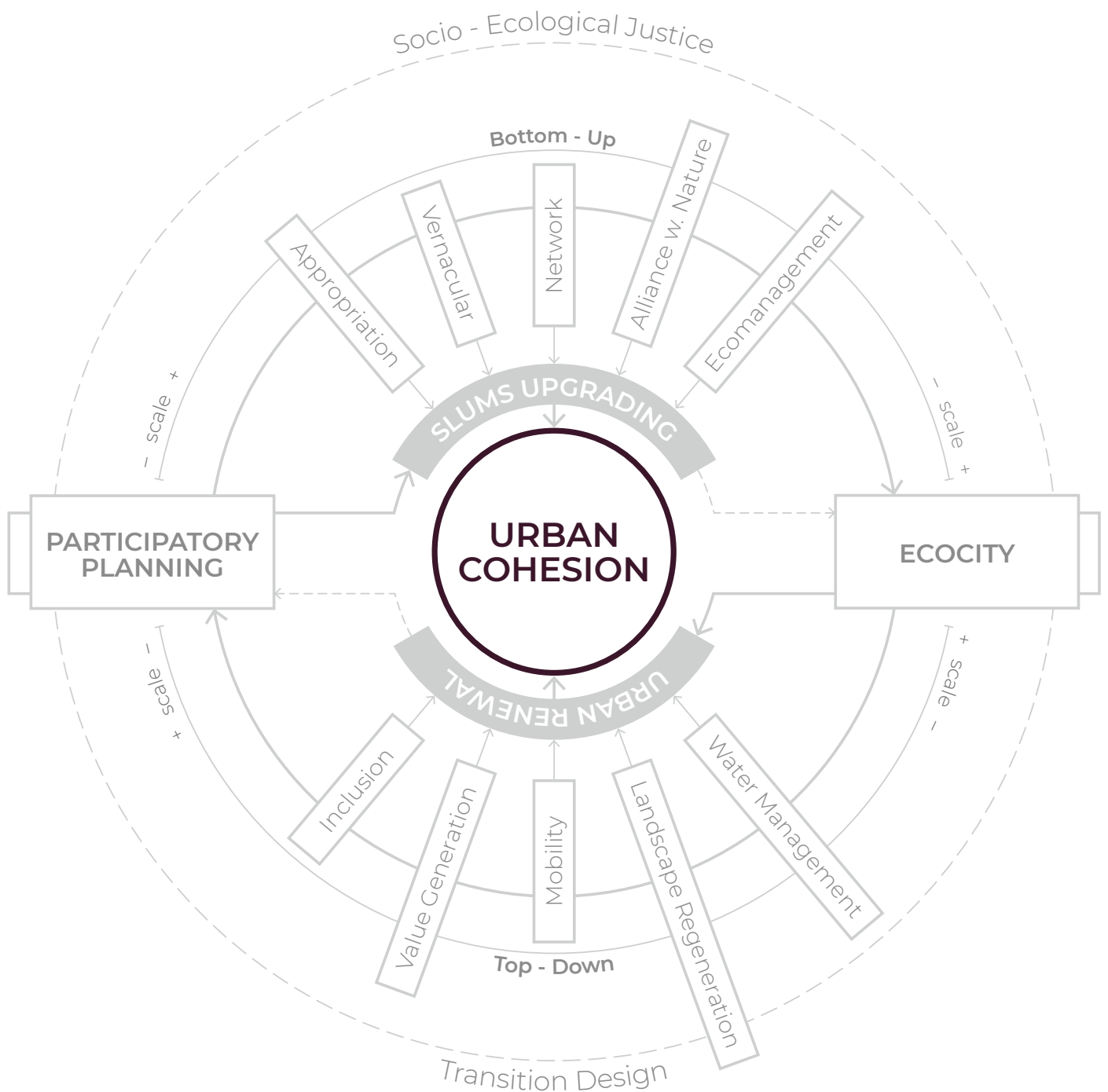


Figure_14.5
Made by Author

Illustration of the Conceptual framework, emphasising on the Outcomes

OUTCOME

The outcome and where the entire project process leads is to achieve urban cohesion at various scales, both in social and ecological terms, as outlined by the framework.



_3. SOME CONTEXT NEEDED...

Brief Introduction to the Colombian Reality

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Climate Regions	066
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"..., it was the feral vegetation, interwoven, intertwined in intricacies of vines, bushes, creepers, hooks, and killer sticks, which sometimes broke the brown leather of a tapir, in search of a creek where to refresh its trunk. Hundreds of herons, steep on their legs, sinking their necks between their wings, stretched their beaks at the edge of the lagoons, when some grumpy heron, fallen from the sky, was not rounding his hump. Suddenly, a steep branch would turn to the joy of a squawking flight of macaws, which threw violent brushstrokes on the acrid shadow below, where the species were engaged in a millenary struggle to climb over each other, to ascend, to come out into the light, to reach the sun".

"..., era la vegetación feraz, entretejida, trabada en intrínquilis de bejucos, de matas, de enredaderas, de garfios, de matapalos, que, a veces, rompía a empellones el pardo cuero de una danta, en busca de un caño donde refrescar la trompa. Centenares de garzas, empinadas en sus patas, hundiendo el cuello entre las alas, estiraban el pico a la vera de los lagunatos, cuando no redondeaba la giba algún garzón malhumorado, caído del cielo. De pronto, una empinada ramazón se tornasolaba en el alborozo de un graznante vuelo de guacamayos, que arrojaban pinceladas violentas sobre la acre sombra de abajo, donde las especies estaban empeñadas en una milenaria lucha por treparse unas sobre otras, ascender, salir a la luz, alcanzar el sol."

Alejo Carpentier_
Los Pasos Perdidos (1953)

_INTRODUCTION The following chapter focuses on constructing a contextual framework of the preexisting conditions in Colombia that led Bogotá to be the way it is. I will briefly mention the complexity of Colombia's geography in relation to its location on the globe and the extreme diversity of geomorphological faults and unique scenarios that determine its natural wealth.

I will discuss how the country's geomorphology determines the different "thermal floors" as variations in temperature experienced throughout the territory and how these influence the variation of different climatic zones that extend along the territory (in response to its topography and temperature) and the extreme biodiversity resulting from the country.

I will establish the relationship between the country's geographical and natural diversity with the cultural and social diversity experienced in the country. Without delving much into the reasons for the different distributions of races and ethnicities, I will establish a diverse landscape made up of different indigenous communities, ethnicities, and races that are distinguished from each other in cultural, spiritual, and in some cases, linguistic terms.

All this preliminary context serves as a basis for explaining the initial problem of this thesis: the Colombian conflict and the forced displacement it generated throughout the territory. I will briefly explain the condition of internal conflict and the consequences in terms of social migrations that ultimately fled to the main urban centers, seeking asylum and refuge from violence and the threat of conflict.

_COMPLEX GEOGRAPHIES

Colombia's geography can be considered as the convergence of different geological phenomena in one place. Being the point of connection between the Mesoamerican subcontinent and the South American continent, it is located between two oceans, the Pacific Ocean and the Caribbean Sea (Atlantic Ocean). Additionally, it is the point where the Amazon rainforest meets the northeastern plains and the Andes mountain range, which runs from south to north throughout the country, breaking into three main mountain ranges with a maximum height of 5530m above sea level, dividing the country into plains and valleys with different climatological phenomena. This complex topography is also the reason for Colombia's rich hydrography, with 42 main rivers and countless lagoons that consolidate into 5 different macro-basins: 1. Amazon, 2. Orinoco, 3. Magdalena/Cauca, 4. Pacific, and 5. Caribbean. (Bernal Gonzales 2016)

An old saying in the country goes that God wanted to give a little bit of everything to the country, as a small reference to the vast diversity of landscapes concentrated within the same territory. This richness is expressed in a total of 311 different ecosystems and contains 64% of the world's Páramos. (Pardo 2020) Thanks to this, Colombia is in absolute terms the second most biodiverse country in the world, and ranks first in biodiversity in terms of species of flowers and birds. According to information from the UN, it is the country with the highest biodiversity per square meter.

Despite these amazing facts, not everything is bliss. Just as this fascinating geography enriches the country, it has also played a fundamental role in the tragedies that have besieged the country for almost 100 years. The ruggedness of the landscape and the diversity of locales have generated a fragmented configuration of territories and communities, making communication by land extremely difficult between different areas of the country. The

infrastructure is vulnerable to constant landslides, floods, and geological faults that frustrate efforts to reduce distances between neighboring towns in the blink of an eye.

Similarly, today's geographical fragmentation among communities was the reason why in this part of the continent, unlike Mesoamerica and Peru, there were no vast empires that extended throughout the territory. Despite having more than 100 different indigenous groups, they occupied different areas of the territory, divided by mountains, valleys, or rivers that hindered contact (Aristizabal Giraldo 2000).

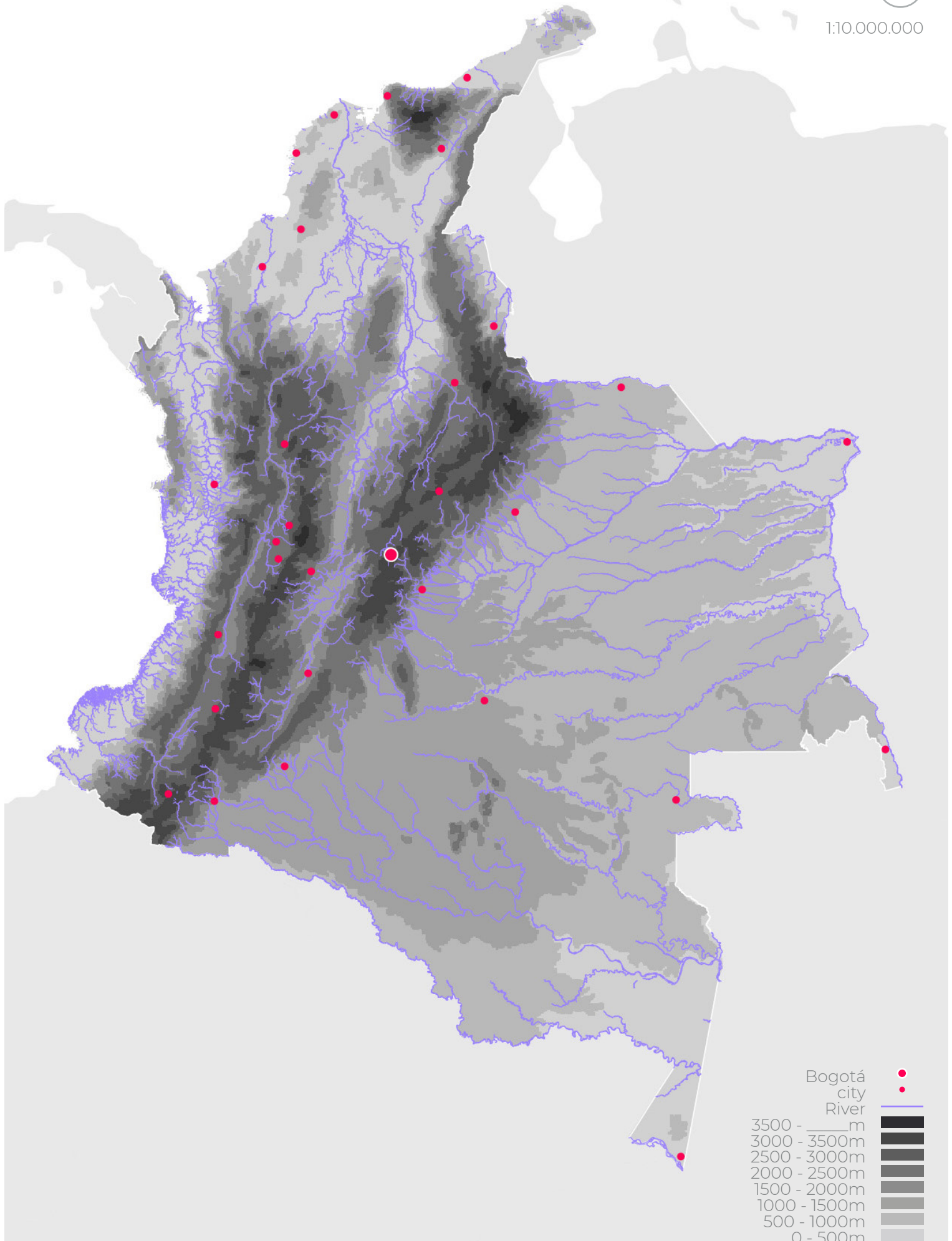
Likewise, the presence of the state is partial in different areas of the country, plunging remote corners of the country into loneliness and abandonment by the state where precarious roads do not reach. This has allowed for constant uprisings of subversive groups against the state since colonial times, with different ideals and different political and social interests. This has led to an internal conflict of more than 60 years in the country's recent history, with an inexhaustible record of armed actors and groups who have decided to take justice into their own hands and assert their own justice. (Trejos Rosero 2013)

Figure 15.
Made by Author

Map that shows the topography of Colombia



1:10.000.000



_CLIMATE REGIONS

“PISOS TERMICOS”

In the middle and high latitudes of the globe, the temperature variation throughout the year corresponds to the annual fluctuation in exposure that a certain latitude has to solar radiation. This means that depending on the time of year, the temperature rises or falls, generating seasons over the course of the year. In tropical zones, this is not the case, as solar fluctuation is greatly reduced, or insignificant, compared to the equatorial line of the planet. This is the reason why between the two tropics, Cancer (23° 5' N) and Capricorn (23° 5' S), there are no seasons but only dry or rainy seasons, measured by annual precipitation.

Colombia is entirely located in the tropics, and the greatest fluctuation in the solar angle to which Colombian territory is exposed does not vary by more than 4°, so the temperature variation is not significant throughout the year.

Instead, temperature variations are conditioned by altitude variation relative to sea level, which also influences humidity levels, atmospheric pressure, and air composition. And although this phenomenon is not exclusive to tropical zones, it is not mentioned as a determining factor of climate in middle latitudes (Sociedad Geográfica de Colombia).

The “thermal floors,” as this phenomenon is commonly known, determine the temperature of each region of Colombia. There are 5 distinctive thermal floors that are determined as follows: 1. Hot Zones (0-1000 meters), 2. Temperate Zones (1000-2000 meters), 3. Cold Zones (2000-3000 meters), 4. Paramos (3000-4000 meters), and 5. Perpetual Snows (above 4000 meters).

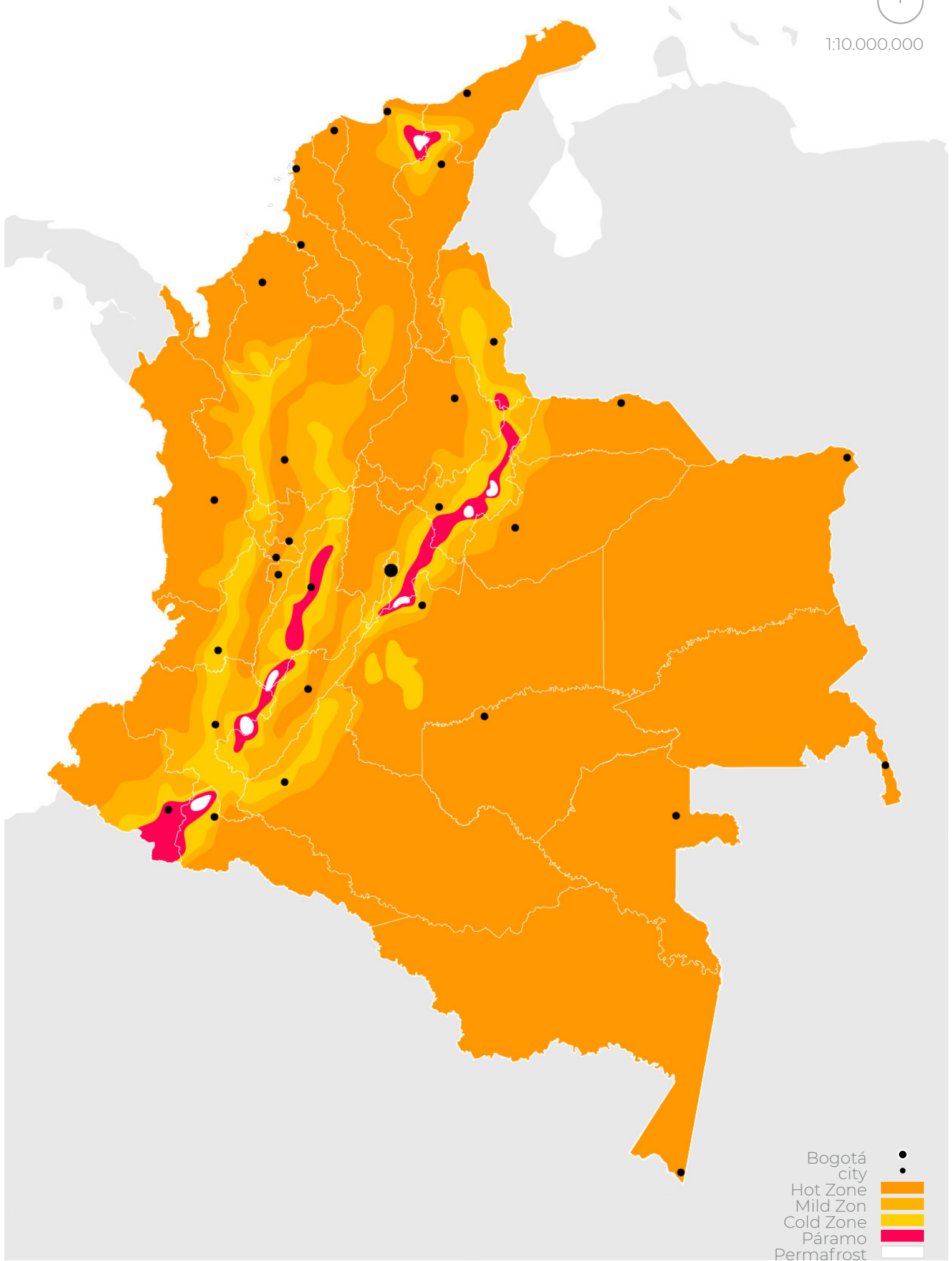
In very few parts of the world is this phenomenon of temperature variation with respect to altitude as relevant as in Colombia, as the presence of such a pronounced mountain range as the Andes at the equator is not repeated on any other continent between the two tropics.

Figure_16.
Made by Author

Map that shows the temperature regions in Colombia, influenced by the increasing topography.



1:10.000.000



- Bogotá city
- Hot Zone
- Mild Zon
- Cold Zone
- Páramo
- Permafrost

CLIMATE REGIONS

The reason why the phenomenon of thermal floors is so important is that, in relation to Colombia's topography, they configure climatic regions with completely opposite characteristics, but which are geographically very close to each other. In other parts of the globe, climatic regions present a constant gradient that varies as latitude changes, requiring long distances between points. But in Colombia, it is possible to travel no more than 50 km and go from a region of perpetual snow to a fiery desert where temperatures exceed 30°C in the dry season (as is the case with the Sierra Nevada de Santa Marta at 5,400 meters above sea level and the Guajira Desert on the Caribbean coast).

The other factor that strongly influences the local climate of each region of the country is the humidity of the air and atmospheric pressure, which determine the annual precipitation in each of them. This is why regions that initially have similar conditions in terms of altitude, such as the Caribbean coast and the Pacific coast, present completely different climatic regions. Due to the air currents coming from the Pacific, the humidity that accumulates on this side of the country is much higher than that present on the Caribbean coast, where the winds are much weaker and there is not as much humidity.

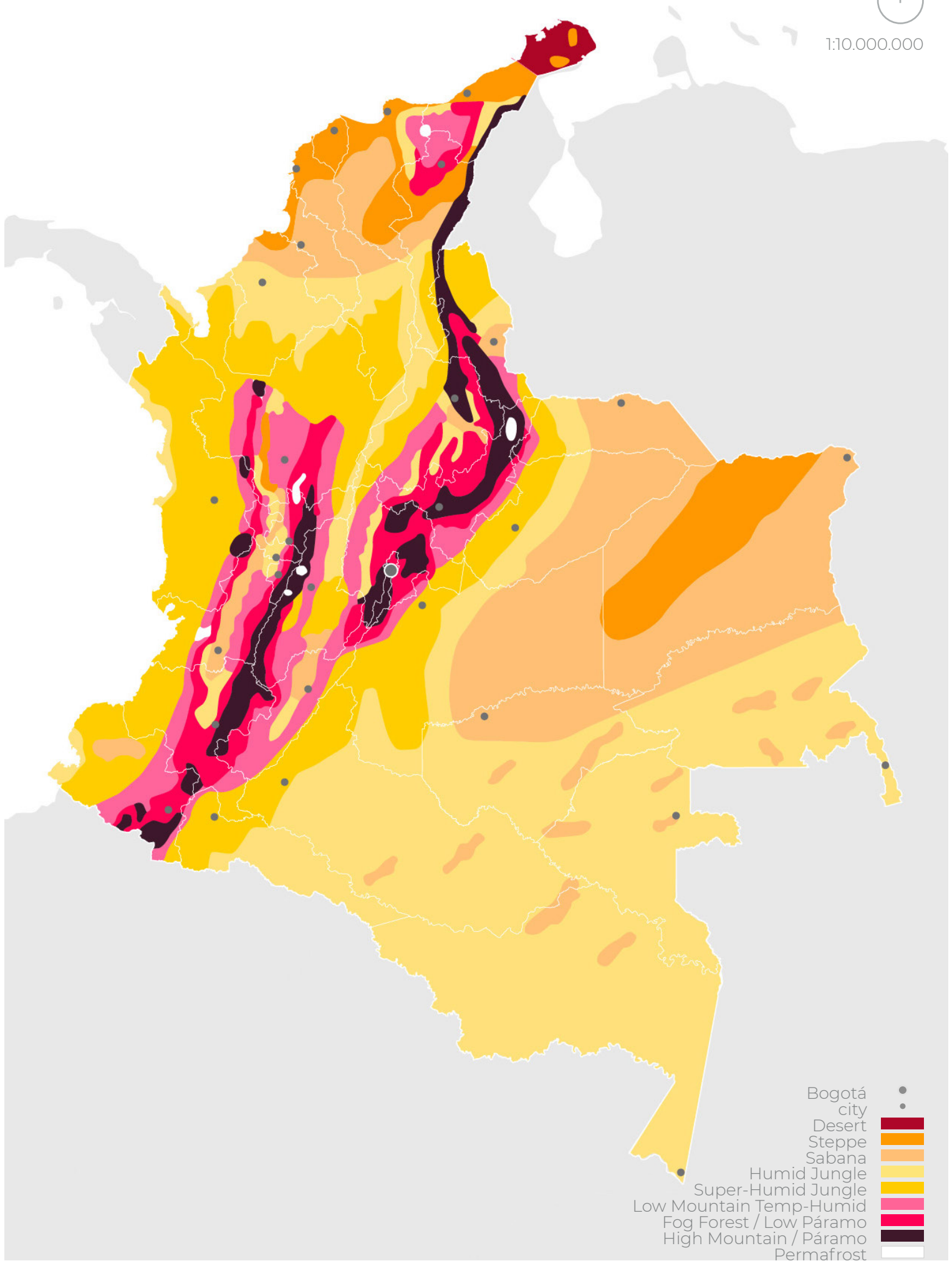
The differentiation of climatic regions has a strong influence on the type of vegetation and fauna present in each region of the country. This is where the main reason for the country's biodiversity lies. The conditions to which the fauna and flora of the country are exposed generate an explosion of diversifications in how different organisms can adapt in a relatively small territory.

Figure_17.
Made by Author

Map that shows the resulting climate regions from the combination of factors such as rain, temperature and topography.



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CULTURAL DIVERSITY

At the same time, this also influences the cultural differences that exist within the country. Not only animals and plants are exposed to different climatic conditions, but communities and societies also have access to different resources and are exposed to different environmental conditions, resulting in a high internal variation of cultures and regional expressions that are directly related to their natural environment.

It is not the same to live in humid areas where high annual precipitation allows for abundant vegetation, as is the case in the Amazon, as it is to live in highlands where temperatures drop drastically and the number of species adapted to harsher conditions is much lower, as in the case of high mountains.

Everything changes, from the materials used to make objects, social practices, traditions, to the food and diet upon which communities in Colombia rely, all vary depending on these factors.

And although it is to some extent true that each climatic region has differentiated cultural groups, it is not enough to assume that each climatic region leads to a different culture. The regions marked by the country's Macrobasins are often used as a first level of discourse among the regions of the country. Within these macro-regions, there is a subdivision that partially represents the different cultural regions associated with the communities residing there.

The Plains and the Amazon are not usually subdivided because they are among the least populated regions of the country and, being more or less homogeneous in their geographical and climatic characteristics, they are usually treated as a single region. This does not mean that they lack social diversity. The Amazon, for example, has the greatest diversity of indigenous ethnic groups in the country.

ETHNICAL DIVERSITY

The Colombian state recognizes more than 80 different indigenous peoples,

among which 66 different languages are spoken, with roots totally distinct from Spanish and Portuguese. They all differentiate themselves from each other and recognize themselves as independent communities through their worldviews (all different), different meanings of reality, and relationships with their environment. Many establish relationships with nature in different ways from each other and from Western ones; their art, architecture, religion, and even interpersonal relationships are different. By 1997, the total count of indigenous people in the country was just under 1,000,000, with peoples that did not exceed three dozen people (such as the Taiwano with 19 people) and among which the population with the largest population were the Wayúu in La Guajira (147,000) (Aristizabal Giraldo 2000).

Sadly, because they currently make up such a small fraction of the national population (around 2%), they have been considered as a single population and tend to be homogenized in bureaucratic processes, belittling the identities of many of them and reducing them to a minority that more than a population are the vestige of an ancient past that throughout history were abused, mistreated, and left aside.

AFRO

The Afro-descendant population also faced a similar fate, despite being present in certain proportions throughout the country, the largest concentration of these communities is found all along the Pacific coast, from Panama to Ecuador, as well as certain concentrated enclaves such as the case of San Basilio de Palenque. The Afro-Colombian community reaches up to 8,000,000 individuals, representing approximately 15% of the total population of the country (Aristizabal Giraldo 2000).

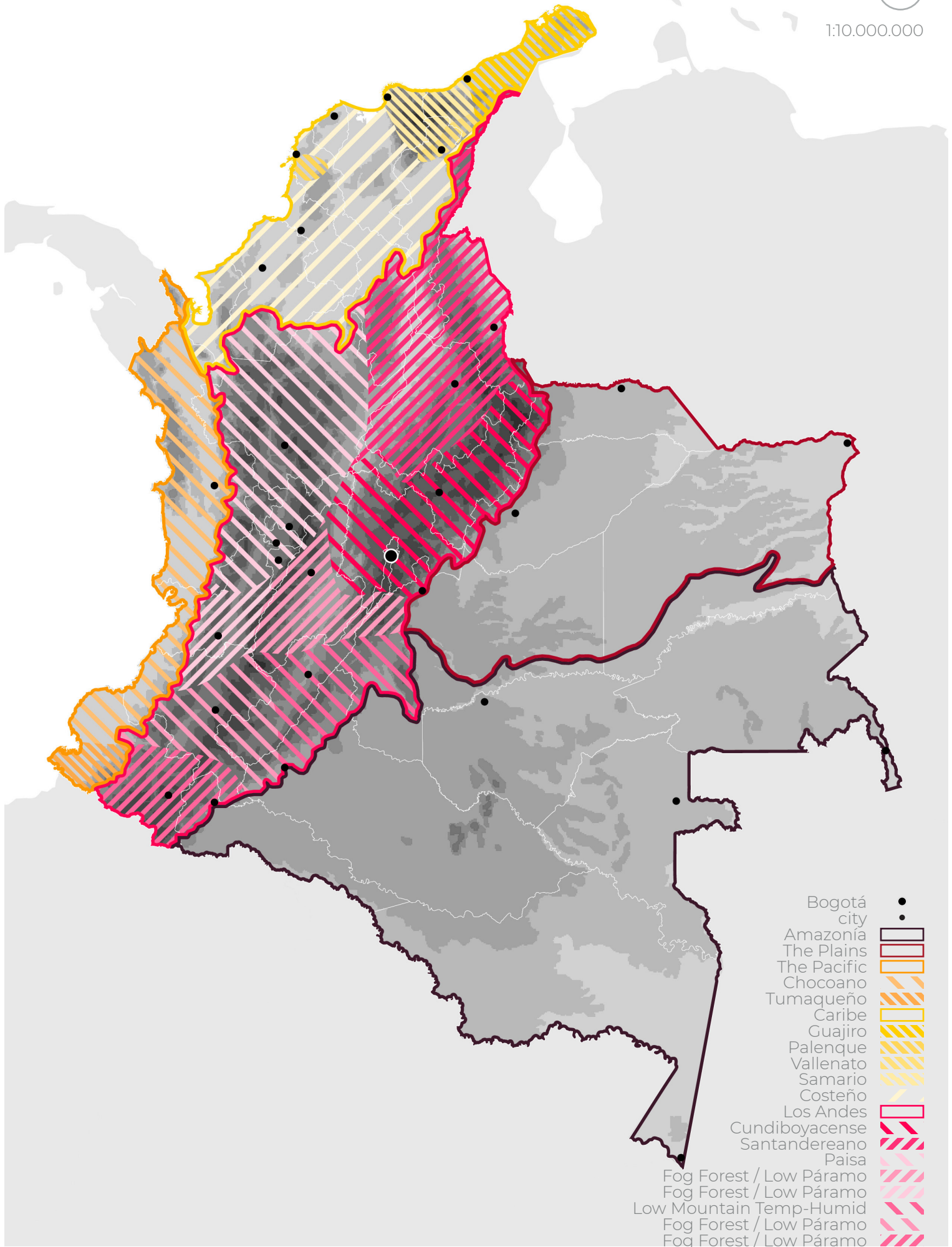
Unlike indigenous communities that have largely managed to survive with their worldviews and beliefs (to a certain extent intact), Afro-Co-

Figure 18.
Made by Author

Map that illustrates the cultural diversity in Colombia, differentiating the subregions of cultural expression.



1:10.000.000



Colombian communities were extremely suppressed during colonial times, being subjected to a ruthless state of slavery by the Europeans who brought them to the continent. They were abducted from their lands of origin in Africa and subjected to journeys in inhumane conditions until reaching a foreign land where they had no contact with their values, their places of origin, their worldviews, and their entire vision of reality was being crushed through dehumanizing processes.

(Giraldo 2000).

Today, these communities still live in a reality that discriminates against them and relegates them to a marginal position within the social dynamics in Colombia. Having lost many of their cultural roots, they have tried to rebuild themselves in their customs with memories and vestiges of an African culture that was demonized in colonial times and eradicated from public order. The black slaves had to hide their cultural heritage in black enclaves like San Basilio de Palenque, which historically since its foundation was entirely Afro-descendant.

MESTIZAJE

In addition to these two distinctive groups of indigenous and Afro communities, Colombia has been the destination for other distinctive groups that migrated to America in search of new horizons. Arab groups migrated in the early part of the last century, establishing enclaves on the Caribbean coast of Colombia, and to this day, families with Arab heritage can still be traced, maintaining a certain sense of community among them.

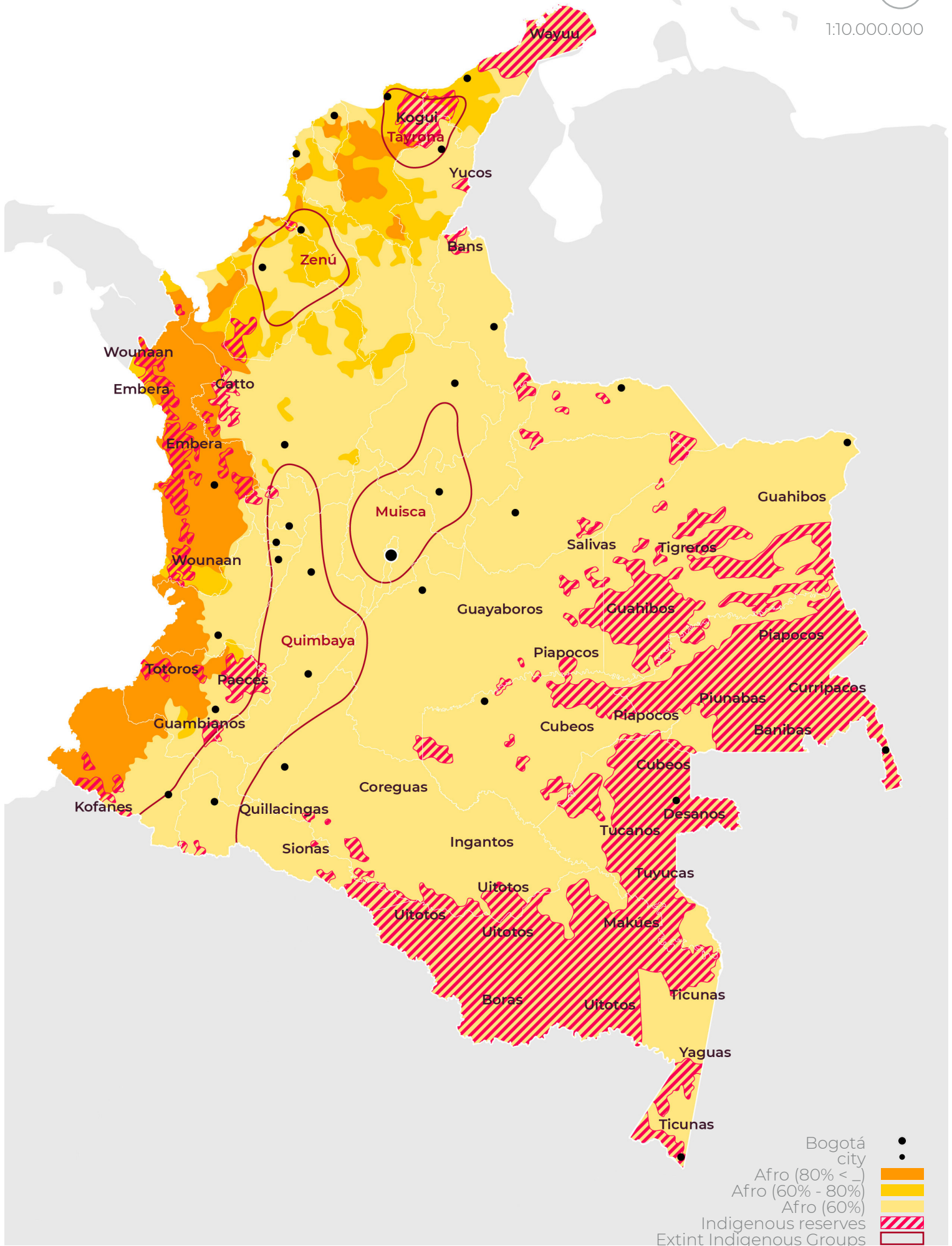
All these communities have been part of a long process of cultural and racial mixing through a complex process of mestizaje that, since colonial times and over 500 years of history, has gradually blended the country's genetic pool. This is to such an extent that it has been considered that almost entirely (with the exception of certain indigenous enclaves), the entire national population has to some extent a degree of mestizaje in its lineage (Aristizabal

Figure_19.
Made by Author

Map that shows the ethnic distribution of the social landscape in Colombia.



1:10.000.000



_COLOMBIAN CONFLICT

It is difficult to pinpoint exactly when the armed conflict in Colombia began as such. The process that has unfolded into what is now considered the Colombian conflict has been a long historical process that dates back to the time of Spain's independence, when the republican project was being consolidated, and various factions proclaimed themselves as the true standard-bearers of the Colombian people.

Three key periods of the Colombian conflict can be identified, dating back to the consolidation of the republican project (after Spain's independence) (UNPD 2003).

1. The first period originates from ideological differences between the traditional parties (liberals and conservatives) that for decades tried to reach an agreement on the basis of how the Colombian state should be configured and the ideals it should follow. This period saw several civil wars that extended into the early 20th century with "the Thousand Days' War," after which the Conservative Party declared victory and initiated a conservative hegemony in which the liberal opposition was systematically persecuted.

2. The second period, known as THE VIOLENCE, occurred between 1946 and 1966, erupting in 1948 when Jorge Eliecer Gaitan, a presidential candidate from the liberal party, was assassinated during a march in downtown Bogotá. In an act of collective frustration, Bogotá was partially destroyed, unleashing what is now known as the Bogotazo. The city was engulfed in flames, and chaos reigned in the streets for weeks. This fueled insurgent movements throughout the country that had been brewing in the preceding years, and armed groups began to consolidate in different regions of the country.

3. The third phase began in the mid-1950s when several of these armed groups, with political ideals, began to organize into guerrilla groups seeking to seize power through arms. By this point, the struggle was strongly moti-

vated by political ideals and led to the formation of several guerrilla groups, including FARC, ELN, ERN, EPL, and M19. The latter stands out from the rest for initially being an urban-based group, composed of individuals with a high level of education who initially made opinion strikes and for a time had great popularity among the middle and lower classes. Guerrillas are not the only agents of the conflict, but throughout this process, paramilitary groups also emerged, initially with some degree of association with the state, fighting against the guerrillas in areas with little presence of the national army. Additionally, there were private armies and mercenaries funded by the drug trade, seeking to maintain control of areas associated with illegal activities such as coca and poppy cultivation.

Figure_20.

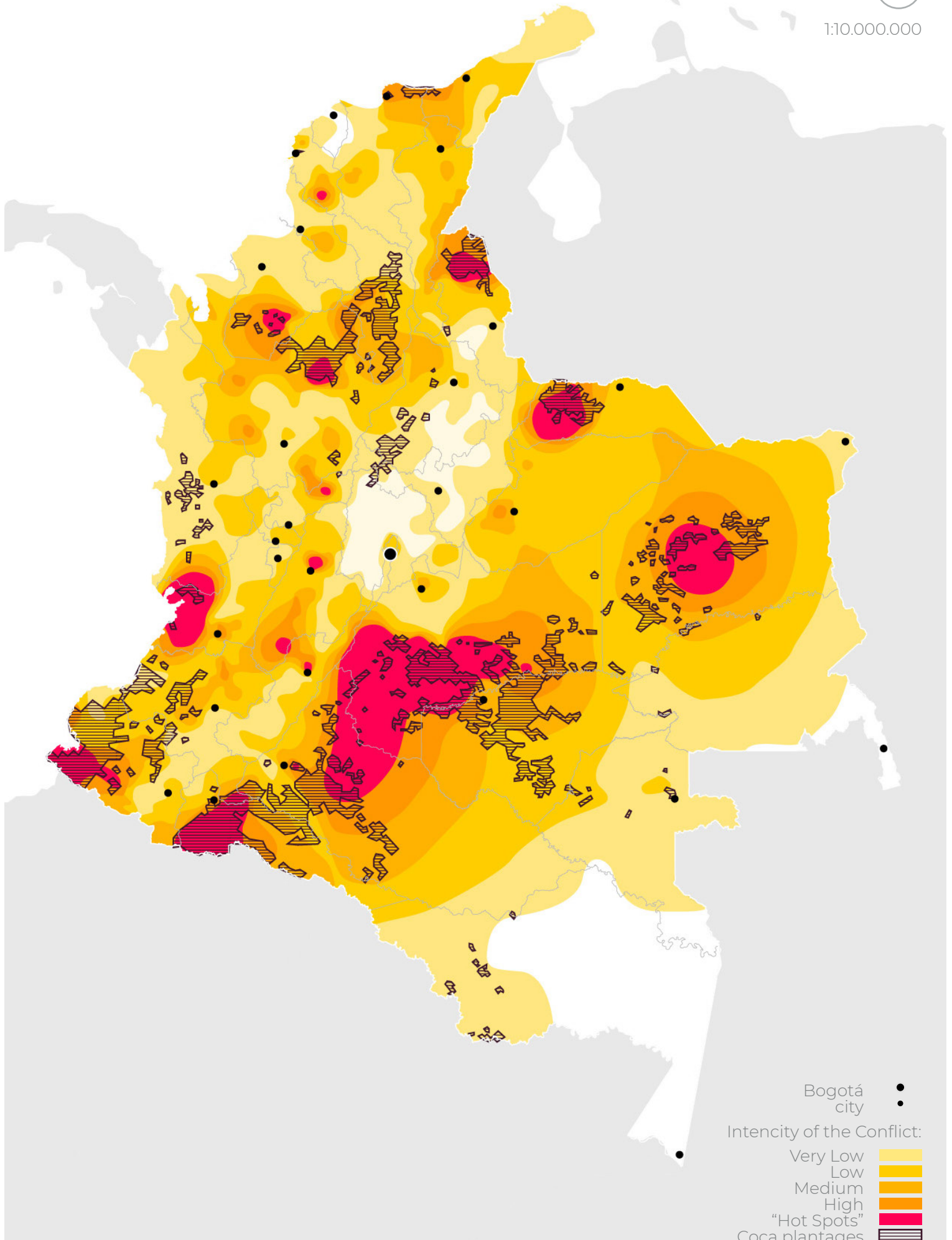
Made by Author

Map that shows in a heatmap the intensity of the internal conflict of the country and the location of coca plantages (partial estimate).





1:10.000.000



_FORCED DISPLACEMENT

The displacement of populations has been a social phenomenon present in the last 200 years of the country's history, resulting from complex processes of change in the country's structures that have determined the social, political, economic, and military trends by which communities have migrated (Ruiz R. 2010).

These processes have been experienced cyclically and have commonly been accompanied by increases in the intensity of armed conflicts and general violence, which have plunged the country into political, social, and economic instability (Ruiz R. 2010). Due to these cyclical processes fluctuating between the opposing poles of the traditional parties and the models of the country promoted by each, displacements have followed this same rhythm, repeating on different occasions but changing routes and directions with respect to the more favorable scenarios presented by each of the historical moments.

On several occasions, these migratory routes have led to medium and large cities. Generally, this route is influenced by pressures generated by the internal conflict, forcing populations to seek refuge in the central areas of the country where there is a greater presence of the armed forces and the state in general.

This is how Bogotá has experienced several waves of migrants from different areas of the country (and even from abroad) seeking asylum and refuge from the armed conflict.

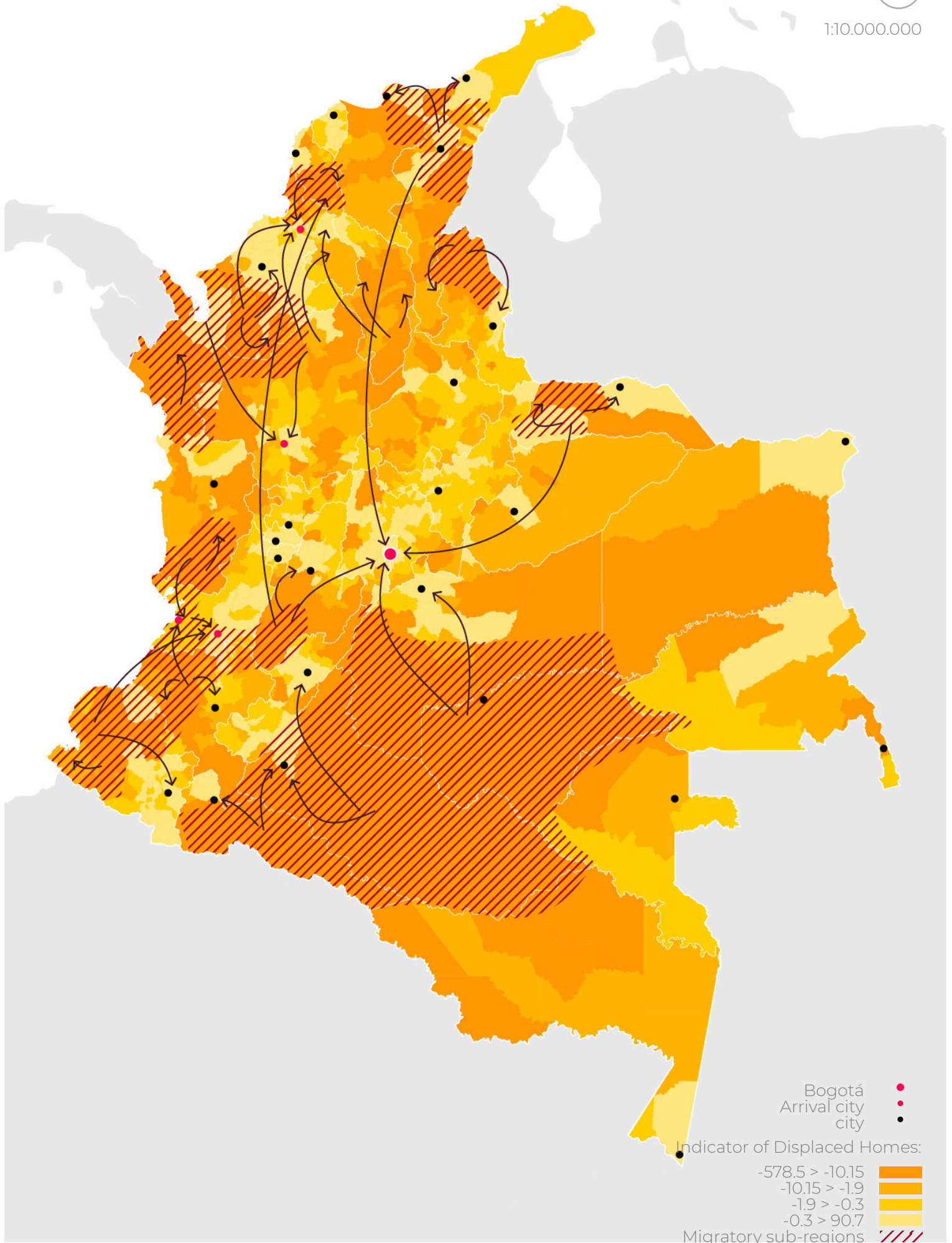
The wave of the 1960s was related to the rise of guerrillas, paramilitary groups, and drug trafficking, leaving the civilian population in the midst of a conflict that has not seen an end and putting the communities of these hot zones in a vulnerable condition.

Figure_21.
Made by Author

Map that shows the estimates of displaced people by the conflict.



1:10.000.000



Bogotá
Arrival city
city



Indicator of Displaced Homes:

-578.5 > -10.15
-10.15 > -1.9
-1.9 > -0.3
-0.3 > 90.7

Migratory sub-regions

_CONCLUSIONS It can be said that the implications of the armed conflict in Colombia have largely determined not only the way the countryside has developed but also strongly influenced the processes of growth and development of large cities like Bogotá.

The violence that has forced communities from different regions of the country has generated demographic explosions and urban expansions that have gone beyond all proportion with respect to the support systems and infrastructure that the city had for each of those moments. In many cases, as will be discussed in the next chapter, this has created deficits in public space, green areas, and has put a large part of the city's population at risk, exposing them to natural hazards and putting them in a state of precariousness and vulnerability to poverty by not being able to access services.

The communities that have arrived in Bogotá come from remote regions of the country, with cultural, ethnic, and even religious differences, representing the cultural and identity heritage of each of these regions and ethnic groups that could be included in the city's urban proposals to ensure their integration into Bogotá's social and urban dynamics.

Considering this richness in cultural and social diversity in the city's planning, as well as the places of origin and the environmental, spatial, and ecological conditions from which displaced communities have been uprooted, implies a change in perspective on how public space is consolidated and the city's relationship with ecosystems and main ecological structures.

_4. BOGOTÁ *a Fragmented city*

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Urban Morphology	094
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"Macondo was then a village of twenty houses of mud and *cañabrava* built on the banks of a river of diaphanous waters that rushed through a bed of polished stones, white and huge as prehistoric eggs.

The world was so recent that many things had no name, and to mention them, one had to point to them with one's finger.

Every year, in March, a family of ragged gypsies pitched their tent near the village, and with a great uproar of whistles and timpani they made known their new inventions".

"Macondo era entonces una aldea de veinte casas de barro y cañabrava construidas a la orilla de un río de aguas diáfanas que se precipitaban por un lecho de piedras pulidas, blancas y enormes como huevos prehistóricos.

El mundo era tan reciente, que muchas cosas carecían de nombre, y para mencionarlas había que señalarlas con el dedo. Todos los años, por el mes de marzo, una familia de gitanos desarrapados plantaba su carpa cerca de la aldea, y con grande alboroto de pitos y timbales daba a conocer los nuevos inventos."

Gabriel García Márquez_
Cien años de Soledad (1982)

_INTRODUCTION As the title indicates, this chapter is focused on exposing the dimensions in which Bogotá is fragmented. Maintaining the same framework and focusing mainly on the axis marked by a river in the north of Bogotá, I conduct an analysis through different themes within the social and environmental dimensions of the city.

The chapter is divided into two parts, according to the type of analysis conducted. The first part consists of a simple exposition of the physical elements that make up the analyzed urban fabric. In the second part, I conduct a quick diagnosis of the configuration of this space, considering the risks, concentrations, and indicators of public space, highlighting disparities and inherent problems in how this urban fabric is configured.

For this analysis, I used open data from the city of Bogotá, collecting and compiling a large series of state datasets and using GIS tools to recreate an accurate model of the city's reality.

Figure_22.
Made by Author

Map that shows the urban
structure of Bogotá



1:150.000



_GROWTH

Figure_21.

_22.

_23.

_24.

Made by Author

Illustration of the Growth
of Bogotá throughout the
20th century.

Almost a century after the city was
founded it had barely grown.
showing some signs of expansion to
the North.

_less than 100.00

_Chapinero.

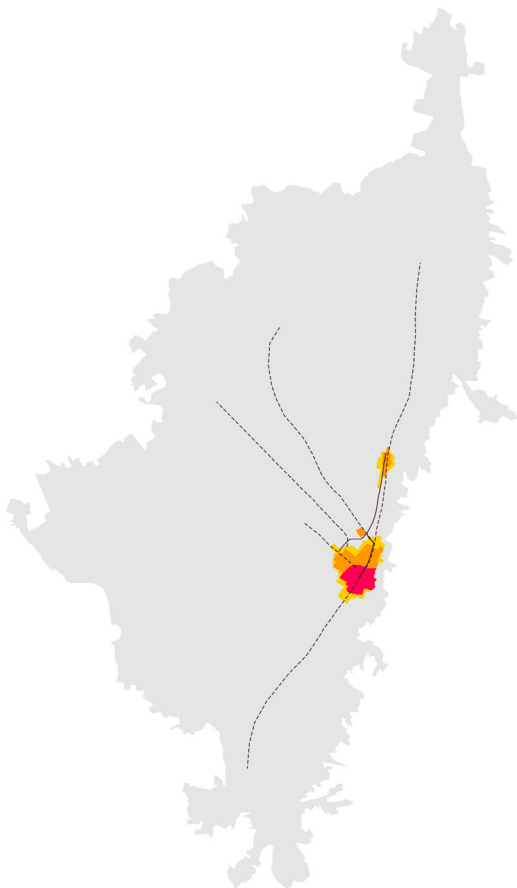
_Tram.

South neighborhoods were deemed
as working class and the high class
society moved up north away from the
decadent center.

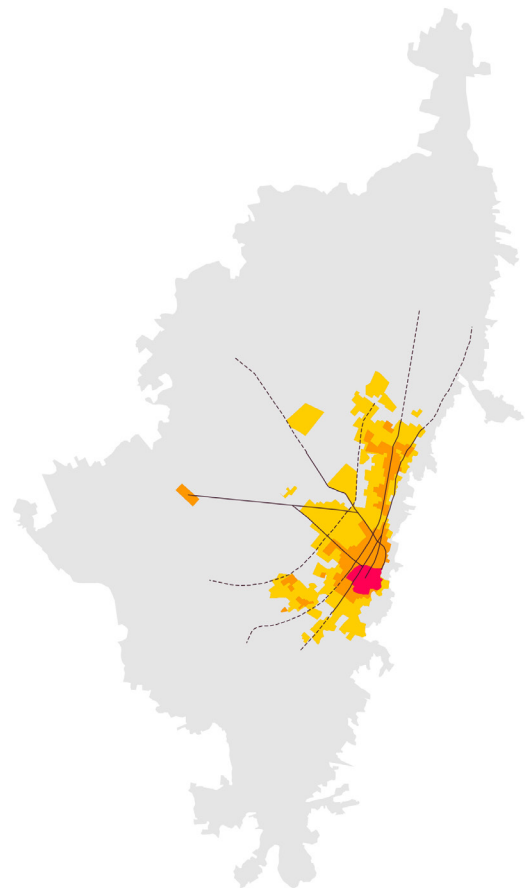
_Close to 300.000

_BOGOTAZO 1948

1910_

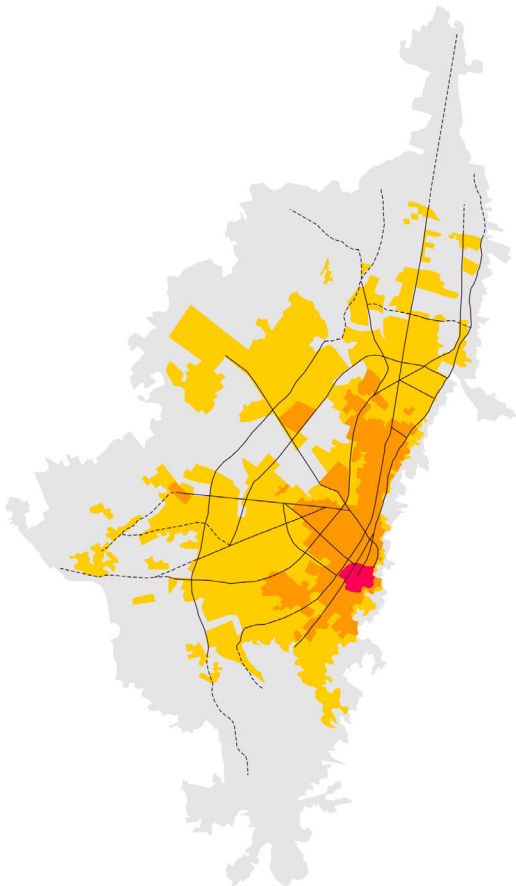


1940_



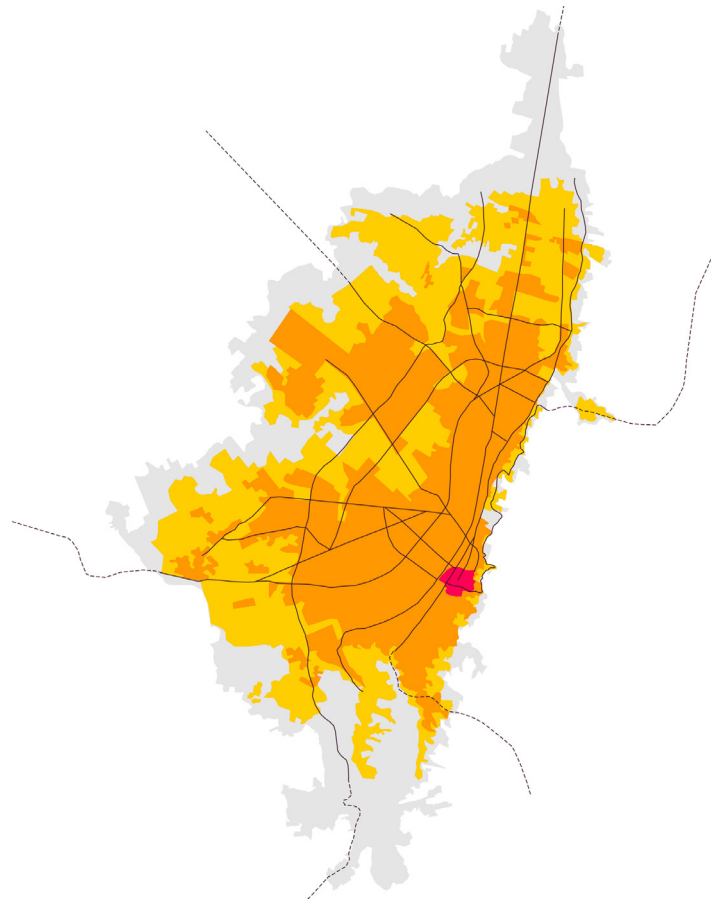
It had consolidated itself as the safe
city in Colombia
_ 3.500.000
_ Airport el Dorado + AV. 26

1970_



It had consolidated itself as the safe
city in Colombia
_ 8.000.000
_ 5 exits
_ No proper massive public transport

2000_



_UNDERLAYING LAYER Due to the pressures generated by this demographic explosion and the need to urbanize more areas and provide shelter to the new populations arriving, Bogotá grew to some extent, indifferent to the natural structure upon which it simply occupied land.

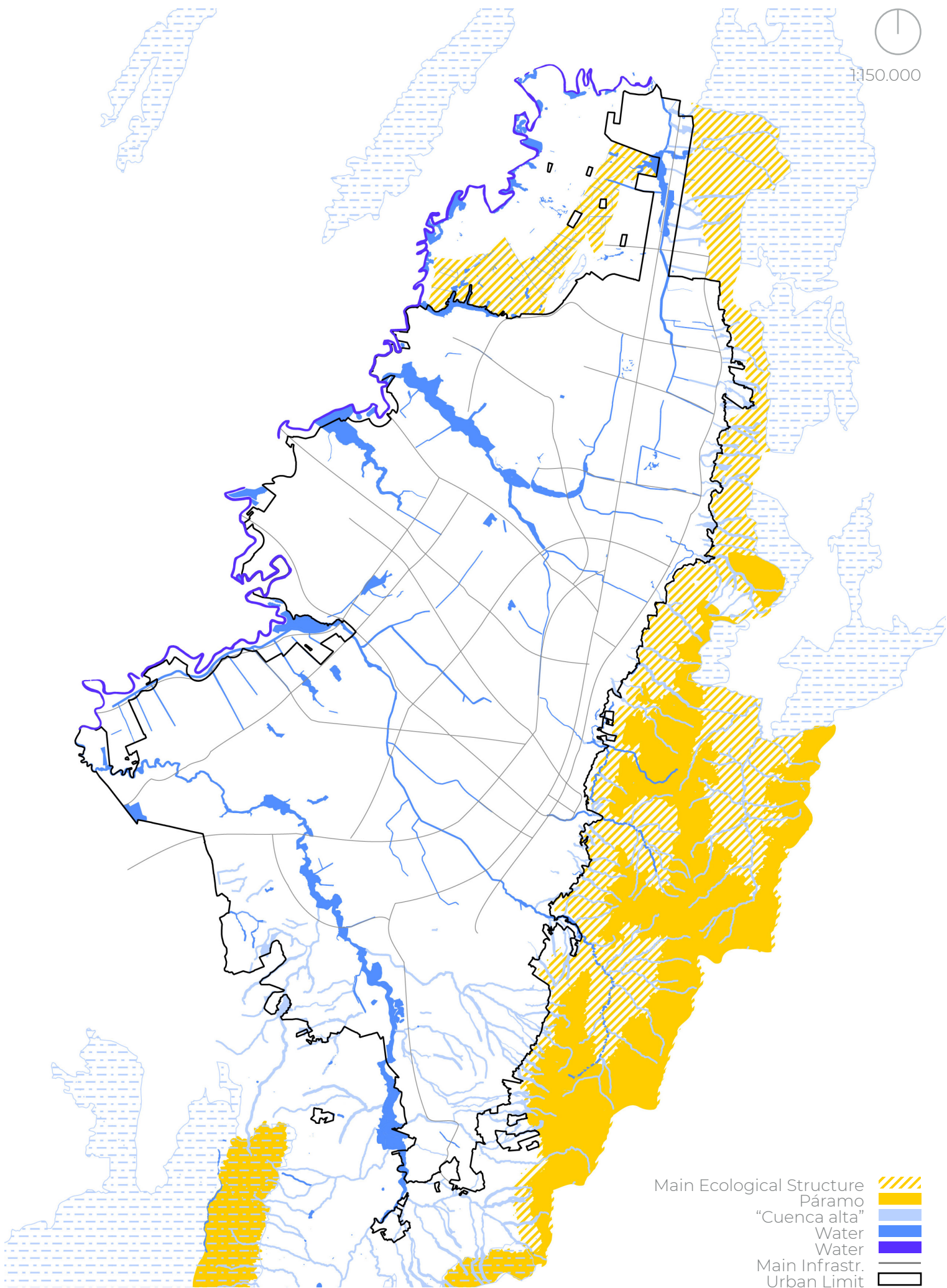
The location of Bogotá places it within a complex network of diverse ecosystems that interact with each other. The mountains, rivers, wetlands, and páramos (highland plateaus). All these bodies are part of a larger structure that shapes the upper basin of the Bogotá River. This structure, governed by the flow of water through different ecosystems, is not a static element but fluctuates and experiences moments of greater and lesser activity, generating dynamic structures with a certain degree of tolerance, resulting in expansion (overflow, water concentration, rainfall) and contraction (droughts).

Under normal conditions, this dynamic structure would be perceived as a complex network of streams and lagoons that appear and disappear, change course, and move freely across Bogotá's topography until reaching the Bogotá River on the western side of the city.

In contrast to the dynamism of the landscape, the urban fabric of Bogotá has developed as a static patch occupying the spaces of tolerance where rivers could have moved freely and channeling the flow of water, concentrating lagoons in certain specific places. This has been taken to such an extreme that from the point where the city begins, on the edge of the hills, to the point where it ends at the river, that underlying backbone, which follows an organic pattern in space, has been completely lost and naively erased, with the purpose of optimizing space usage and the efficiency of the fabric, but without considering the fluctuations and, consequently, significantly reducing its capacity.

Figure_25.
Made by Author

Map that shows the spatial layout of the ecological structures of Bogotá



_ARRIVAL CITY

The populations that arrived in Bogotá during the different waves of migration ended up consolidating new urban growth and expansions, comprised of threatened communities in states of vulnerability due to social reasons and internal conflict. They settled in large patches of informal settlements, encroaching on the lands adjacent to the urban center, and gradually became integrated into the urban fabric.

However, despite this, the communities that arrived in Bogotá experienced strong displacement and little representation in the cities. They were subject to social segregation and faced difficulties accessing basic services and participating in the social dynamics of the city.

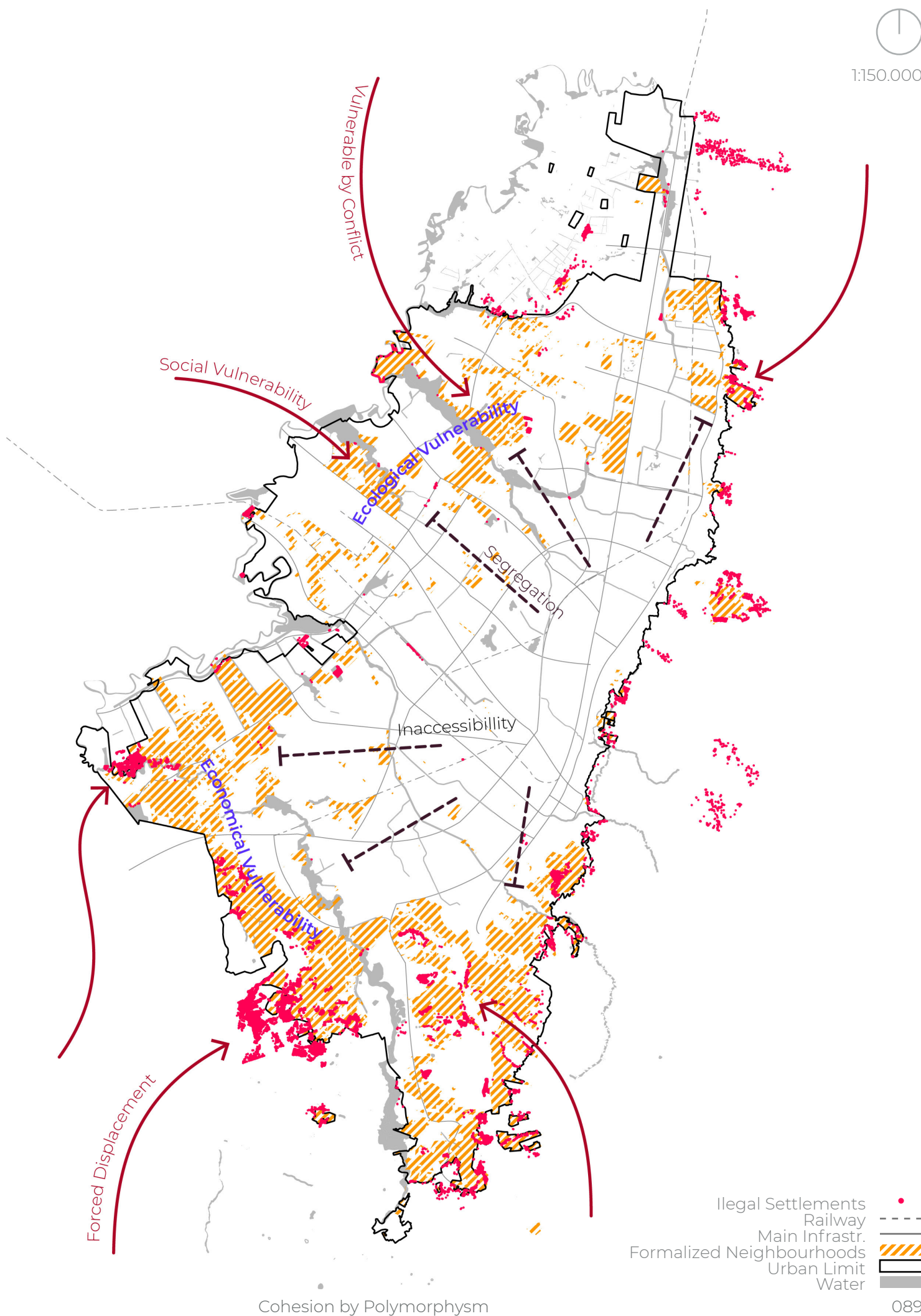
Figure_26.

Made by Author

Map that illustrates the arrival of displaced communities to Bogotá and the localization of illegal settlements and formalized neighborhoods.



1:150.000



_ADMINISTRATIVE STRUCTURE

The administration and management of Bogotá is no easy task. It requires a complex structure of institutions and departments, where different tasks and responsibilities are delegated and categorized according to the main themes that govern the urban space.

It can be differentiated into two levels with the objective of managing the city's public and natural spaces and what is done with them. In general, the entire structure has a clear hierarchy that starts with the mayor's office, which gathers and coordinates the actions of the district secretariats, the main entities within the management of Bogotá's functioning.

Under the authority of these secretariats are located the institutions, companies, and other departments that act directly on the city. For example, there is the Environment Secretariat, which regulates the functions and processes carried out by the city's water company and all those processes that affect natural bodies and ecosystems. The same occurs with the District Secretariat of Transportation and the Transmilenio company.

Each of the secretariats branches out into a range of departments and institutes that are responsible for specific aspects within the general field. Communication between secretariats is essential, as it allows for the coordination of processes between them and the implementation of projects.

The second level is a more representative level where the local administrations of each of the localities are found. These are responsible for mediating between the secretariats (and the mayor's office of Bogotá) and the communities and social groups residing there. They are responsible for ensuring that regulations are complied with, rather than imposing new regulations.

This hierarchical structure is shared in a top-down manner, where the main regulations and projects of the city are issued from the higher levels through legal documents such

as the POT (Territorial Ordering Plan) and structural plans, which are then applied and unilaterally imposed by the municipality.

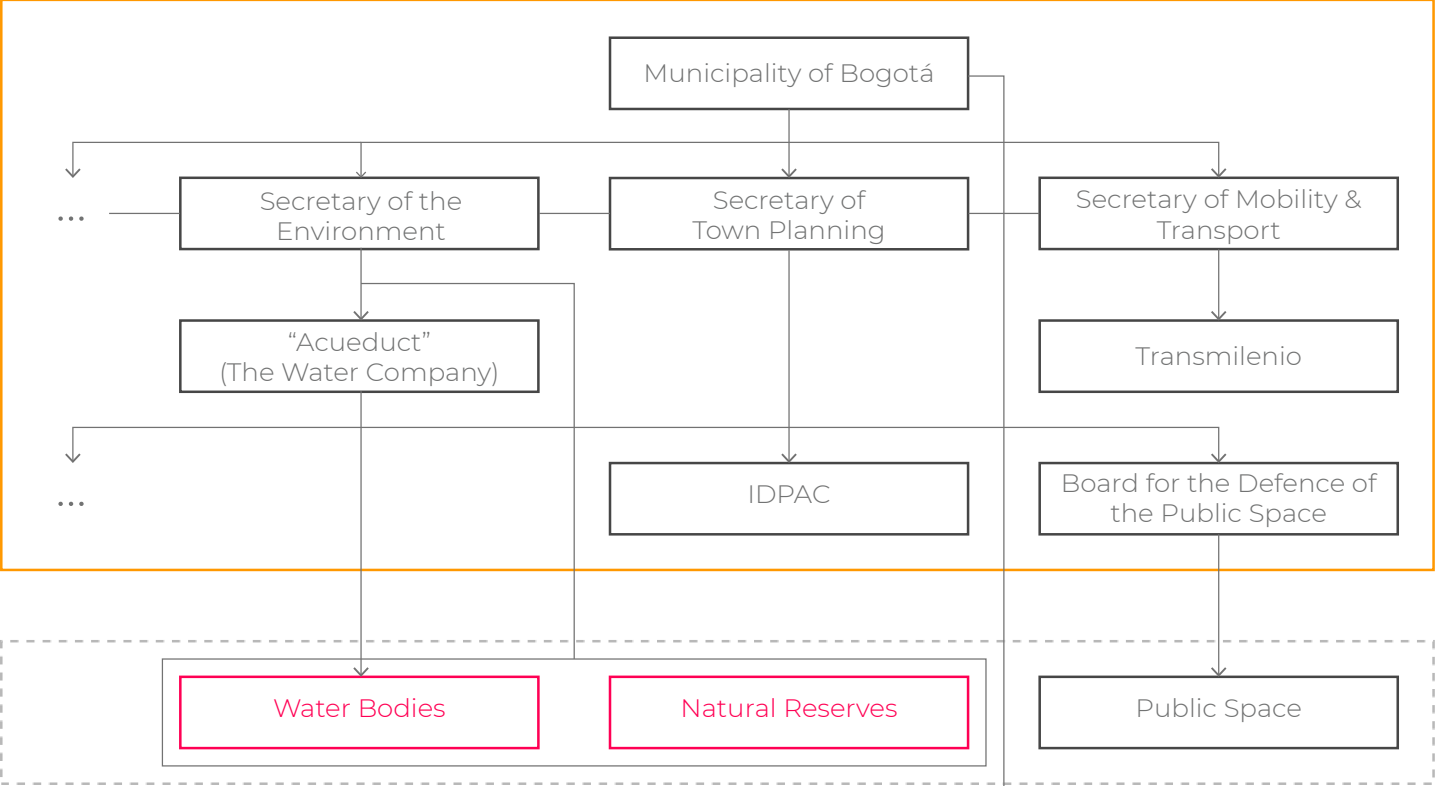
In recent years, new administration strategies have been developed that allow communities in different localities to have greater agency over their own spaces. These are called communal budgets and are intended to finance projects that arise from the community itself. Although they have limited implications for the city and its future plans, they are a good tool that allows communities to act on their local spaces.

Figure_27.

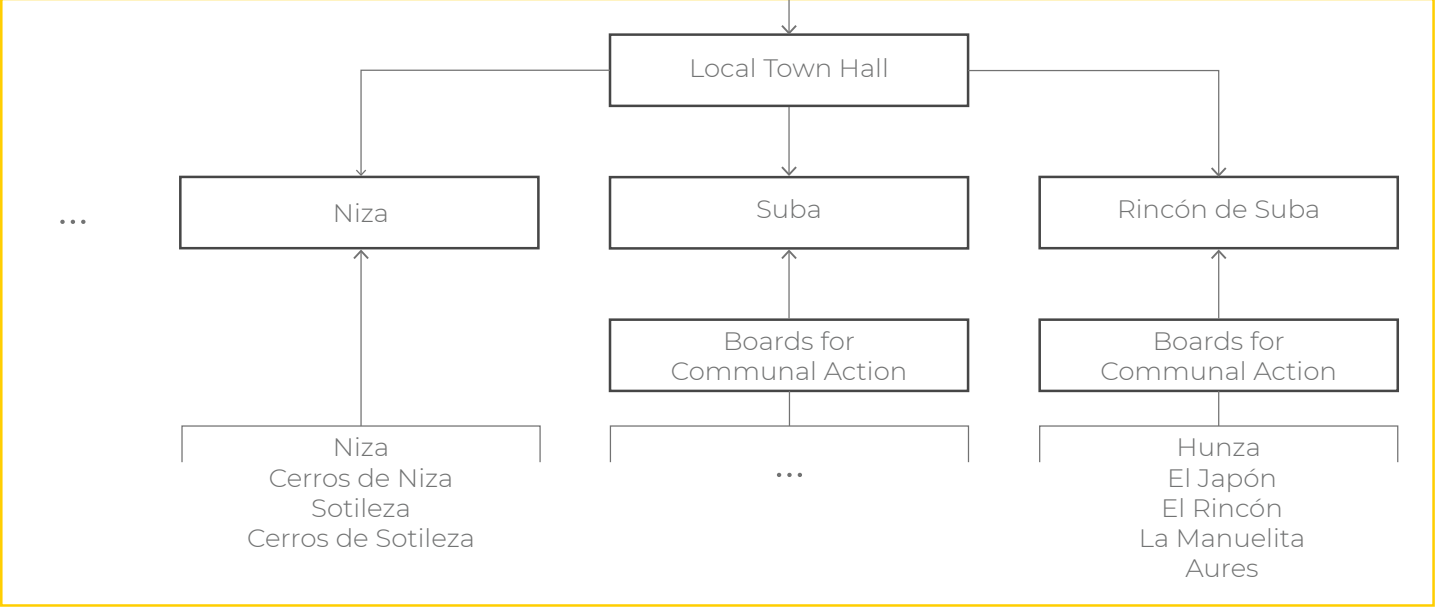
Made by Author

Diagram that summarizes the Administrative infrastructure of Bogotá and the hierarchy between departments and secretaries

Municipality Administrative Structure



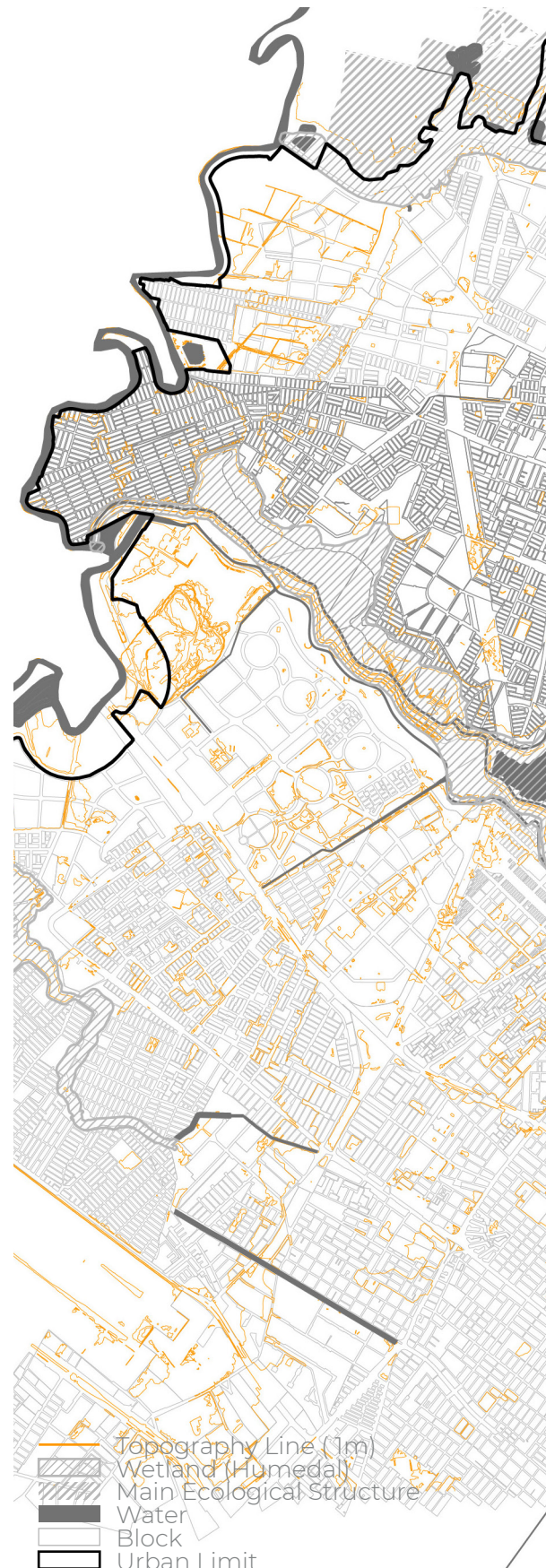
Local Administrative Structure



COMPLEX TOPOGRAPHY

The topography is complex in nature, with a mountain slope limiting the city's growth on its eastern side and forcing the city to expand on its other fronts. Historically, the city expanded in a north-south direction, following the direction of the hills, but in the second half of the 20th century, the city also expanded westward, eventually reaching the Bogotá River and occupying the entire plateau on which it is located.

In the sector where this thesis is located, there are also the Suba hills, which form a natural barrier between the formal city and the informal city on both sides of the mountain, respectively. This greatly hinders the connection between the two, forcing the city's road network to circumvent them. Additionally, upscale urban developments have been built on the hills, replicating the morphologies found on the eastern hills and creating an interesting border where social disparity and differentiation between social classes on both sides of the mountain are extreme.



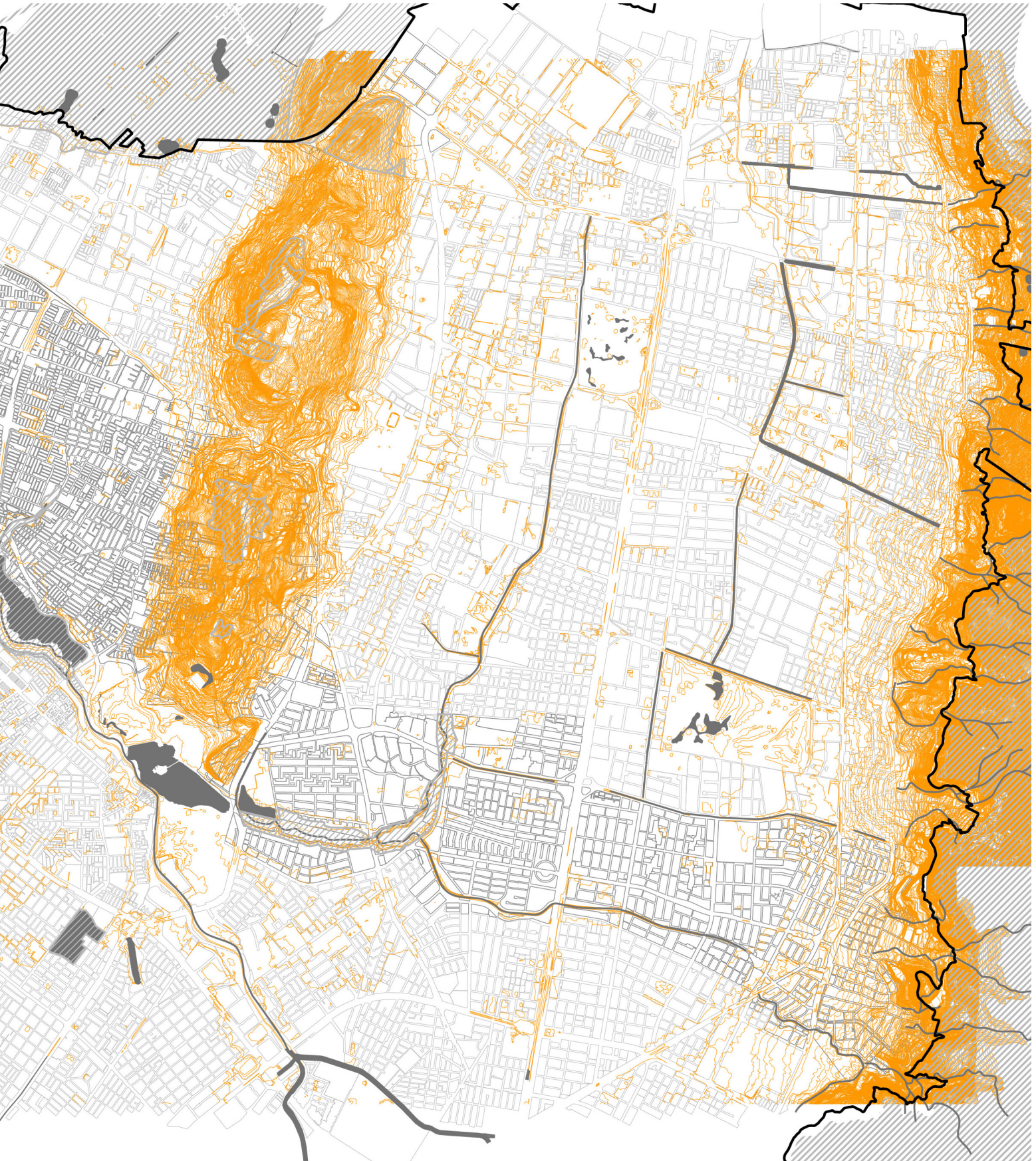
Figure_28.

Made by Author

Map that shows the topography of Bogotá.



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_URBAN MORPHOLOGY

PATCHES

The urban morphology of Bogotá is a clear example of the growth processes that took place in different sectors of the city. Within the same fabric, different urban patterns can be observed that respond to these processes and, in most cases, operate independently of each other, with the road network often defining the boundaries between the different patches rather than acting as a connector between sectors.

Several types of patches evident in the city form urban mosaics that, rather than relating to the surrounding landscape and being coherent with the topography and the underlying natural backbone of the environment, seek to occupy space efficiently and maximize every available plot of land for urbanization, without adapting to or leaving space for natural dynamics.

The resulting grids are extremely rigid fabrics that follow imposed logics, such as historical typologies, where the logic of the Roman grid was strictly followed without much consideration for the surrounding landscape. From there, a more or less regular grid was developed, which became the norm and formed half of the formal city. In certain cases, modern urban developments introduced variations in the regular grid design, creating more interesting internal routes and special patterns that are not repeated within the city, but along the edges of the specific project, they eventually conform again to the strict grid.

On the other side (towards the west and closer to the river), in what would be the informal city, the logic of the patterns responds more to the indiscriminate occupation of land rather than clear regulations. The first instances of the informal city exhibit chaotic patterns that resemble a labyrinthine development, where there is no specific cardinal order, and growth follows other logics more based on grouping bodies than on directional orientation. At some point, illegal urbanization becomes a

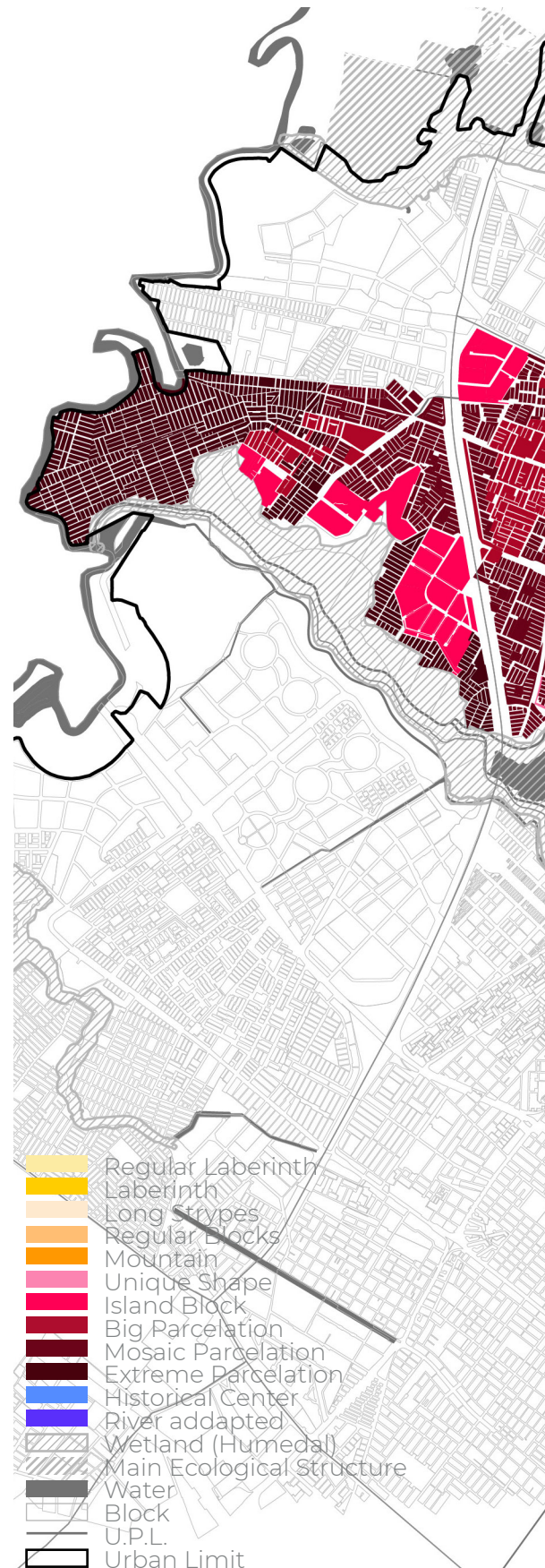
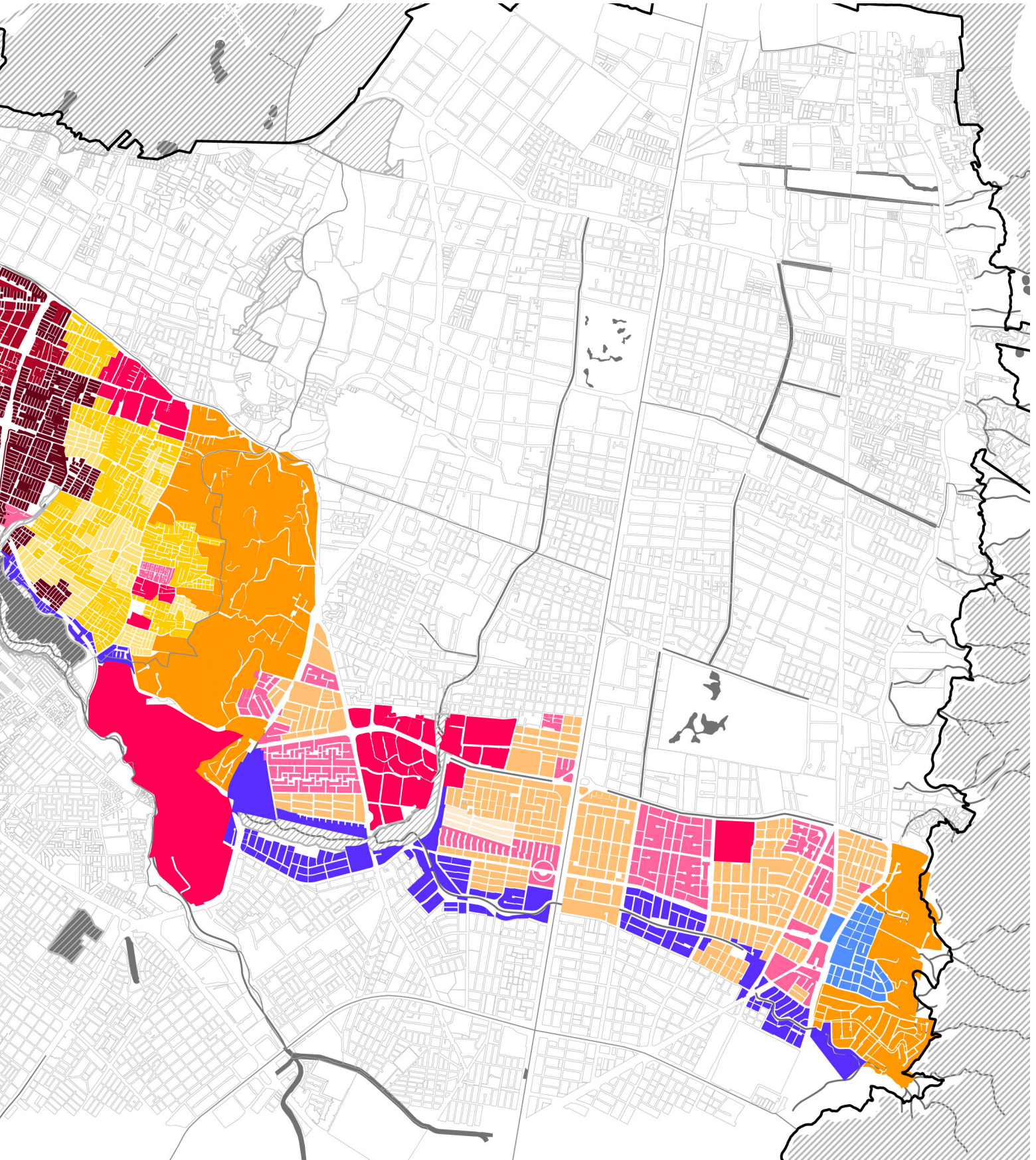


Figure 29.
Made by Author

Map that identifies the different block typologies of this part of the city



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business model for illegal developers, and the phenomenon of land parceling occurs, resulting in large expanses of land where the same pattern is densely repeated, seeking to generate the highest number of blocks possible for sale and production. This leads to repetitive and uninteresting patterns, where density increases extensively but without creating any meaningful pathways or considering recreational spaces or necessary basic services.

TYOLOGIES

Within the urban patches I identified earlier, I differentiated 12 block typologies. Just as the patches that make up the agglomeration of these typologies, each responds to a different logic within the urbanization process and has different implications for the urban fabric, generating in the patches different values and vulnerabilities.

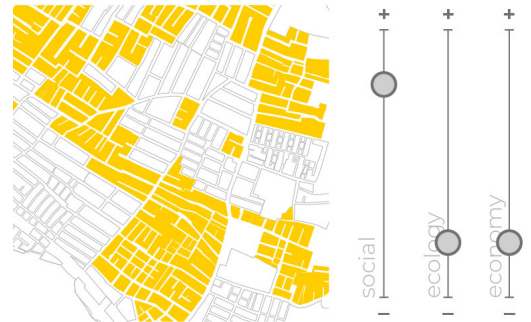
For each of the typologies, I conducted an assessment based on three criteria: 1. Social: This criterion considers the intrinsic richness of the population in terms of diversity, density, and the community value generated by the types of blocks. 2. Ecological: This criterion evaluates the implementation of the blocks with respect to the natural environment and the inclusion of green spaces within the structures, considering people's use of green spaces. 3. Economic: Based on a general estimate, the economic value and investment required for the development of the different typologies are evaluated.

This catalog of typologies serves as a baseline reference for analyzing the continuity of the urban fabric throughout the rest of the analysis and providing a physical reference, based on the morphology of each sector, to subsequently identify strengths and vulnerabilities with respect to morphology.



ORGANIZED LABYRINTH

This typology marks a transition point between the labyrinthine and the surrounding ones, with lower density and easier navigation.



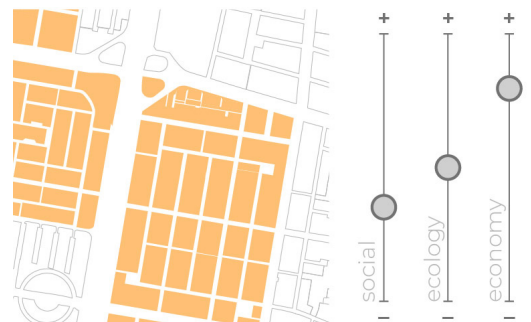
LABYRINTH

The labyrinthine typology is based on chaotic organization with intricate dead-end alleys and dense occupancy.



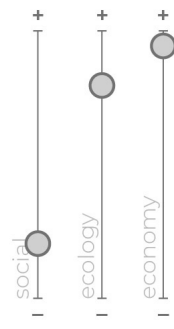
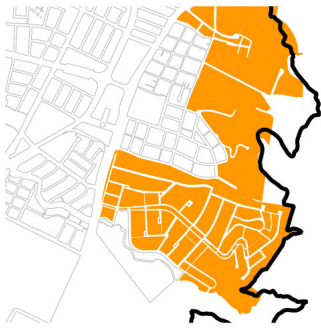
LONG BLOCKS

This alteration of the block typology occurs only once and generates a unidirectional space flowing in two directions.



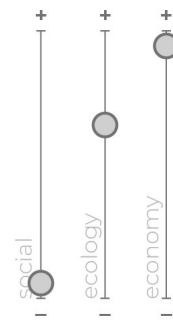
BLOCKS

The block is perhaps the standard typology, where density occurs vertically and the inclusion of public space is purely regulatory.



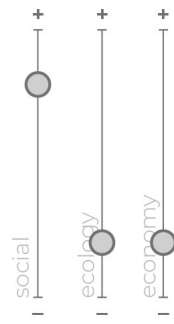
MOUNTAIN

This typology represents a population with economic capacity that can afford the intrinsic ecological value of this location.



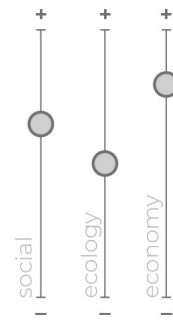
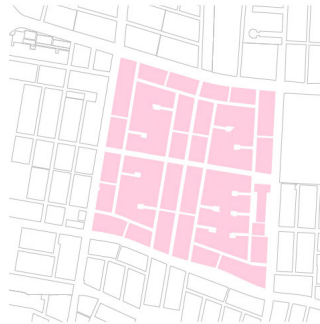
ISLANDS

The islands are large, enclosed elements that function independently of the rest of the city and are scattered throughout the fabric.



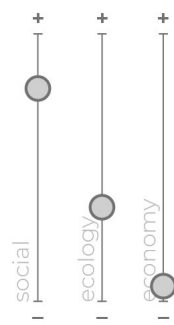
BIG PARCELATION

The Big Parcelation follows the urbanization patterns of territory parceling, but with larger block units than normal.



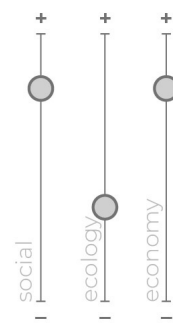
SPECIAL CONFIGURATION

The islands are large, enclosed elements that function independently of the rest of the city and are scattered throughout the fabric.



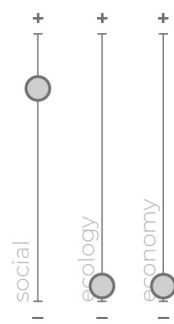
MOSAIC PARCELATION

The Mosaic Parcelation is interesting because, despite parceling the land, it maintains a particular pattern that leaves open spaces for recreation.



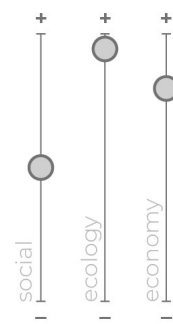
HISTORICAL

This typology corresponds to colonial urban centers, has social value in historical terms, and is often elements of conservation.



EXTREME PARCELATION

Extreme parcelation is the densest form of urbanization, barely considering streets as free space and with extreme population density.



RIVER

Along with the mountain typology, this is one of the only typologies that adapts to ecological structures.

_CONNECTIVITY

The city's connectivity is determined by two main factors: the continuity of public space and the transportation network. Under these two factors, what I am trying to determine is the ability to move and relate between different sectors of the city. Open city sectors and redundant structures will have greater mobility than closed structures or those that behave as edges, creating obstacles and dead ends within the city's mobility structure.

In this sense, all typologies respond differently, configuring movement patterns between blocks differently. In the case of the Mountain typology blocks, they tend to form an edge, along which connectivity is only possible in one direction (generally parallel to it) but not through it.

In the specific case of El Rincón de Suba, connectivity with the rest of the city is conditioned by three important edges that limit the relationship this sector has with its surrounding areas, boxing it in and containing it within its internal space.

To the east, the Suba hills form a natural barrier that closes completely with the Mountain typology,, interrupting connectivity to the formal city.

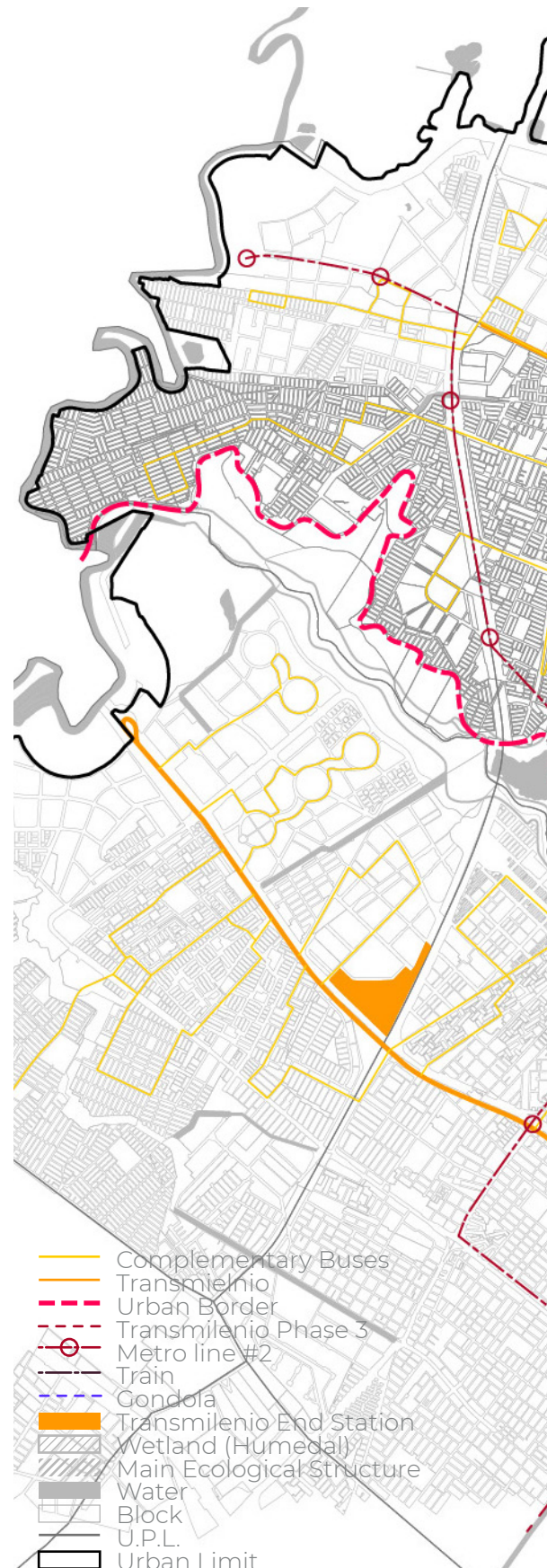
Similarly, on the southern side, the Juan Amarillo wetland extends along the entire edge and until it flows into the Bogotá River, completely separating the sectors on both sides.

At the tip between the wetland and the Suba hills is the Los Lagartos social club, which, being such a large body, completely closes the space between both edges. It blocks what would be the only possible connection with the western part of the city.

This conditions and concentrates the mobility of the sector on three key corridors. The main of these corridors, Avenida Suba, is the only one with mass public transportation that connects to the center and west of the city, forcing people to detour around the Suba hills and arrive from the north, and then travel by bus routes towards the interior of the UPL.

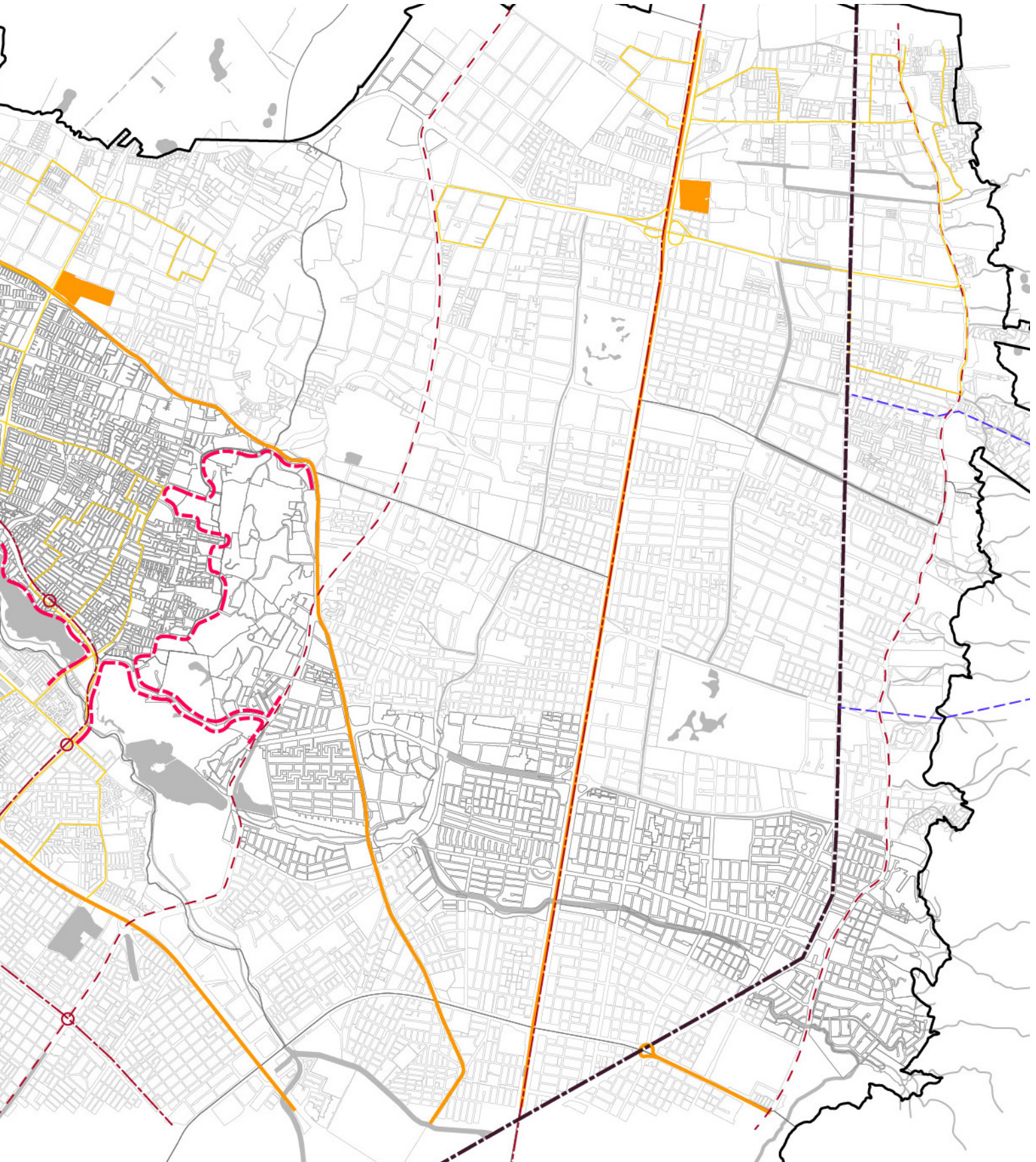
Figure_30.
Made by Author

Map that shows the Public transport network and the existent Borders around El Rincón de Suba.





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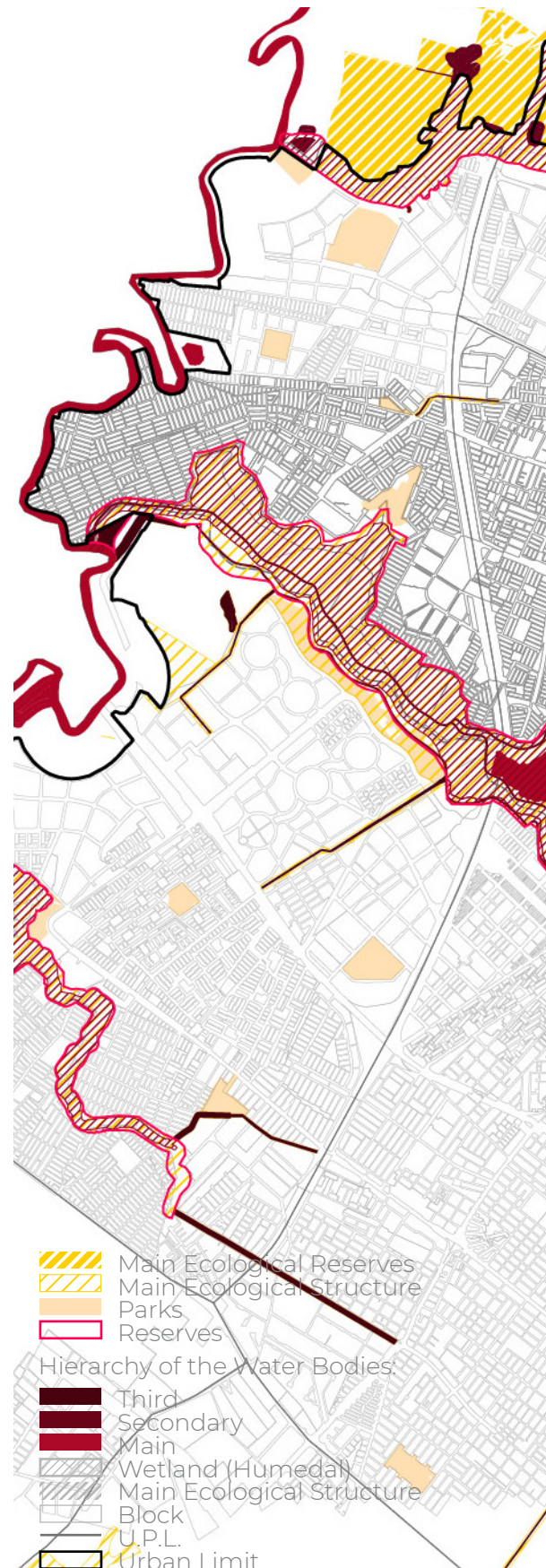
_ ECOLOGICAL BACKBONE

FRAGMENTED STRUCTURE

Just like in the other topics analyzed so far, ecological structures appear to be fragmented, disconnected from each other. What should ideally remain continuous as a spatial element within the urban fabric is now a series of disconnected elements linked by channelized rivers that function as drainage systems within the city.

In Bogotá, the ecological structure is defined by the eastern hills, which set the direction followed by the rest of the natural bodies through the flow of water, descending from the mountains and traversing the city to end up in the Bogotá River on the western side.

The wetlands, once perceived as green islands, have gradually been encroached upon by the city's incremental growth and waves of invasion seeking available space. Nowadays, they have been fenced off to prevent occupation of these areas, but in doing so, the relationships and dynamics between these natural spaces and the communities residing nearby have been severed.

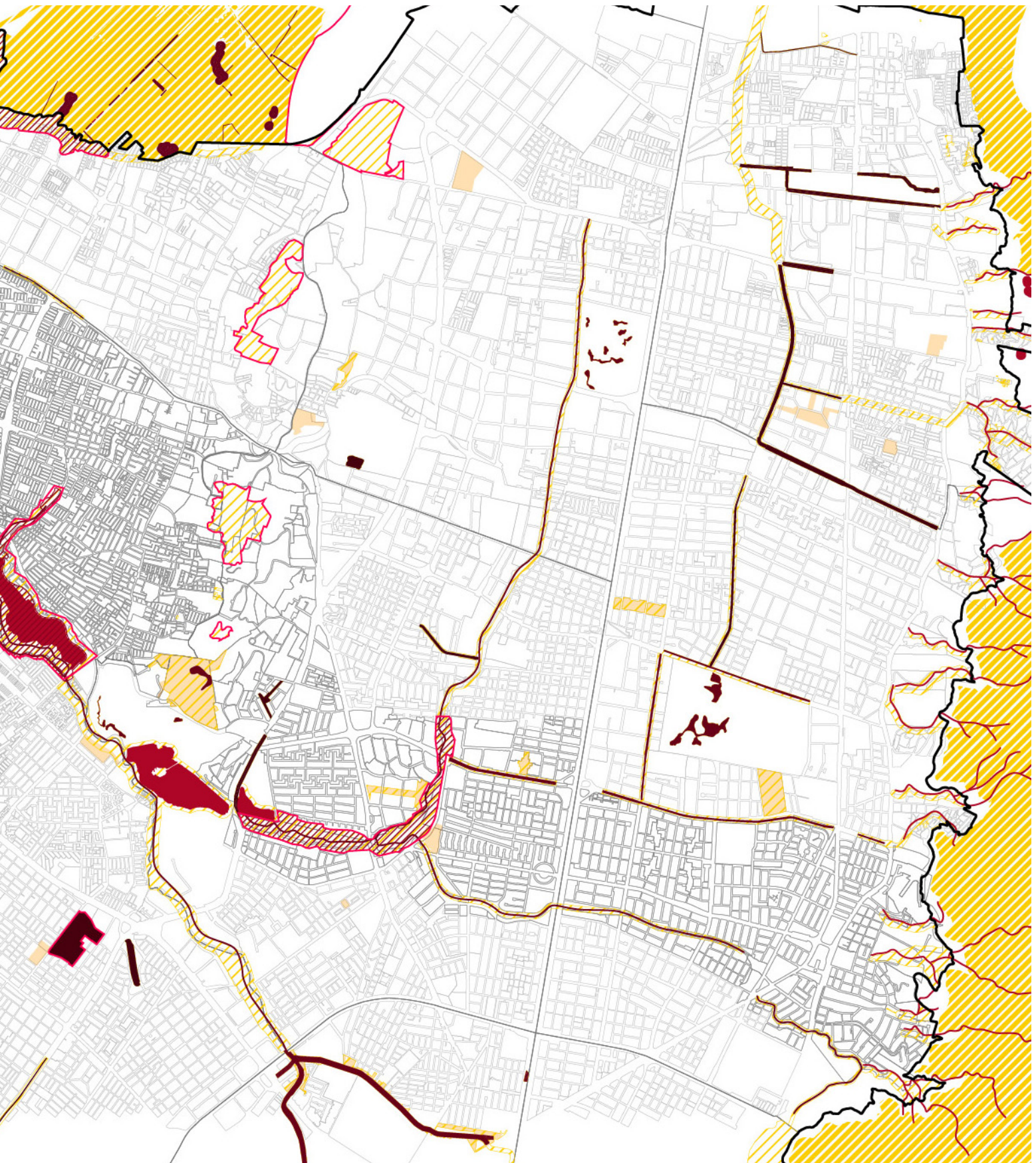


Figure_31.
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Map that shows the Ecological structure of the city.



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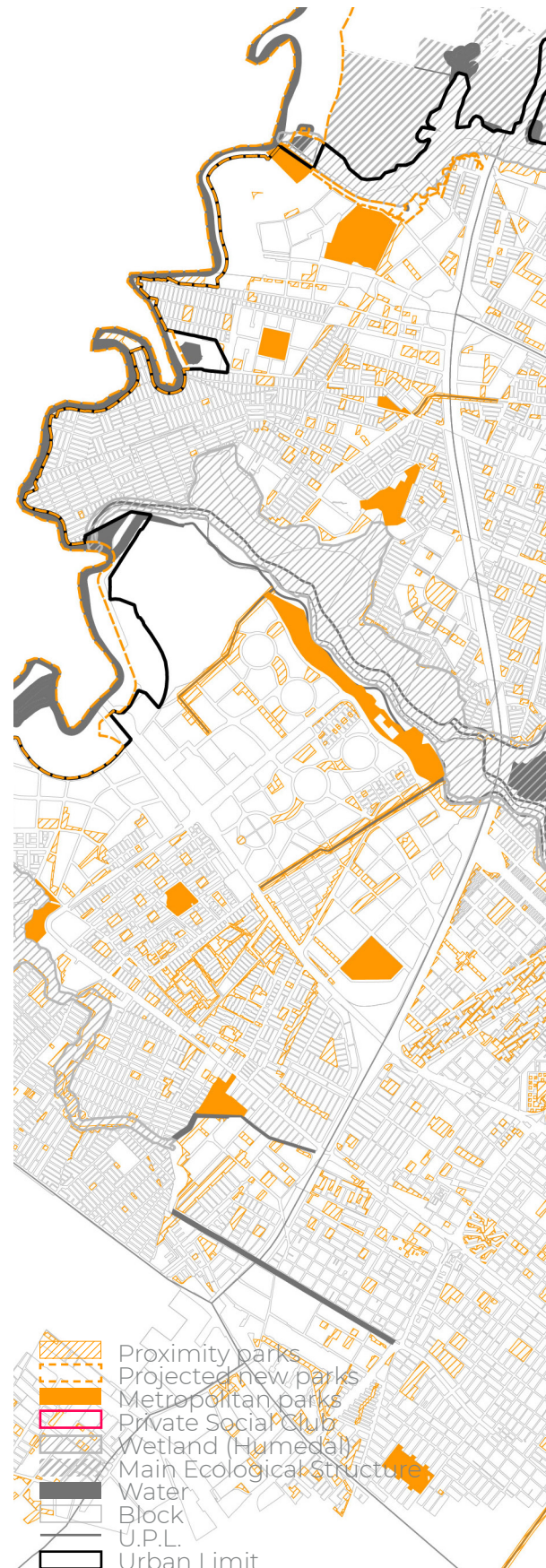


GREEN SPACES

The urban park structure of the city does little to alleviate the fragmentation of the ecological structure. It, too, is fragmented and relatively small in number and size compared to the total population of the city.

Since the metropolitan parks do not meet the indicators for green space per inhabitant, the district has resorted to developing strategies to promote the use of areas defined in urban regulations as proximity areas. These are green patches between buildings in the city that have gradually been adapted to create pocket parks. These parks complement the scarce network of metropolitan parks in Bogotá. The goal of these pocket parks is to provide nearby communities with green spaces, so that the city's population does not have to travel far to find them, nor do they need to rely solely on metropolitan parks. However, the quality of these areas is often lacking; they typically consist of grass patches with a couple of pedestrian paths and sparse trees, lacking urban furniture or recreational amenities.

The scarcity of these structures sharply contrasts with social clubs, which behave within the urban fabric as private parks. Many times, they are of similar scale to metropolitan parks but are accessible only to a few thousand people, if not fewer.

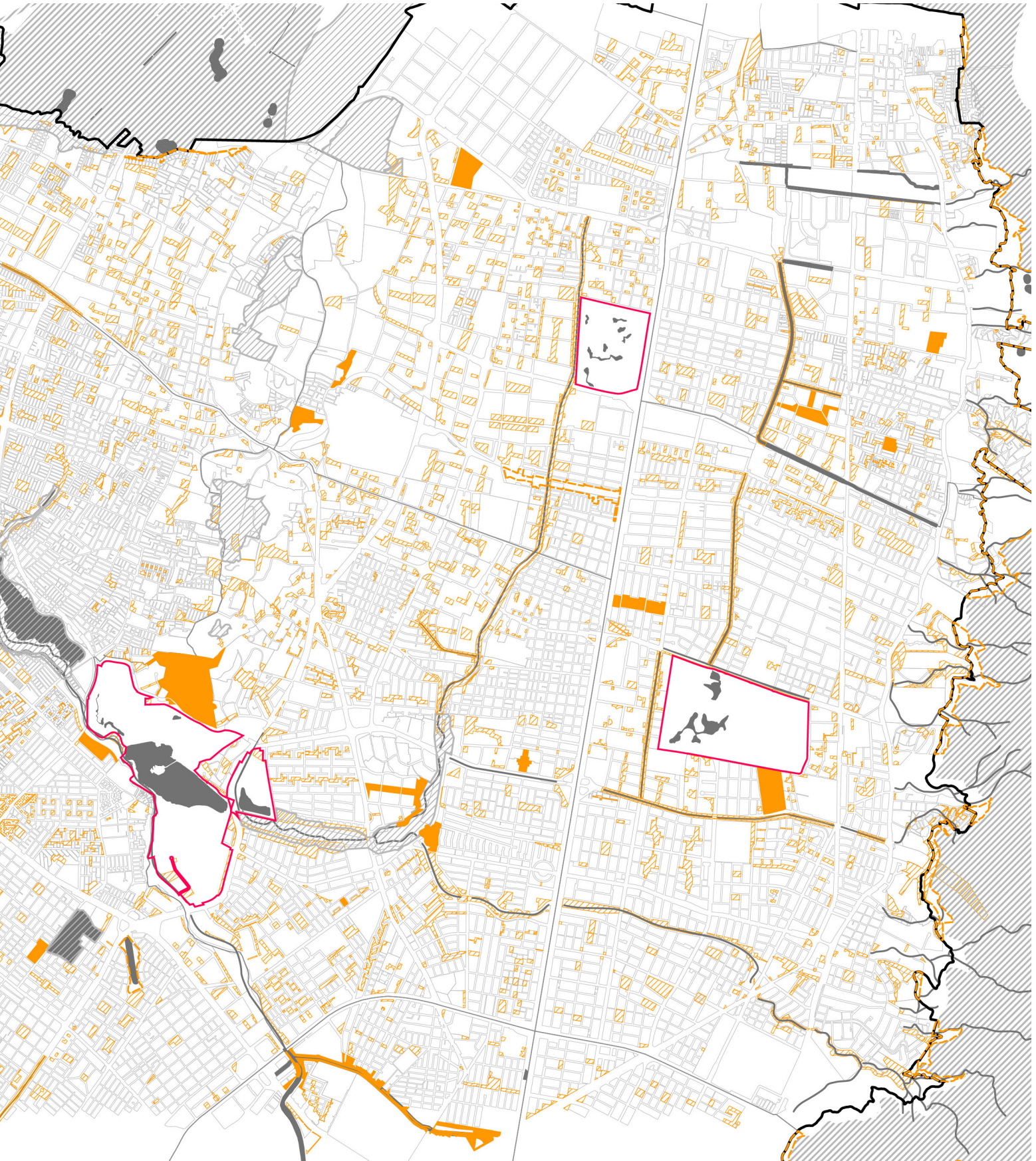


Figure_32.
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Map that shows the Green spaces of this part of Bogotá.



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QUALITIES OF GREEN

Just as I did with the block typologies, I have evaluated the natural structures, aiming to determine the value of each of them in relation to their quality and the ecological services they provide to the city.

To do this, I considered two essential factors that determine the quality of the space/ecosystem: 1. Biodiversity, measured by the number of species, both fauna and flora, that could be found in these areas; and 2. The ecological services they provide to the city.



ECOLOGICAL STRUCTURE

Clearly, the main ecological structures are of utmost importance for the city and largely determine the ecological condition of the entire area. They must be protected at all costs.



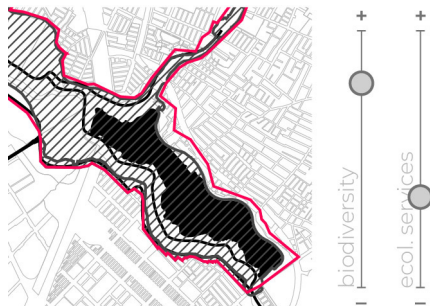
PROXIMITY PARK

Proximity parks solve an essential problem in the city, providing greater coverage within the urban area, but they are also precarious spaces with no real ecological value.



URBAN PARK

Metropolitan parks are structures that could complement the main ecological structures to some extent. They are usually designed spaces with reduced biodiversity.



NATURAL RESERVE

Natural reserves are the green hearts of the city and oases of biodiversity within the urban fabric. However, due to their risk status, they have been completely isolated from urban dynamics.



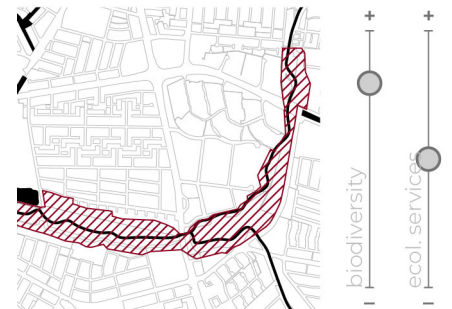
BOGOTÁ RIVER

The Bogotá River is the other main structure that defines the city's shape. Nowadays, it is in a state of total collapse as it collects all the sewage from the city. It is in the process of being restored.



LAKES

Lakes are elements that have mostly been privatized or isolated from the city, but they are of utmost importance for the infiltration and accumulation of rainwater within the city.



WETLANDS (HUMEDAL)

Wetlands are ecological structures similar to marshy areas with a high variety of unique species that inhabit them, and they also perform important ecological functions.



CANALIZED RIVER

Today, all the rivers flowing down from the mountains have been either canalized or buried, following the road network and restricting the flow of water to a confined space. They are used as drains.

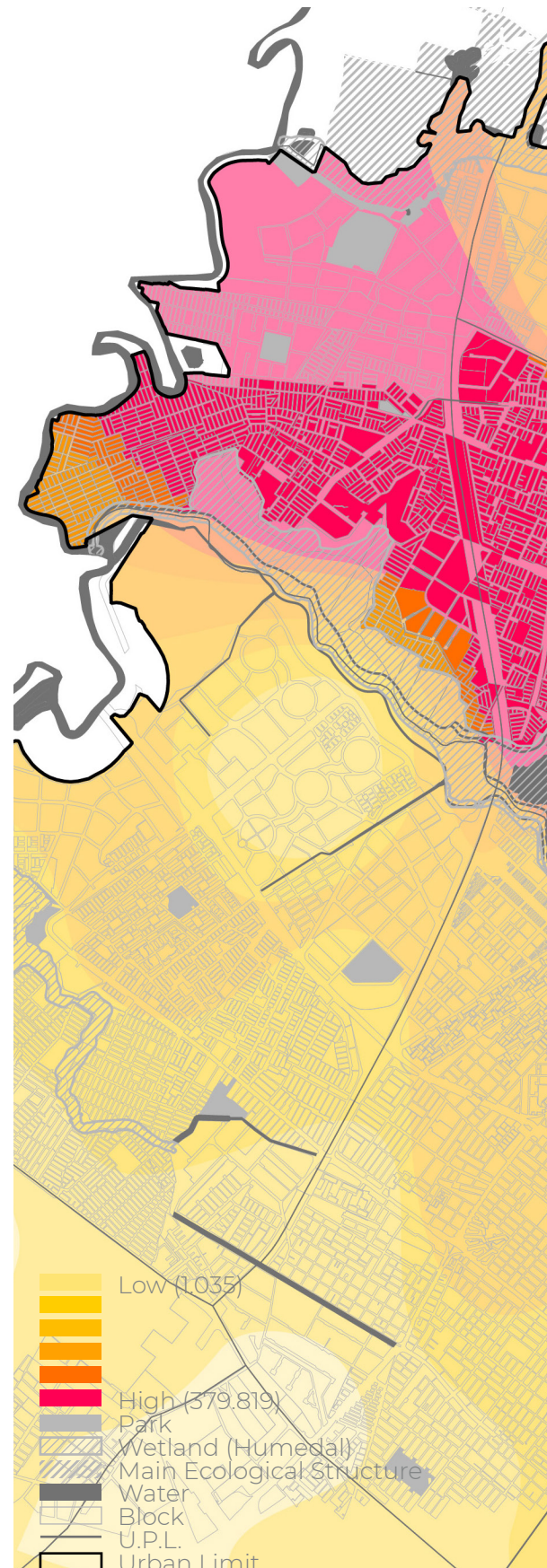
_DIAGNOSTICS

DENSITY

The city's density indicates an unequal distribution of urban space among communities, where people with fewer economic resources are concentrated in overcrowded conditions in small sectors of the city.

Suba is the locality with the highest total population. In 2022, it recorded a total of 1,270,000 people, which currently represents 15.9% of the total population of the city ("Bogotá cómo vamos" 2022).

It is also important to highlight how this population is concentrated, mainly in one corner of the city and contained by the natural structures that enclose the locality.

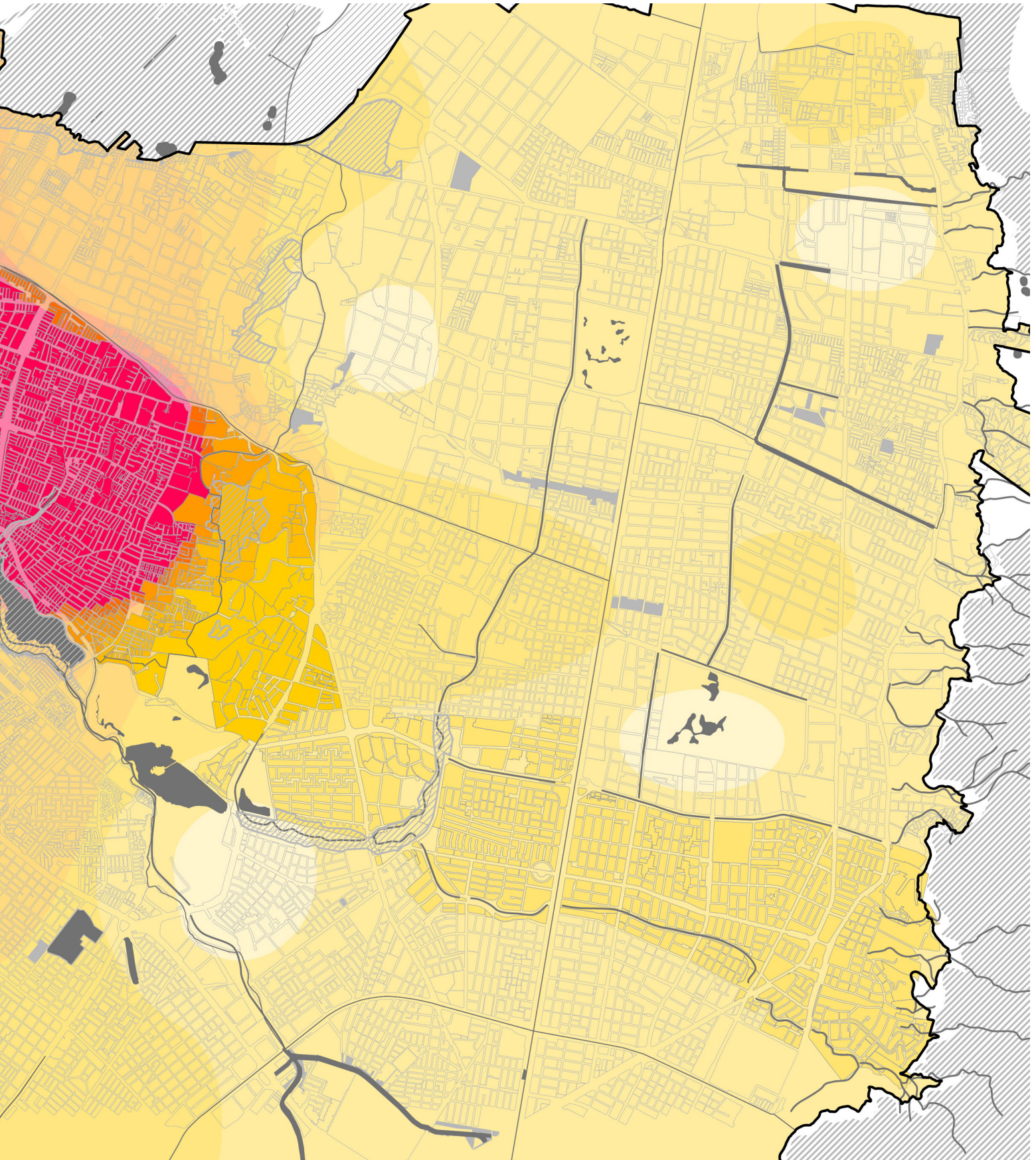


Figure_33.
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Map that shows Density
making use of a heatmap
type of representation



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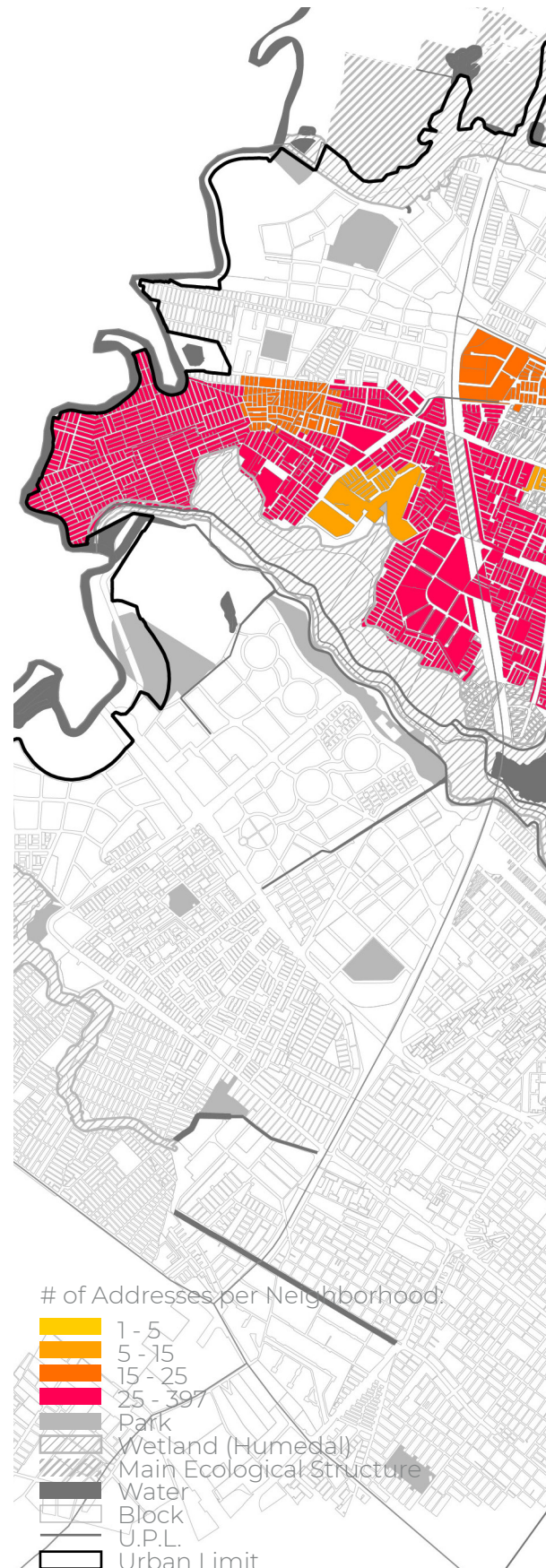


CONCENTRATIONS OF COMMUNITIES

Considering this total population of the city, it is worth asking whether it has any relation to the migrants displaced by the conflict, as it could be an isolated phenomenon unrelated to it.

In this case, it does. The UARIV, the institution responsible for registering conflict victims and corresponding statistics, maintains a detailed record of displaced families and where they currently reside.

In this map, you can see the blocks that house the highest concentration of displaced families, and it can be observed that they largely coincide with densely populated areas of the city. Therefore, it can be affirmed that this population density is largely due to displaced communities from other areas of the country that have ended up occupying these sectors of Bogotá, either through formal or informal means.

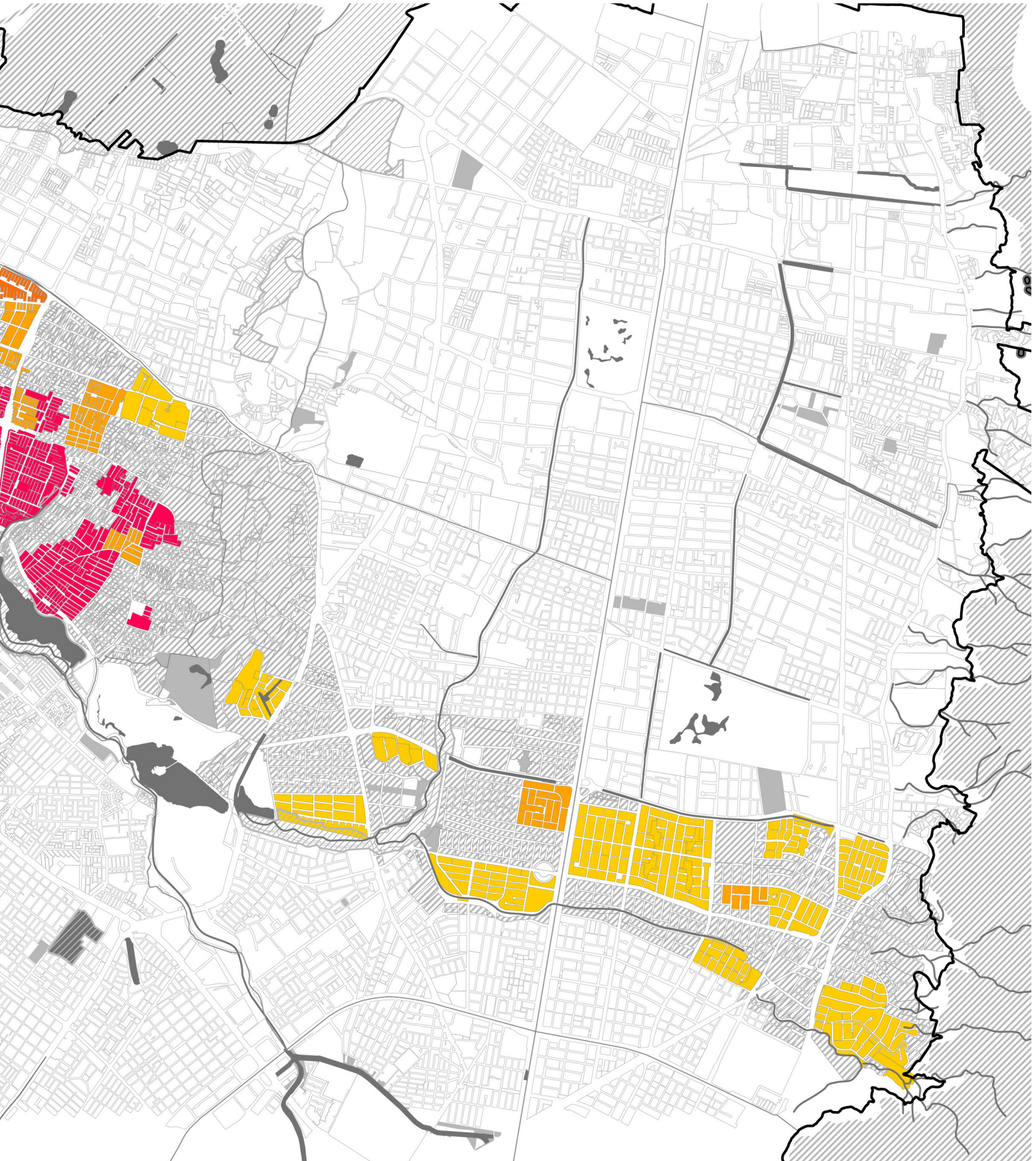


Figure_34.
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Map that shows Concentra-
tions of dispalced families
and where they reside
within the city.

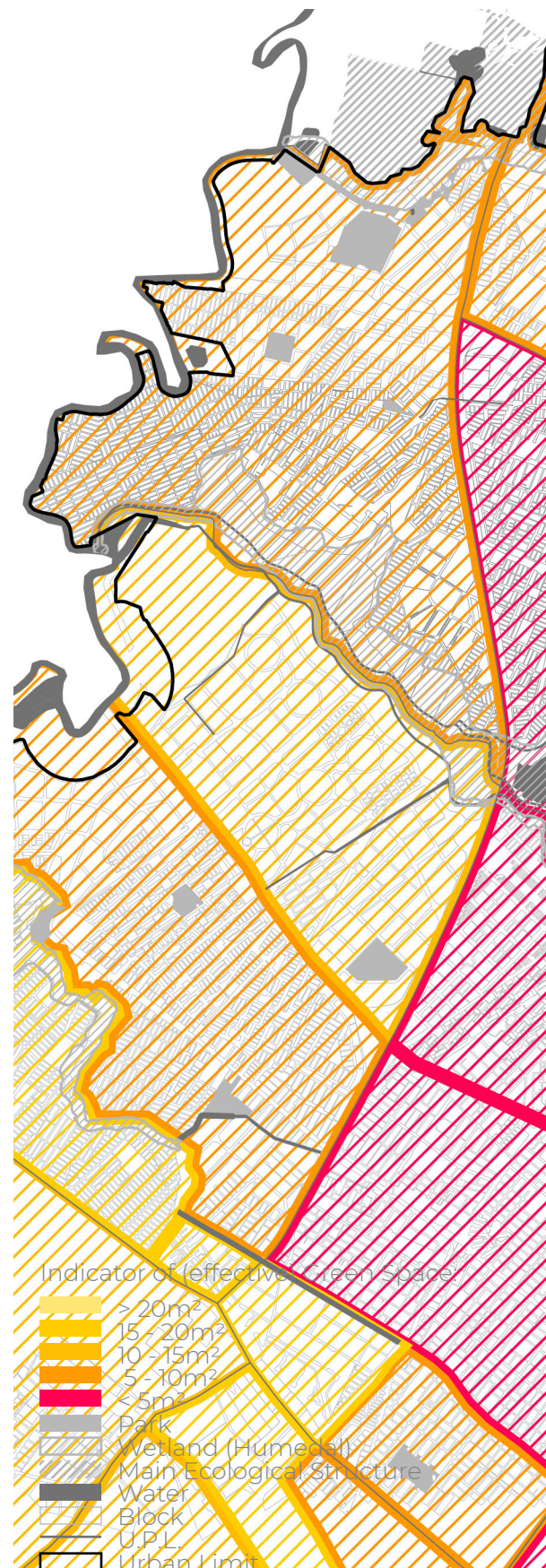


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PUBLIC SPACE

The public space indicator recorded by the Public Space Defender's Office in Bogotá shows a greater deficit of it in the UPL of Rincón de Suba, with an average of 5m² per inhabitant.

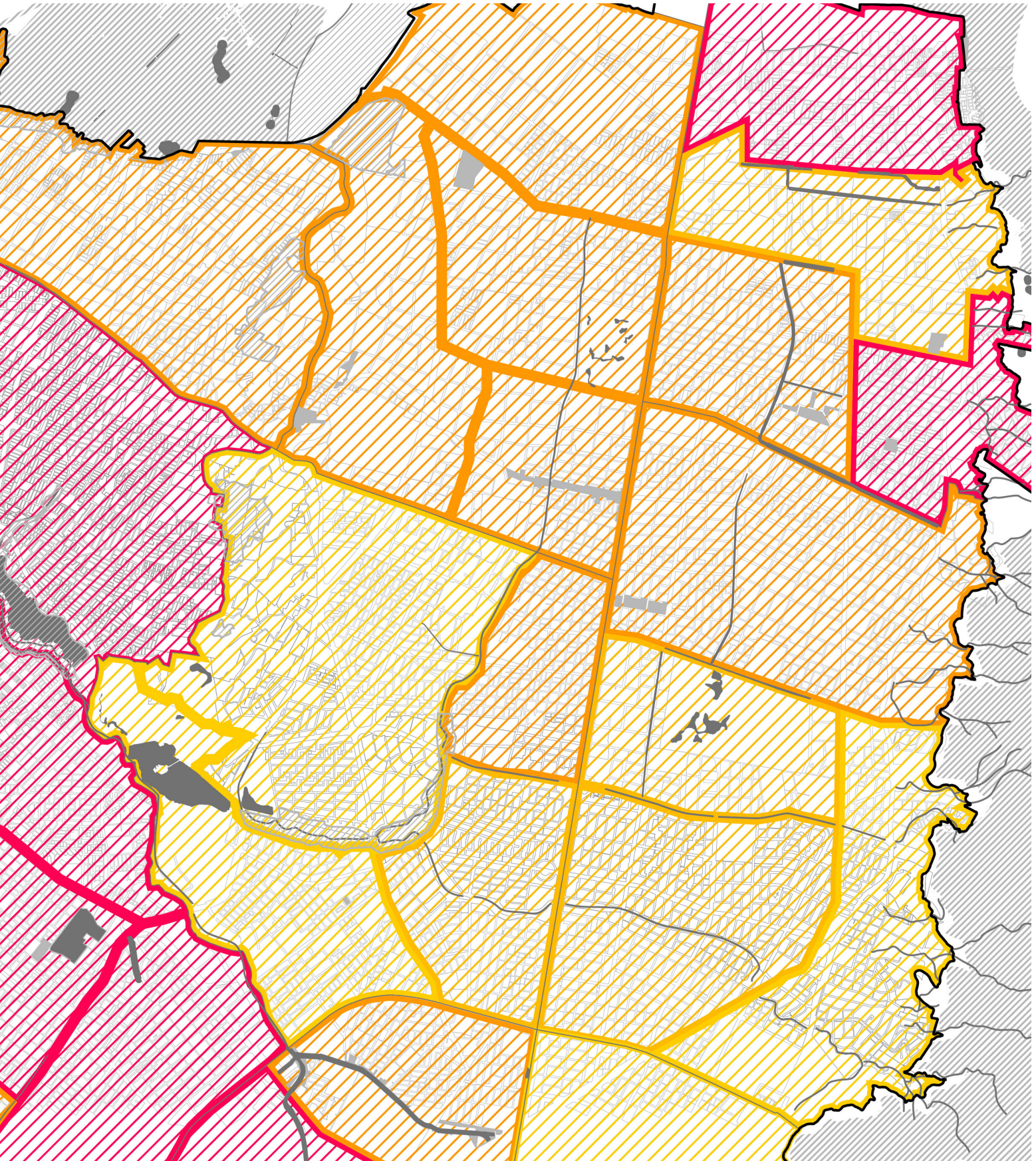


Figure_35.
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Map that shows the indicator of effective public space per UPL.

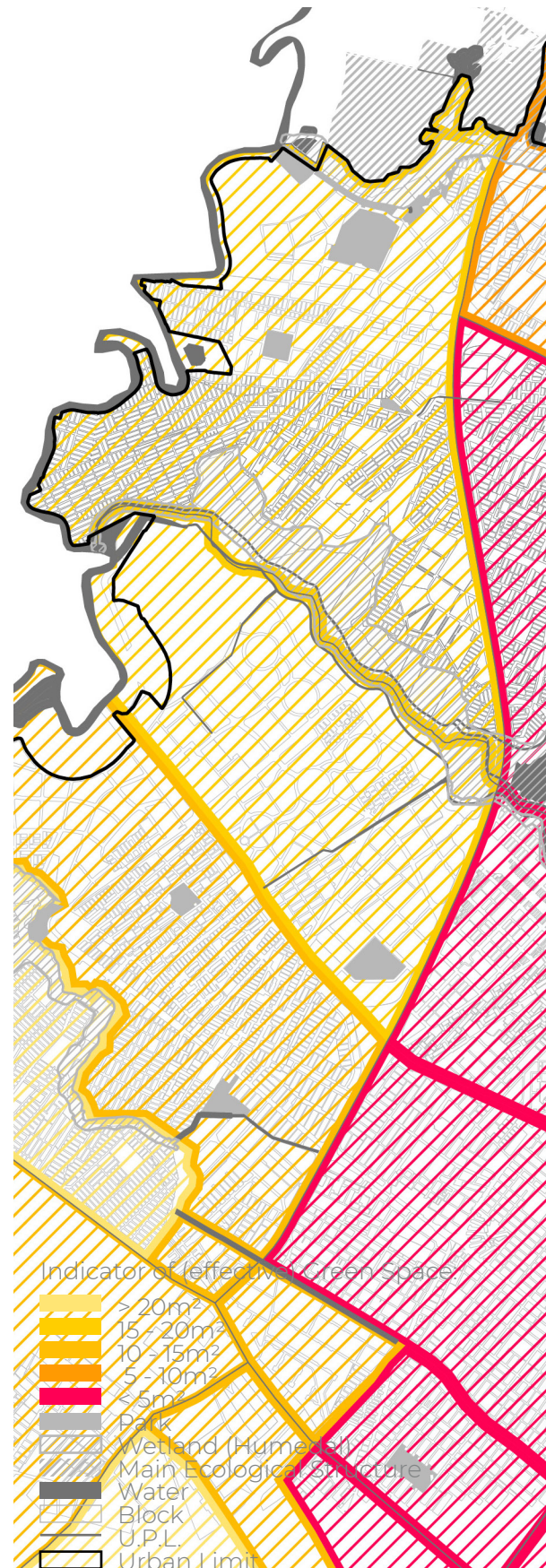


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GREEN SPACE

Similarly, the corresponding indicator of green space also indicates a deficit of the same, classifying the UPL within this range between 0 and 5m² of green space. This is the case even when considering that the UPL borders the largest wetland in the city.

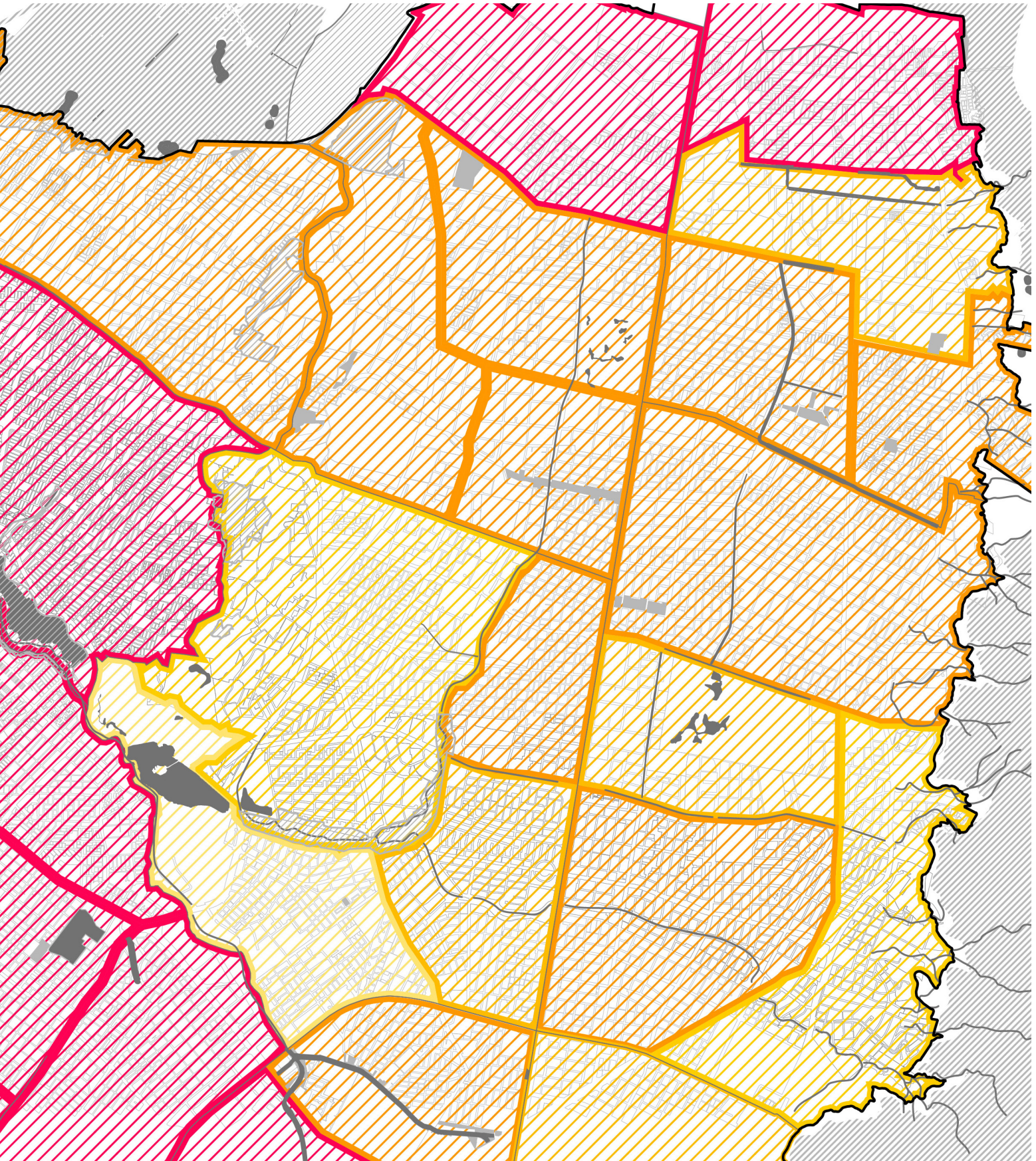


Figure_36.
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Map that shows the indicator of effective green space per UPL.



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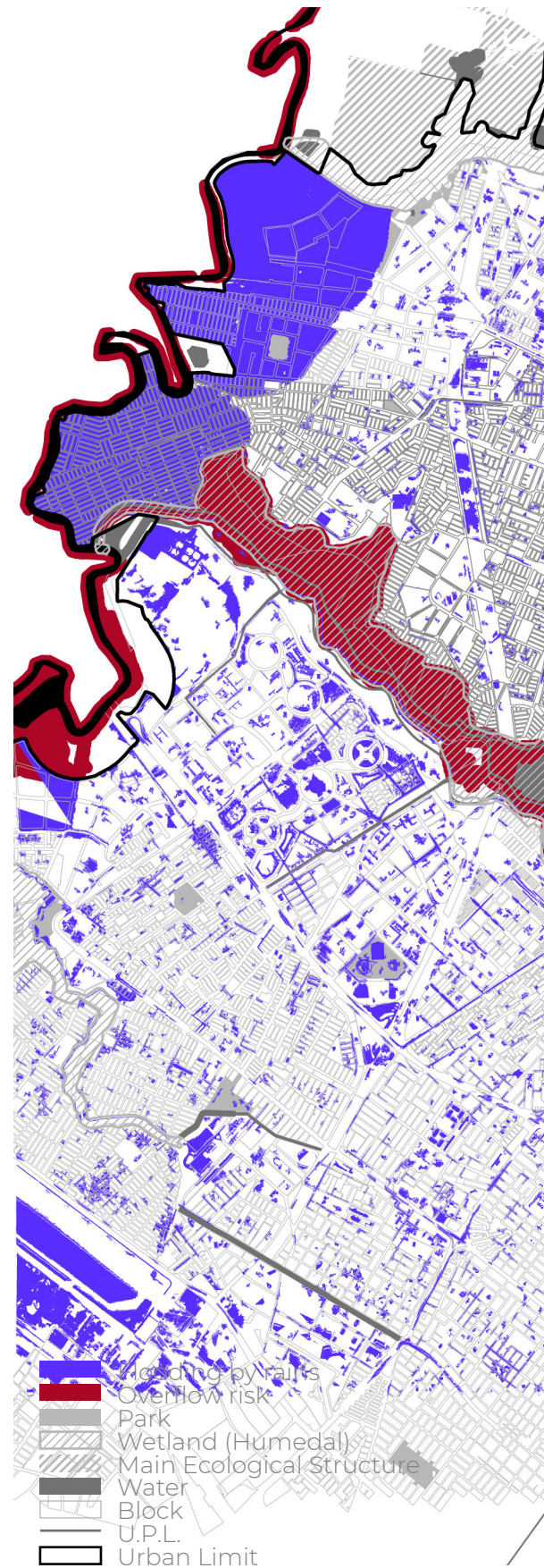
FLOODING RISK

The risk of flooding is considered under two important factors: the first one is the areas where rainwater accumulates during heavy precipitation. As the years go by and the climate change crisis worsens, natural phenomena intensify, and in this case, rainfall increases in magnitude, further increasing the risk of flooding due to excessive rainfall in Bogotá, already considered one of the rainiest cities in the country.

The other factor is the structures that can overflow due to water retention. This includes the Juan Amarillo wetland, the Salitre River, and the Bogotá River. All these bodies collect rainwater from the city and the excess water from the mountains, increasing the risk that these structures may overflow at some point and affect neighboring populations.

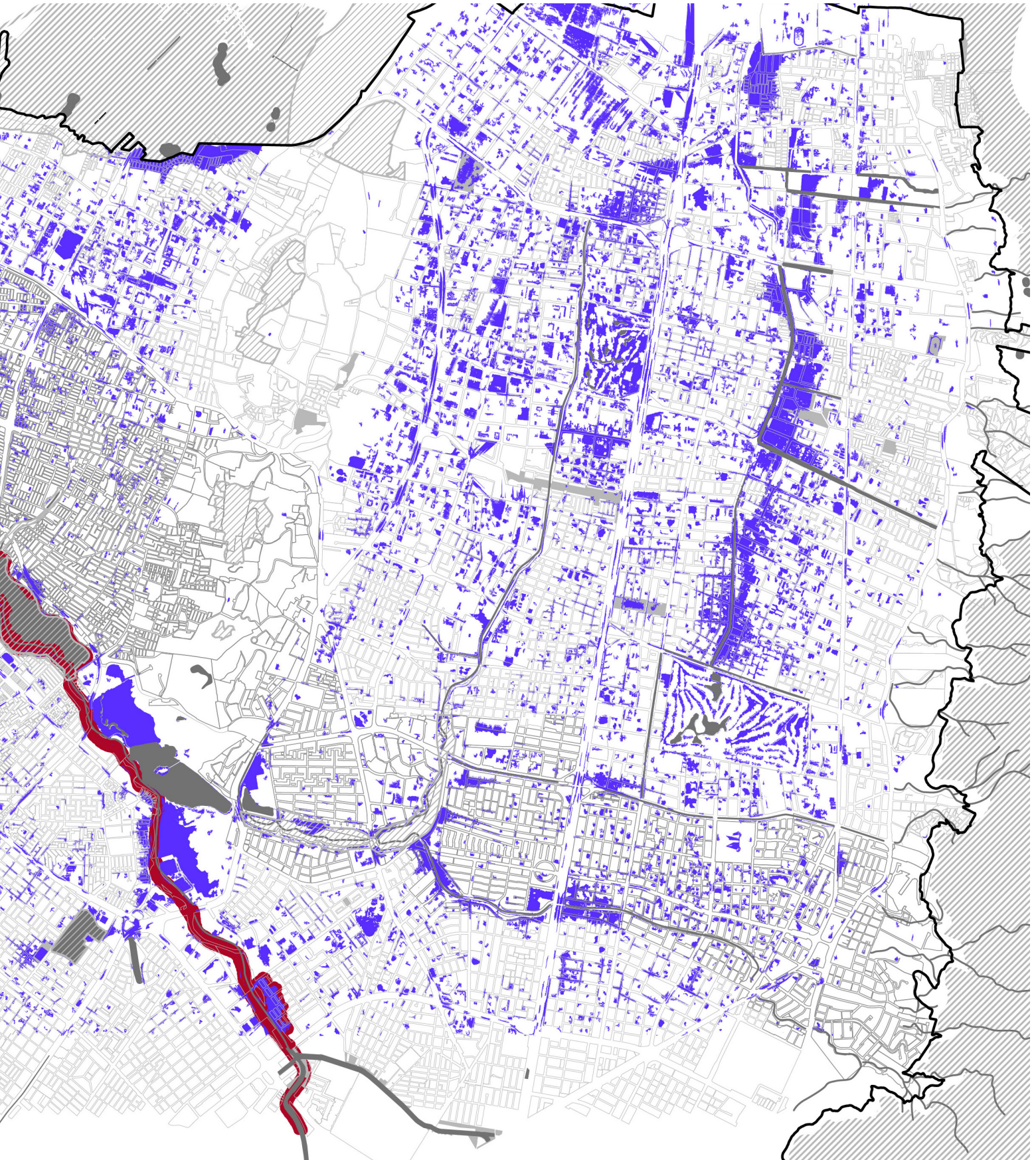
Figure_37.
Made by Author

Map that shows the areas where water accumulate and the bodies of water that might represent a significant risk of overflow.





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_CONCLUSIONS

The last chapter has highlighted that communities displaced by the conflict have ended up concentrated in precarious areas of the city, where risks and exposure to natural phenomena are high. Ecological vulnerability is exacerbated by climate change and the lack of access of these communities to basic services and city infrastructure, preventing them from integrating properly into urban dynamics, concentrating them and conditioning them to a space where the lack of public space and natural areas generates conflicts among different social groups.

Although the landscape has influenced the growth of Bogotá, today the relationships between the hills and the urban fabric have been severed, limiting access to the main ecological structures and reducing them to mere urban boundaries and a dramatic back-drop in the city.

Furthermore, this process of urban growth has affected natural structures, constantly putting them at risk of being occupied by the continuous waves of migration arriving in Bogotá seeking refuge. Ecological structures have been reduced to mere functional bodies that serve the city, without a symbiotic relationship between the two systems.

_5. PLANNING FOR DIVERSITY
embrace the Pluriverse

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"In times where nobody
 [listens to anybody,
 In times where everybody is
 [against everybody,
 In selfish and petty times,
 In times where we are
 [always alone,
 We will have to declare our-
 selves incompetent
 In all the matters of the
 [market.
 We will have to declare
 ourselves as innocent,
 Or we will have to be abject
 [and heartless.

I no longer belong to any
 ['-ism'
 I consider myself alive and
 [buried,
 I put the songs in your
 [walkman!
 Time put me somewhere
 [else...
 I will have to do what is, and
 [is not allowed
 will have to do the good
 [and do the harm.
 Don't forget that forgive-
 ness is divine
 And mistakes, are usually
 [human."

"En tiempos donde nadie escucha a nadie
 En tiempos donde todos contra todos,
 En tiempos egoístas y mezquinos,
 En tiempos donde siempre estamos solos,
 Habrá que declararse incompetente
 En todas las materias del mercado,
 Habrá que declararse un inocente
 O habrá que ser abyecto y desalmado.

Yo ya no pertenezco a ningún '-ismo'
 Me considero vivo y enterrado,
 Yo puse las canciones en tu walkman!
 El tiempo a mí me puso en otro lado...
 Tendré que hacer lo que es y no debido
 Tendré que hacer el bien y hacer el daño
 No olvides que el perdón es lo divino
 Y errar, a veces, suele ser humano."

Fito Paez_
Al lado del Camino (1999)

_INTRODUCTION As a response, the urban and planning proposal focuses on addressing the different dimensions of analysis, contextualizing the problem, and presenting the current condition of the city. The main axiom on which the proposal is based is to approximate and relate the social and environmental dimensions within the urban fabric. When these two systems interact, the social fabric uses natural structures to develop within its environment. In turn, ecological structures act as a cohesive factor within the urban fabric, bringing different communities together and generating new scenarios for interaction and activity.

The final result of this convergence is, on one hand, the recovery of the natural structure upon which urban renewal can begin along the backbone of the river, and consequently urban cohesion that dissolves the different fragments within a much more fluid space.

This cohesion, however, is not uniform because both the strategies to achieve urban renewal in each of the sectors and the specific interventions used within this renewal are all different and require the careful consideration of both the space and the communities living there. This, in general terms, is what I define as Polymorphism.

Cohesion through polymorphism is nothing more than recognizing the importance of the different realities that certain communities might have within the overarching structure and considering their values independently when wanting to intervene (and in this case recover) that structure.

This chapter contains the development of the proposal on two different levels of action. The first is a Bottom-Up approach where relevant stakeholders within the project (focused on the Rincón de Suba) are analyzed to define new relationships and alliances within the social dimension of the project. From the other end, the Top-Down approach analyzes the existing policies and plans of the city

that may be relevant or also reevaluated. Together, these two approaches form a dual front on which the resulting comprehensive proposal ultimately resolves the fragmentation of the city.

_DOUBLE END APPROACH

The Double-End approach is nothing more than understanding that to address the problem of fragmentation in Bogotá, the proposal must be approached comprehensively, considering both scales on which this problem operates simultaneously. It is necessary to resort to both and coordinate processes within each of the two levels to truly address the urban fragmentation of the city.

Each of these two levels acts on different dimensions and, in turn, deploys a series of tools that, when implemented together, bring the environmental and social dimensions into dialogue. This is where the framework of socio-ecological justice begins to play an important role, as it is not enough to only talk about social justice or ecological justice. Within the proposal of this thesis, both of these operate within different approaches and generally (especially at the scale at which this project is proposed), operate from opposite poles.

Both of these approaches complement each other, generating a loop and mutually reinforcing each other, so that the actions in one determine how the other will act within the territory. This is expressed in an alliance between ecological structure and social fabric that benefits both stakeholders. On one hand, the communities of the city are responsible for maintaining the health of the ecosystems and increasing biodiversity in the city. On the other hand, the ecological services provided by this healthy environment directly benefit the citizenry, and these structures also create space for development so that

seeking to consolidate green and natural spaces within the urban fabric and restore existing ecosystems so they can perform their natural functions in a healthy manner. In this way, the city is imbued with ecological value and acquires new systems that can help overcome the pressures of climate change and assist communities exposed to it in mitigating the risk posed by extreme natural phenomena.

BOTTOM-UP

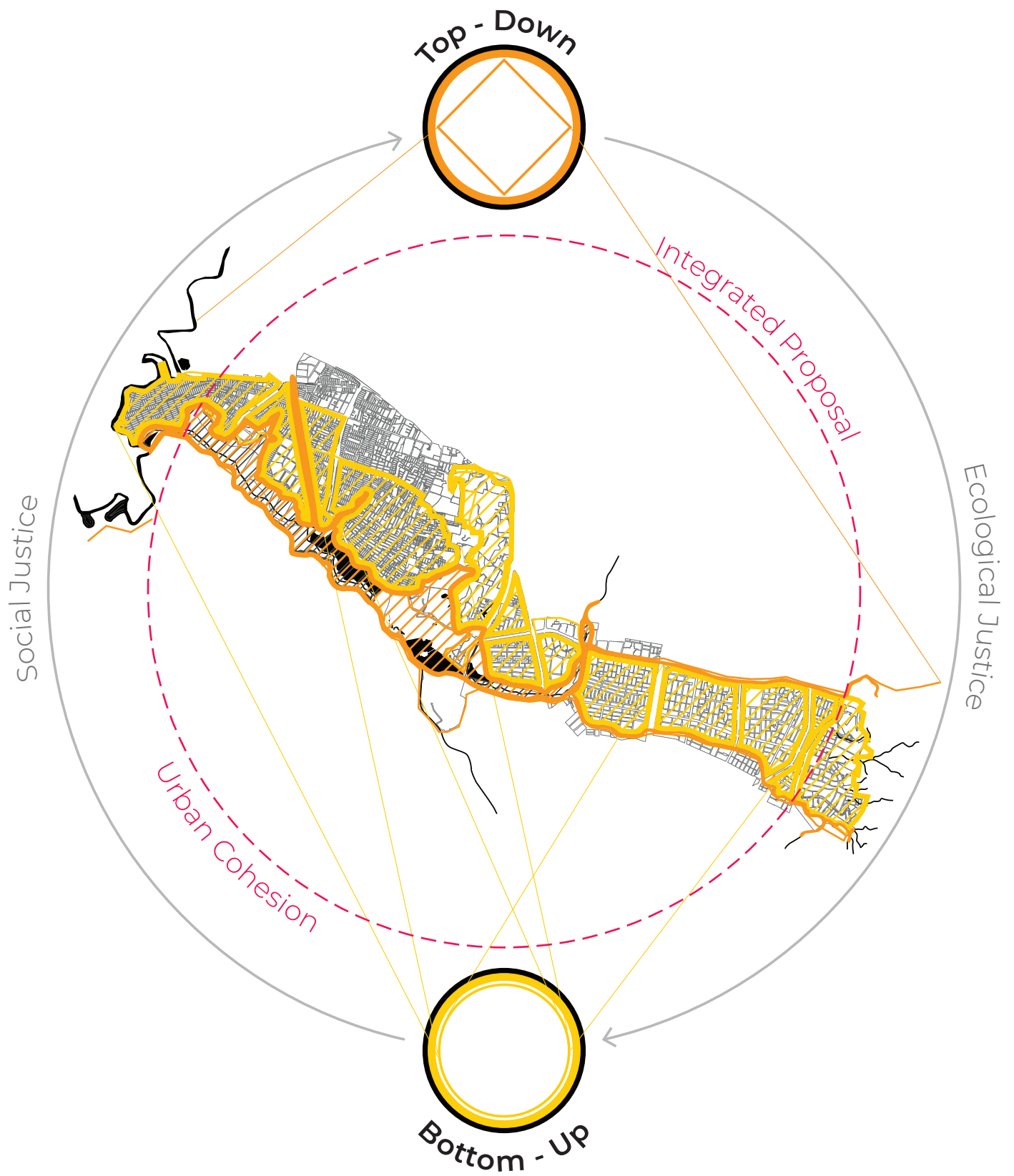
Social justice can be approached from both poles, although it generally involves the articulation of a community demanding its rights, which is often considered more aligned with a Bottom-Up approach. In this case, the communities themselves represent their interests through participatory processes that involve them in the management and planning of the city. These processes aim to highlight the intrinsic cultural diversity within different areas of the city and to generate new strategies and projects that include and enable displaced communities to integrate into the city and take ownership of the space.

TOP-DOWN

The ecological aspect of this project considers giving voice and agency to the natural structures of the city, imposing their values within the mechanisms of management and planning of the urban structure. For this to happen, it is necessary for the institutions responsible for city planning to take on the interests of the environment within urban strategies and city development,

Figure_38.
Made by Author

Illustration of how the Double en approach operates from both ends, the Top-Down approach and the Bottom-Up.



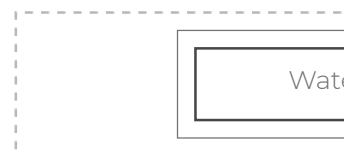
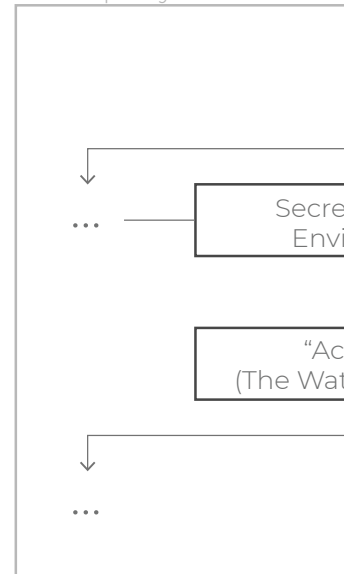
DIMENSIONS FOR ACTION

Within the city's administrative structure, the proposal focuses on giving more importance to local administrative bodies, such as neighborhood action boards. This emphasizes the importance of including communities in the city's development plans and enables the inclusion of specific projects from groups with unique values and identities.

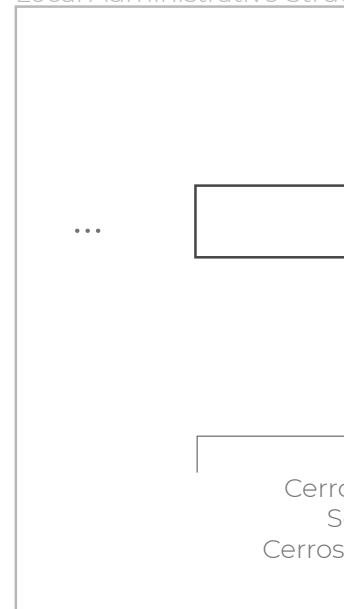
Using participatory budgets as a tool facilitates this dialogue, but with a more urban focus than social development. Eventually, it could be considered to differentiate between two types of tools based on the same principle: 1. Participatory budgets aimed at financing local projects for urban intervention and improvement by the communities themselves, and participatory planning budgets, through which more complex projects can be established in collaboration with the planning department to be implemented within urban development processes.

This would not only give more agency to communities within the territory but also facilitate dialogue between communities and the planning department. Thus, it would ensure that the resulting designs and the city built are not proposed by a single group of experts but are the realization of the space of different communities, mediated and advised by experts.

Municipality Administrative



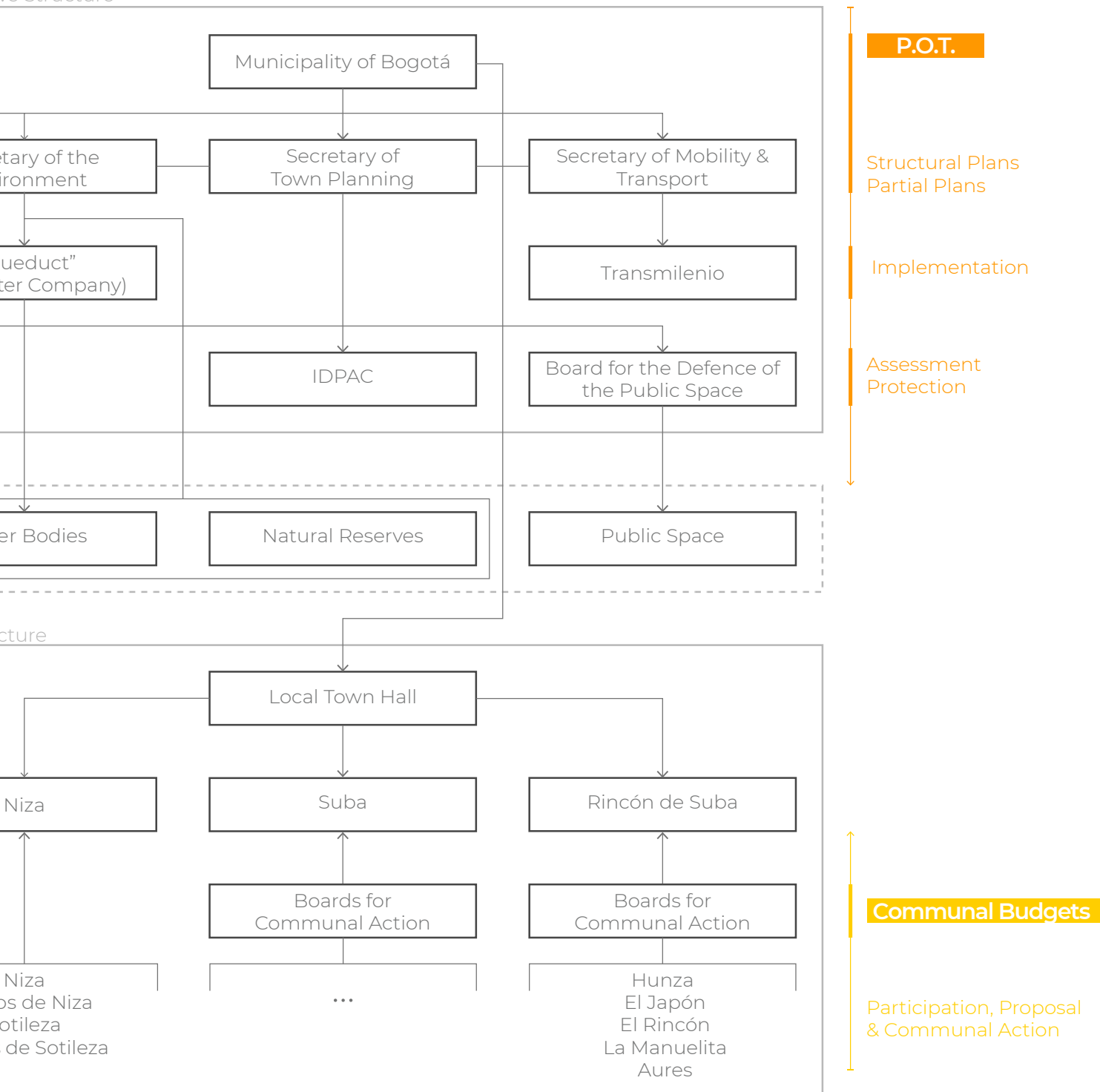
Local Administrative Struc



Figure_39.

Made by Author

Diagram that shows the tools through which the different administrative entities can act in space.



_PROPOSAL BOTTOM-UP

STAKEHOLDERS

The Bottom-Up approach of the proposal begins by identifying the different stakeholders involved within the area where the intervention will take place.

For this part of the project, I conducted a more detailed analysis (Appendix_1), but for now, I will focus on the six main stakeholders who have greater agency within the project. These are approximate groupings of individual agents that could be further developed within each of them and specify different groups.

This is the case of the first group of stakeholders, The Communities, around which the Bottom-Up approach of the project revolves. Here, I considered groups of communities residing in El Rincón de Suba, as this is the main area of application for participatory strategies.

The Private Social Clubs constitute another group of stakeholders, which include the Los Lagartos Club and the Choquenzá Club. These two oppose the communities in their basic interests, privatizing part of the city's natural space that could otherwise be public.

Nature is defined as a stakeholder because a significant part of the project focuses on giving voice to ecosystems and ensuring the rights of the environment within the city.

The District Planning Department, the Aqueduct, and the Public Transport Company are public entities responsible for the management and operation of the city itself and will serve as mediators or sponsors of processes within the proposal.



COMMUNITIES

The communities consist of various social groups with diverse ethnicities, including Indigenous peoples, Afro-descendants, mestizos, peasants, among many others, largely displaced by the Colombian conflict and who have migrated to Bogotá seeking new opportunities and a safe place to live. This group has lost all connection with their places of origin and are seeking ways to integrate more easily into urban life. By utilizing their traditional practices, I want to give them an opportunity to contribute to city planning.



PUBLIC TRANSPORT

Public transportation is included here as stakeholders in the project, as I consider the future Line 2 of the Bogotá metro and the expansions of the city's mass transit system (TransMilenio) as key elements in the proposal, as this infrastructure will connect the Rincón de Suba with the rest of the city. Here, the city's mobility secretariat could also be included to facilitate direct dialogue between it and the urban planning department.



SECRETARY of URBAN PLANNING

The Urban Planning Department is responsible for developing new proposals, reviewing new regulations, and providing urban advice on projects that impact the city's main layout. In this sense, it is essential to include them in processes that will affect planning plans and policies, as they can mediate and advocate between different groups, bringing proposals to paper and making participatory proposals a reality.



NATURE

This group includes the different ecosystems within Bogotá. Starting with the mountains and the Bogotá River as the main ecological structures, as well as the wetlands and lagoons that are part of this corridor. Specifically: the Juan Amarillo Wetland, the Córdoba Wetland, the Lagartos Lake, and the Choquenzá Club Lake. It also includes the small streams and rivers that descend from the mountains and cross the city from east to west: the river at 127th Street and the one at 112th Street.



PRIVATE SOCIAL CLUBS

This group of stakeholders includes the two social clubs located in this area: the Lagartos Club and the Choquenzá Club, both of which own green spaces and bodies of water that are part of the city's main ecological structure. This space has been privatized and designated for the use of a very small population composed of individuals with high economic resources. They represent the main opposition to the processes outlined within the project.

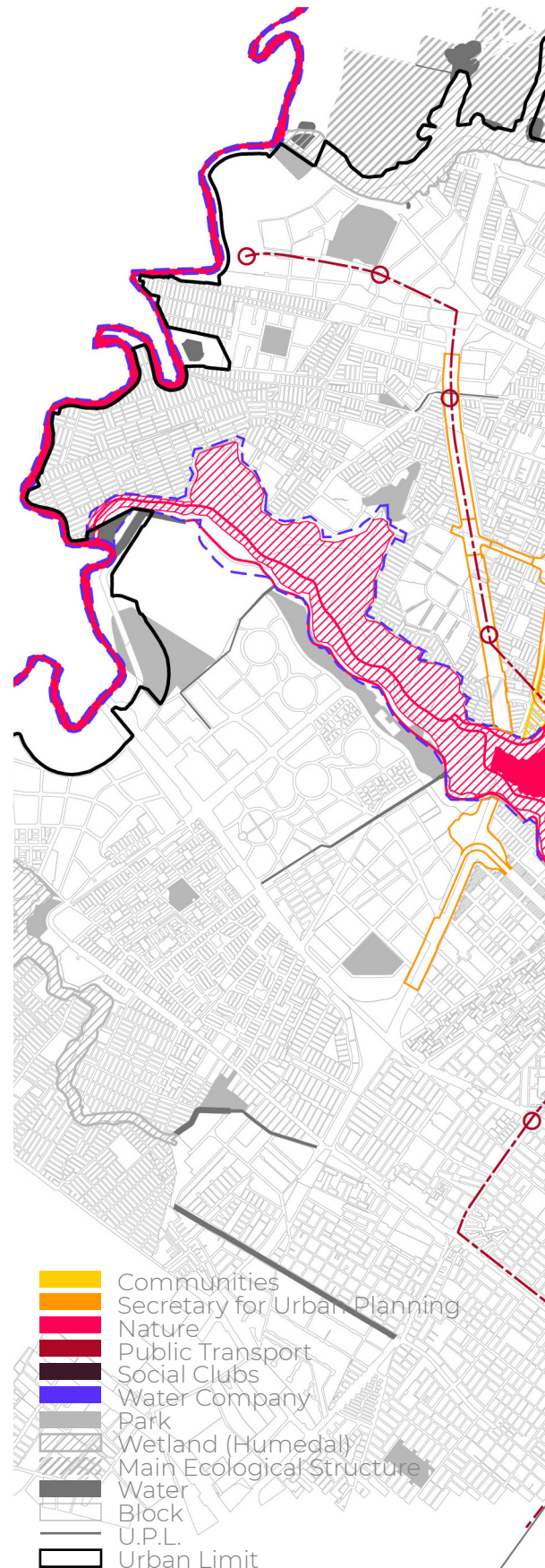


WATER COMPANY

The city's water company is responsible for managing all bodies of water within Bogotá. Therefore, it is included as stakeholders in the project, as any process involving the blue structure will have to be mediated by the water company.

LOCALIZATION

Locating the different stakeholders within the fabric of Bogotá helps ground the processes and identify key points within the physical proposal. For example, there's the case of the social clubs located between the two wetlands, the Cordoba wetland and the Juan Amarillo wetland, interrupting the continuity of the natural bodies. Additionally, within their limits, there are 2 bodies of water located, so there's a pre-established relationship between these and the water company, which can be used when generating proposals. The communities highlighted here are identified by the neighborhoods in the sector. It's important to emphasize that it's not about the neighborhoods as a physical entity, but about the social communities and the different groups that reside and live in this space. Likewise, the spatial proximity between these communities and the natural bodies can be identified, but so far, they lack any interaction or relationship, as the natural bodies are closed to the public. On the eastern side of the Juan Amarillo Wetland, all stakeholders converge, making it a key point to develop within the urban design of the proposal.

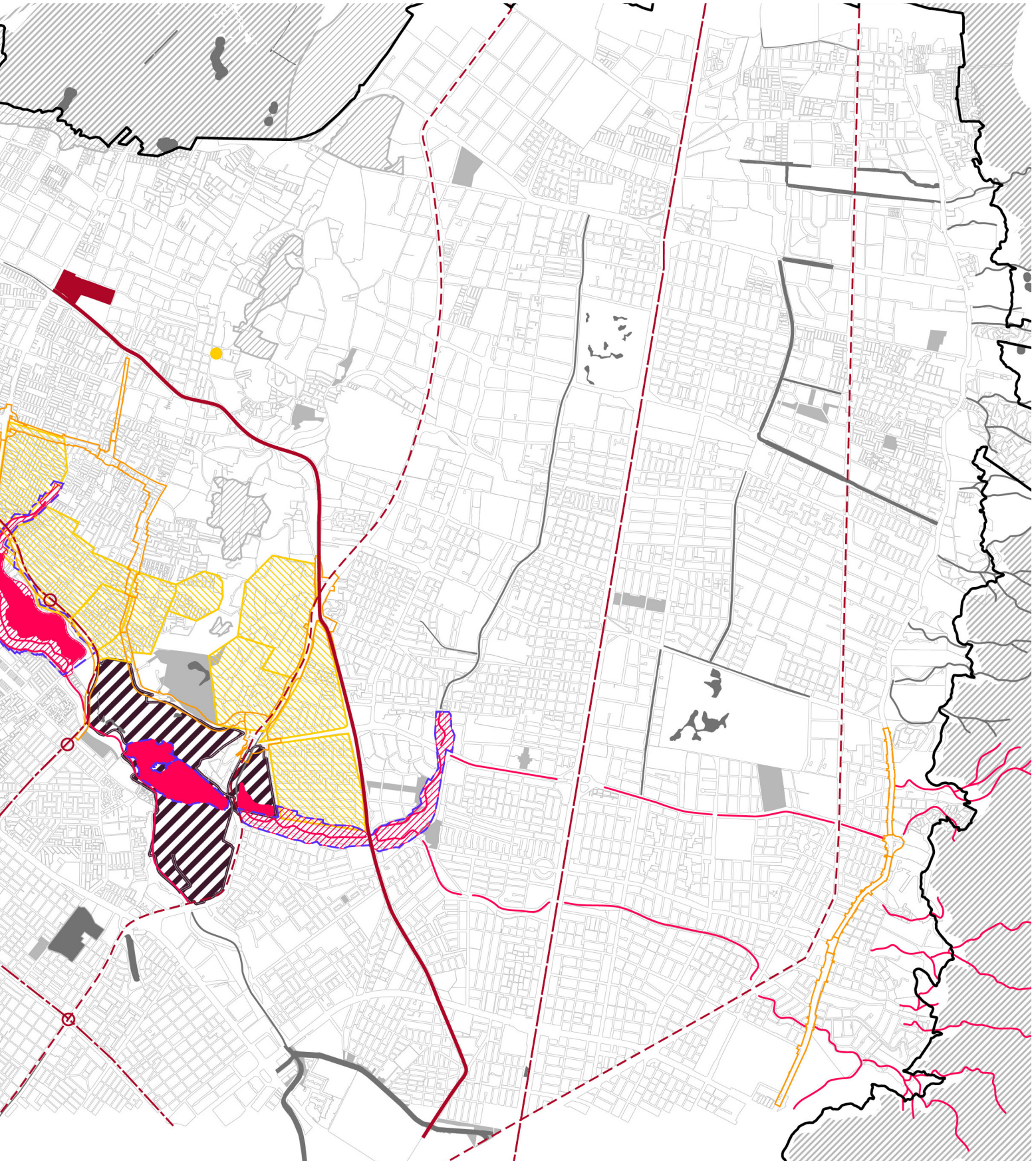


Figure_40.
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Map that shows the location of each of the main Stakeholders.



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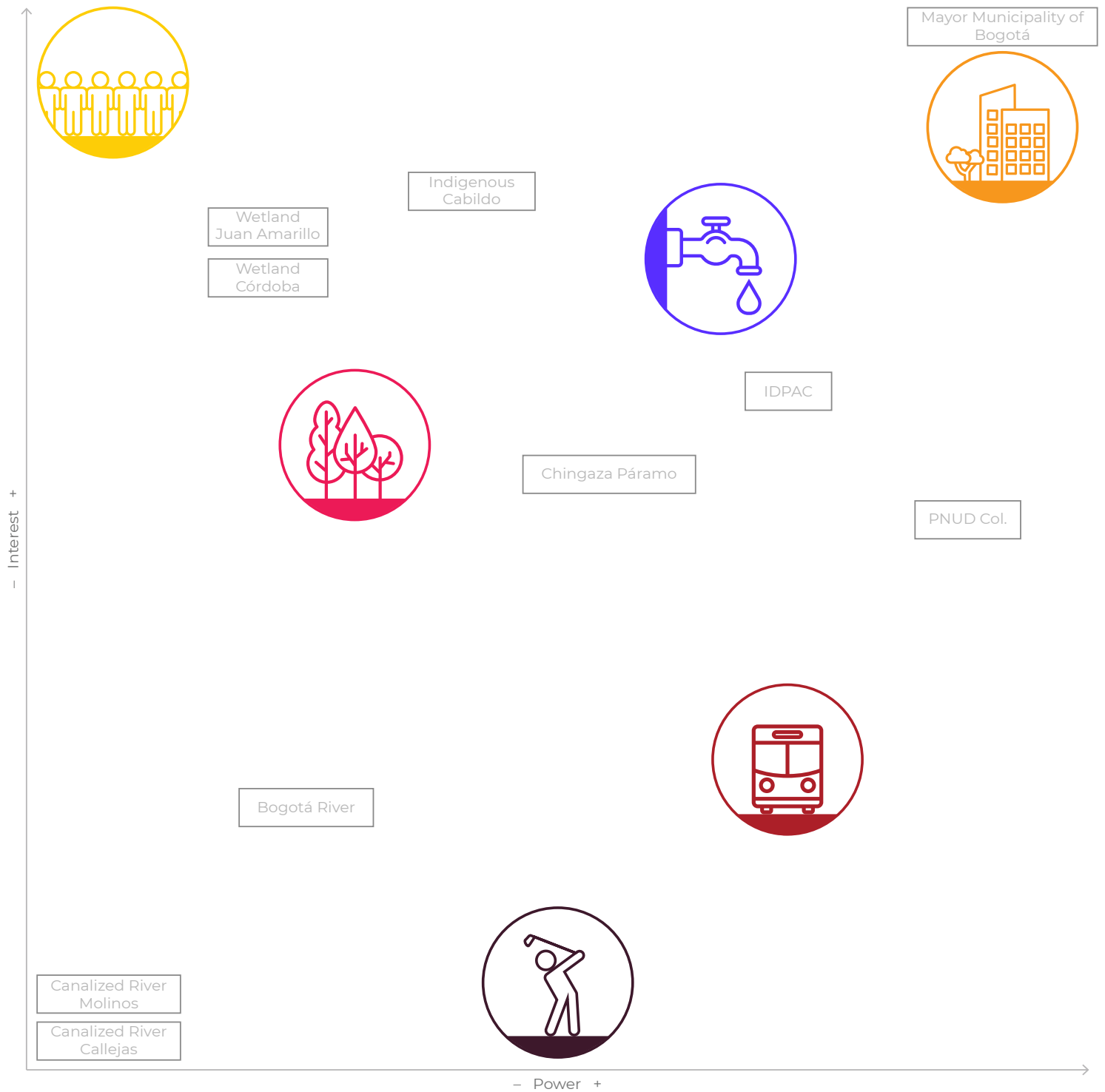
POWER/INTEREST MATRIX

Considering that the Clubs would have a certain opposition to the project made me question the power dynamics and positions that the different stakeholders might have, so I ended up developing this power/interest matrix. Thus, I was able to establish which stakeholders would have more agency over the processes and who would need to form relationships or alliances with other groups to advance their interests within the hierarchy of priorities. This is how I identified that the communities, despite being the main focus of the project, currently have limited decision-making capacity in the discussions.

On the power axis, the communities and the planning entities are located at opposite poles. Between these two, and with the lowest level of interest in the project, are the social clubs (due to their privileged location within the context). Bringing the communities closer to the planning department gives more power to this social fabric, providing greater potential to overcome the opposition represented by the clubs. Likewise, it could empower nature through the water company, to give more weight to this aspect, arguing the challenging management of the bodies of water, provided that the clubs contain the lakes within their boundaries.

Figure_41.
Made by Author

Matrix that locates the different stakeholders and shows the disparities between them in terms of interest and power in regard to the Project.



_RELATIONS & ALLIANCES

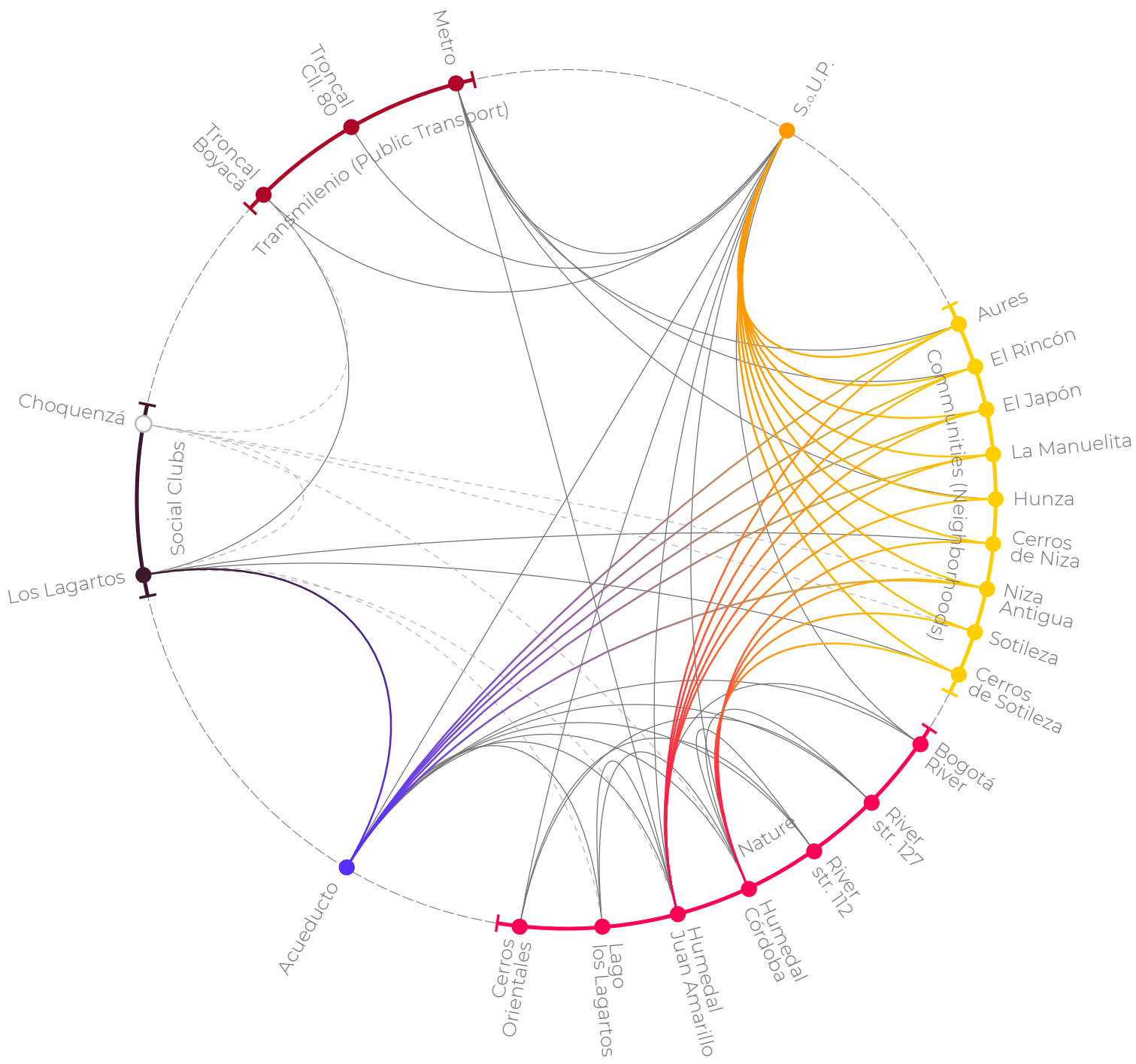
As a result of the power/interest matrix, the relationships between stakeholders are altered. In some cases, it is necessary to dissolve established relationships, such as in the case of the water company and the social clubs, in order to give full control over the bodies of water to the water company and remove exclusive access from the clubs. Thus, their continuity is not only in formal terms within the proposal but also in terms of their administration and management.

Furthermore, relationships could be established between the water company and the communities with the intention of empowering the communities over the wetlands and even more, creating job opportunities in the maintenance of natural spaces by the people who reside near them. The same people who inhabit them could take care of them, ensuring the health and proper management of the natural structures. This way, a new line of relationship is drawn between communities and the different natural bodies, a symbiotic relationship between them.

The relationship between the planning department and the communities is clearly the foundation of participatory processes for planning neighborhoods with social interests.

Figure_42.
Made by Author

Matrix that shows the existent relations and the new proposed by the project in order to inforce positive change.



3A's FRAMEWORK

The “3A's Framework”, proposed by Katrin Hofer and David Kaufman, is a useful tool for understanding and materializing participatory processes. It is divided into three main dimensions: Actors, Areas, and Aims. Each of these dimensions is broken down into specific factors that influence the nature and direction of participatory processes.

In the Actors dimension, Subjects, Roles, and Recruitment are considered; in Areas, Spaces, Formats, and Rhythms are included; and in Aims, Issues, Outcomes, and Rationales are addressed.

Although all factors have some degree of relevance in each participatory process, some are more prominent than others, defining the nature and orientation of the process. The interaction between these dimensions is what gives rise to participatory action.

It is important to note that this interaction is not causal and does not have a specific direction, meaning that any dimension can be a valid entry point. However, I assigned a direction in the diagram of the 3A's Framework for each Stakeholder, allowing me to identify the underlying principles of their participatory processes. Additionally, I added magenta arrows in the diagram to indicate certain thematic relationships between the types of interaction between the dimensions.

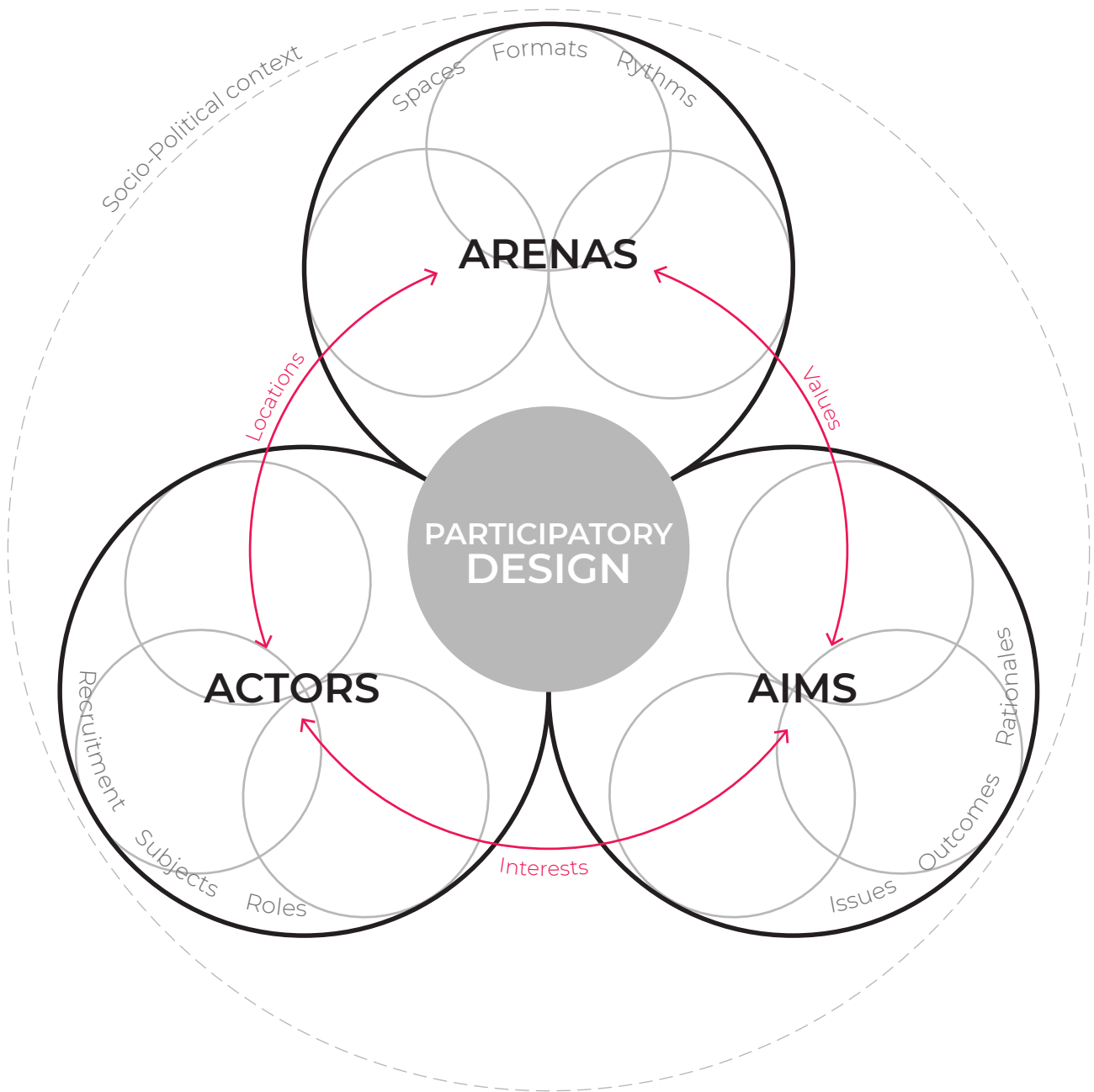
The relationships between Actors and Aims define the interests of each stakeholder; between Aims and Areas, the value (spatial, social, ecological) of the process is defined; and between Areas and Actors, the spatial and temporal logics of when and where the process occurs are defined.

In this report, I have included a condensed version of the analysis, which visualizes the most relevant factors and hints at a logical chain on which each process occurs for each of the stakeholders.

Figure_43.

Adapted by Author from

Illustration of the 3A's framework



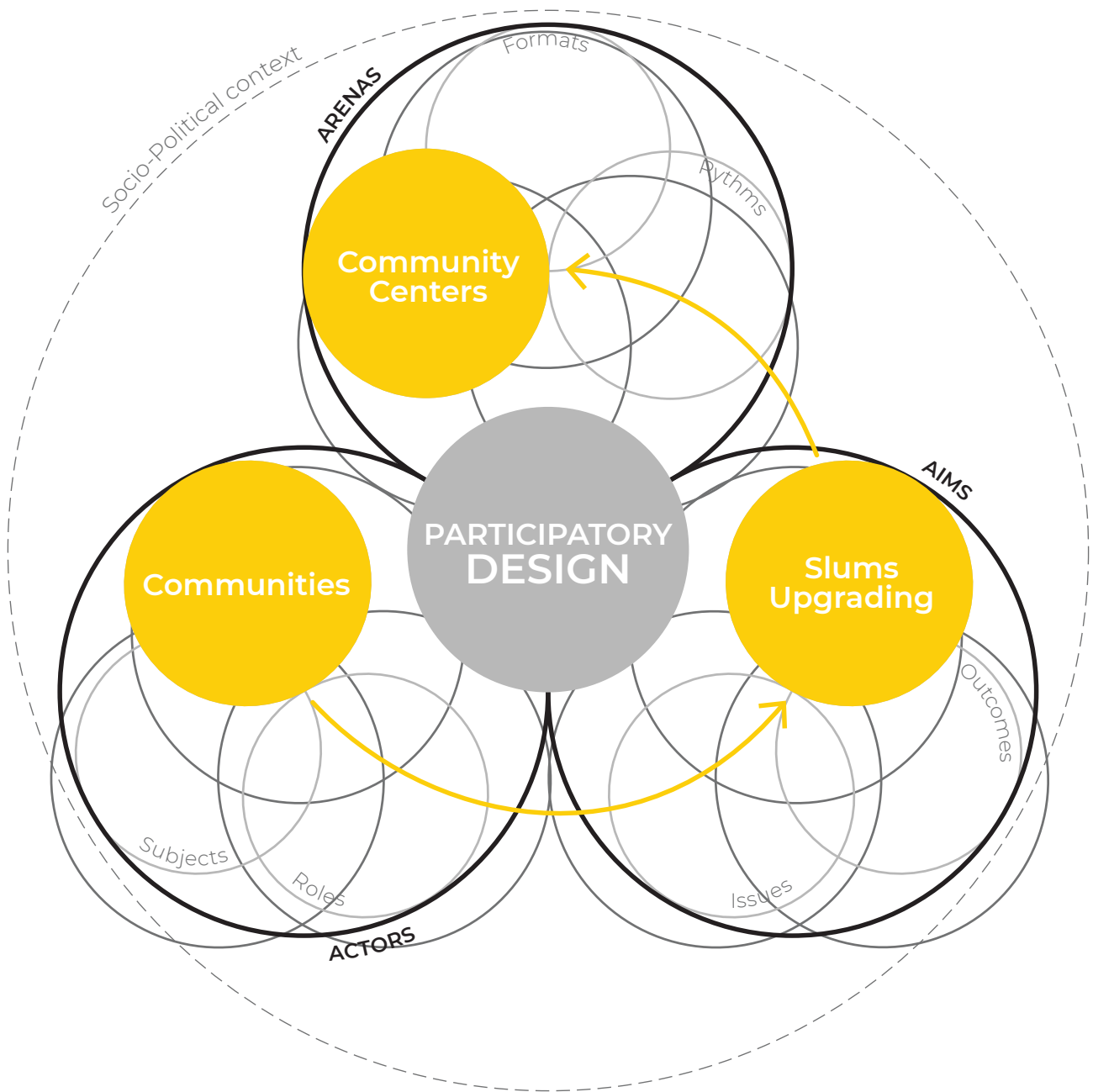
COMMUNITIES

For the communities' process, it is clear that the starting point occurs within the Actors dimension, with themselves and their identities as the main values they want to highlight with this process. The rationale behind this process is the improvement of the urban areas in which they reside. In this case, it involves a Slum Upgrading project, which, infused with this diversity of identities, seeks to allow them to better appropriate their urban space and have agency over the space they inhabit. All this occurs directly with the communities, at community centers in their locality, facilitating attendance and recruitment of the communities. This is perhaps one of the biggest challenges of this participatory process: ensuring the attendance of these communities is not easy, as most of these people work in areas far from where they reside, many have families to attend to, and they do not have time to attend seminars in distant areas (not to mention being able to coincide in a single meeting). Therefore, it is imperative that the approach occurs from public identities to the communities and not the other way around.

Figure 43.1

Adapted by Author from

Illustration of the 3A's framework highlighting the participatory process of the Communities.



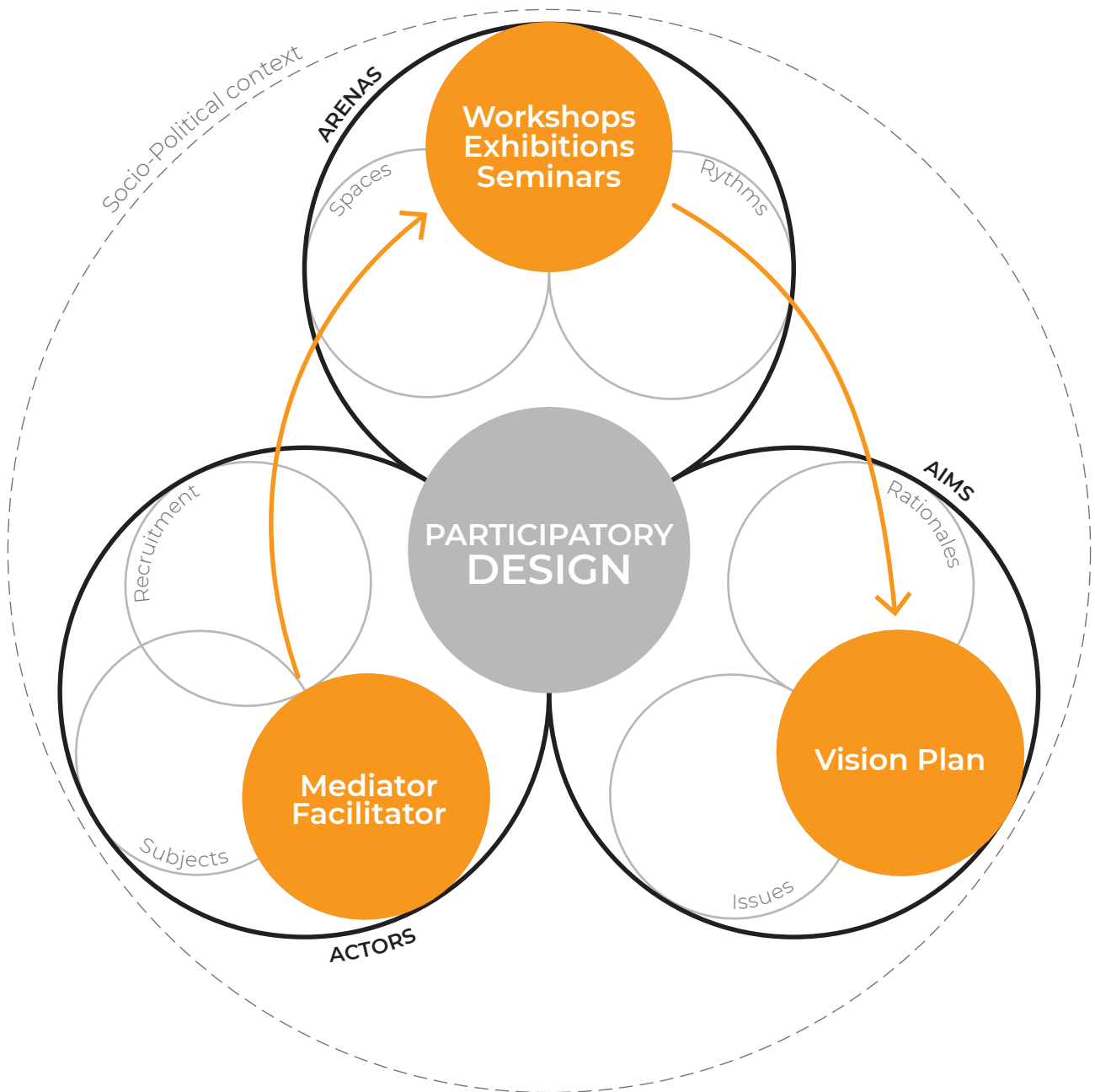
SECRETARY of URBAN PLANNING

As with the communities, the Secretary of Planning starts from the Actors dimension, but this time from its role as a mediator and facilitator within the process. Being the agency responsible for aligning proposals, ideas, and interests in order to generate a single vision for the city. This mediator's task gathers inputs from different workshops, sessions with communities, exhibitions, and seminars to produce documents or plans and visuals that allow progress in the dialogue about the future. Throughout several of these sessions, which will vary in the place where they occur and in their rhythms, but always with the aim of communicating ideas, they will eventually arrive at the main outcome: the materialization of a joint vision that leads to greater urban cohesion in Bogotá.

Figure_43.2

Made by Author

Illustration of the 3A's framework highlighting the participatory process of the Secretary of Urban planning.

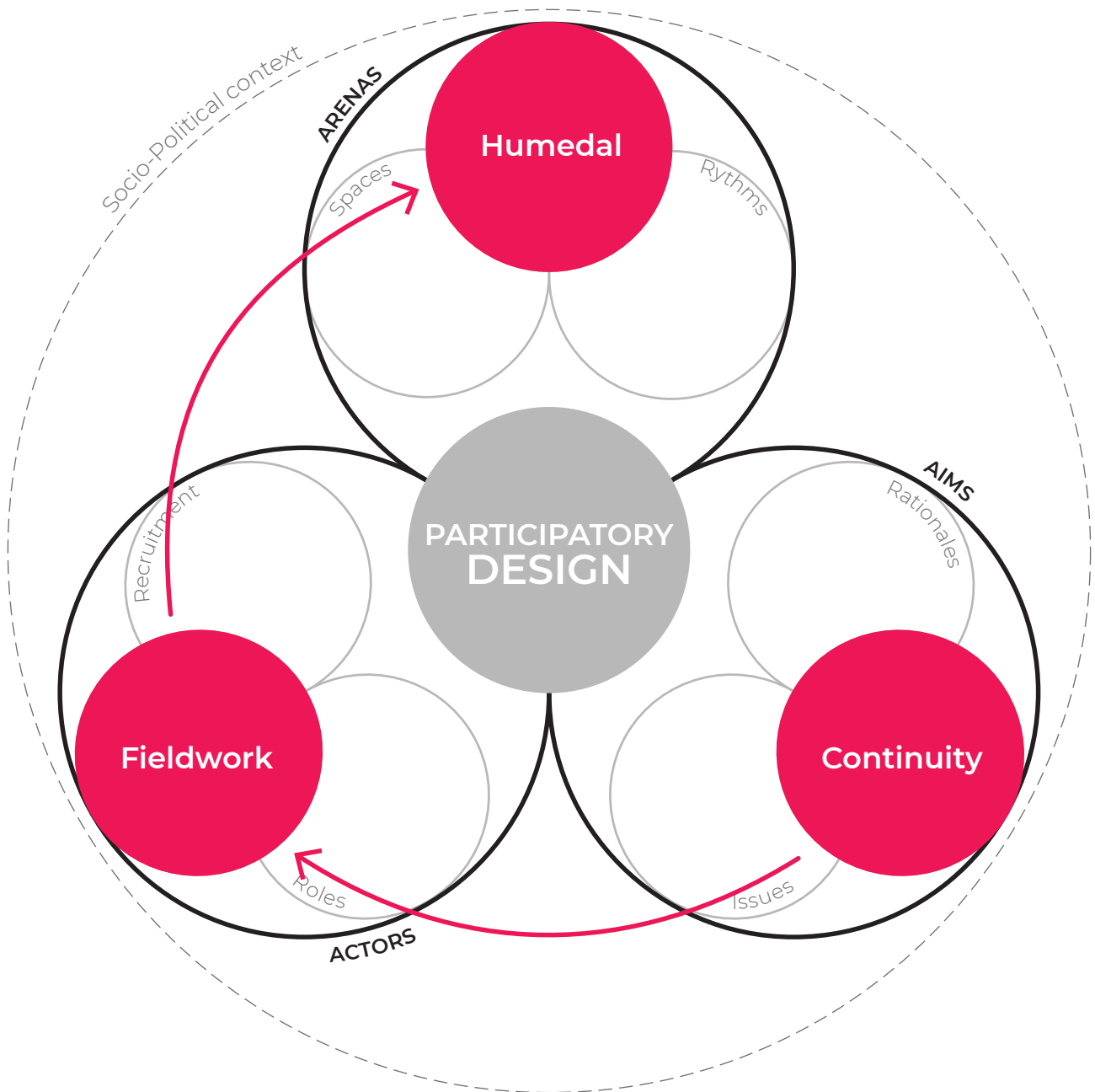


NATURE

The participatory process of natural bodies starts from the Aims dimension, where the main outcome of any process within this space will be to guarantee the continuity of ecosystems and the connectivity between the city's ecological structures. This is in order to increase the performance and healthy development of ecological services and natural processes that they provide to the city. Since this process does not directly represent any Actor per se, other involved actors are included, such as communities and the water company through fieldwork in wetlands and along rivers. This is to bring the other stakeholders into contact with these natural spaces where the other processes take place. This is why wetlands are within the Arenas dimension.

Figure_43. 3
Made by Author

Illustration of the 3A's framework highlighting the participatory process of the Ecological Structures

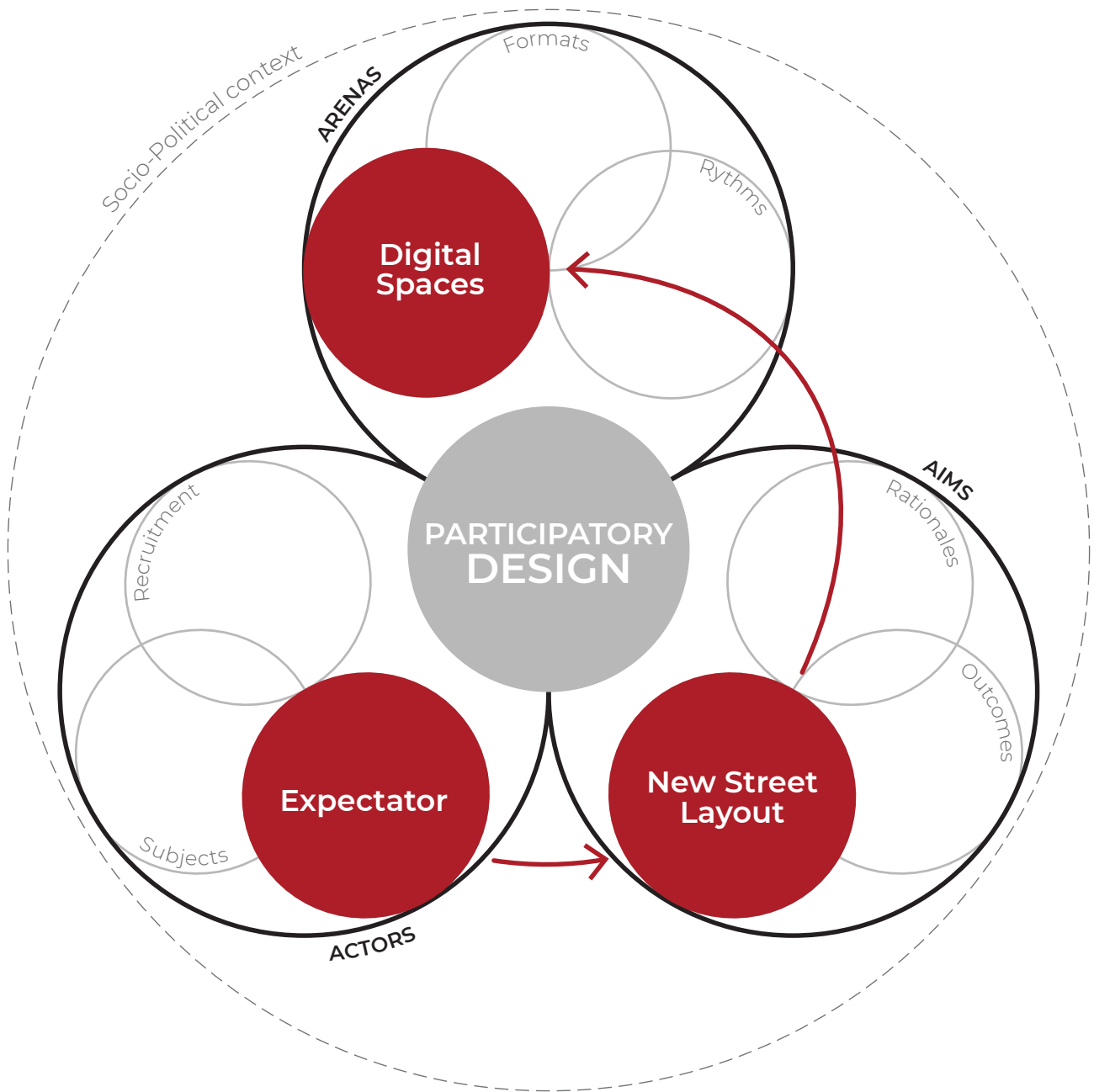


PUBLIC TRANSPORT COMPANY

The participation process of the public transport company is perhaps the most passive of all in the project, as it plays a spectator role, where it is limited to being attentive to changes and new provisions in the road network and public space, to adapt to them. However, it is important to consider it within the processes, as if there were major changes in the layout of roads and transport corridors, it could become active and argue for or against them.

Figure_43. 4
Made by Author

Illustration of the 3A's framework highlighting the participatory process of the Public Transport Company



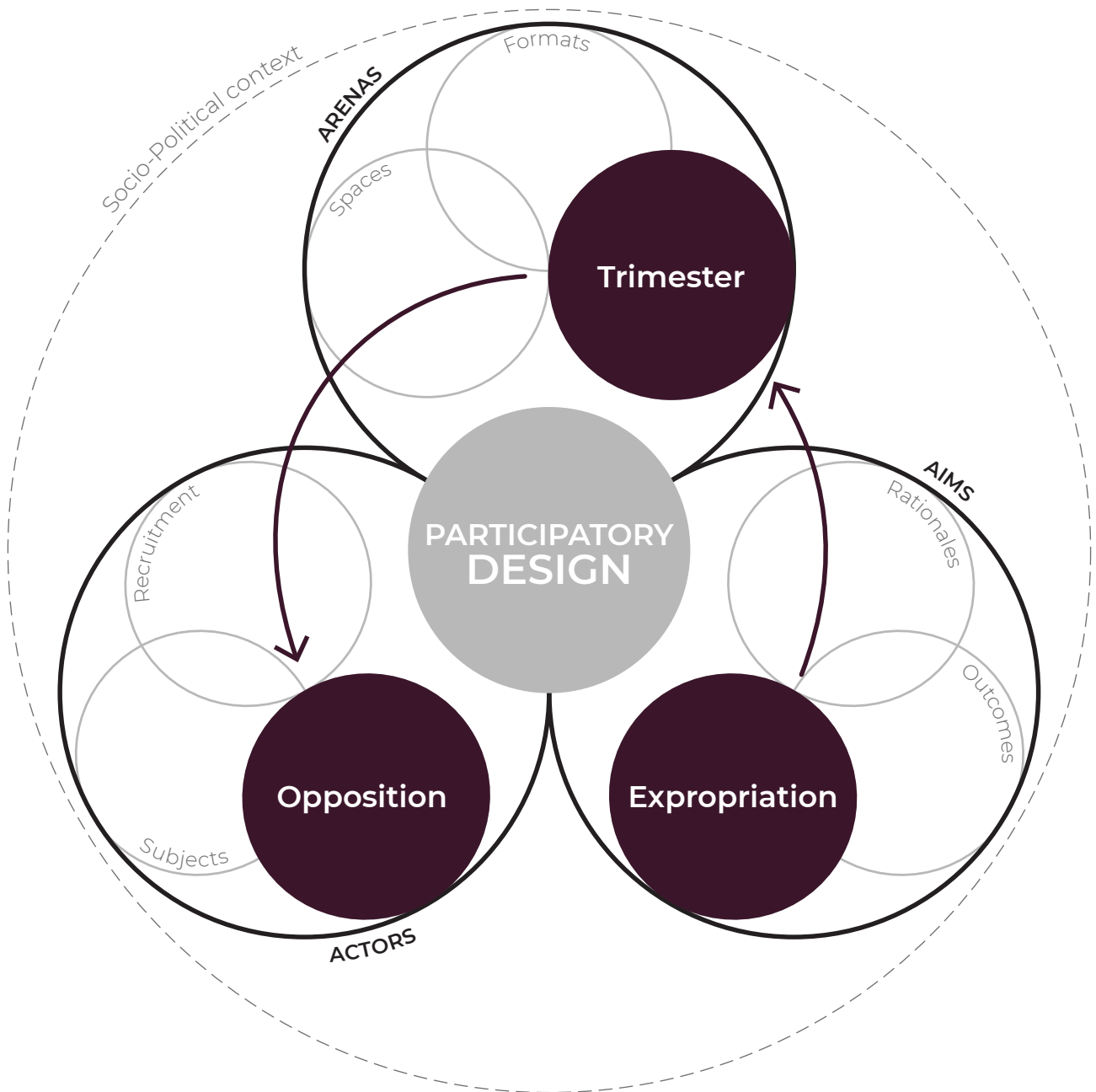
PRIVATE SOCIAL CLUBS

The process the clubs go through is not so much a participatory process as one in which the implications of the proposal's development and the consequences that other processes may have for them are communicated to them. Because they currently have the space on which interventions could be made and the desired connectivity for the city privatized, land will be expropriated from them to consolidate the green corridor. This starts a process from the Aims dimension and the issues factor, which, as progress is made with respect to other processes, determines the pace at which the steps to follow will be communicated to them. As a consequence of this, it is assumed that the club could take on an oppositional role in the formulation of the urban project, as it implies that they will lose half of the territory they currently occupy.

Figure_43.5

Made by Author

Illustration of the 3A's framework highlighting the participatory process of the Private Social Clubs



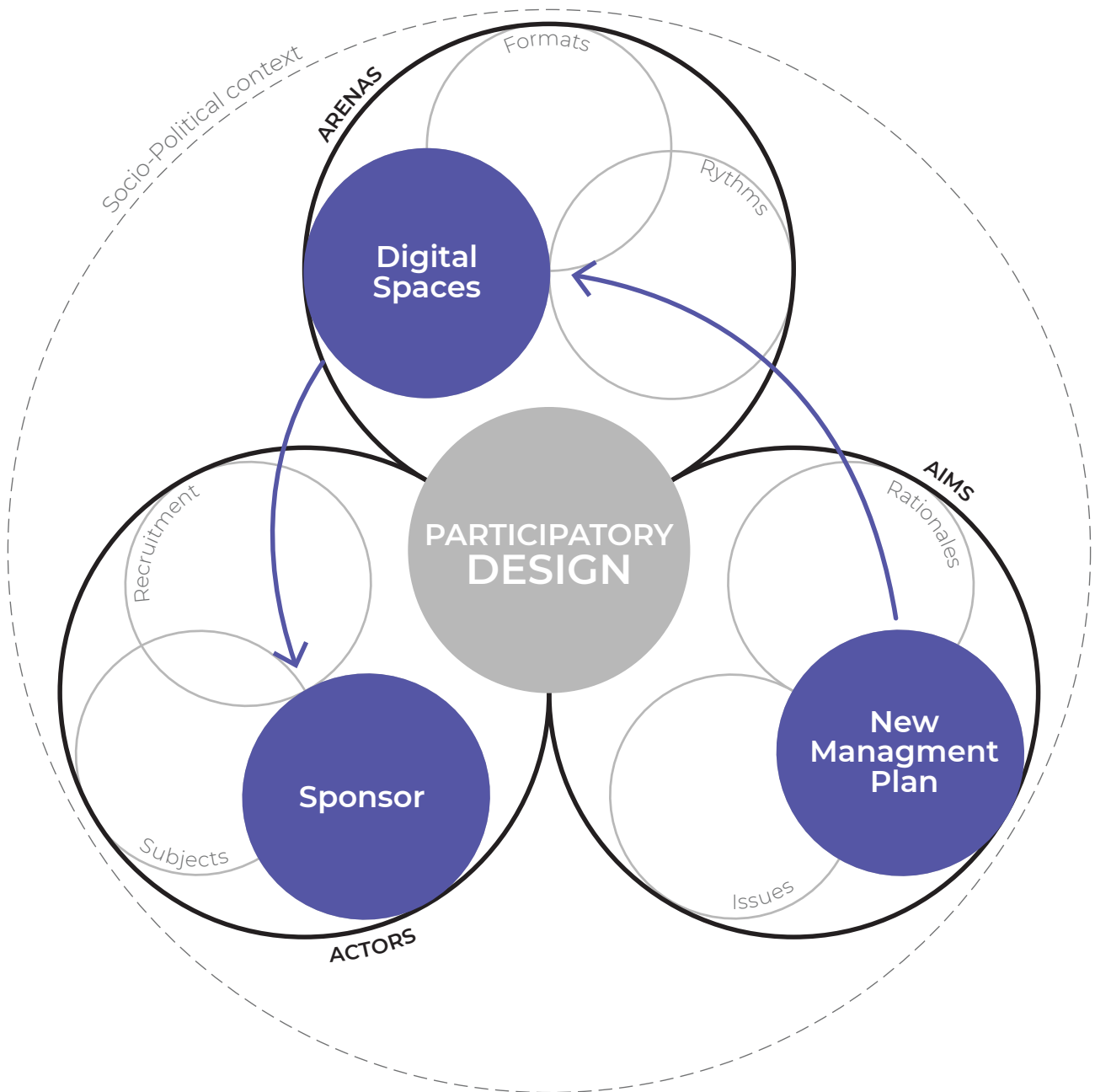
WATER COMPANY

Like the public transport company, the process the water company goes through is rather passive, where they are attentive to the consequences of changes in agencies over natural space. Despite this, the water company would have clear interests in regaining control over the bodies of water that the clubs currently have privatized. This is why this process begins with the Aims dimension, considering a new plan for lake management as the main outcome. From there, the water company could exchange information with the other stakeholders and act as a sponsor of the city's blue structure, but it is limited to waiting and seeing what the processes with the communities and the clubs result in.

Figure_43.6

Made by Author

Illustration of the 3A's framework highlighting the participatory process of the Water Company



PARTICIPATORY PLANNING CYCLE

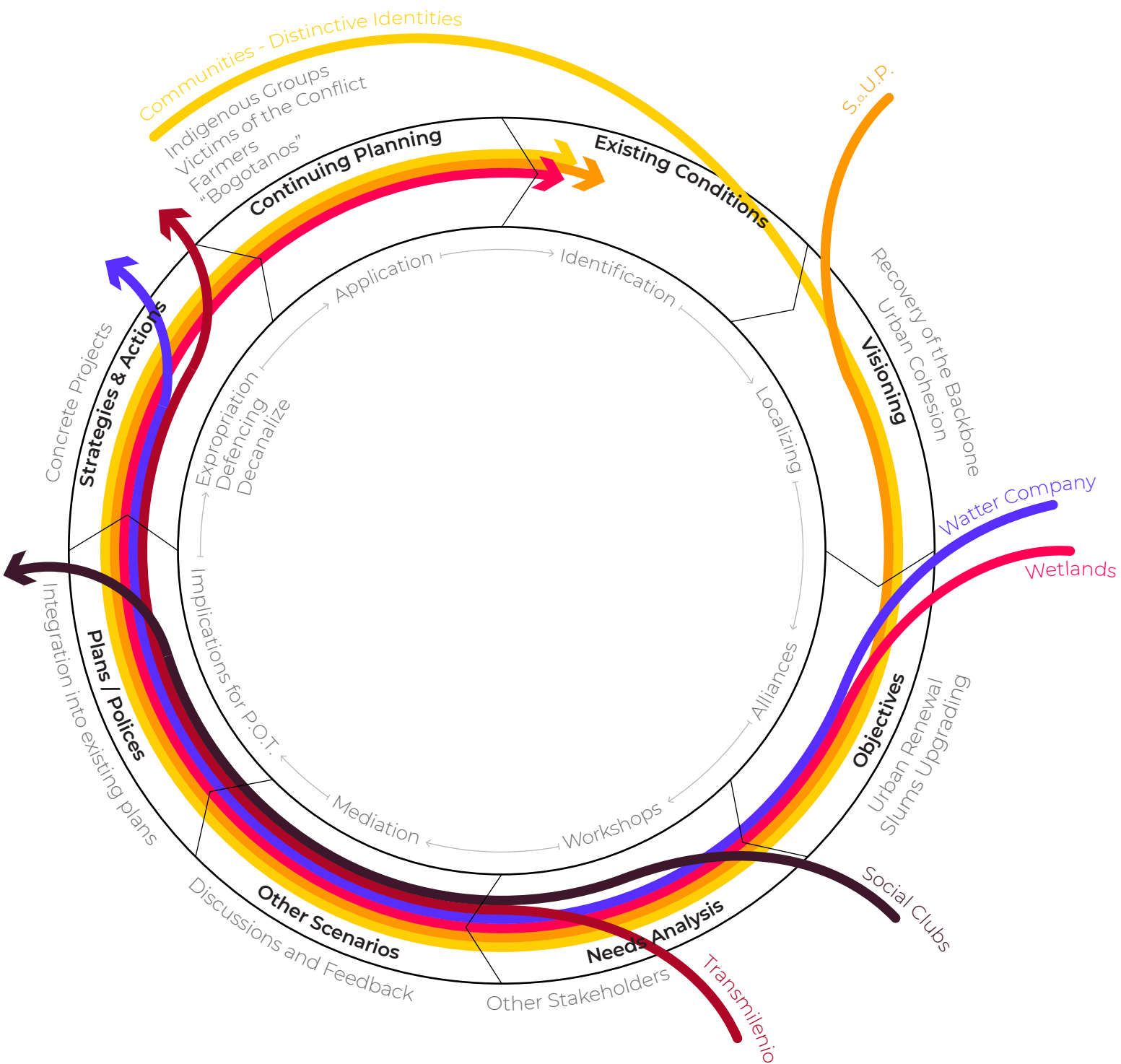
Once I established the processes of each of the stakeholders, I could see that there were many commonalities among the different processes and that the interactions between them formed a complex network of causes and consequences that influenced each other. Some processes triggered actions within others, and I could see that the real challenge was the coordination of the processes to generate an implementation together that made sense. The complexity of this lies precisely in that these are not simultaneous processes in all cases. Within the chain of stages that participatory planning would have, each stakeholder has a moment when their specific process begins and/or ends.

Therefore, I synthesized the processes of each of the stakeholders within an urban planning cycle in order to see in which stages the different participatory processes that I defined with the help of the 3A's Framework took place. The different stakeholders have different entry points within the cycle, and they occur at different stages of it, according to the relevance of the different processes to the overall project of which each one is a part.

Only 3 of the 6 stakeholders remain within the circle once they enter. The communities, nature, and the planning department remain in the circle, indicating that it is a feedback process, where the final outcome will set the initial conditions for any other project that comes afterward, chaining one intervention with the next and the next over time.

Figure 44.
Made by Author

Illustration that shows how all the different participatory processes would align within a planning cycle and the different steps at which the stakeholders have relevancy.



_TRADITIONAL PRACTICES

The consideration of traditional practices is perhaps the key point where Polymorphism comes into play at the smallest possible scale. It involves incorporating the cultural expressions of each group into public spaces, complementing and enriching the functional catalog of the urban fabric, with the aim of generating new synergies between local communities and those who have been displaced from their territories of origin.

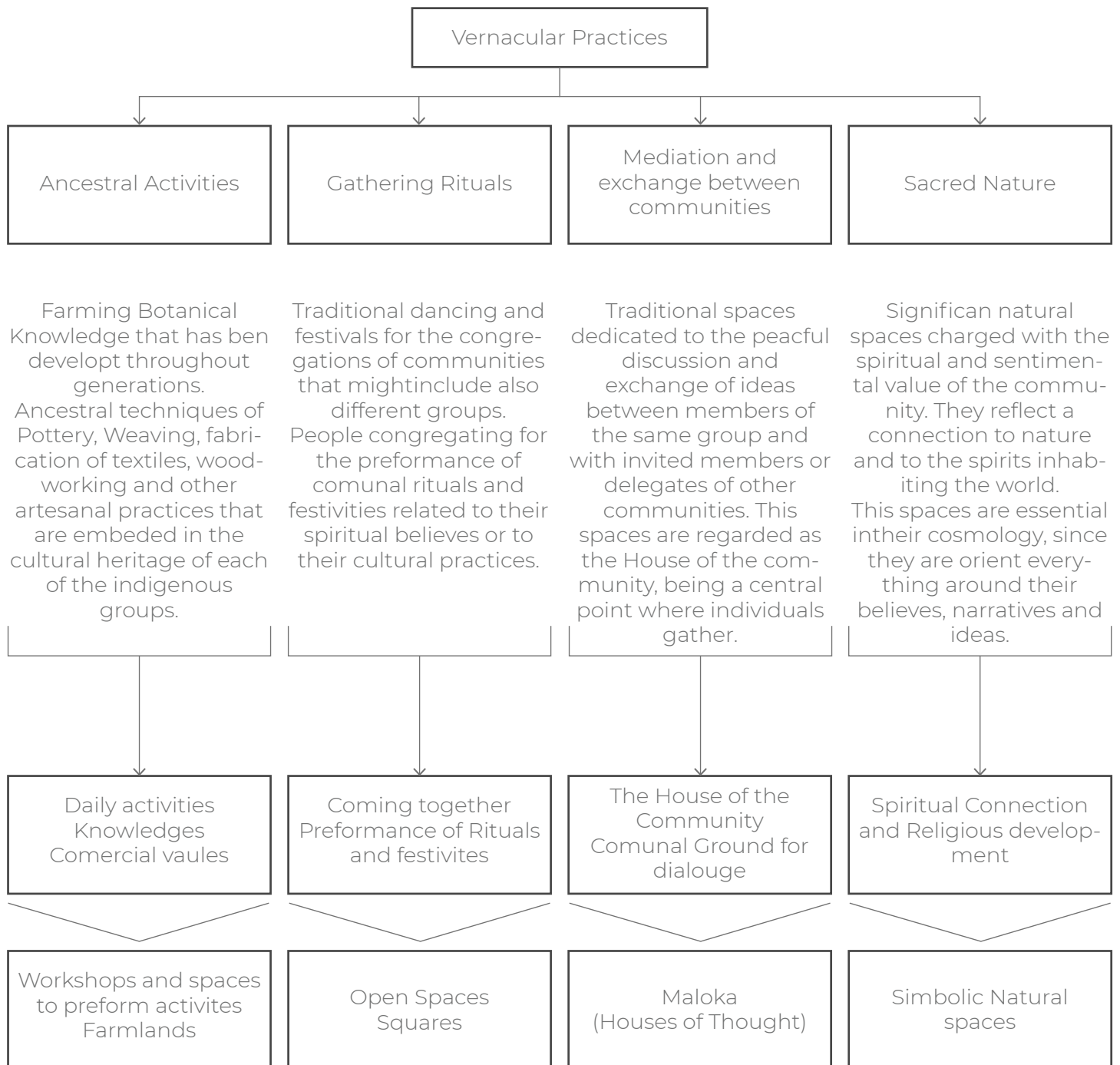
Here, an opportunity is given to replace spaces of sentimental, personal, cultural, and even spiritual value with spaces that can be revalued through the operationalization of their traditional practices. This occurs in a differentiated manner for each of the communities and could be incorporated into participatory processes between the planning department and the communities.

In this work, I provide an example of what the operationalization of vernacular practices could be in the case of indigenous communities. Based on a reading of existing case studies in Bogotá and projects for the reintegration of indigenous communities, I identified practices that can be differentiated into four distinct groups: manual activities and tasks such as weaving and ceramics; social congregations for festivities and group rituals; community houses or “Malocas”; and spaces of spiritual and symbolic value (Panqueba Cifuentes 2009). Each of these is expressed spatially and can be related to existing structures, generating new synergies between communities inhabiting the same space.

Here, the identity of each of the communities begins to play an important role because it is inferred that the different traditional practices will vary and correspond to the knowledge and cultural expressions localized in different parts of the country. This in itself implies extensive work that I did not have the opportunity to develop in this thesis, but I leave it hinted here as a key point within the proposal.

Figure_45.
Made by Author

Diagram that shows the operationalization of the vernacular practices of the indigenous communities.



_PROPOSAL TOP-DOWN

From the other extreme (Top-Down), the proposal involved a reassessment of the current policies and plans for this sector of the city, under the principles that I have already outlined throughout the project. This aims to align and integrate different plans according to the interests of the communities and to generate continuity in the city's ecological structures.

The plans I analyzed are part of the proposals made by the planning department that encompass projects up to the year 2035, defining four main structures that shape the city: 1. Main Ecological Structure, 2. Integrative Heritage Structure, 3. Functional and Care Structure, and 4. Socioeconomic and Cultural Structure (POT. Decree 555 of 2021).

Selecting the most relevant elements from these for urban cohesion, I developed the following three analysis plans that synthesize the vision of Bogotá in three main themes: 1. Plans and Zoning, 2. Mobility Structure, and 3. Ecological Structure.

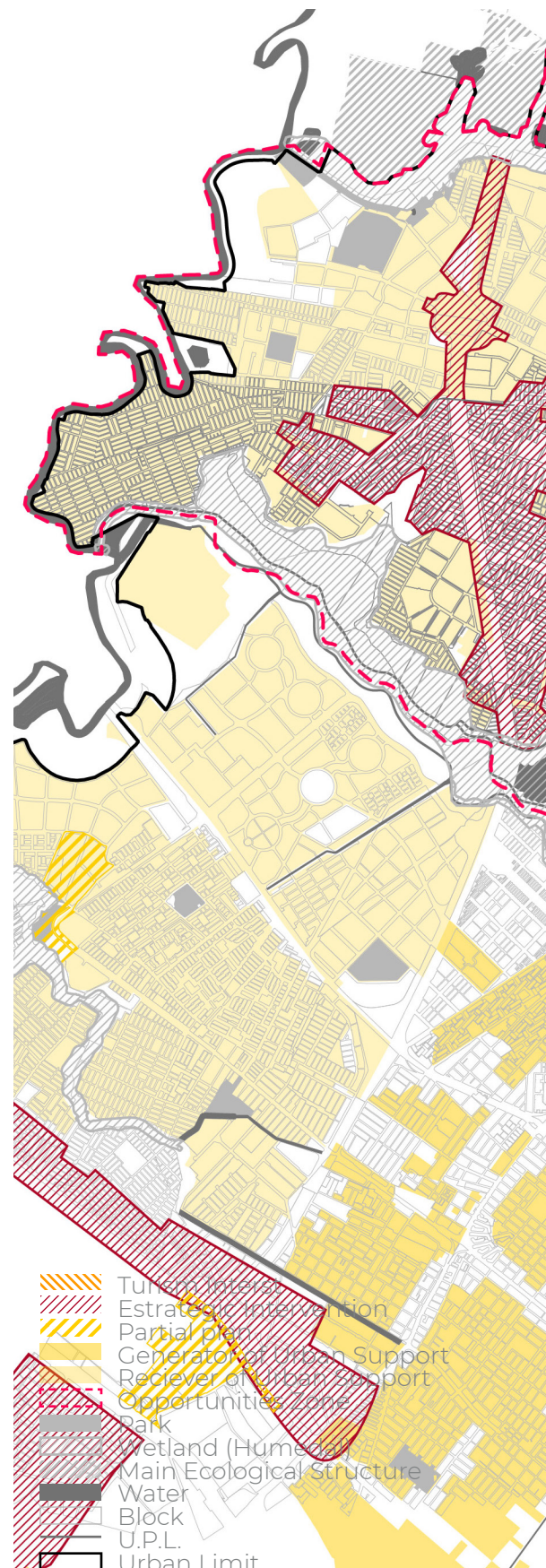
PLANS AND ZONING

This plan encompasses the zoning differentiations considered in Bogotá's Land Use Plan (P.O.T.), ranging from areas providing and receiving metropolitan services to zones designated for strategic interventions and partial plans. The intention of this first level of analysis is to broadly determine the intentions and stances regarding different sectors of the city. Identifying sectors lacking interventions or being generally designated as opportunity zones indicates a lack of integration by the planning entities.

Thus, I identified that El Rincón de Suba is an area that does not seem to have great relevance within the zoning delineations of the P.O.T. However, this does not automatically imply negligence on the part of the planning institutions; it may signify significant complexity when attempting to intervene in this particular urban space from a large scale such as the metropolitan

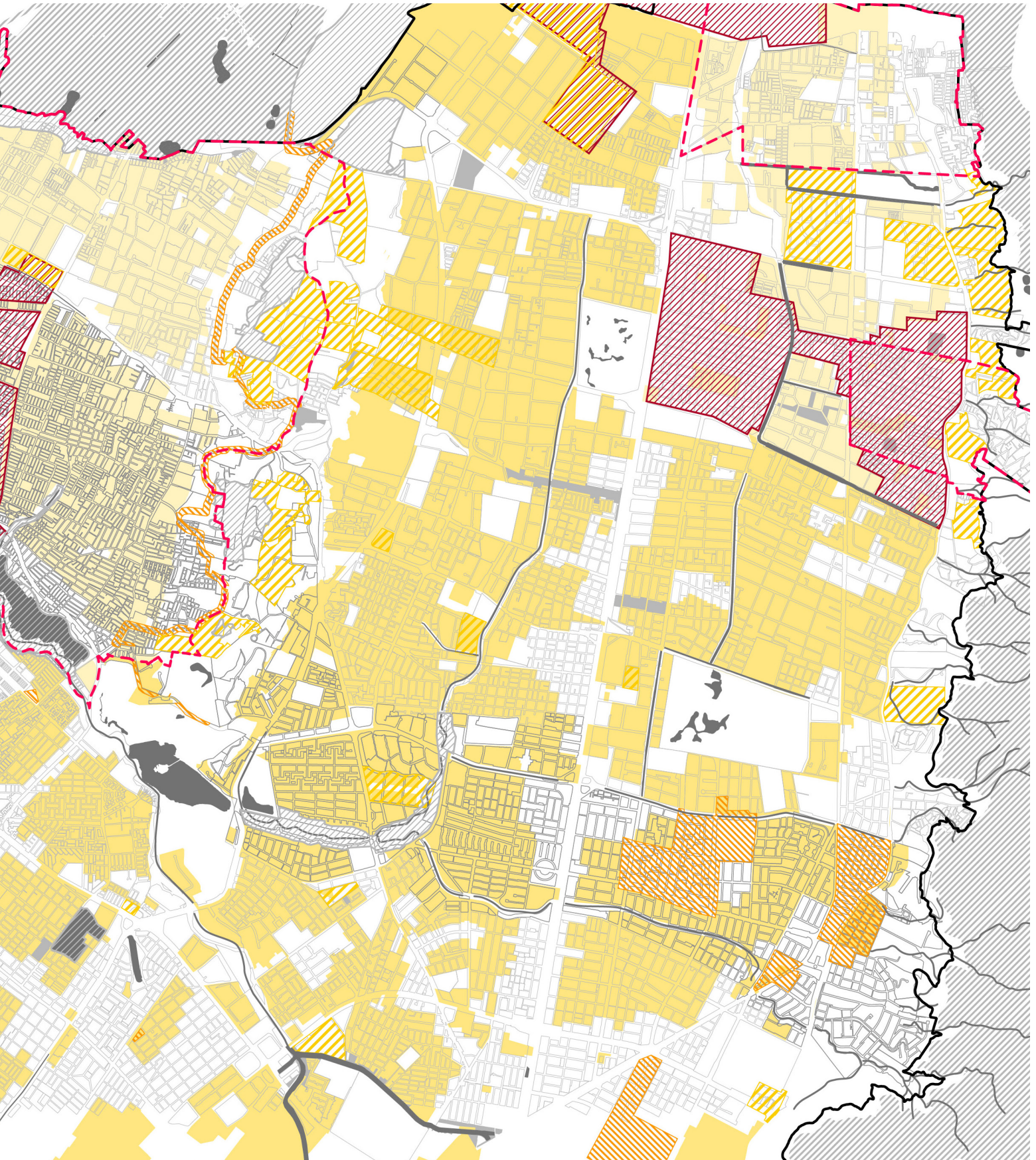
Figure 46.
Made by Author

Map that shows the different zoning and general characterization of the city done by the Secretary of Urban Planning.





1:45.000



level. On the other hand, the district marks the entire area of the Suba locality as an area of opportunities, suggesting indeed an interest on the part of the district to intervene and generate urban interventions in this sector.

What the P.O.T. may not resolve on a large scale could be addressed through participatory planning interventions, creating new tools for insertion and intervention in complex social and urban fabrics like this one.

TRANSPORT STRUCTURE

Within the plans considering the city's main road network and transportation systems, there are three relevant topics for El Rincón de Suba.

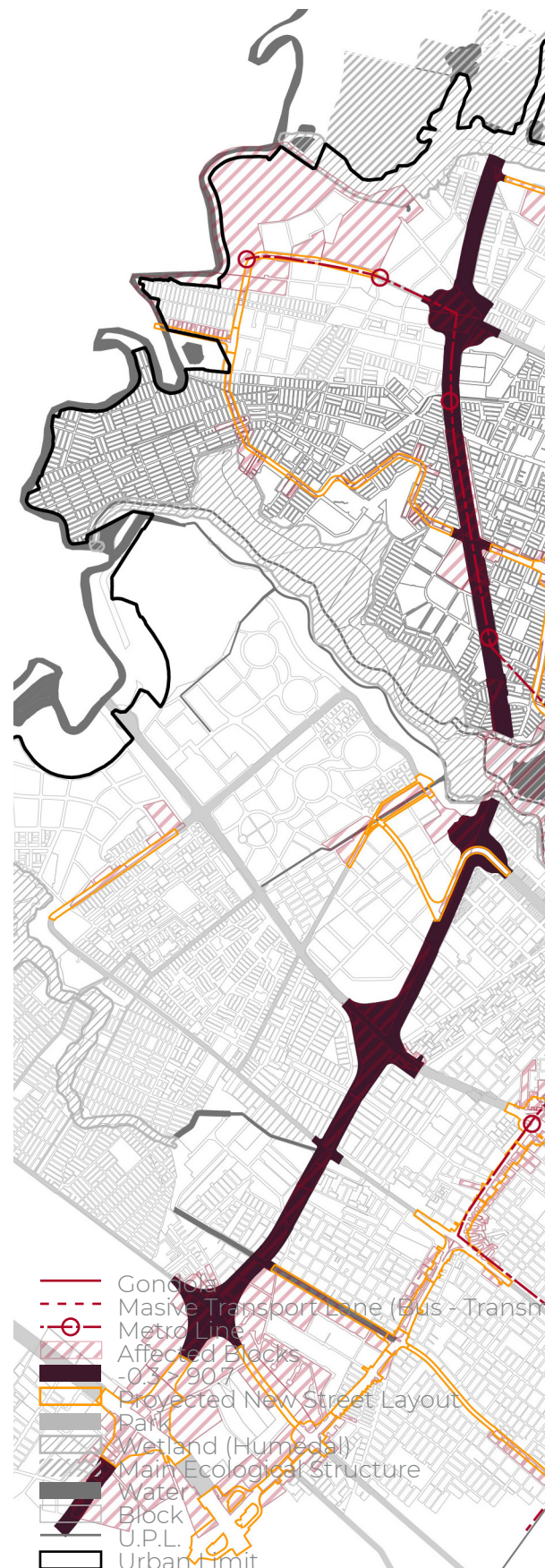
The first is the second metro line, which borders the southern and western sides of the UPL throughout its extension. The second line of the Bogotá metro is still in very early stages of development, and there is not much information available yet beyond the proposed route. It is planned to be an elevated metro, requiring significant space and isolation on both sides of the line.

The next topic is the proposal for the Western Longitudinal Highway or "A.L.O.," which is currently under review, although the lands designated for intervention have already been acquired by the district. This presents an opportunity to use this space within the proposal, as it represents a large area currently unused.

The third topic is the new routes of main roads contemplated within the locality, aiming to expand the city's vehicular mobility network and increase connectivity between sectors. Despite this, they have severe consequences for the urban fabric as they affect a large number of existing blocks and residences that might suffer more with the insertion of broad-profile roads like these.

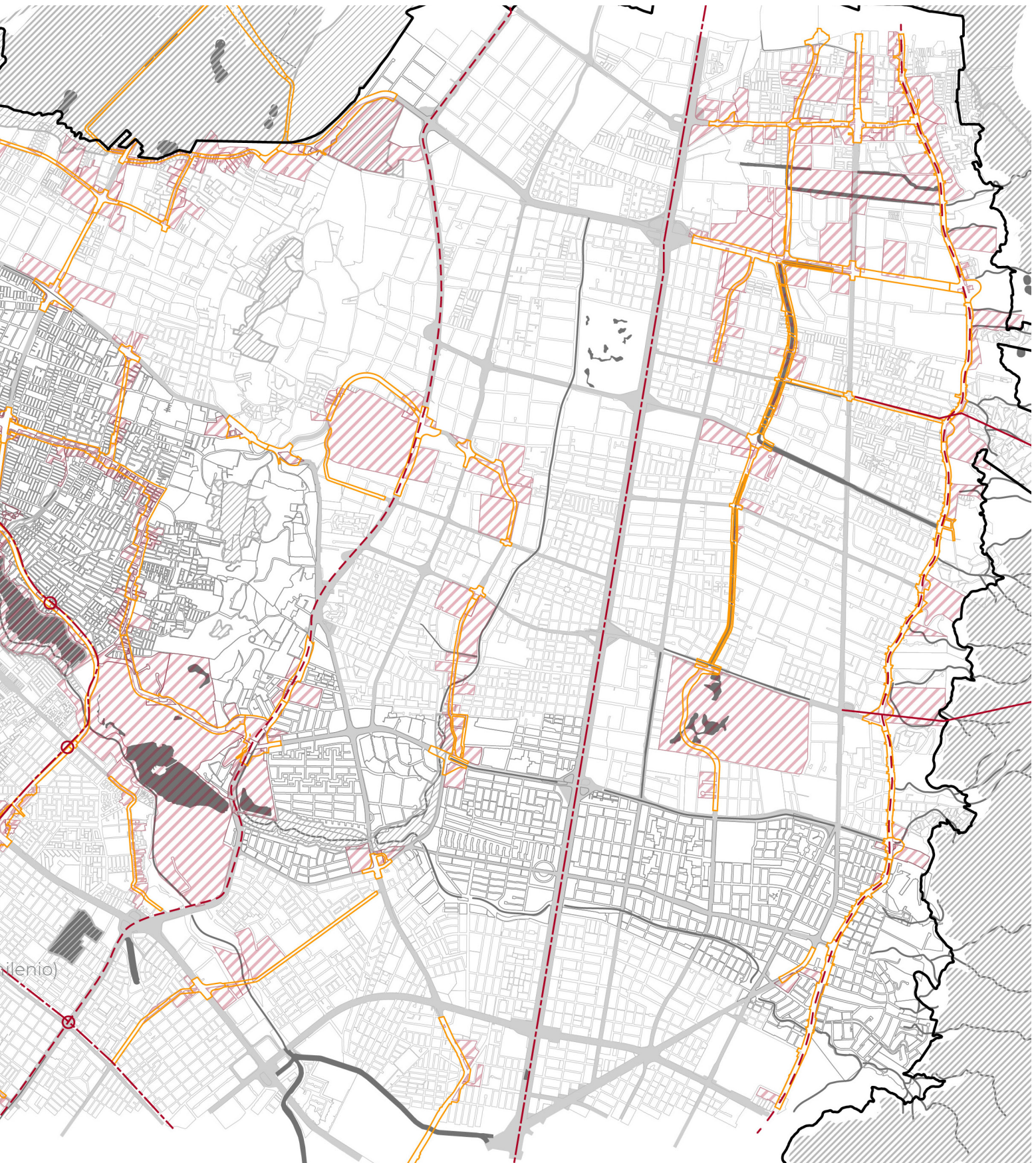
Figure 47.
Made by Author

Map that shows the New street Layout proposed by the Secretary of Urban planning and big mega projects regarding the mobility of the city.





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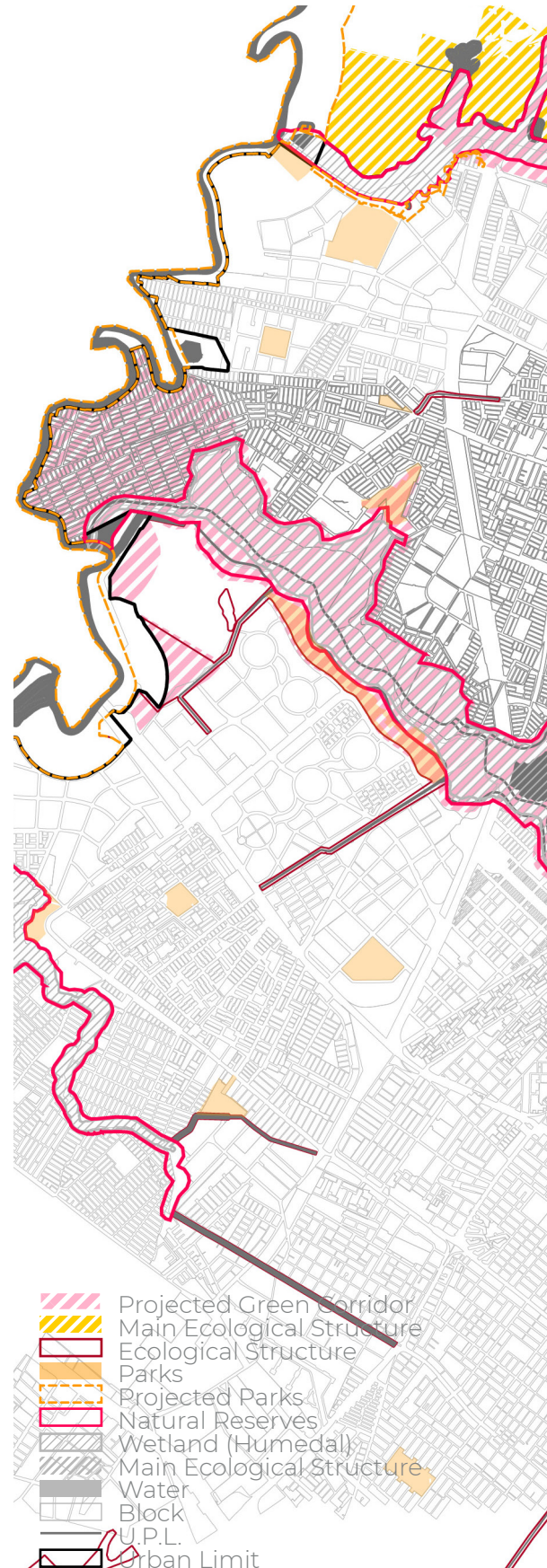


ECOLOGICAL STRUCTURE

Within the considerations of the P.O.T. regarding the ecological systems and green spaces of the city, it is worth highlighting 2 essential topics that I will use for the final proposal of this thesis.

The first topic is green connectors. These are delimited areas with an ecological character that aim to connect the main ecological structures of the city. They are large areas that cross the city and have the potential to connect different sectors along a transversal axis, which is currently non-existent and not visible within the existing urban fabric. The layout of these areas raises several questions, as they do not seem to take into account all the ecological bodies of the city and appear arbitrary regarding several of the contemplated zones (especially areas on the western side, over the formal city).

The second topic concerns urban edges on the western and eastern sides, where new parks are proposed on each side, forming linear parks together with the aim of integrating both the river and the mountains into the main structure of the city.

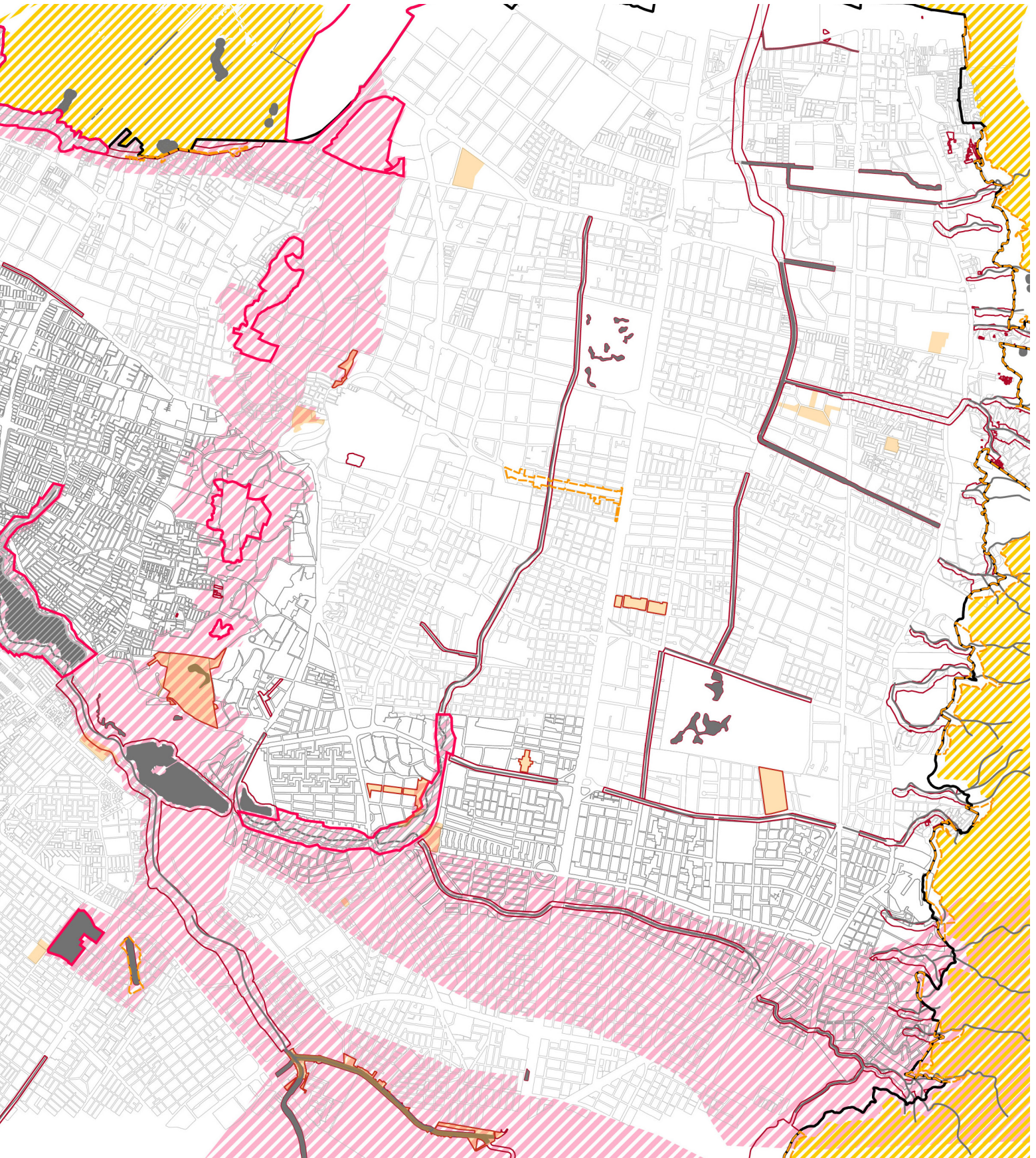


Figure_48.
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Map that shows the proposals for the ecological structures of the city.



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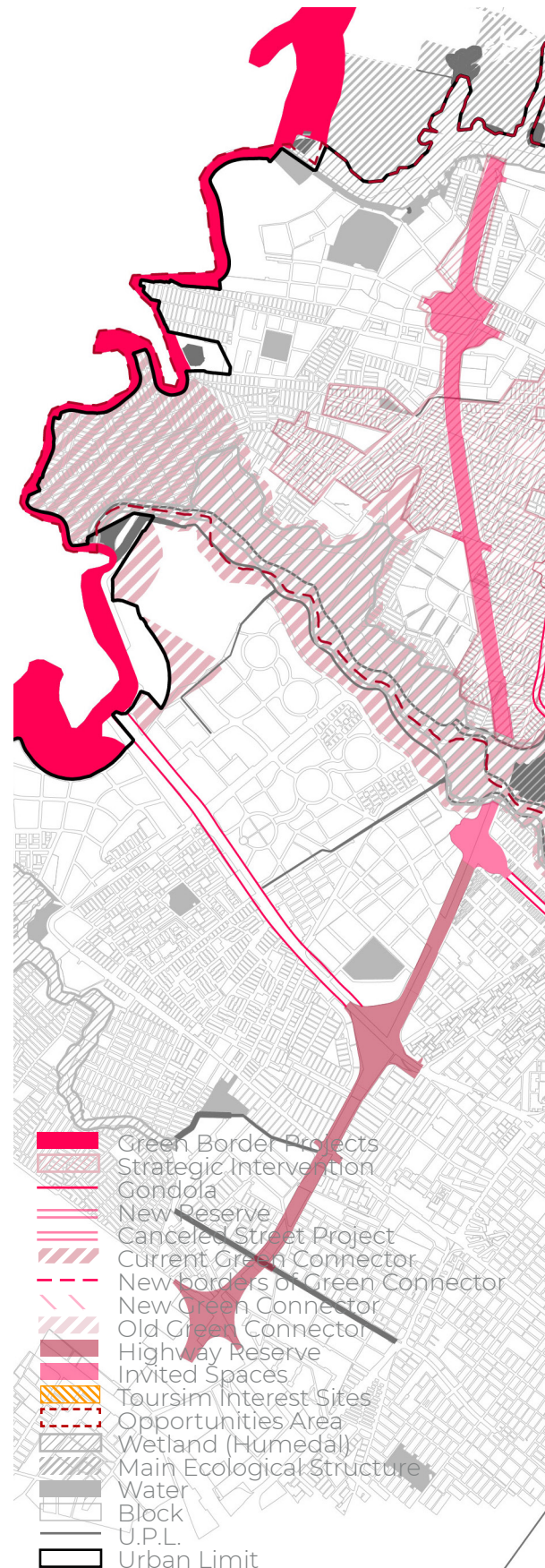
_CONSIDERATIONS & REMARKS

Upon combining the plans and reading the various proposals together, there are elements that do not seem entirely consistent with each other. Especially, the expansions of the urban structure appear contradictory to what is proposed in the other areas, further fragmenting the fabric that the other two dimensions seek to consolidate (not to mention the number of households they would affect).

The new roads traced in El Rincón de Suba completely cut the urban fabric in two, further isolating it from the rest of the city to the east. Similarly, the A.L.O., being such a massive project, represents a definitive rupture that could ultimately sever the western edge of the city forever. Rethinking the edges of the ecological structure could both benefit mobility in the east-west direction and consolidate the spaces designated for ecological bodies compared to the rest of the city.

Similarly, the layout of the ecological corridor could be reconsidered to include more natural bodies. For this, it would be necessary to move it northward to include the 127th Street river, thus encompassing the entire Córdoba wetland and delimiting it on all fronts by natural corridors that are currently considered within the city's ecological structure. With this change, the corridor could also contain tourist interest areas, generating synergies between these and the developments of ecological significance within the urban redevelopment that the corridor implies.

The green edges on both sides are a complete success within the city's vision, as they bring the city closer to the main ecological structures and encourage their recovery (especially the river).



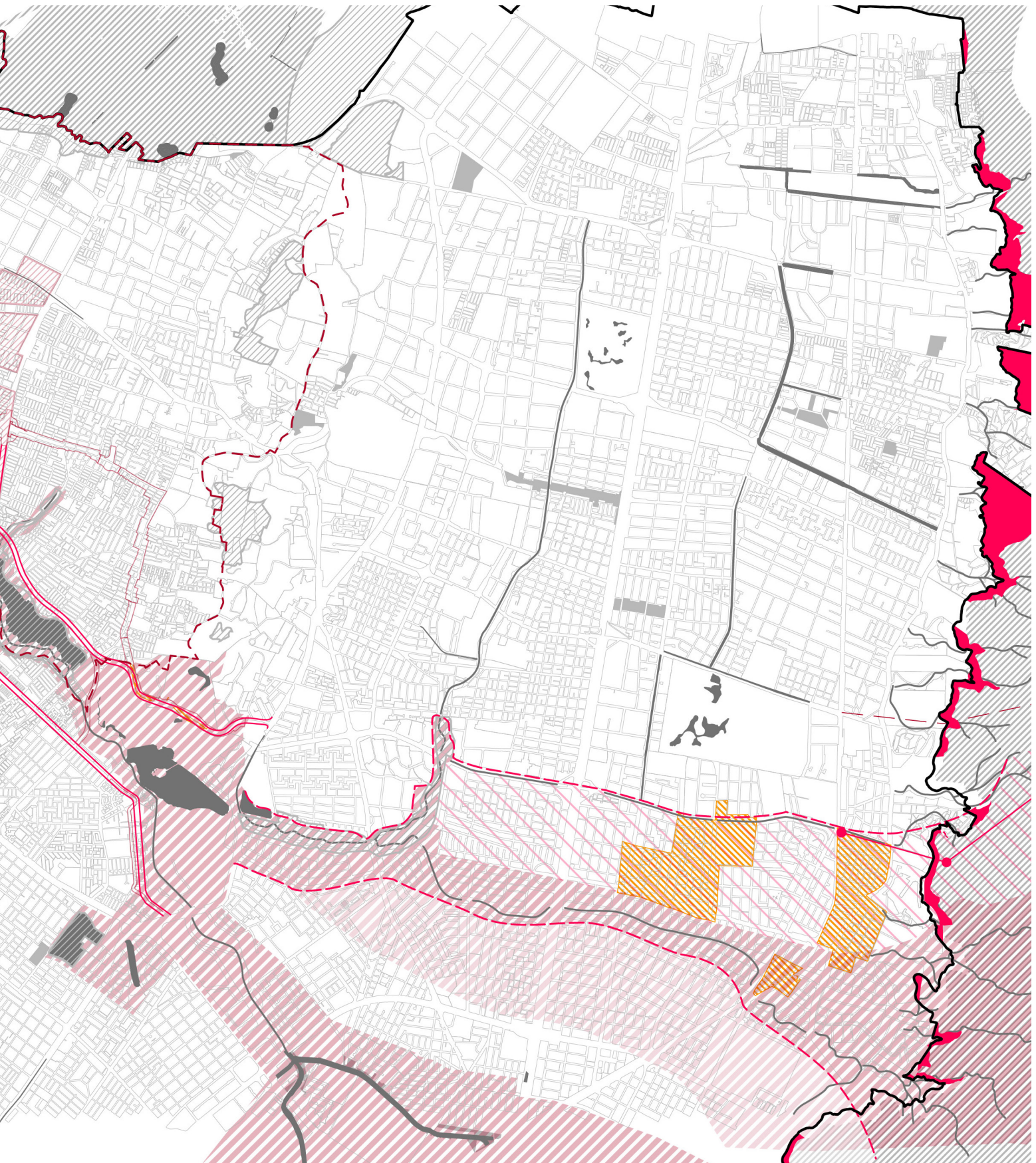
Figure_49.

Made by Author

Map that shows the overall considerations made by the author over the current plans of Bogotá.



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_GENERAL INTENTIONS

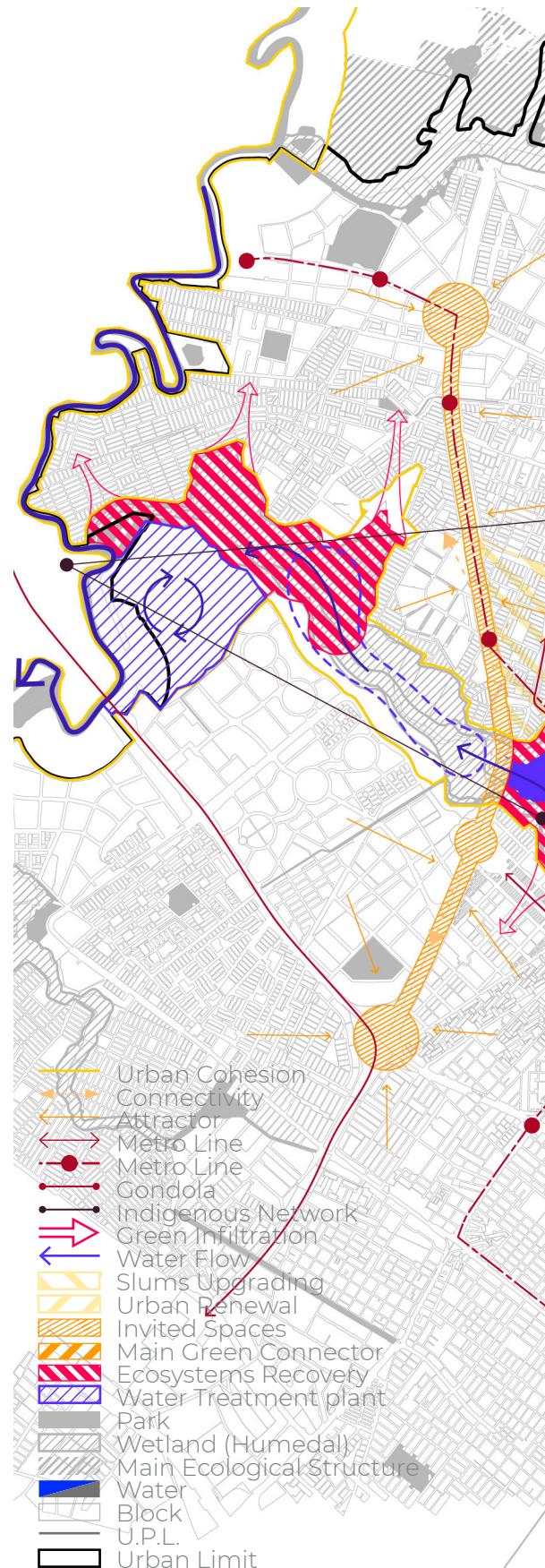
Based on these considerations, I formulate the general intentions of the project. Clearly, these intentions are aligned with the principle of urban cohesion, defining and orienting the different aspects to generate a single urban fabric that interweaves the fragments that currently have no relationship with each other.

Firstly, I define the blue structure as a single system, upon which I organize the other pieces of the corridor. The purpose of this is to connect all water-related bodies and allow water to follow a natural course from the mountains to the Bogotá River. Within this structure, I also include the existing treatment plant located on the Bogotá River, which, although it should have already been naturally treated as it passes through the wetlands and other ecosystems, should be purified before flowing downstream.

On the flow generated by this blue structure, I define 4 green bodies, which are the target of the main ecosystem recovery efforts and from where green spaces and ecological services infiltrate the city, serving the different communities on all fronts.

These cores are starting to be linked through other interventions. The most crucial is the expropriation of the land currently occupied by the club. This space is designated for a metropolitan park that, in addition to connecting the two wetlands, allows for exchange between the city sectors and opens up El Rincón de Suba towards the west and south.

Furthermore, reserving the A.L.O. space, instead of further dividing the different sectors of the city, creates spaces for free intervention, or invited spaces as defined by Faranak Miraftab (Miraftab 2016), allowing communities to gather in this space and dispose of it in the way they consider best. This not only gives a community sense to this space but also creates an attraction around which new developments can be organized. This space, together with the metro line, becomes a corridor that

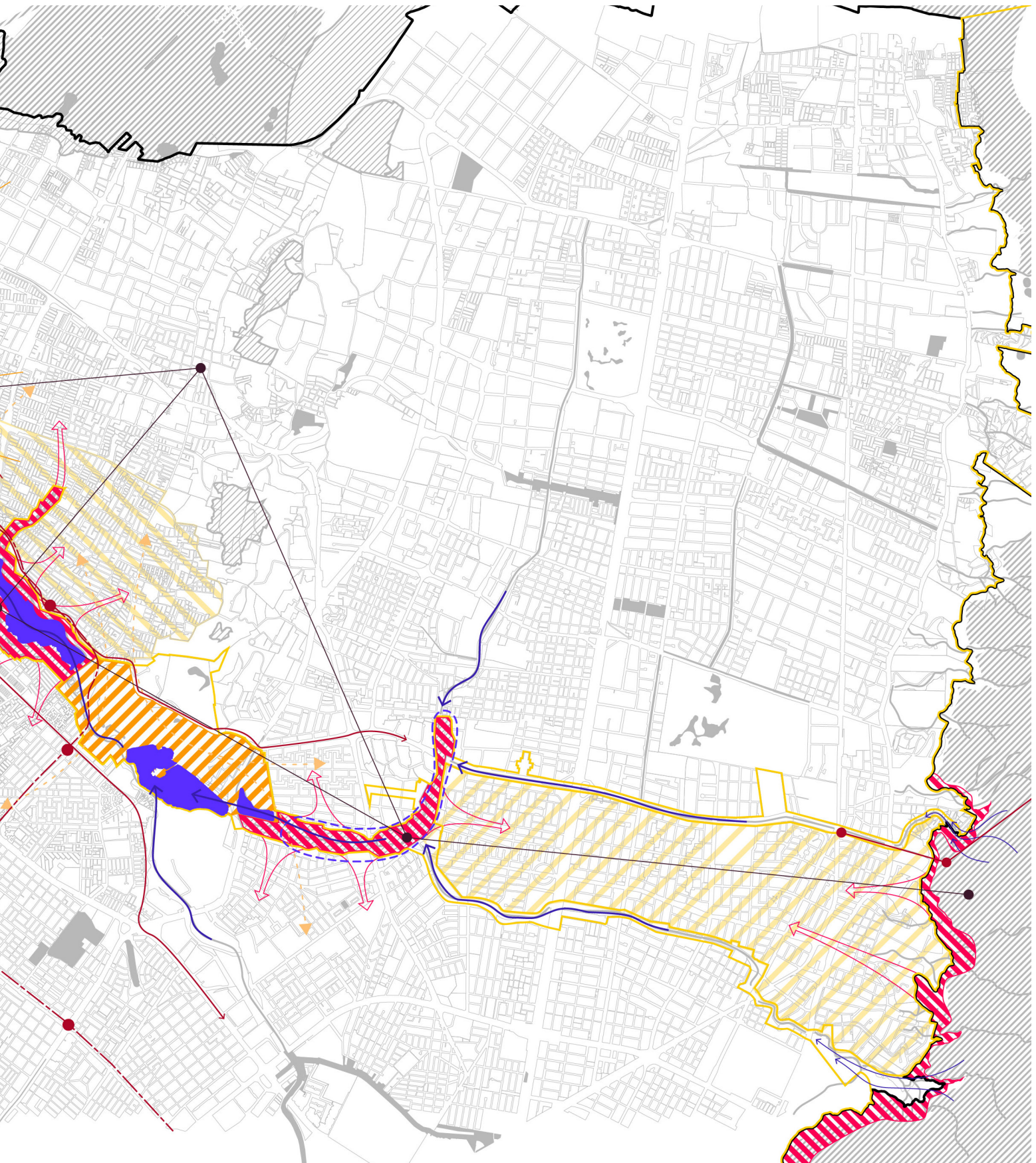


Figure_50.
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Map that shows the general intentions and ideas of the design Project.



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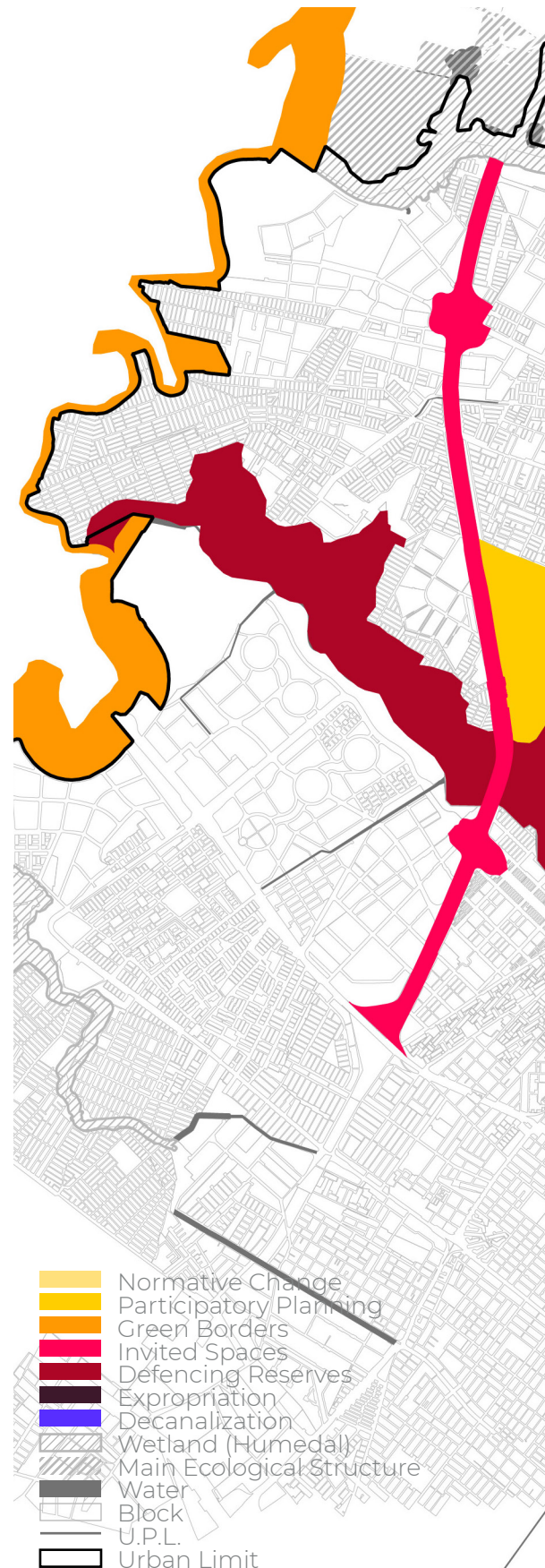


connects the north-south axis of this side of Bogotá.

Additionally, if traditional practices are introduced within the corridor, functional networks emerge (for example, the indigenous practices network) that activate different sectors of the city.

_STRATEGIES & APPROACHES

The different intentions can be defined under concrete strategies that, following the principle of Polymorphism, adjust to the pre-existing conditions of each urban space, differentiating themselves from each other in the approach they follow but with the objective of interweaving and consolidating a single body.

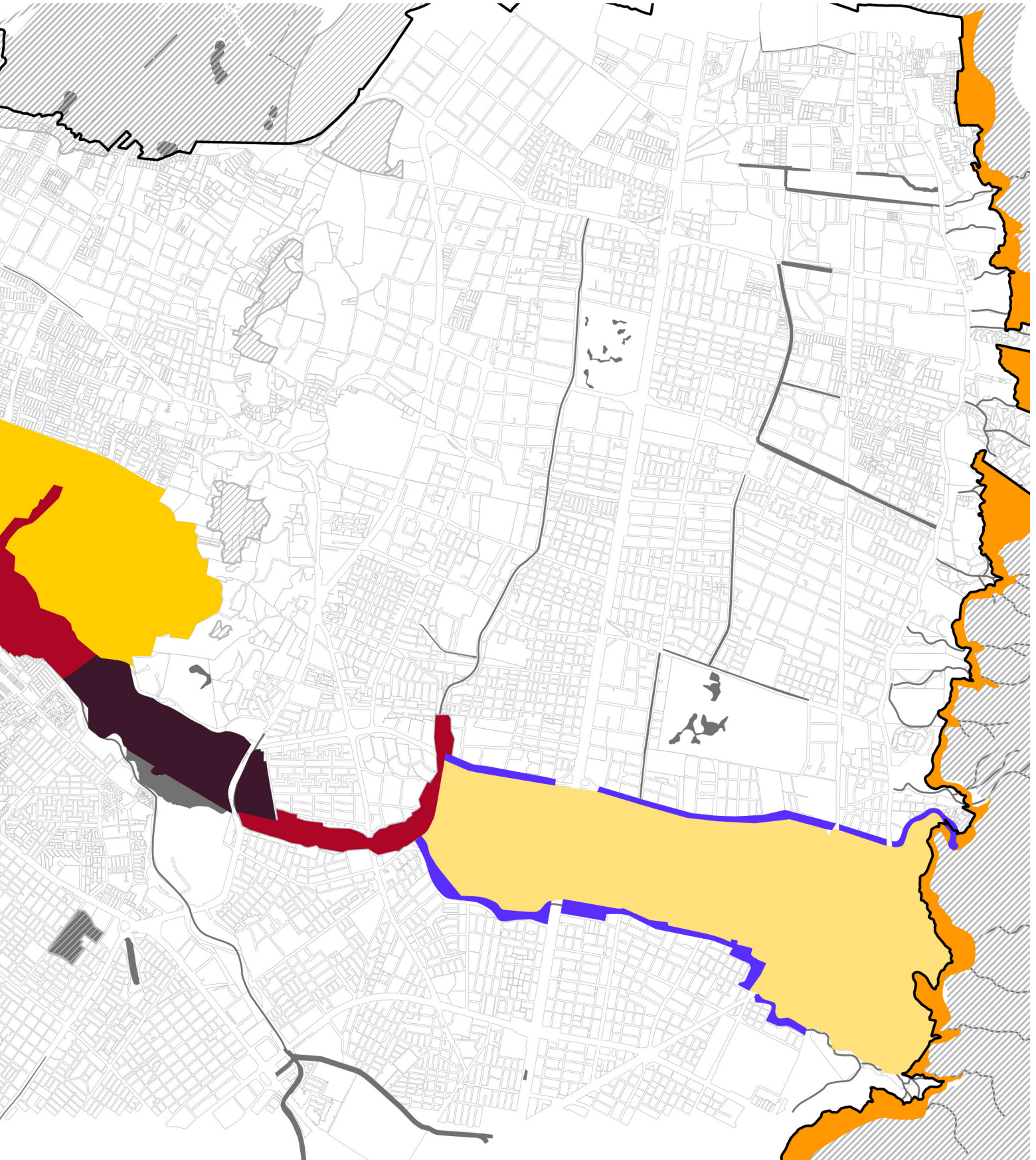


Figure_51.
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Map that shows the proposed strategies that compose the design.

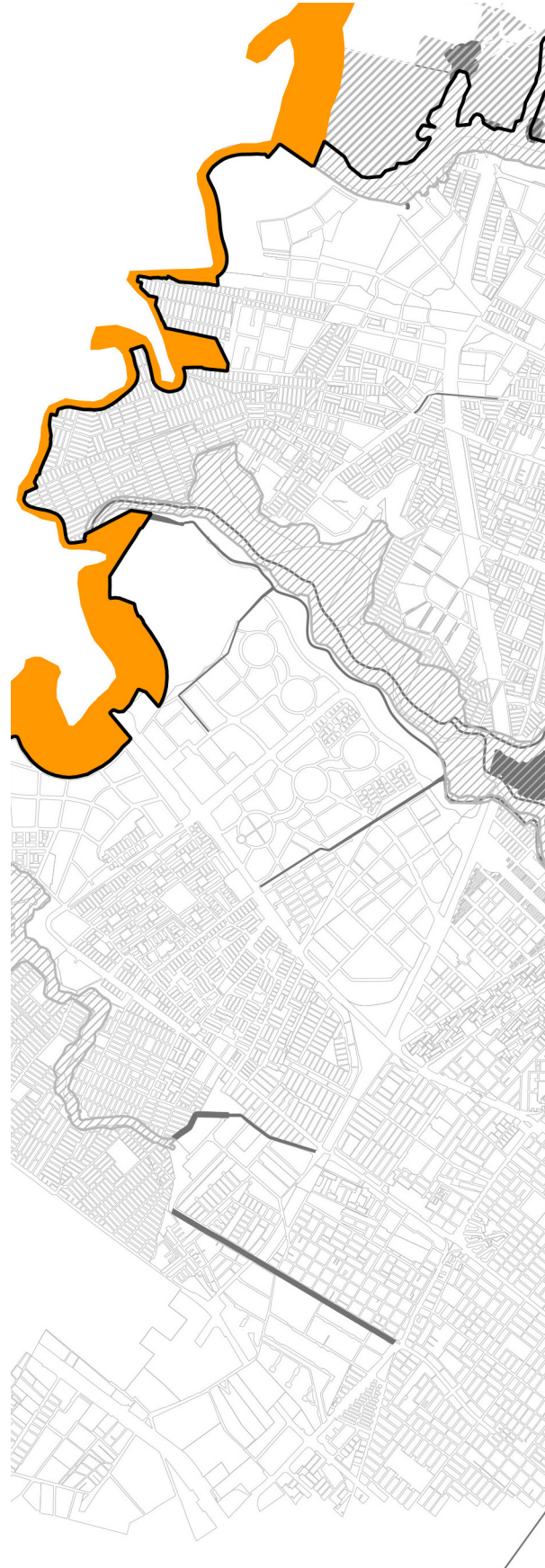


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GREEN BORDERS

The first strategy is the consolidation of green edges, which define the starting and ending points of the corridor and generate two new ecological edges that, rather than limiting the city, relate it to its main ecological structures.



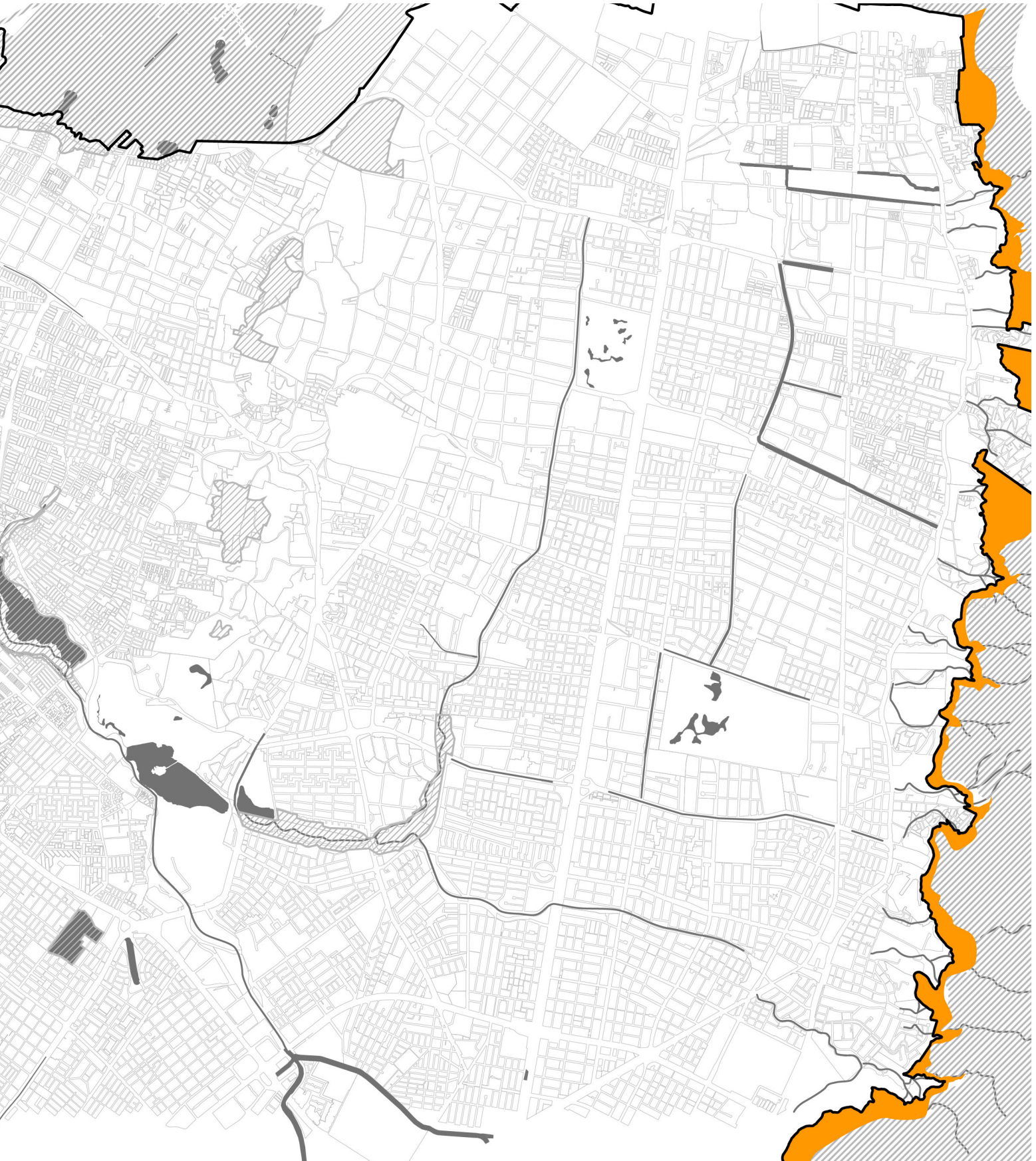
Figure_51.3

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Map that emphasizes on the "Green Borders" strategy

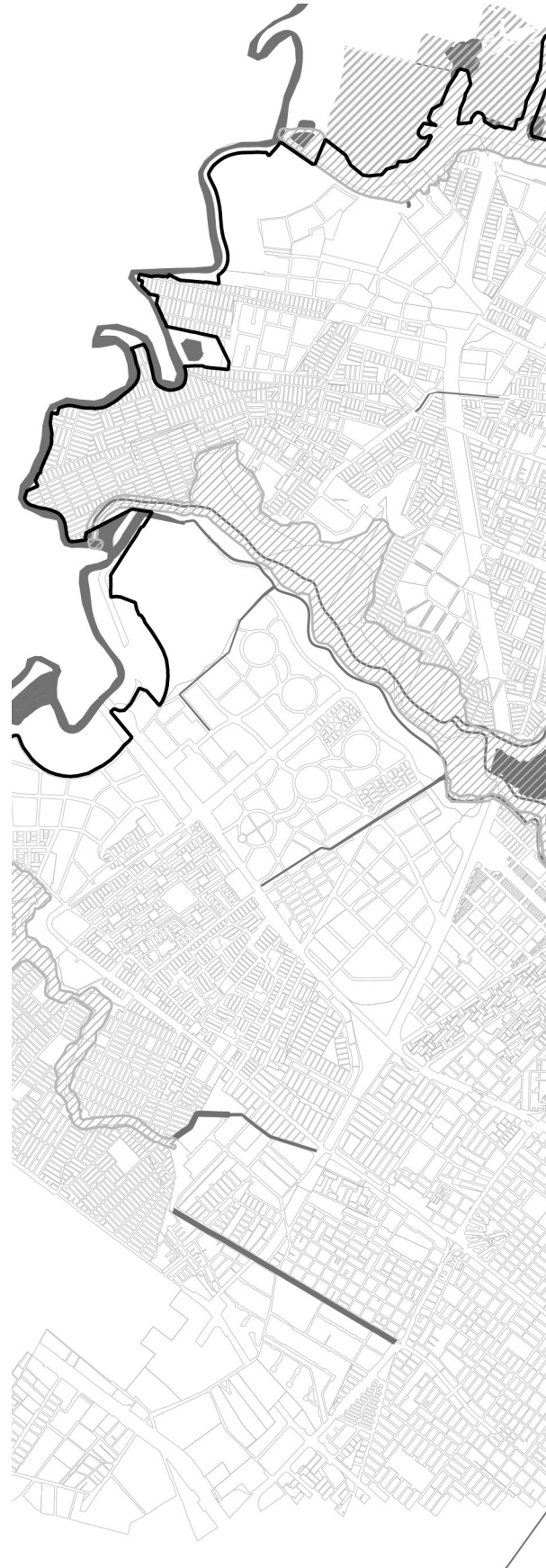


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DE-CANALIZING

To consolidate the green corridor, two strategies are necessary that act on natural bodies. The first is river channelization, which aims to return these structures to a more natural state, encouraging ecological services to occur organically rather than mechanically, as they do today.

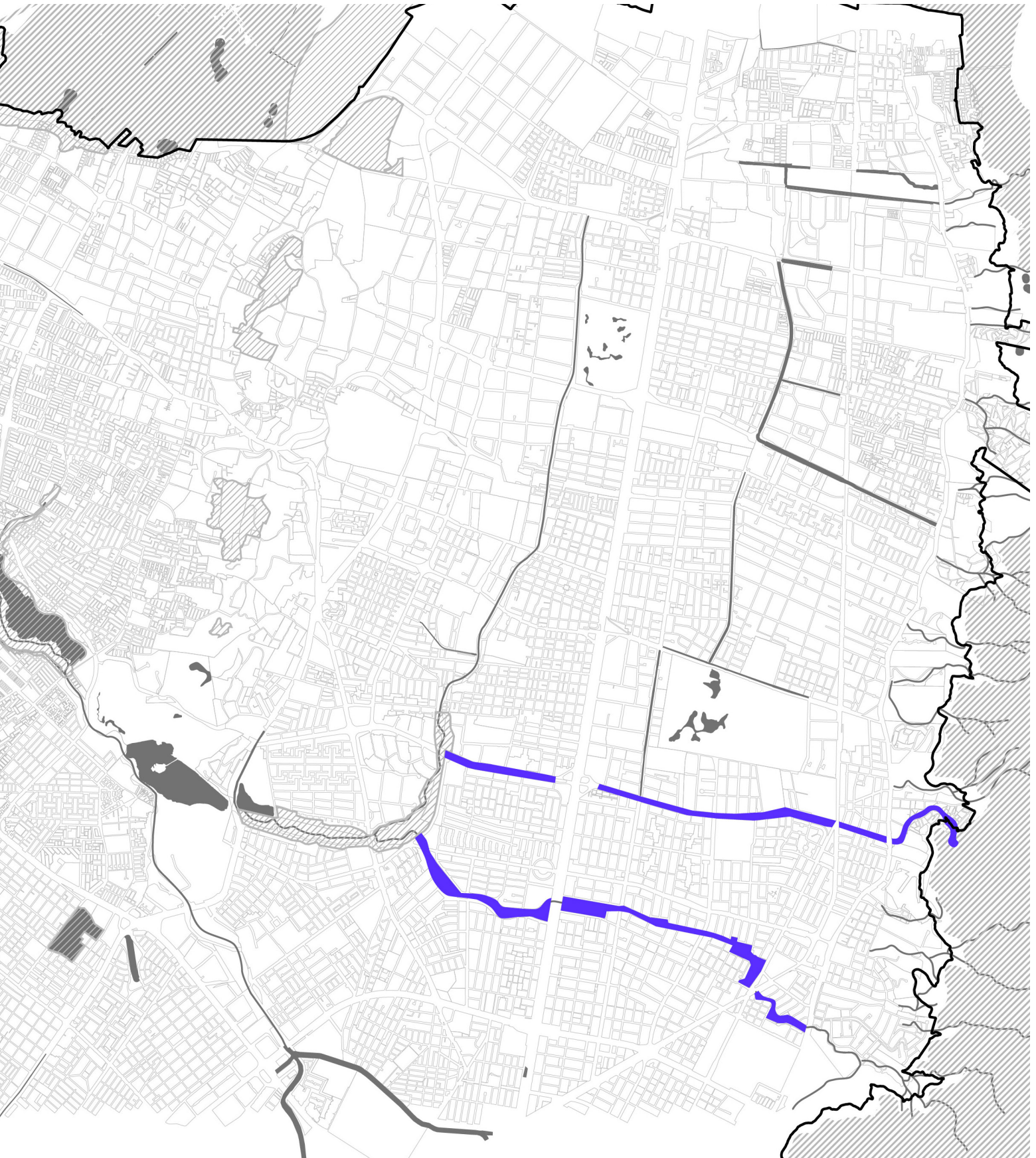


Figure_51.7
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Map that emphasizes on the "Decanalization" strategy

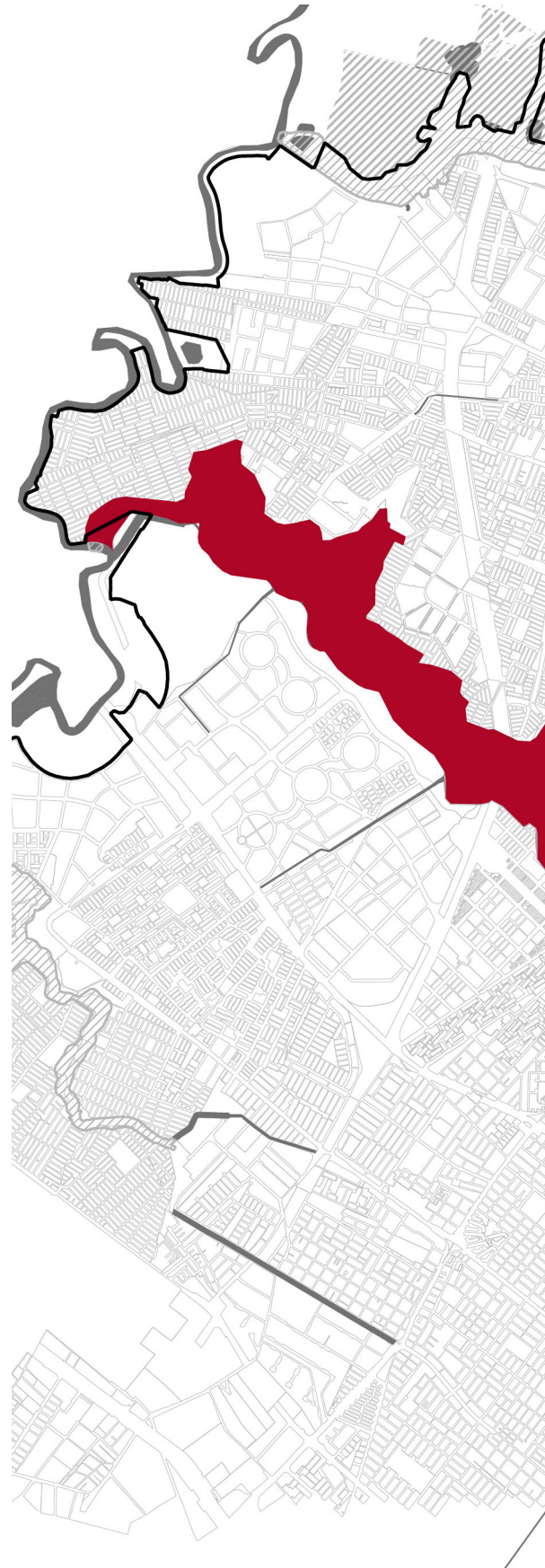


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DE-FENCING RESERVES

The second is the defencing of natural reserves, allowing them to open up to the city and once again enabling exchange between communities and their ecosystems.



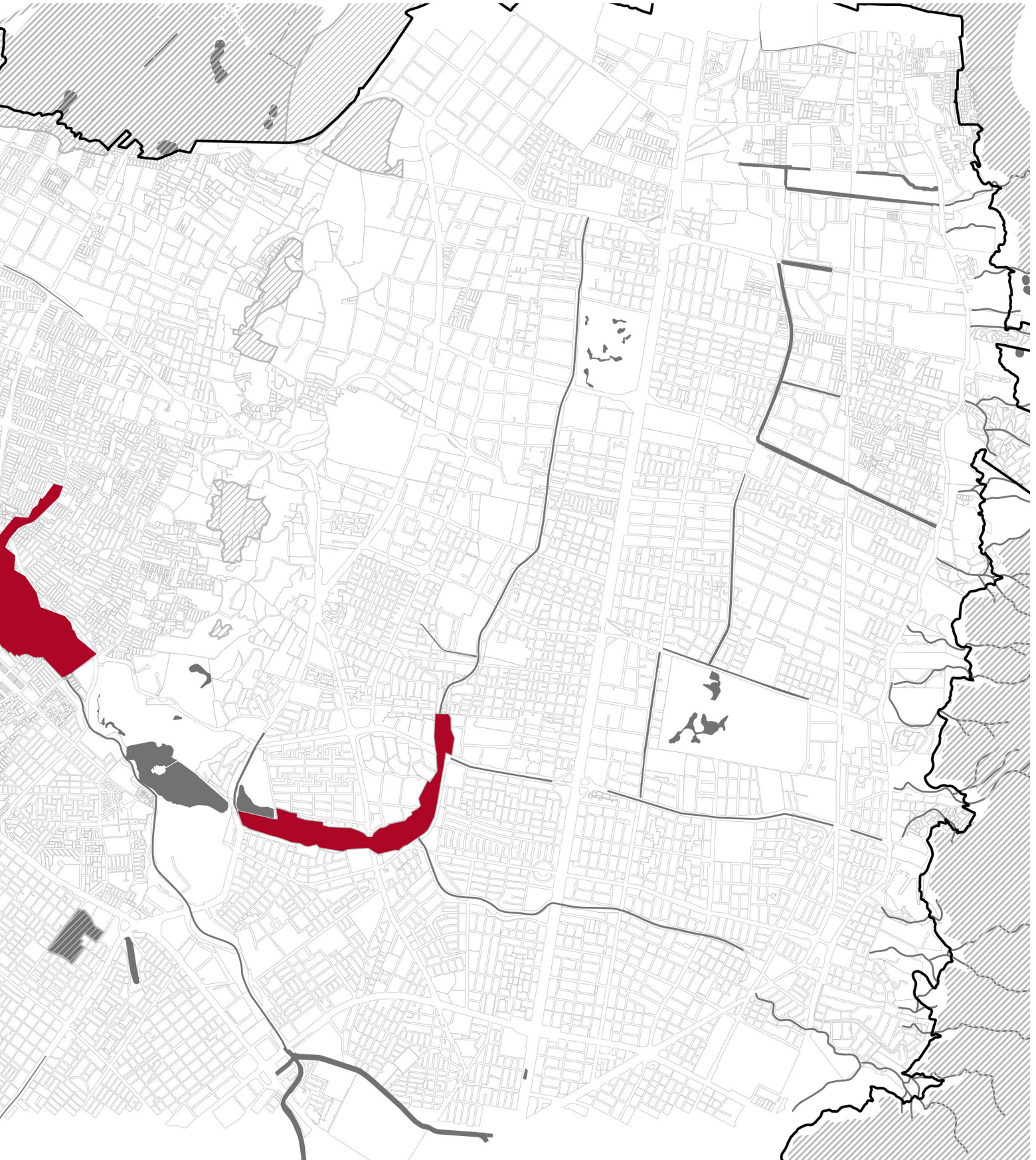
Figure_51.5

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Map that emphasizes on the "Defencing Reserves" strategy

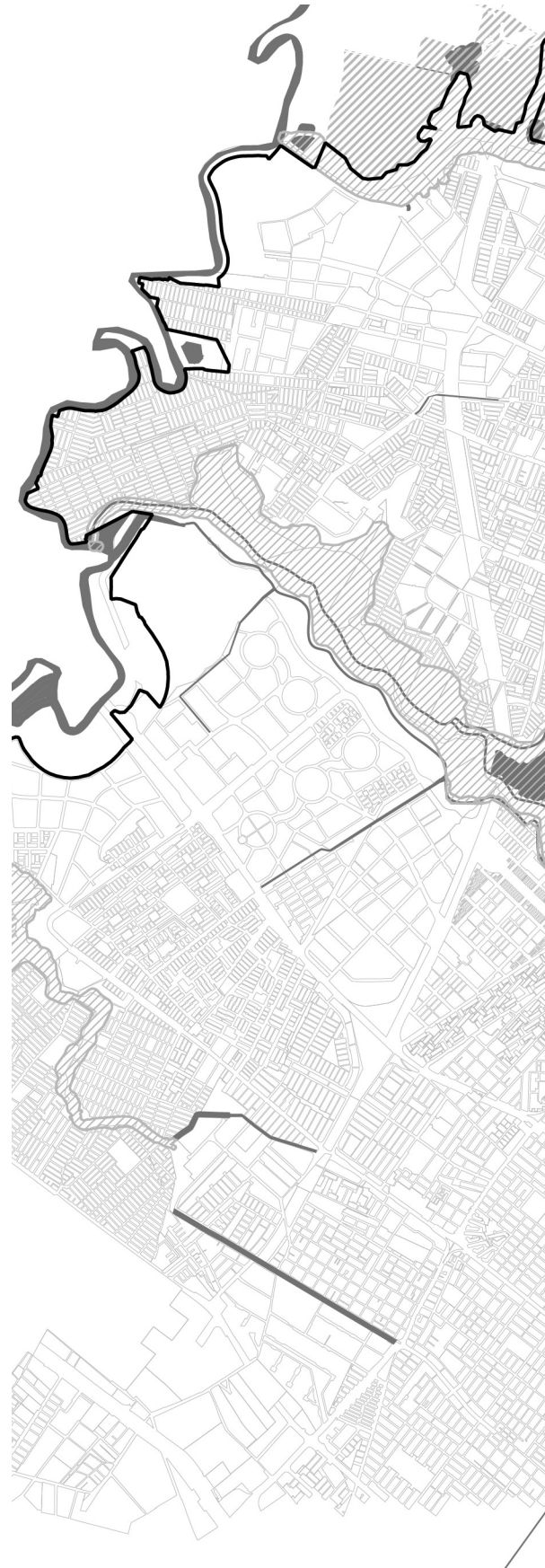


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EXPROPRIATION

To connect the reserves, it is necessary to expropriate the clubs, which ultimately provides continuity to the wetlands through a new metropolitan park.

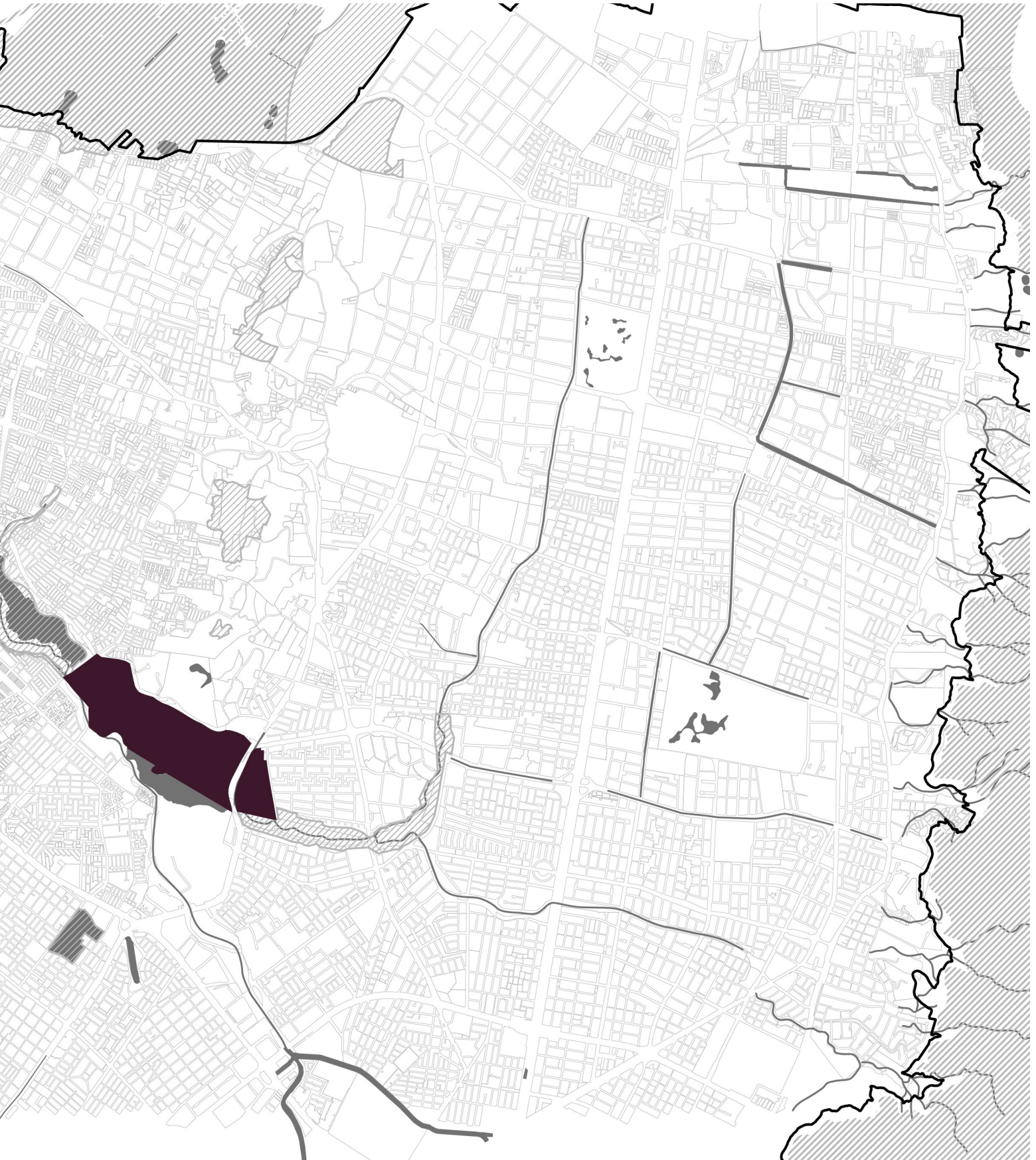


Figure_51.6
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Map that emphasizes on
the "Expropriation" strategy

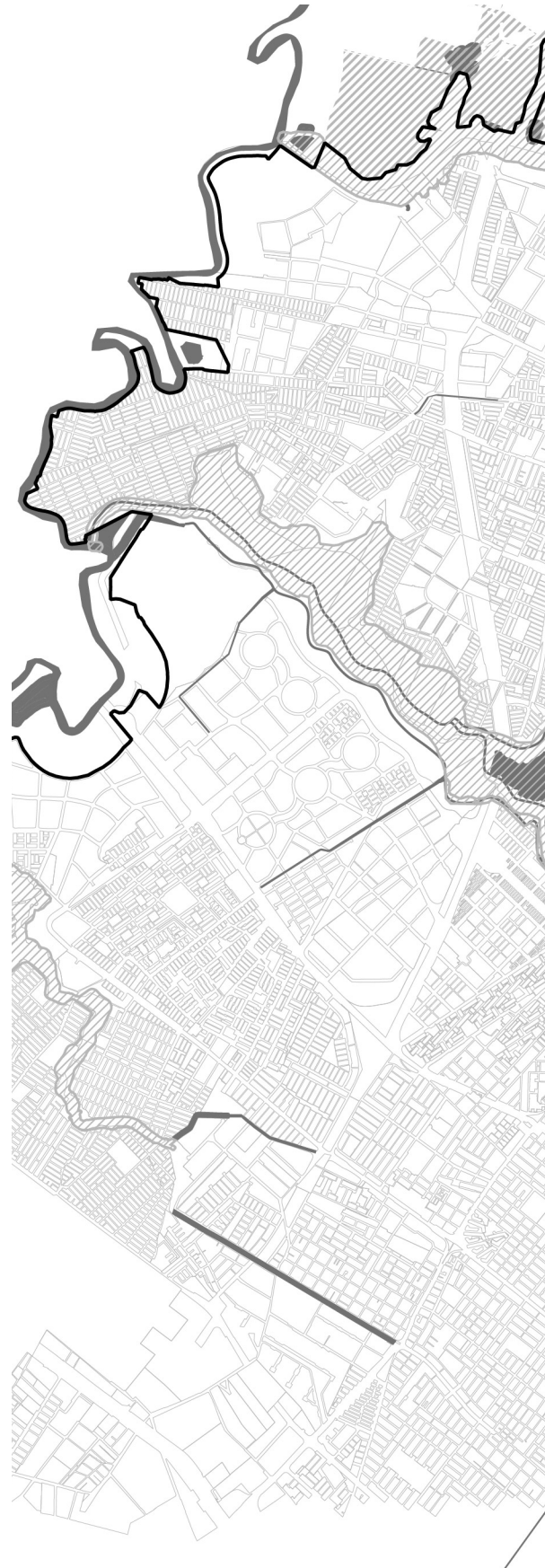


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NORMATIVE CHANGE

Two types of strategies are aimed at urban renewal on the two sides of the corridor. One focuses on the formal city, considering the economic capacity of the communities residing here, based on normative change to incentivize new developments in the sector to implement more sustainable strategies within the new developments.

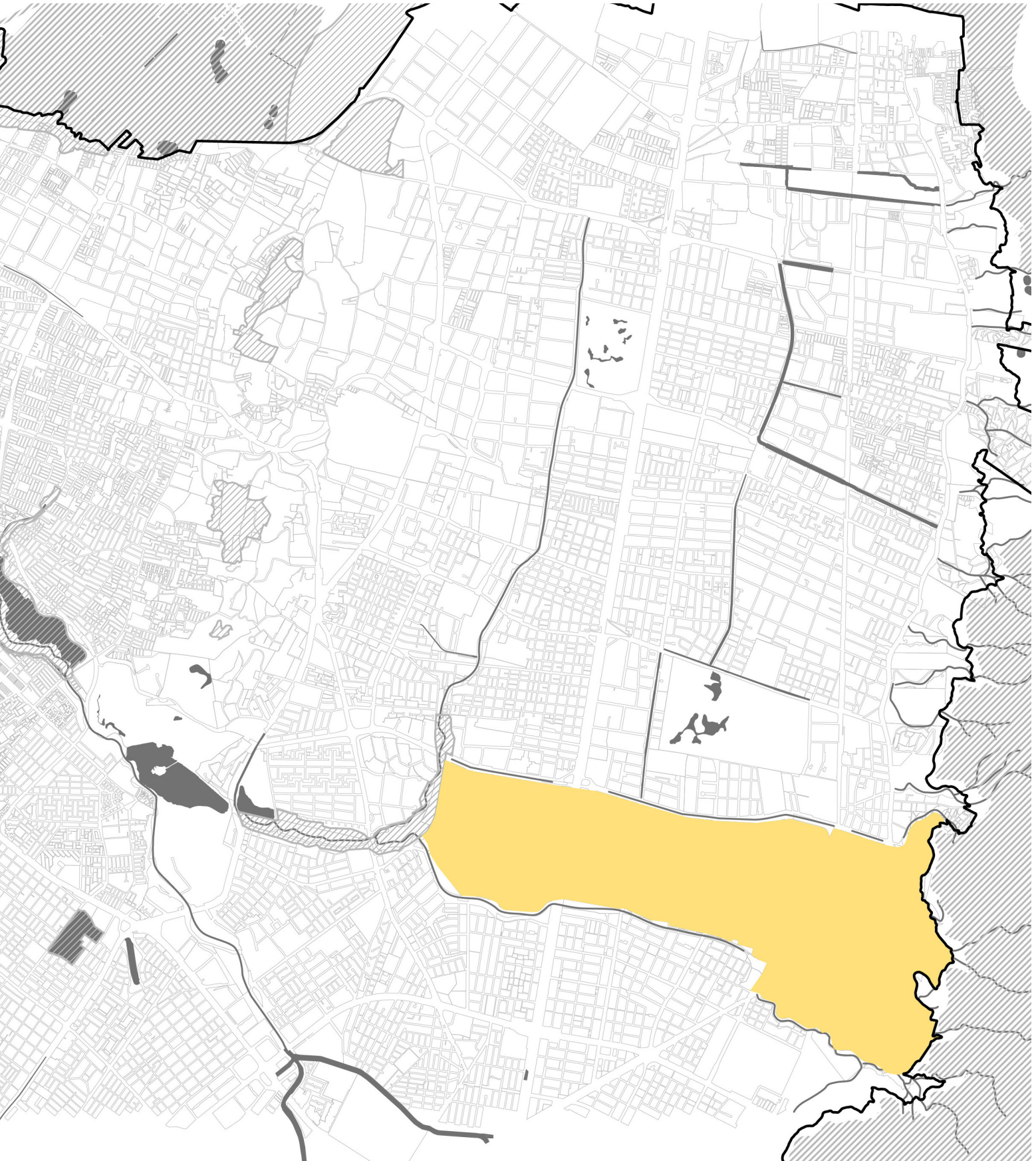


Figure_51.1
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Map that emphasizes on
the “Normative Change”
strategy

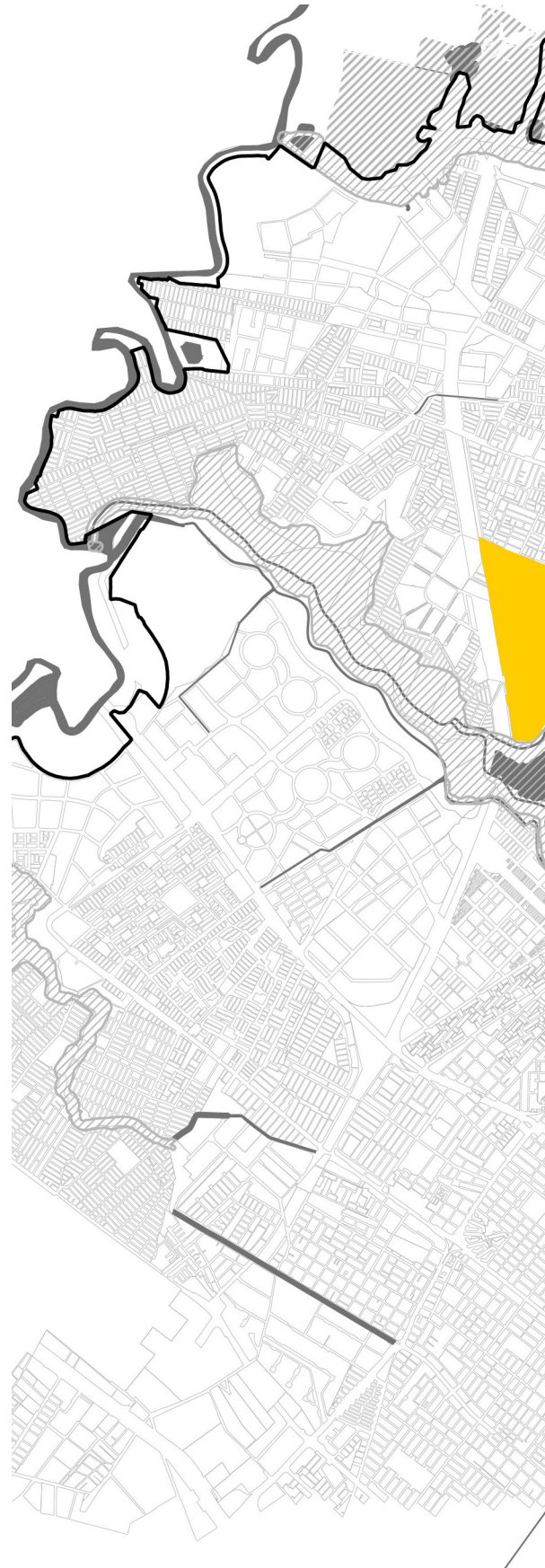


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PARTICIPATORY PLANNING

On the informal city side, a zone is defined for the application of participatory planning, where communities define interventions at smaller scales with the assistance of the urban planning department, incorporating input from traditional practices. This, in turn, generates another level where Polymorphism occurs, creating functional confetti that expresses the intrinsic social and cultural diversity of the sector.



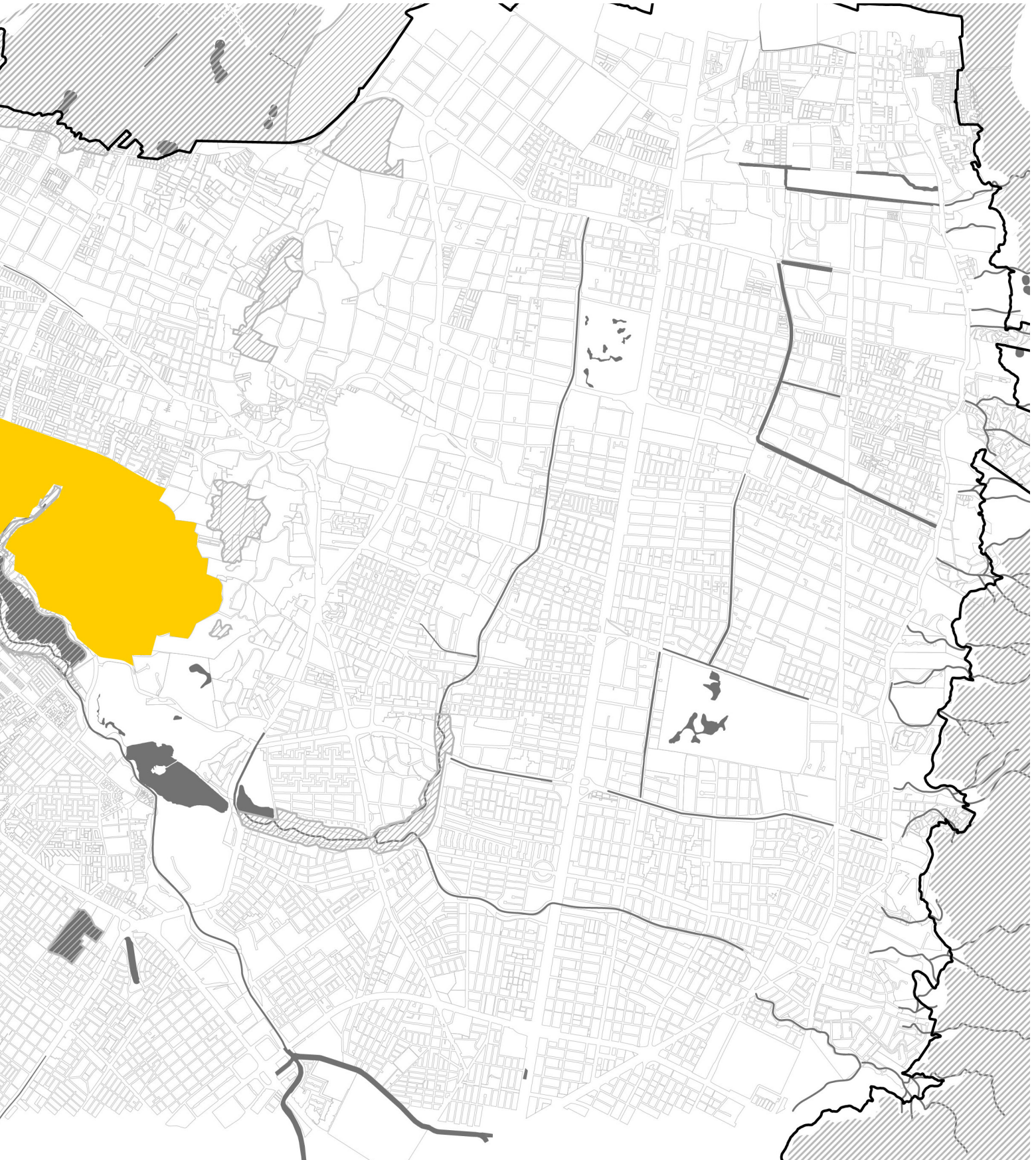
Figure_51.2

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Map that emphasizes on the "Participatory Planning" strategy



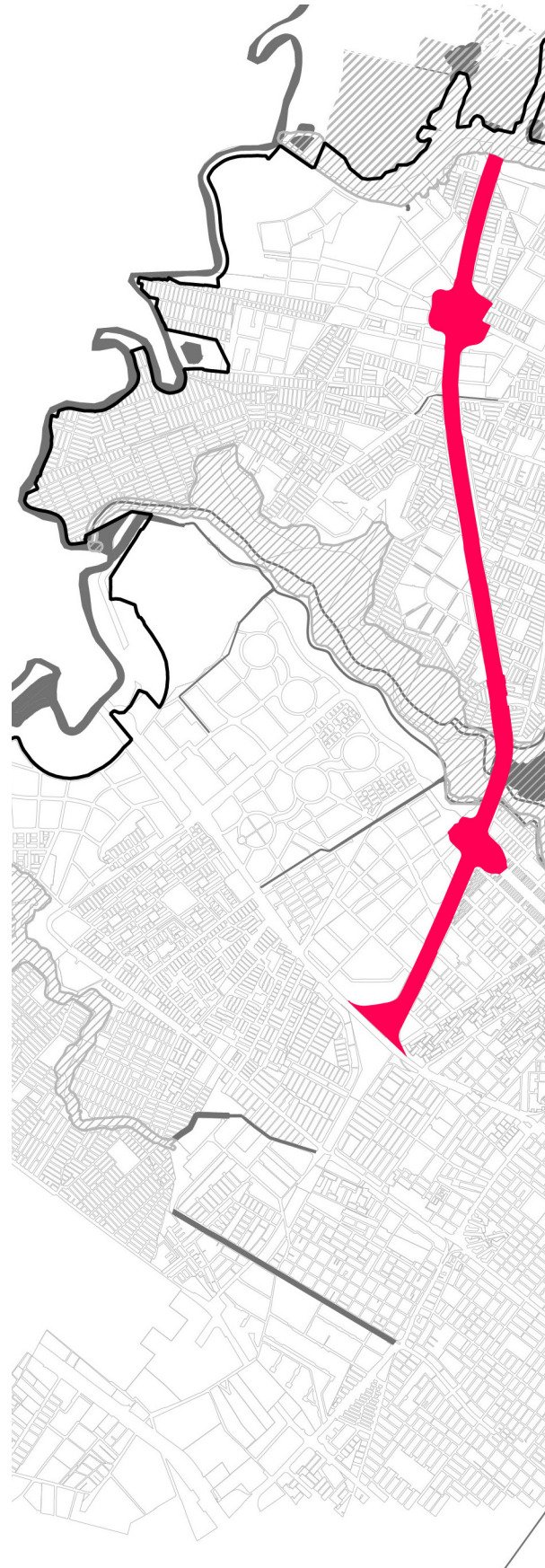
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INVITED SPACES

The invited spaces strategy is a possibility of further diving into the Participatory planning approach of the proposal, where the current space reserved for the A.L.O. Highway is reconsidered as a space for public appropriation and where citizens decide what to do with the available open space.

This with the aim that the social interventions might generate more relation between the different social groups and so present an opportunity to generate cohesion within the social landscape of the city and between the different sectors of it.



Figure_51.4
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Map that emphasizes on the "Invited Spaces" strategy



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_INTERVENTIONS & ACTIONS

When implementing these strategies, certain specific interventions are necessary to make space and adjust existing systems to the insertion of new strategies. The interventions mostly consist of defining the road network to not disrupt the established flows within the urban fabric.

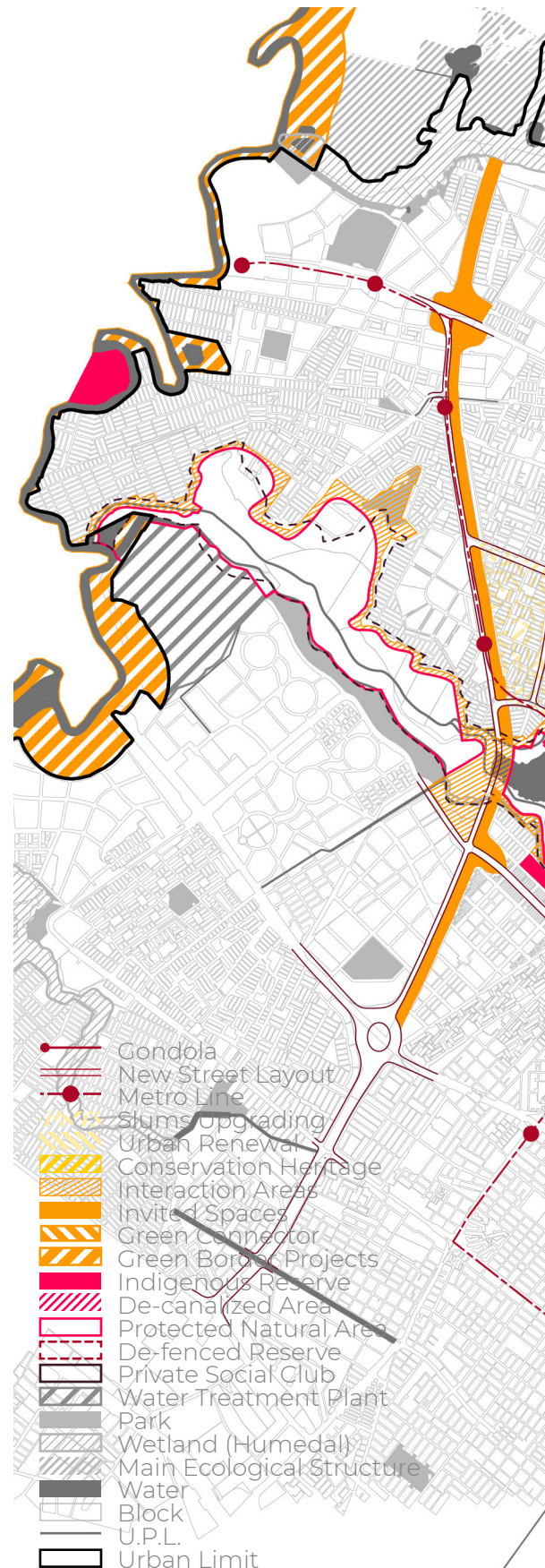
The definition of the new road profiles aligns with the type of fabric they are in. For example, the profile of the A.L.O. is reduced to a tertiary road of no more than 2 or 3 lanes towards the north at the height of the Juan Amarillo Wetland.

The other reserves are adjusted to avoid dividing urban fabrics in two and are kept alongside (parallel) to the new green corridor.

The other interventions occur on this latter specifically. The reserves that were fenced require differentiation of areas where access is allowed for people and protected areas where access is prohibited, with the exception of entities and communities responsible for maintaining them. This results in a green margin of small green corridors running along the new reserves, where people can approach the natural body and appreciate it while maintaining distance and respect.

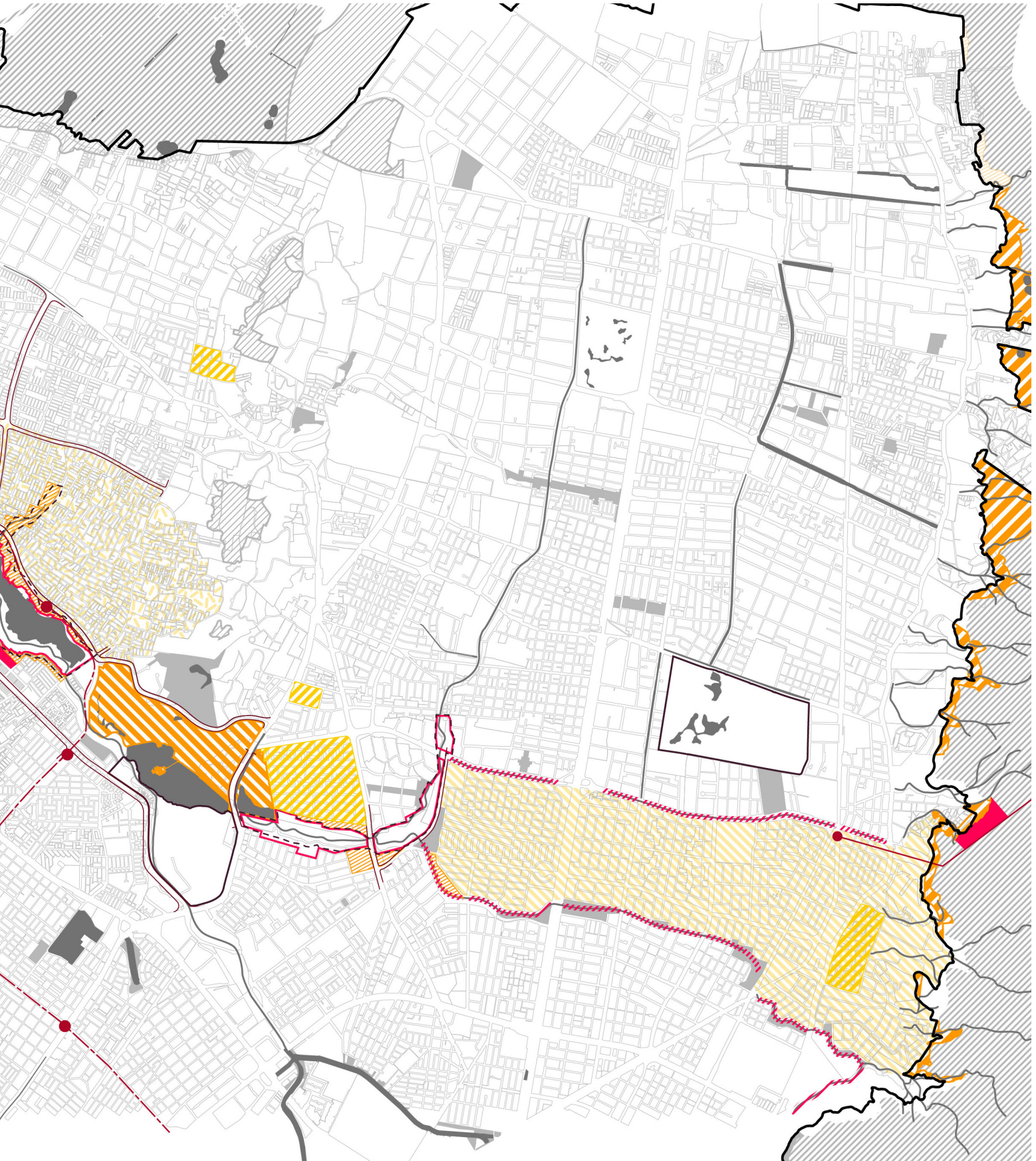
Figure_52.
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Map that shows the spacial interventions and punctual actions necessary in order to build and realize the design.





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_CONCLUSIONS The inclusion of participatory processes within the planning of the city's various sectors could affect how plans for the city are developed, including not only the vision proposed by experts from a perspective far removed from the communities that inhabit the space but also the visions and worldviews that entire communities may have for the city. This could narrow the gap that exists today between the different social classes of Bogotá and reduce the level of fragmentation within the urban fabric of the city. If Bogotá's planning processes are designed with the interests of the groups that inhabit it in mind, the level of segregation and alienation experienced in it today could be reduced.

Although these processes are complex in nature and require an additional level of planning and coordination, the benefits that could arise within the urban structure have the potential to address urban problems that have been present in the urban fabric since its consolidation. The interventions resulting from participatory processes could solve what traditional urban planning processes have not been able to address until today.

However, this alone is not sufficient to generate a more cohesive urban fabric. The coordination of existing plans and considering among them the different conditions of the different communities of the city reveals that interventions and strategies implemented within the urban fabric cannot be homogeneous across the territory, as they affect different sectors of the city differently, being beneficial in some cases and catastrophic in others. Considering the responsiveness of different groups provides clues on how to include and intercalate different processes and strategies that reflect the intrinsic diversity of the city and result in Urban Cohesion through Polymorphism.

_6. THE FULL PICTURE

towards a Cohesive city

Introduction	184
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"It's the end of an American
[comedy
A garden, two who love
[each other
Music for violin.
Gaslight, the sky is so pain-
ted blue
The city, a set: glass
Carton and sawdust
I know, they'll say, 'It's illu-
sion
It's like the first love'
Hollywood is deserted
I have to go back to the
[sun."

"Es el fin de una comedia Americana
Un jardín, dos que se aman
Musica para violín.
Luz de gas, el cielo es tan azul pintado
La ciudad, un decorado: vidrio
Cartón y aserrín

Ya sé, dirán: "Es ilusión
Es como el primer amor"
Hollywood está desierto
Tengo que volver al sol"

Seru Giran_
Cancion de Hollywood (1992)

_INTRODUCTION

As a summary to the previous chapter, and synthesizing all levels of intervention into a single plan and design, this chapter closes with the visualization and a preliminary design of how all strategies would look when acting together to consolidate the entire urban corridor.

The plans and sections shown here are possible scenarios representing the various strategies and interventions, but they are by no means fixed designs; they are open to adaptation and modification based on the interests of the communities. Especially the participatory strategies are open scenarios where I do not specify what type of traditional practices or functions would begin to permeate the urban space, but they could initially be expressed as outlined here. Similarly, the normative changes and implications in terms of urban renewal in the formal city are subject to adaptation and modification.

_RECOVERED BACKBONE

Once all the strategies are applied and the interventions are carried out, the result is a green corridor that runs perpendicular to the main roads, down from the eastern hills to the Bogota River. The corridor is the green footprint of the river that is recovered in its entirety. In its essence, the corridor's objective is to reconnect the fragments of the blue structure, that flow along and through the different ecosystems of the city. In this way, the exchange between natural spaces is guaranteed, and the ecological flows and dynamics between ecosystems are restored.

This new structure would be composed of different typologies of green spaces, which (while maintaining their different characteristics) would compose a single space. This means that along the corridor the landscape could vary, depending on the type of green space in which one finds oneself. This not only generates a dynamic and interesting space, but would motivate people to discover new spaces along it, generating flows throughout the structure.

The typologies vary in function and in the level of how much human access is allowed in each one of them. Nature reserves would have the lowest level of access allowed, prioritizing other species and allowing them to have a refuge within the city. Metropolitan parks would be the spaces of greatest social activity, concentrating centers of activity and social facilities. And the connecting green spaces would be mostly for transit or short stay.

Other strategies seek to generate a more indirect relationship on the corridor. Participatory planning and Normative change, although not directly actions on green spaces, could contribute to the generation of more natural spaces and the implementation of sustainable technologies. Thus, from the corridor and outward into the urban spaces, green character radiates, expanding the green structure beyond its borders.

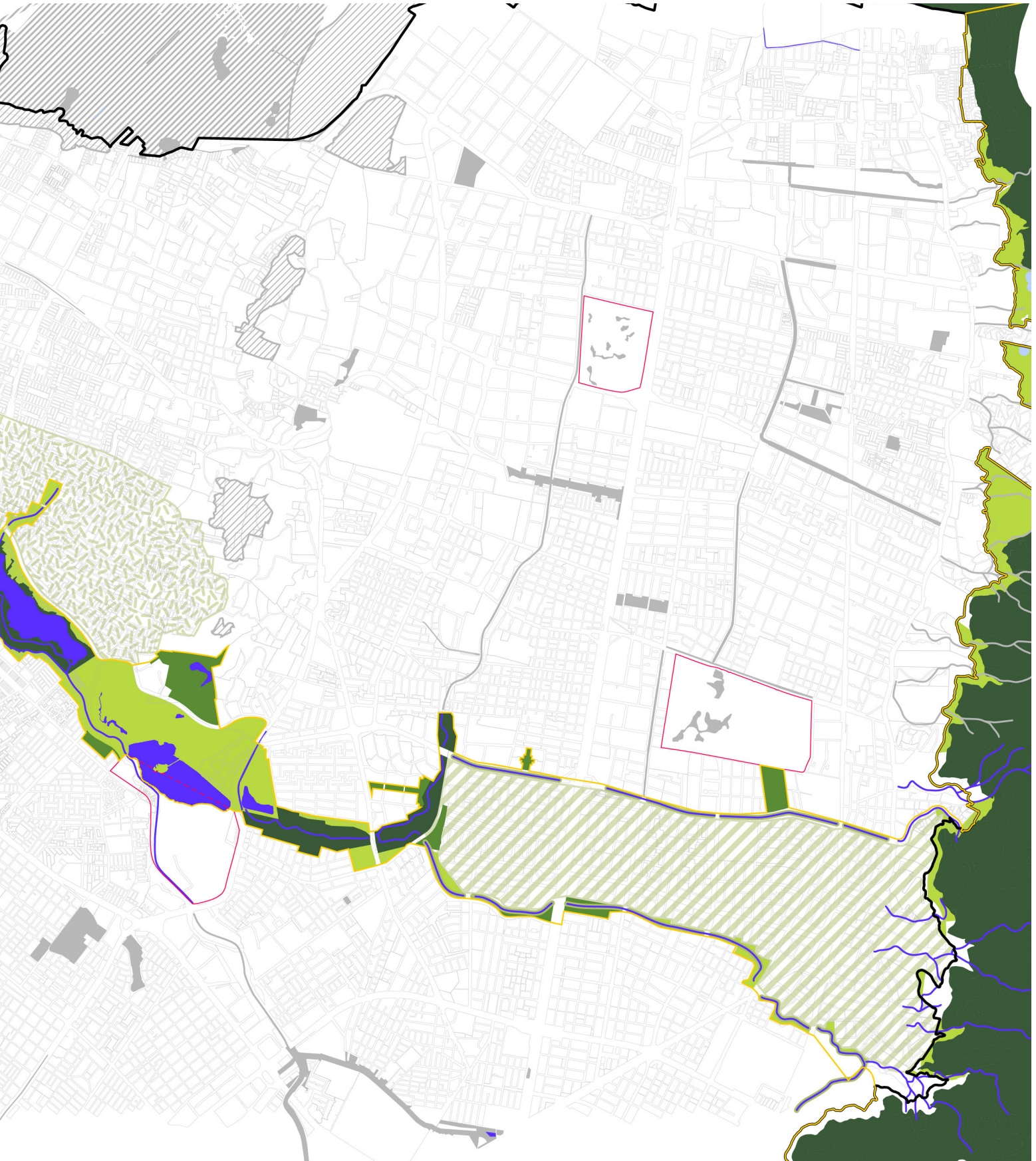
Figure_53.
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Map that shows the result of the interventions all together and the design full in place.





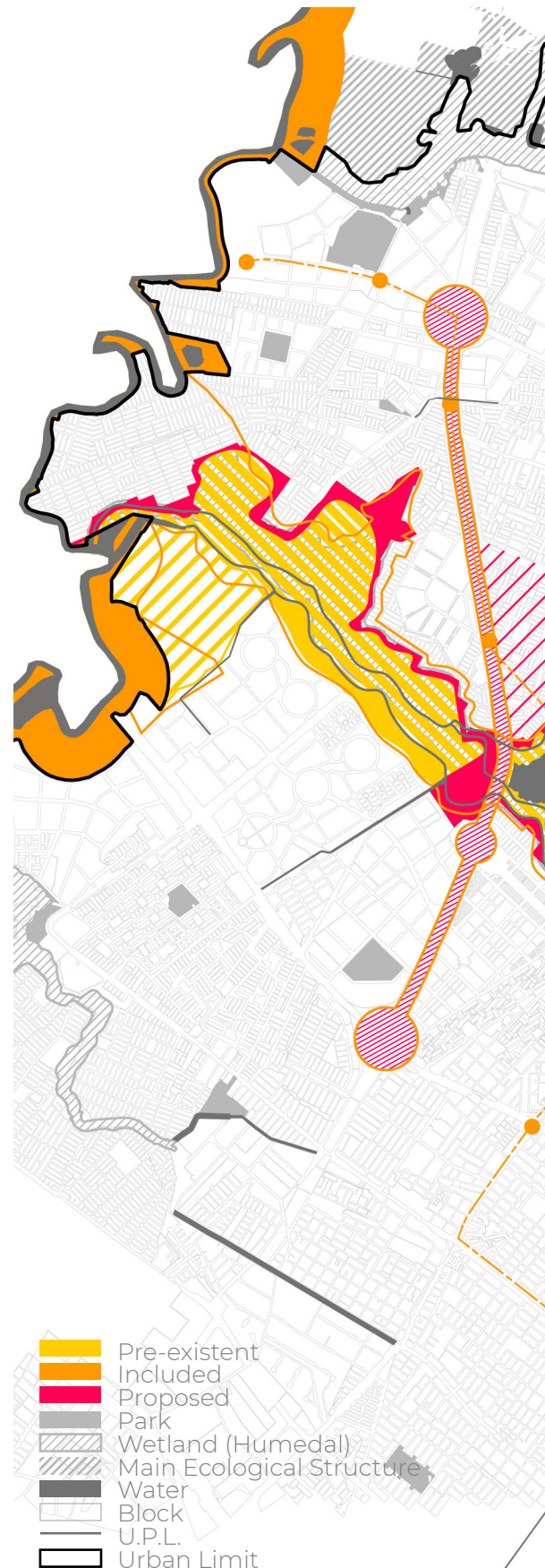
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_COMPONENTS

The corridor proposal is not, in its entirety, a new design. Rather, it is the result of linking and connecting existing elements and already proposed ones, within the Bogotá development plan through, new elements. More than anything, it's the reading of a series of spaces that are currently fragmented and disconnected from each other, and that through specific interventions, are connected once again.

Thus, The Corridor is not only a mosaic of green typologies, but also a mosaic of existing elements, included elements and proposed elements.

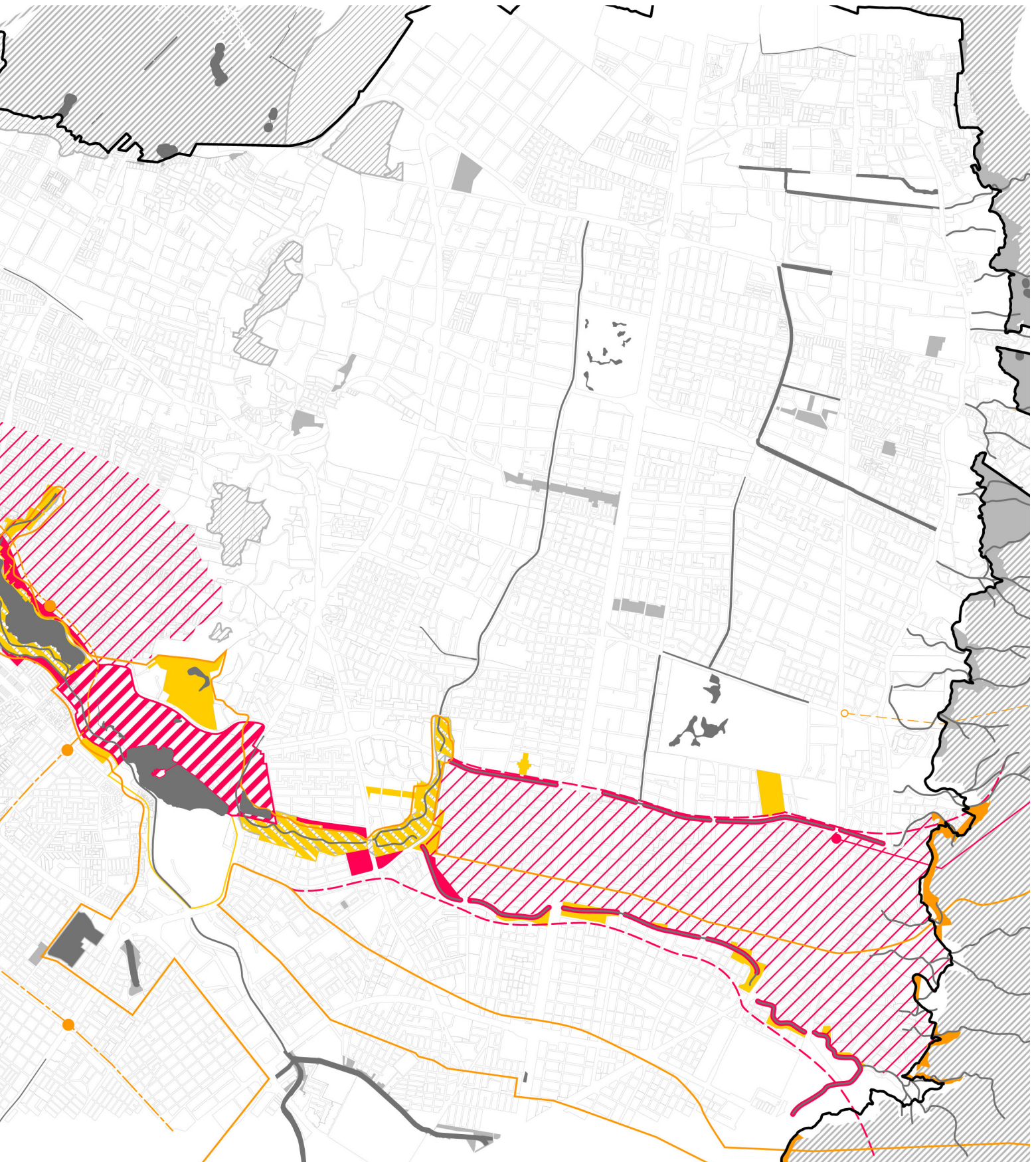


Figure_54.
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Map that differentiates between the preexistent elements of the design from the adapted and the proposed ones.



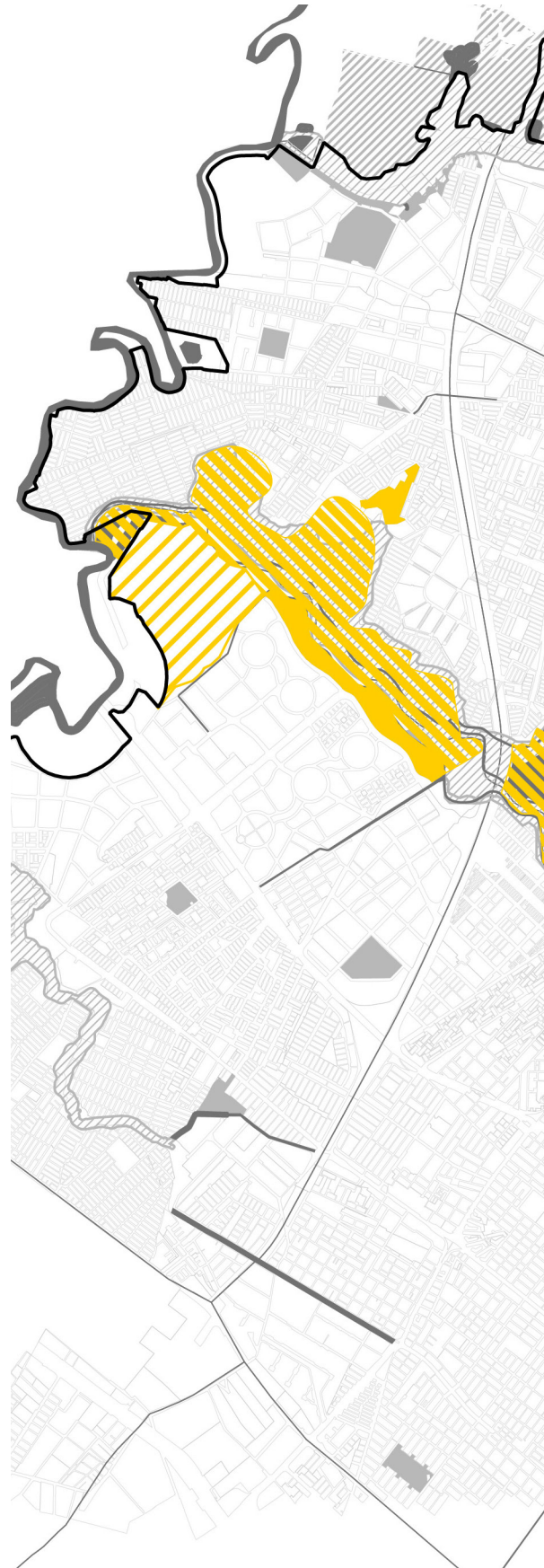
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PRE-EXISTENT ELEMENTS

Most of the pre-existing elements are natural spaces that are disconnected from each other and that preceded even the urban fabric. They are the remnants of a natural landscape of a not too distant past where the urban fabric was not dominant. These are the ecological hearts that we seek to link through the proposed elements.

The other part of the existing elements, are the metropolitan parks and already consolidated green spaces. These give a functional sense to the different sections of the corridor, as they generally contain sports and social facilities to which the different communities go.

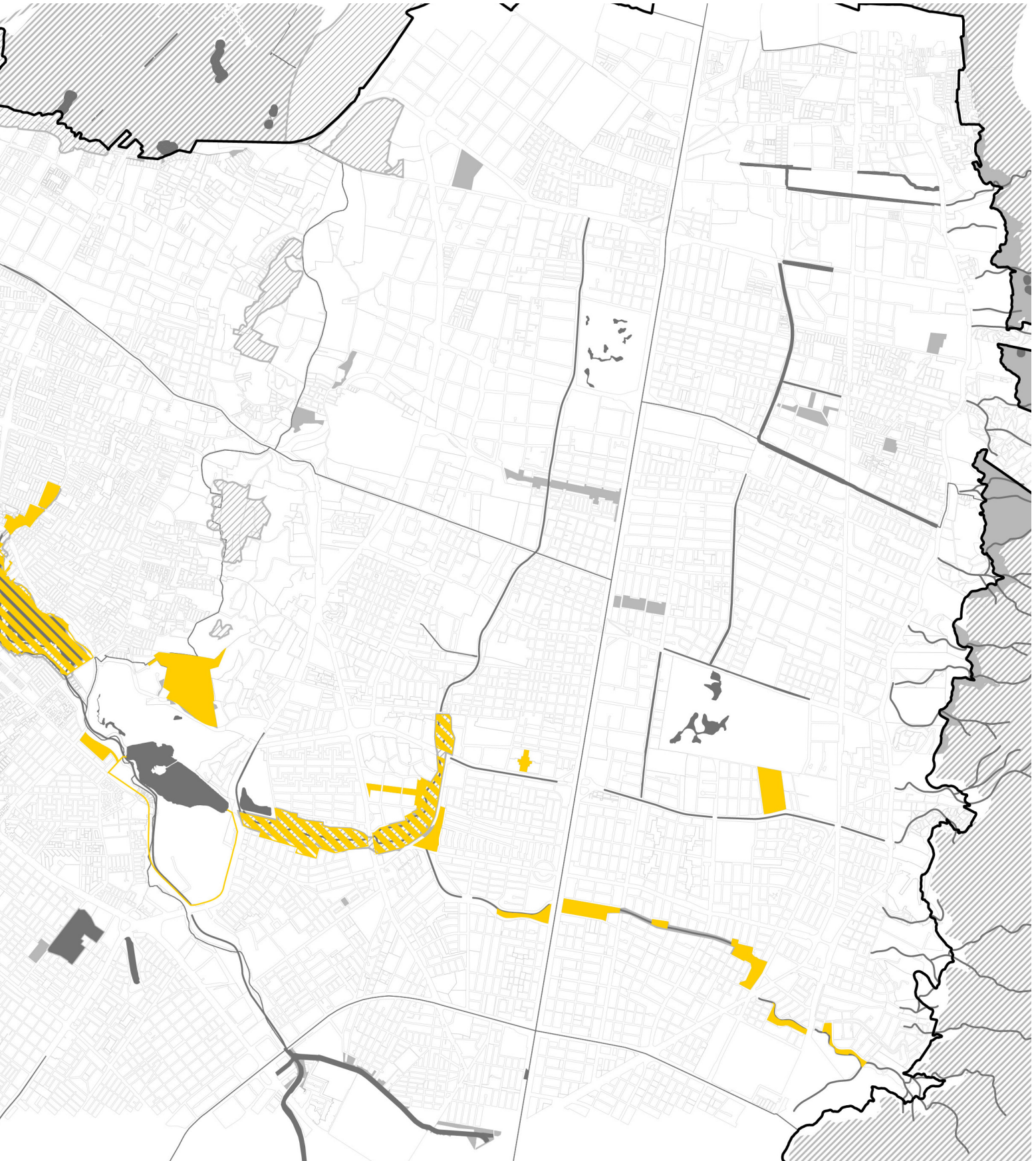


Figure_54.1
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Map that shows the pre-existing elements of the design .



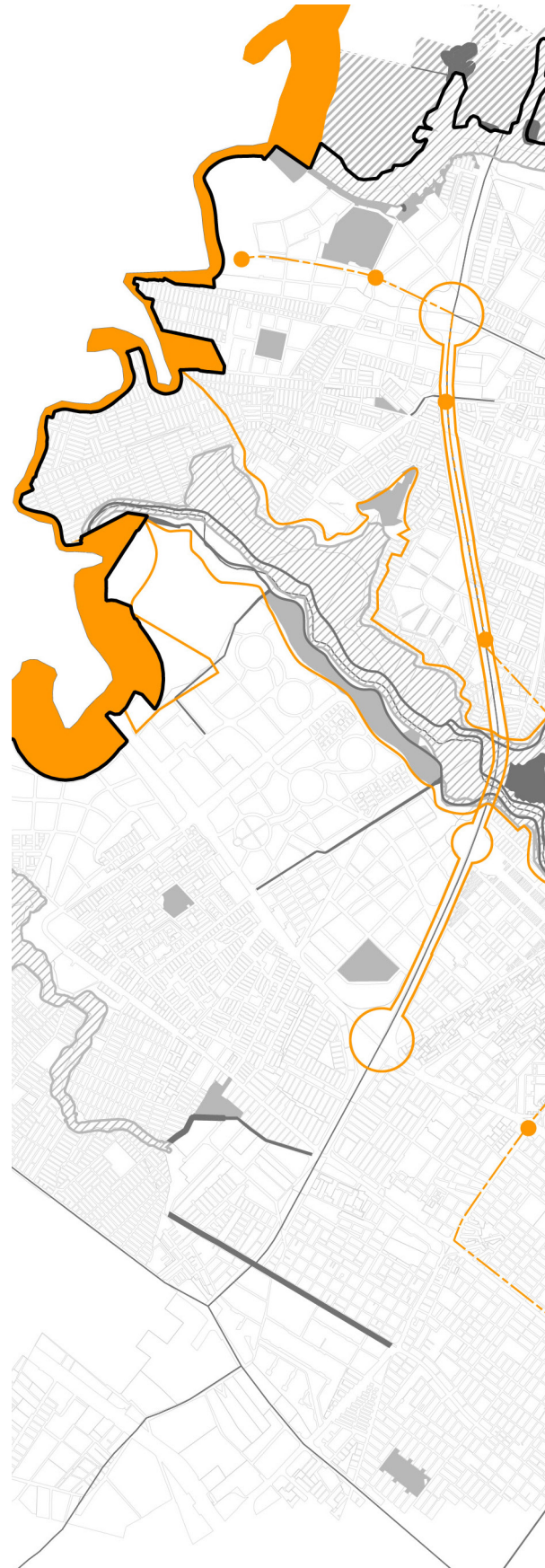
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INCLUDED ELEMENTS

The elements included are mostly policies and plans that are contemplated within the territorial development plan of Bogotá (P.O.T.). Thus, they are not physical spaces that can be identified today within the urban fabric of Bogotá, but they serve as a guide and starting point, to raise the elements of the proposal.

It is worth highlighting the ecological corridor that would connect the hills with the Bogotá River that draws the margin on which the final proposal of this thesis is based. Also the reserve of the A.L.O. Highway that is transformed into another green corridor with social and integration purposes. This space, although it is an included element, changes its purpose and function, so it is also part of the proposed elements.

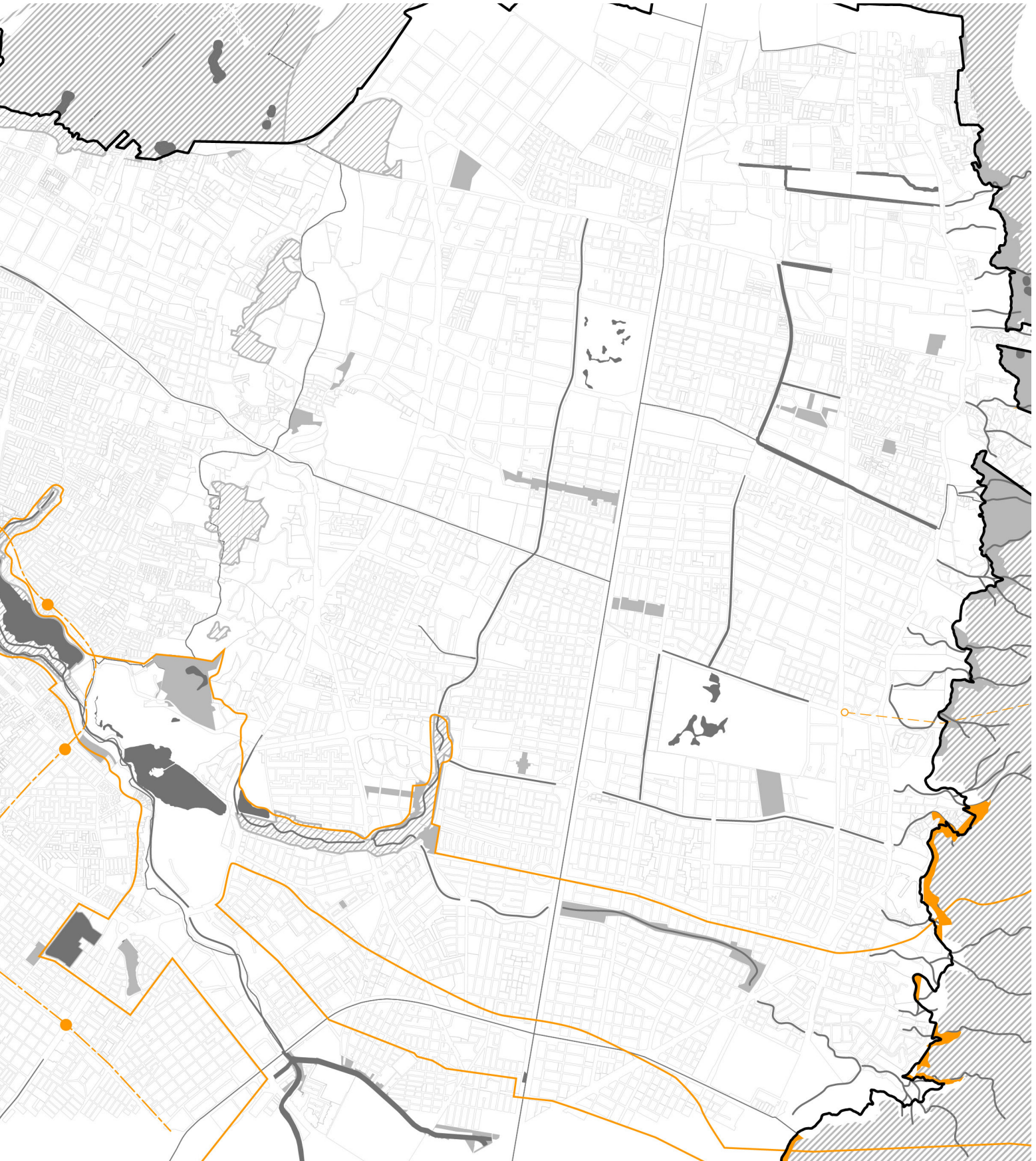


Figure_54.2
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Map that shows the addap-
ted elements of the design .



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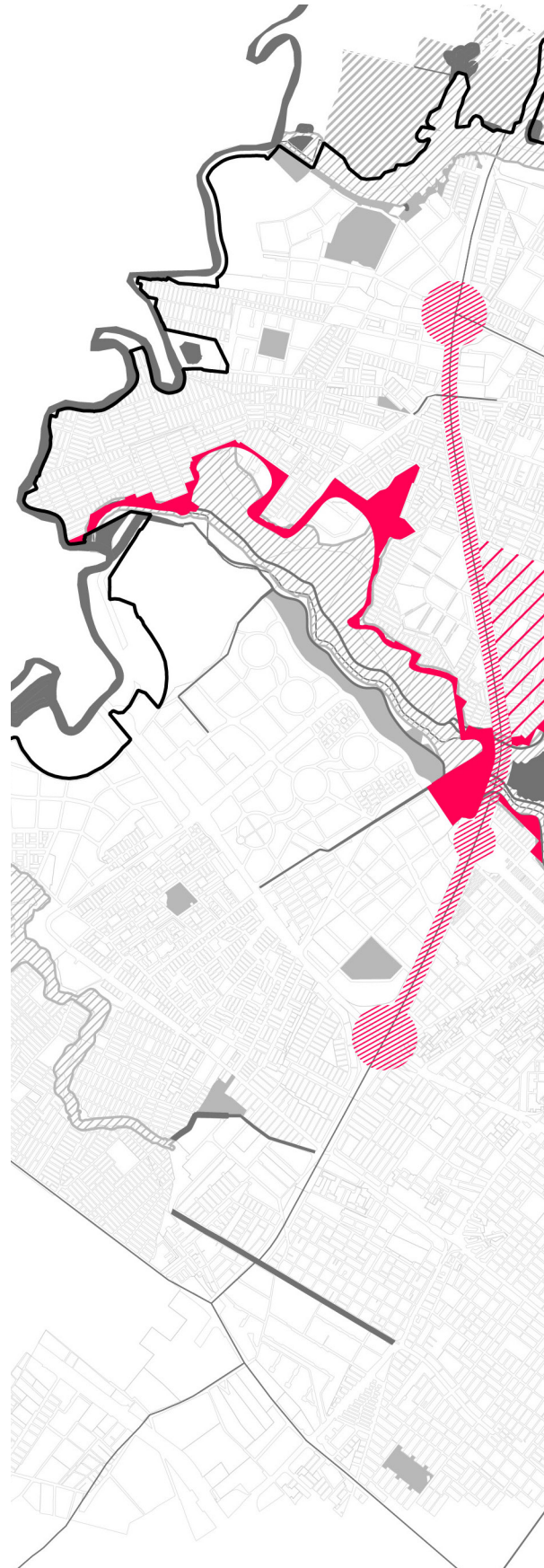


PROPOSED ELEMENTS

The proposed elements are mostly spaces that seek to link the different existing spaces, whether the different ecosystems, or linking natural spaces with the urban fabric. They are interstices in which different functions are developed, serving both as transition spaces and spaces of permanence.

The most important element within the proposed elements is the space of the club, which ceases to be private and becomes part of the public space of the city, forming a large metropolitan park that joins both the Córdoba wetland and the Juan Amarillo wetland.

On the other hand, there are the different strategies for urban spaces: Invited Spaces, Participatory Planning and Normative Change, which make up a large part of the proposed elements and link the corridor with the rest of the city.

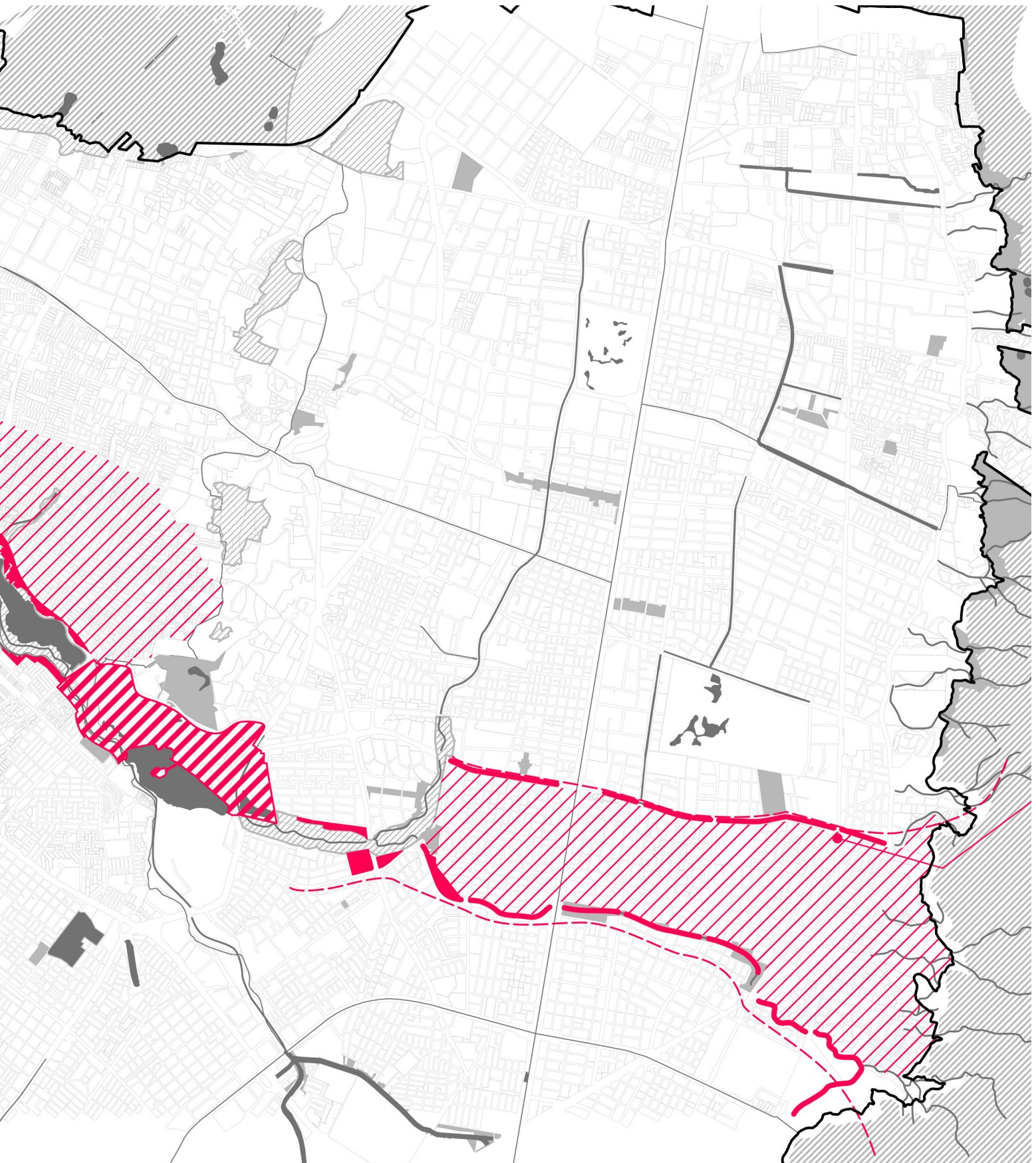


Figure_54.3
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Map that shows the proposed elements of the design



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_PHASING

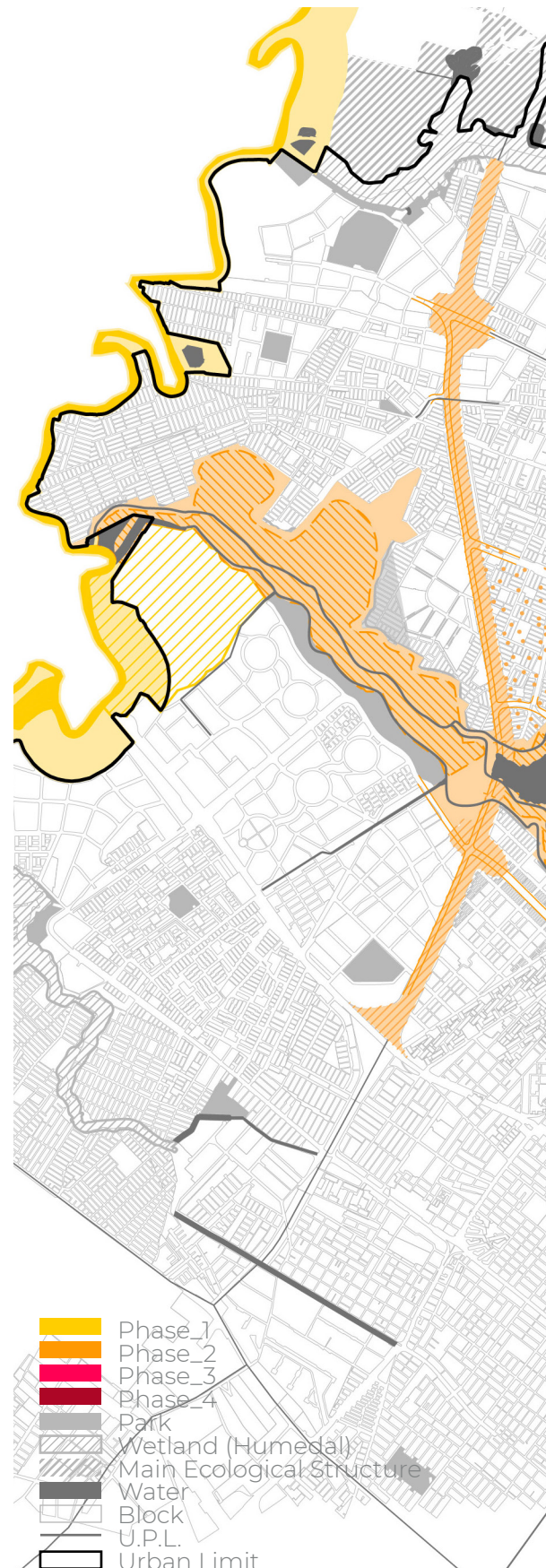
This proposal can also be divided into the phases along which the urban project could be completed. Due to its great extension and the different logistical complications that would mean to build this project all at once, it is necessary to divide it into phases that would be carried out at different moments in time.

These phases could be planned in different ways, but in this case I have chosen to divide them so that they correspond to the strategies previously proposed. In this way, different types of interventions and different strategies are concentrated on each phase. In this way, the development of each of the strategies occurs independently and resources can be allocated to each of them independently.

The spatial logic of the phases indicates that the project starts from its extremes, from the Green Edges towards the interior. Passing through the De-canalization of the rivers and the Def-encing of the reserves, and working from both sides to meet in the center. In this way, and as the project progresses over time, more pressure could be generated on the social clubs to argue for expropriation as a necessary process to complete the green corridor.

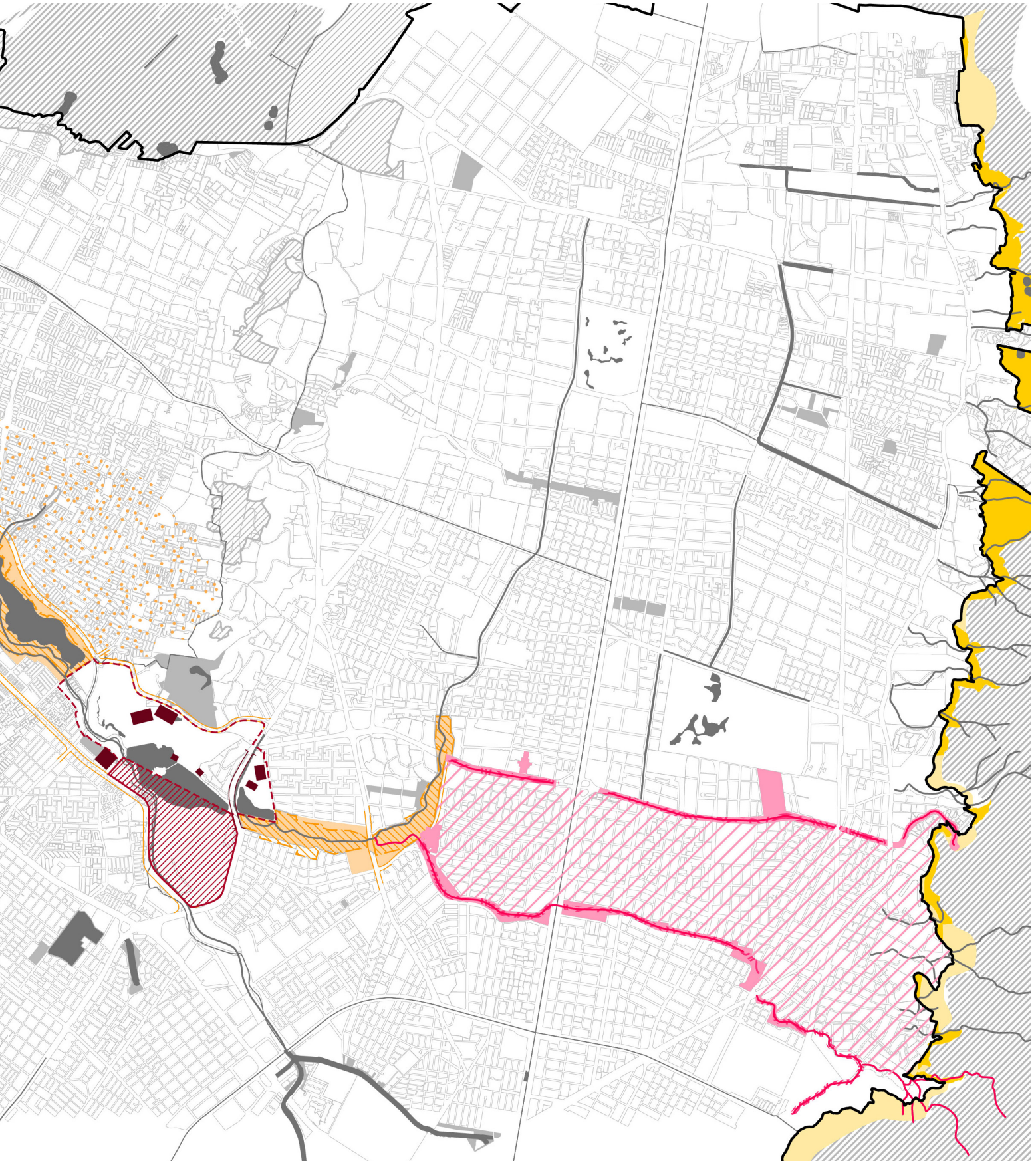
Figure_55.
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Map that shows the phases of the project.





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TIMELINE

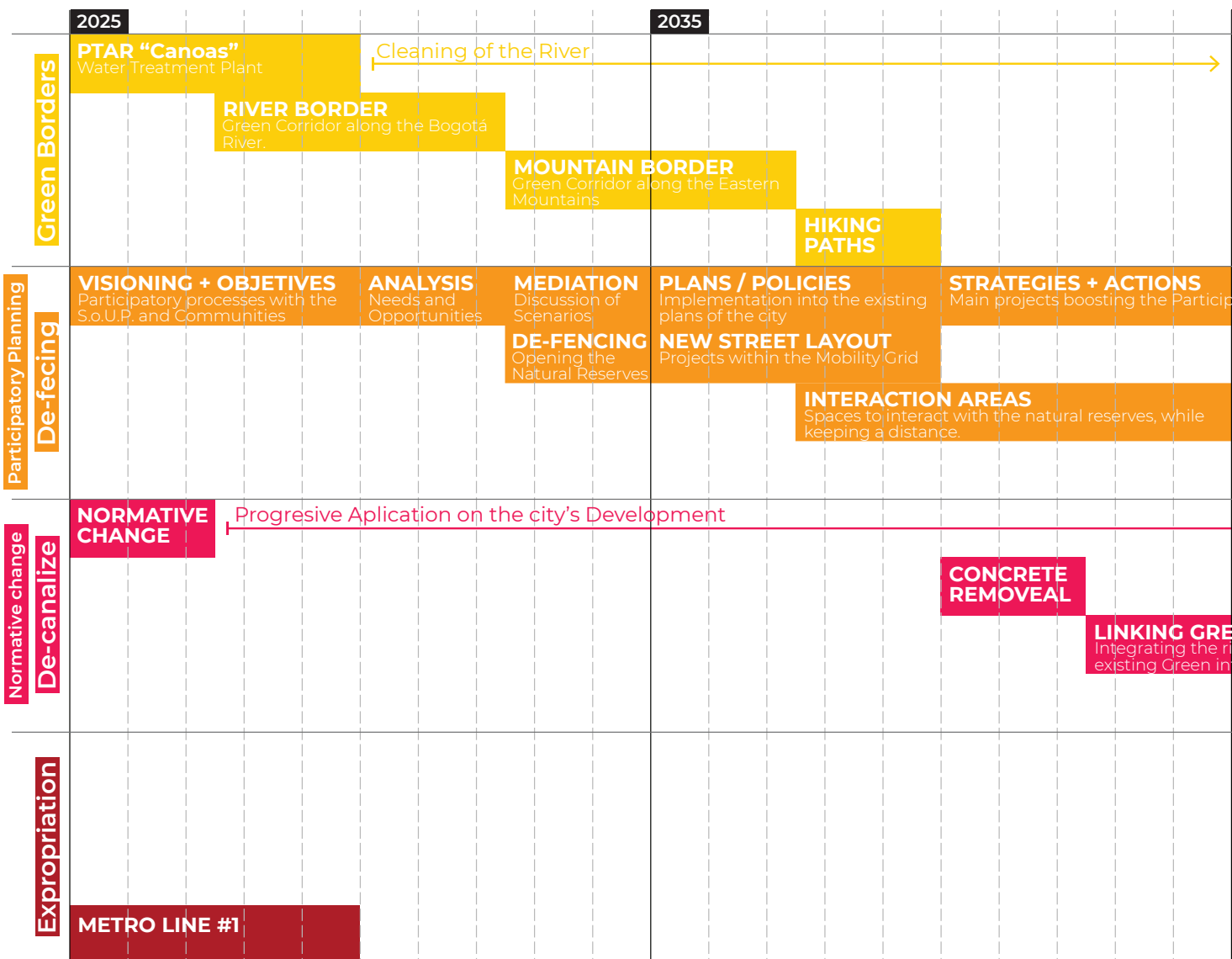
The different phases of the project extend over a period of approximately 40 years, with the end of each of the interventions triggering the beginning of a new phase. For example, upon completion of the green border on the Bogota River, the process of De-fencing the natural reserves would begin, so that they connect naturally with the new linear park along the river. The same would occur at the end of the project of the corridor of the eastern hills, and linking with the De-canalization of the rivers that descend from it.

The different phases encompass different strategies, giving a determined period of time to each one of them. With the exception of the strategies with an urban character, which can be implemented from the beginning of the project and continue thereafter, as a new basis for the development of the city.

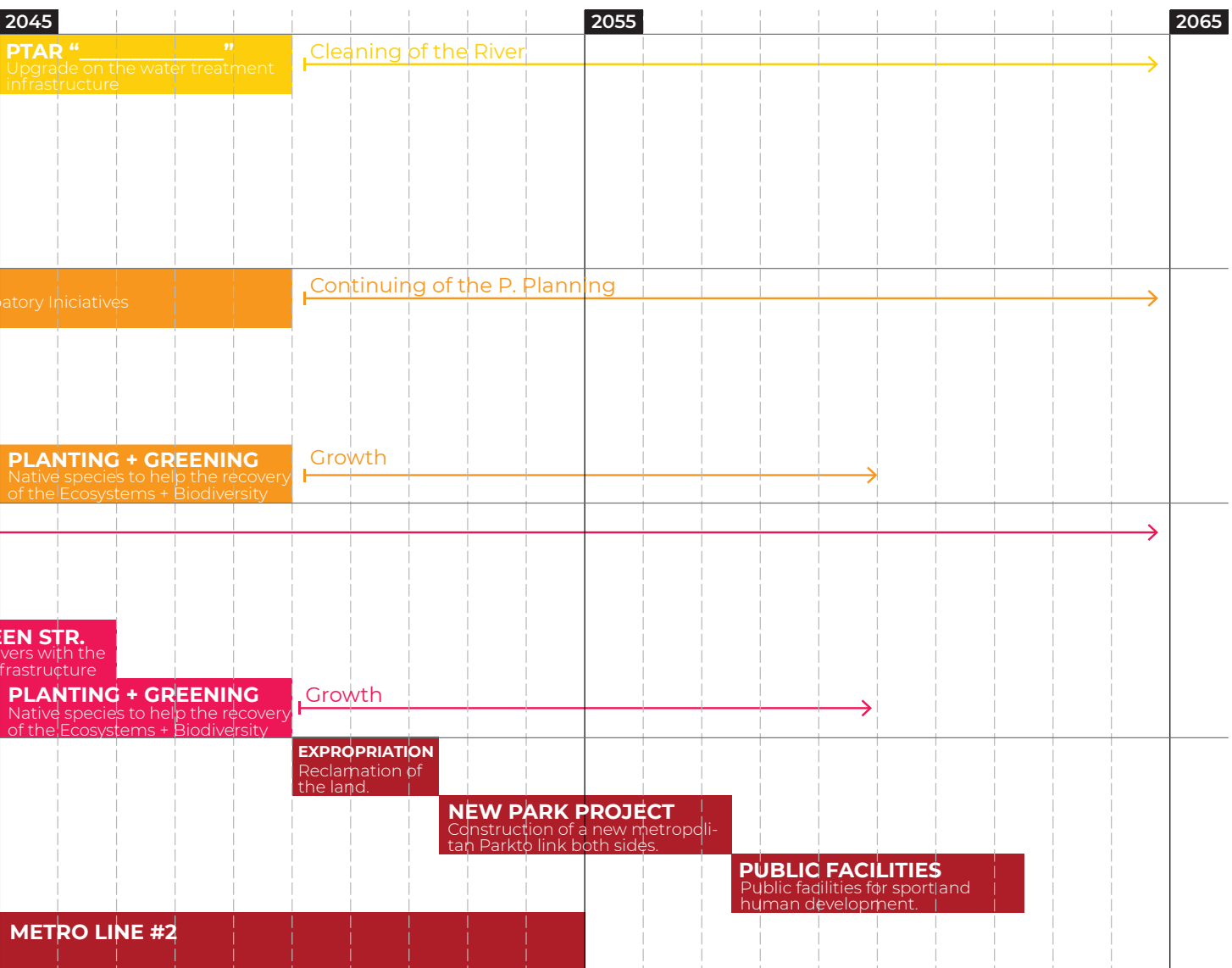
Both Normative Change and Participatory Planning are developed throughout the 40 years. The culmination of the participatory planning cycle triggers the last phase of the project, where the expropriation of the social

Figure_56.
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Timeline illustrating the duration and the phases of the project into the future.

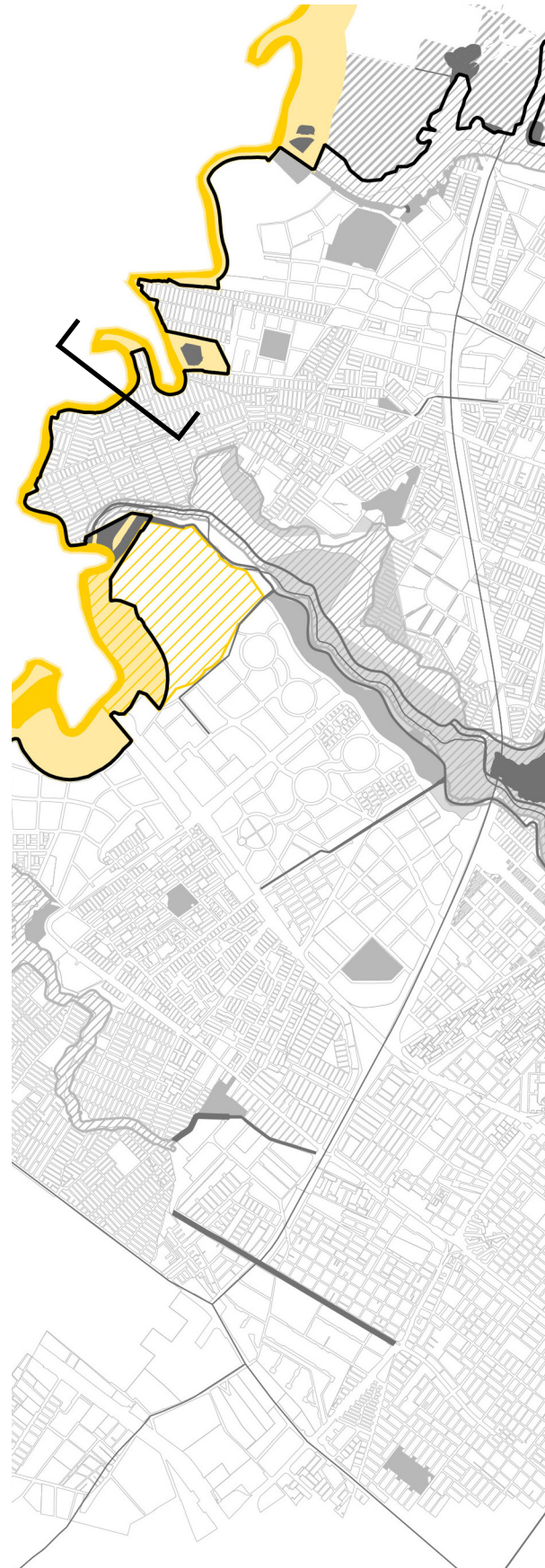


clubs occurs to reinforce the new public and communal spaces (result of community initiatives), as well as to emphasize the social and ecological character of the proposal.



PHASE_1

The first phase focuses on the edges, consolidating the green corridors that will be the new edges of the city. This in order to generate natural structures that rather than limiting the growth of the city, encourage the relationship of the city with its main ecological structures. Both the river and the mountains.



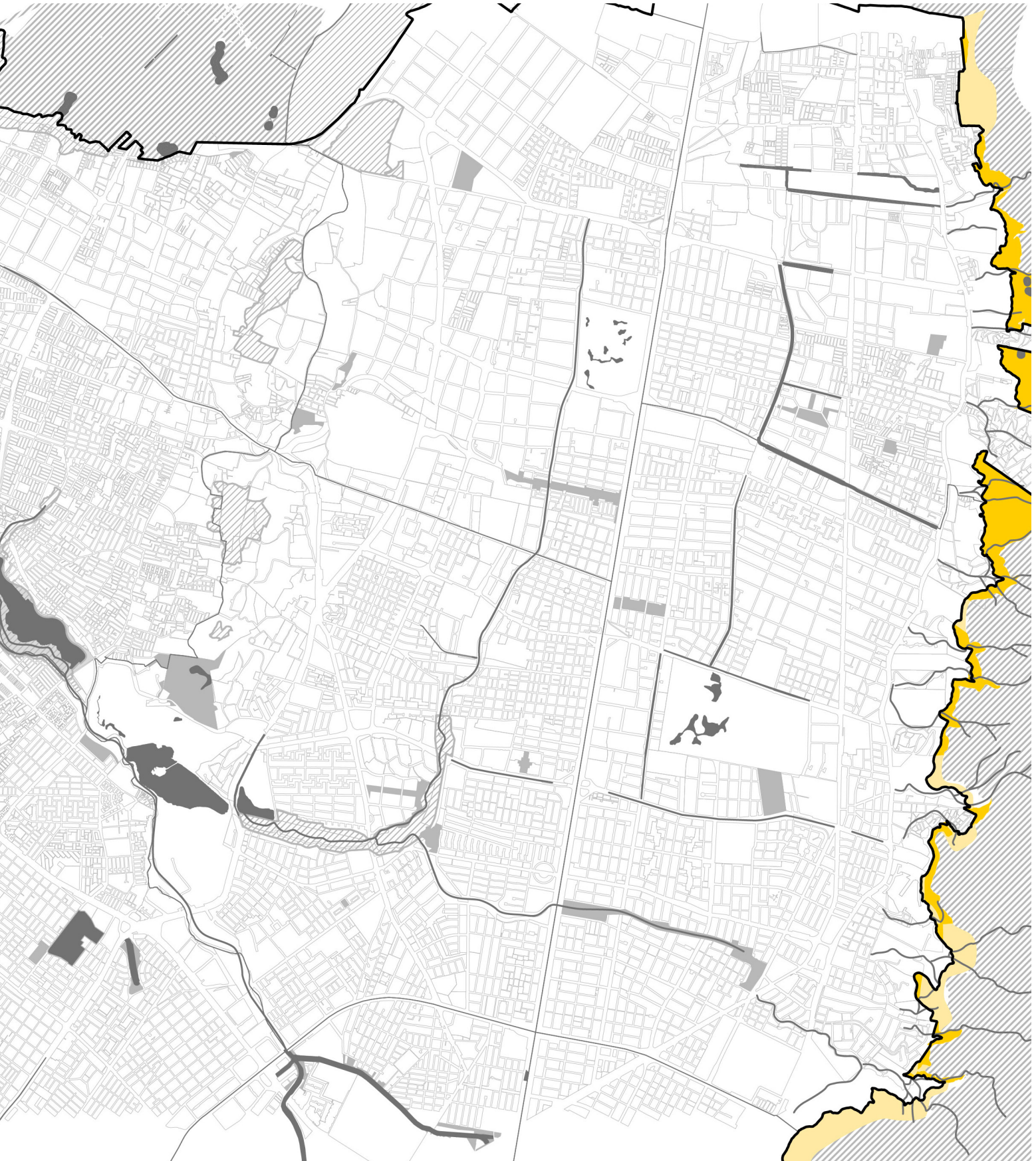
Figure_55.1

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Map that shows the first phase of the project



1:45.000



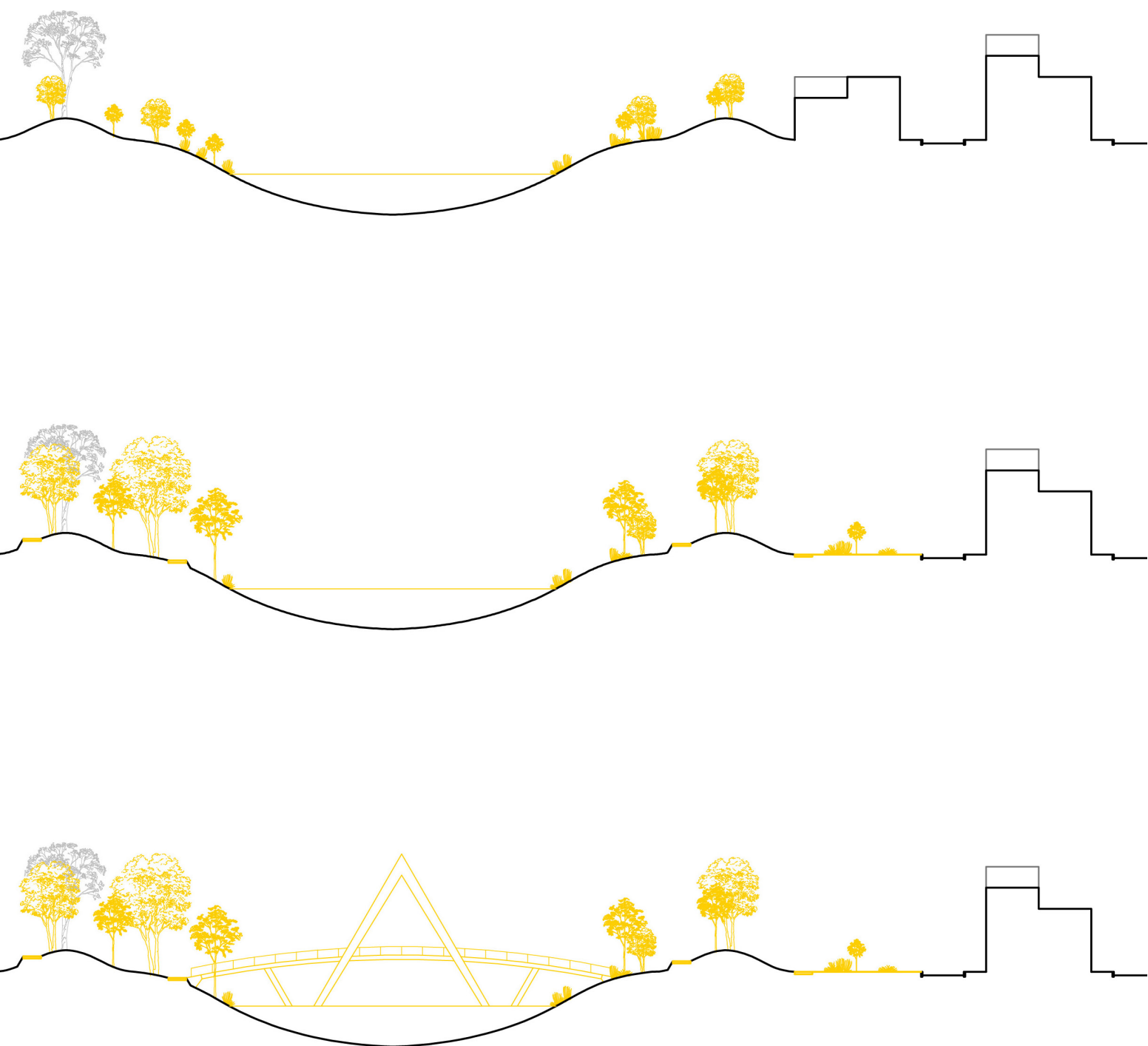
The process that follows this phase begins with the recovery of natural structures. Especially in the case of the Bogota River (this process has already begun in Bogota with the construction of the ("Canoas" WWTP) which is extremely polluted. Planting the area to recover its natural character and increase biodiversity is key, before intervening and consolidating spaces for human activity and circulation.

Once these spaces have been consolidated and the communities begin to inhabit and appropriate these spaces, one could think of introducing more infrastructure to increase the relationship and connection between the spaces.

Figure_57.

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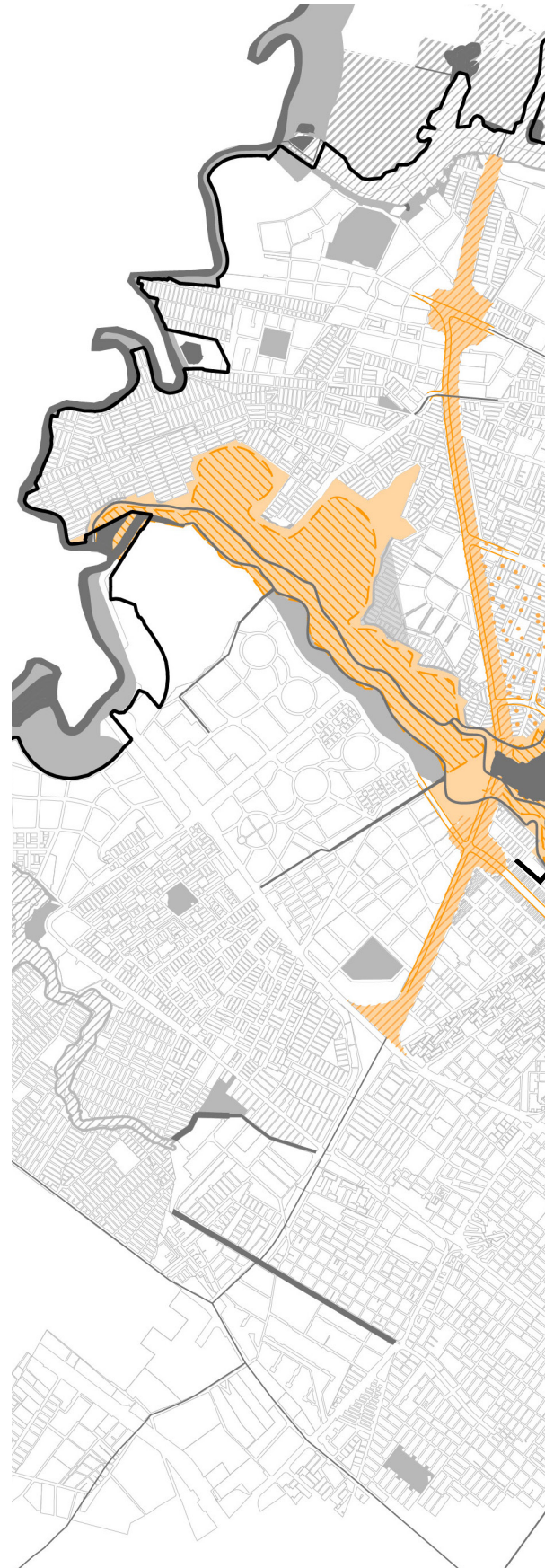
Sections of the site,
showing the progressive
development of the first
phase



PHASE_2

The second phase includes several strategies. In this phase, participatory planning is consolidated and the communities are given the spaces of the A.L.O. reserve in order to increase citizen participation in the management of public space.

Likewise, the strategy of De-fencing the natural reserves was developed to generate new dynamics between the natural spaces and the communities of the Rincón de Suba.

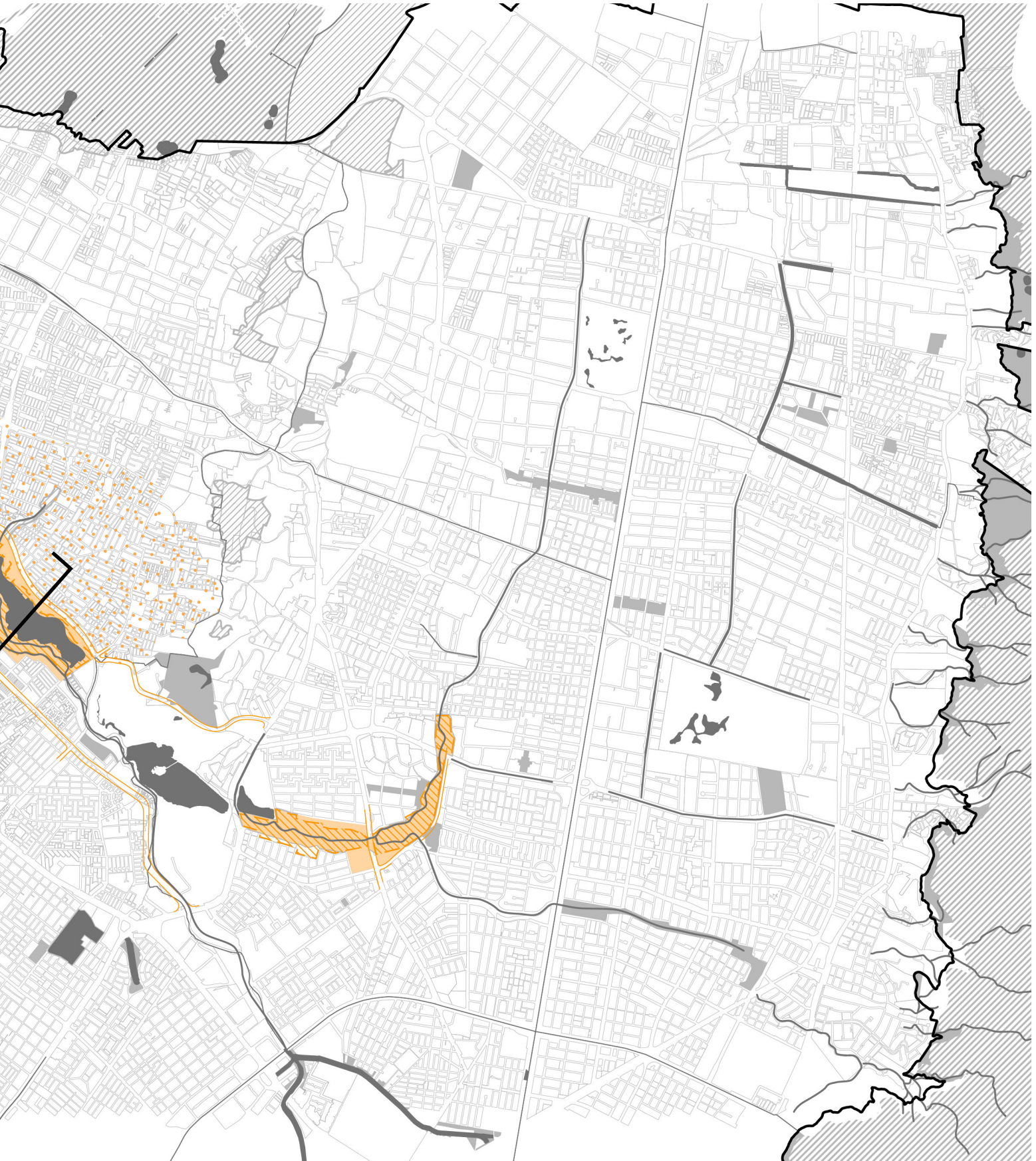


Figure_55.2
Made by Author

Map that shows the second phase of the project



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Opening the reserve to the surrounding communities and neighborhoods means that there must be an intermediate space that mediates human activity between the public spaces of the neighborhoods and the nature reserves, which must remain isolated from human activity.

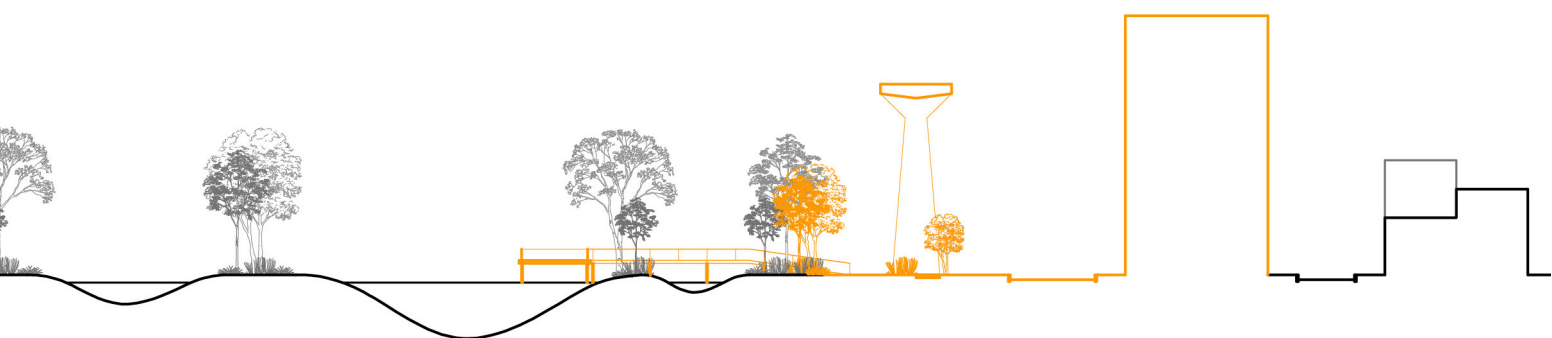
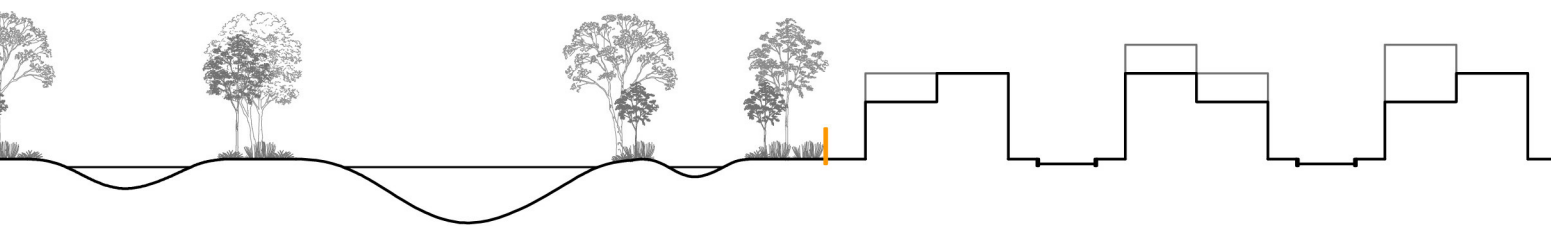
To this end, spaces of indirect interaction are proposed, where people can enjoy and enjoy the reserves, without really intervening in the dynamics of these spaces.



Figure_57.1

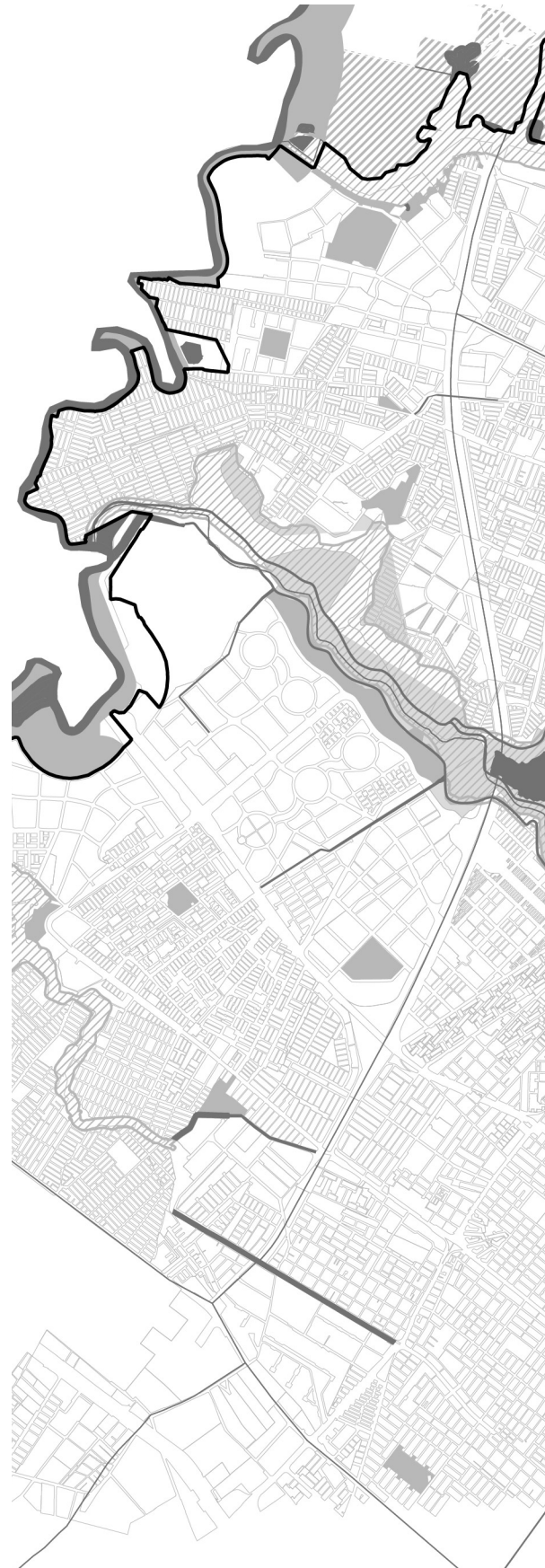
Made by Author

Sections of the site,
showing the progressive
development of the second
phase



PHASE_3

The third phase is similar to the previous one, in the sense that it is composed of two strategies that complement each other. The decanalization of the rivers serves as the perfect margins for the development of the Normative change towards a greener space. The urban space between these two rivers is a perfect city cutout on which a new urban normative could be tested to guide the development of the city towards a more sustainable and green space.



Figure_55.3

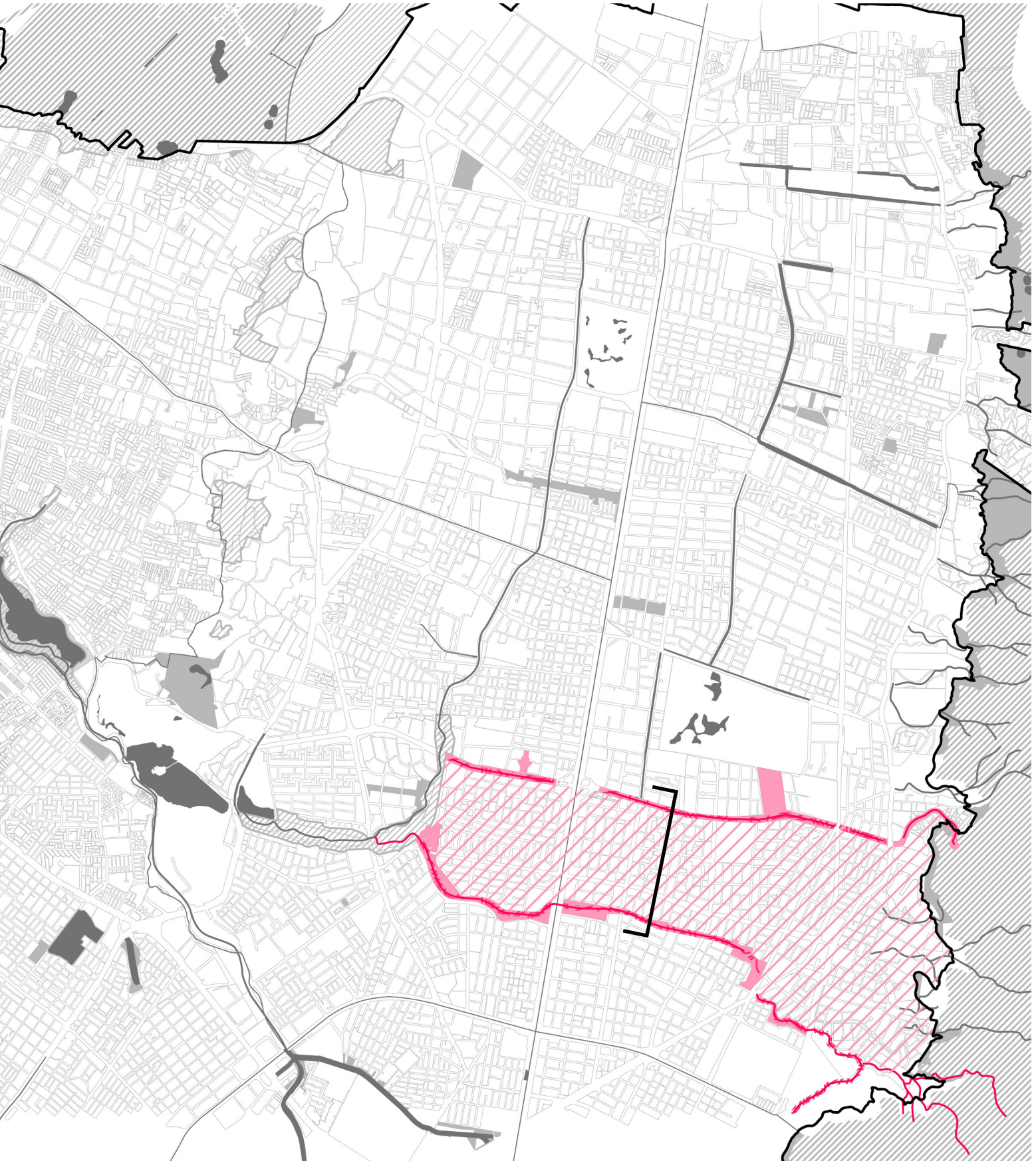
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Map that shows the third phase of the project



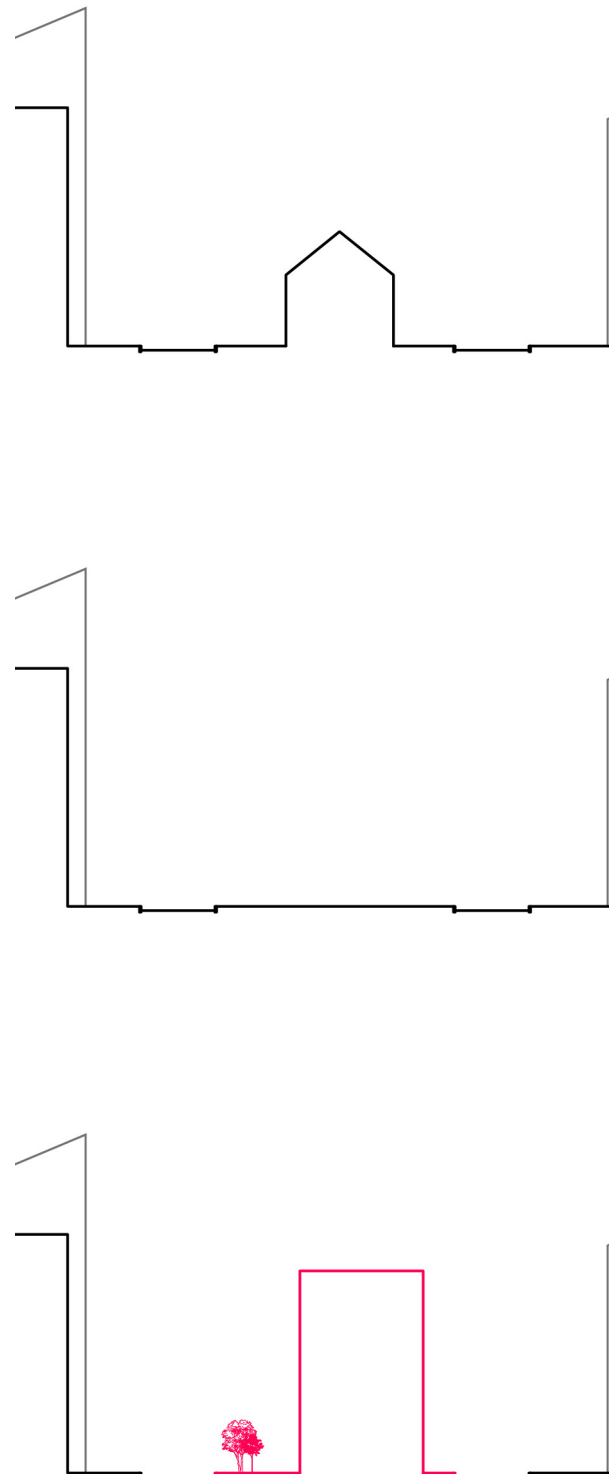


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In this process, what we begin to see is that green spaces are strengthened and connected to each other through small green corridors between buildings, which could be generated through a small territory session or by defining percentages of green space needed per block.

The regulations described here are not the product of this thesis and would have to be developed and discussed in depth in a separate project.



Figure_57.2

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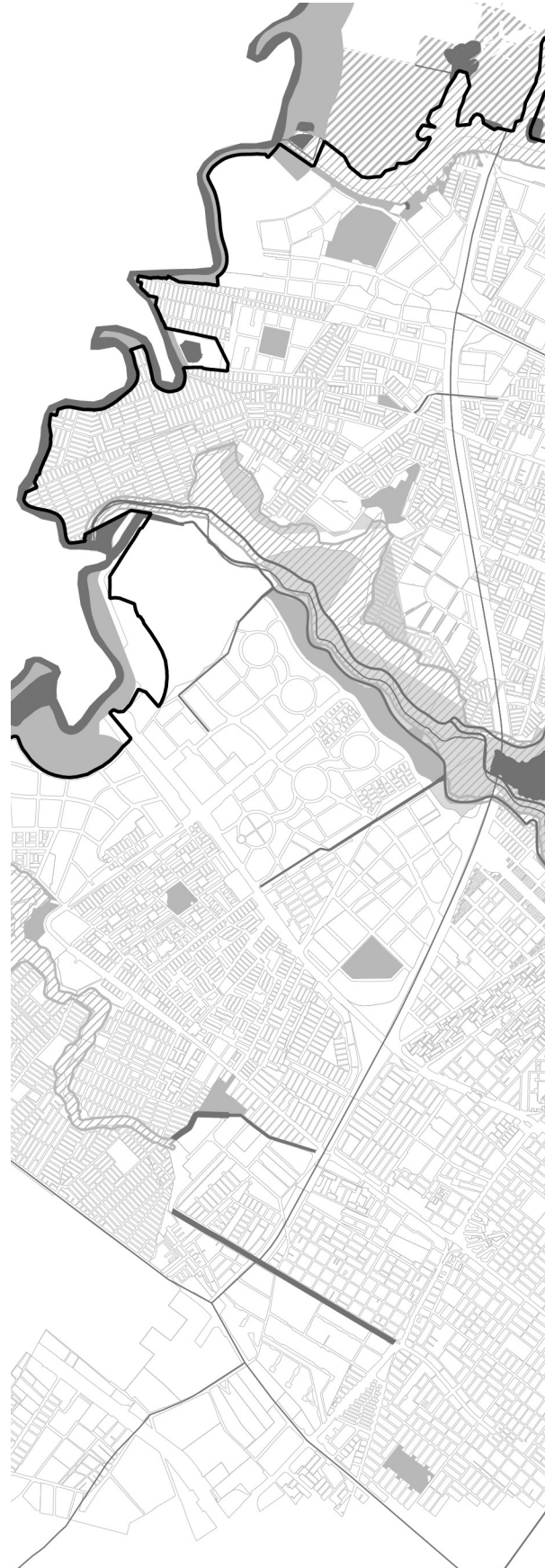
Sections of the site,
showing the progressive
development of the third
phase



PHASE_4

The last phase of the project is the expropriation of the club. This step may be the most resistant of all the processes because it involves negotiating the land with a third party that is likely to strongly oppose the process. Thus, it is likely that negotiations with the clubs will have to start earlier in order to be carried out in time to coincide with the end of the previous phase.

The reclaimed land would then be used for the construction of a new metropolitan park that would link the two wetlands (Córdoba and Juan Amarillo), as well as the two “cities”, the formal and the informal.



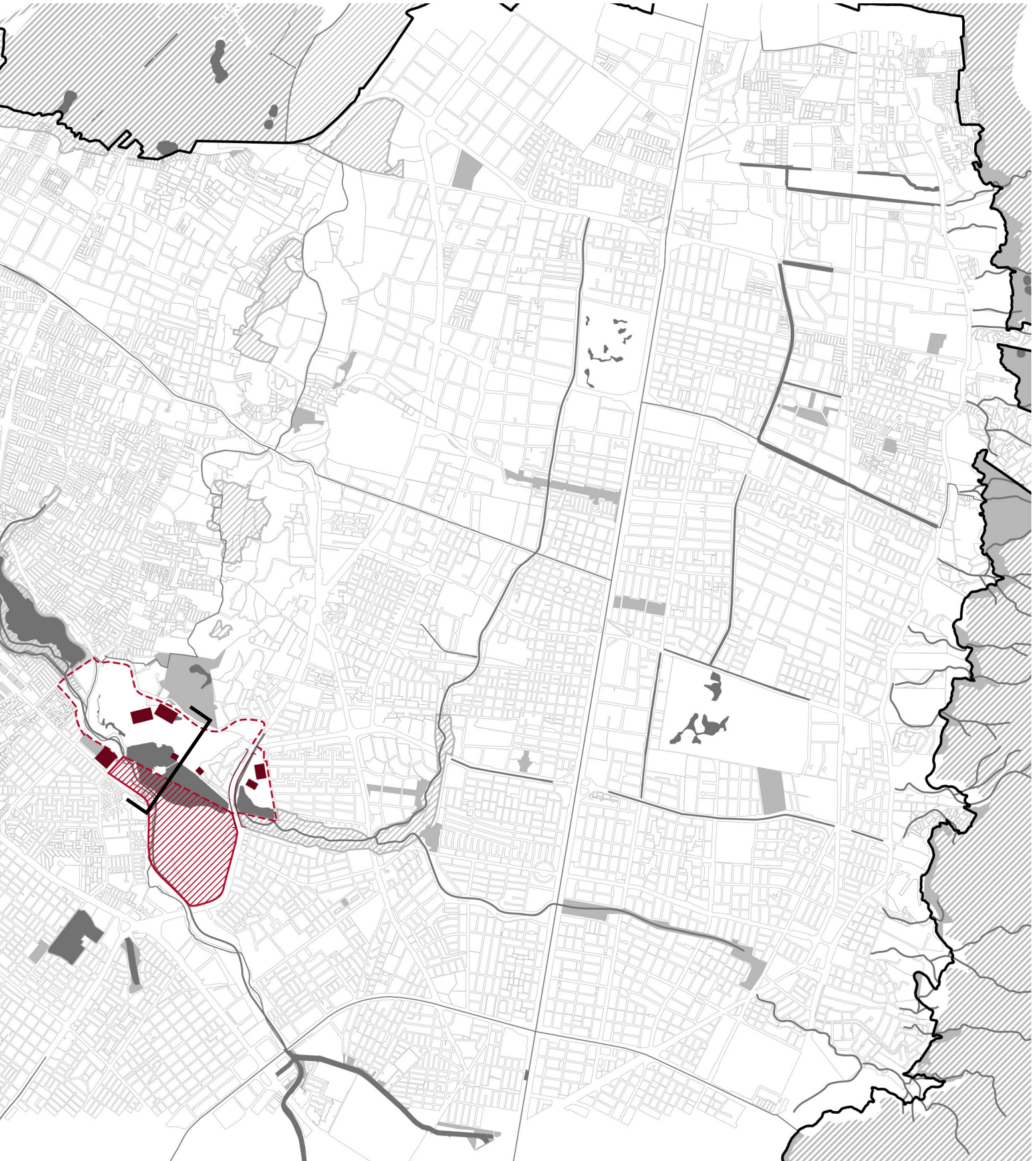
Figure_55.4

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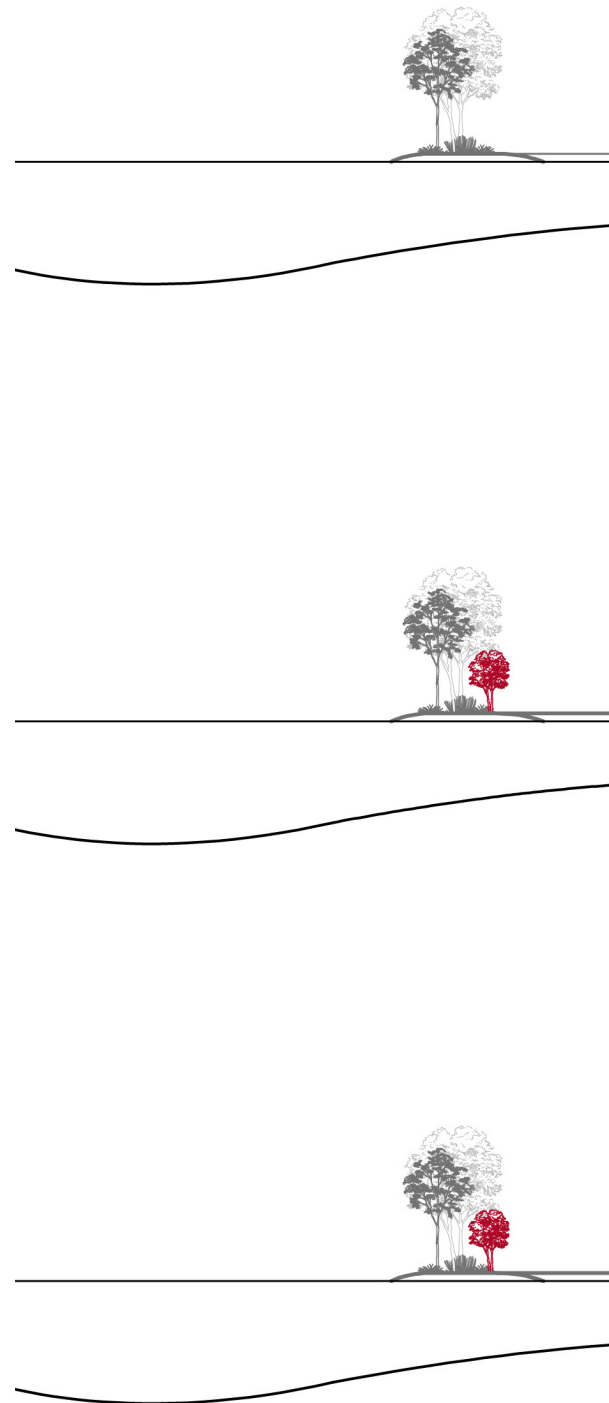
Map that shows the forth phase of the project



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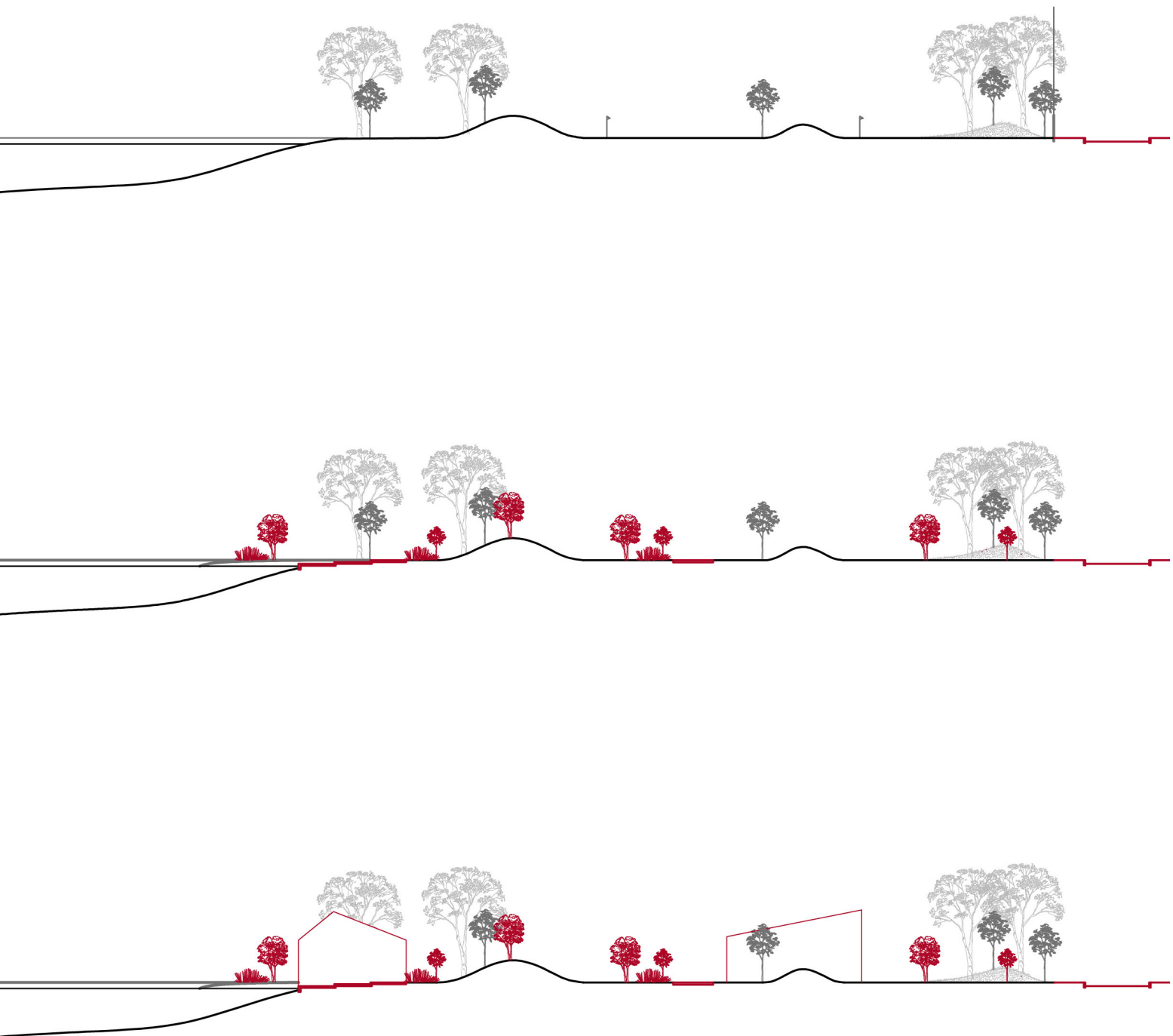
Following the expropriation comes the process of adapting the space for a metropolitan park. Thus, the construction of the park begins with the planting of new trees that will continue to grow while the rest of the project is being developed. Once the park has been built, the construction of new facilities follows, which can be sport facilities or spaces for social purposes.



Figure_57.3

Made by Author

Sections of the site,
showing the progressive
development of the forth
phase



_CONCLUSIONS In summary, the joint implementation of various strategies in the final proposal aims to strengthen urban cohesion within the city's fabric and sectors. The strategies of urban renewal and participatory planning establish systems for social groups to directly engage with natural spaces and leverage the ecological services of recovered ecosystems.

On the other hand, major interventions seek to restore the ecological backbone of the city, upon which participatory strategies begin to connect different urban sectors. This linear axis, crossing the city from east to west, serves both ecological and social functions, blending these two dimensions on the same plane.

If these strategies are implemented, the final result could serve as a pilot plan for similar processes in other areas of the city. The loss of the ecological structure and social segregation are widespread urban phenomena in Bogotá, so these proposals are not isolated cases but represent a new approach to urban planning. Furthermore, the inclusion of participatory processes is not limited to the Rincón de Suba but can be adapted to different groups in various sectors, considering diverse cultural and social identity perspectives to develop polymorphic proposals.

_7. CONCLUSION

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"Is there that Aleph in the intimate of a stone?, Have I seen it when I saw all things and then forgotten about it?, Our mind is porous to oblivion, I myself am faking and losing, under the tragic erosion of the years, the features of Beatrice."

"Existe ese Aleph en lo íntimo de una piedra?, Lo he visto cuando vi todas las cosas y lo he olvidado?, Nuestra mente es porosa para el olvido, yo mismo estoy falseando y perdiendo, bajo la trágica erosión de los años, los rasgos de Beatriz."

Jorge Luis Borges_
El Aleph_
El Aleph (1949)

_CONCLUSION

Throughout this project, the principle under which the problem of fragmentation, urban cohesion, has been addressed speaks of a whole made up of pieces that are part of this unity. Put another way, it is to maintain a perspective on the global unity of the problem, without losing sight that they are independent units with their own needs and dynamics. The socio-ecological framework fits perfectly within this thesis because it describes two situations that refer to this global unity. The social one where individuals or communities have their own dynamics and move within a network that permeates the entire city, forming circles with different focuses. The ecological one speaks of this whole that contains itself and these communities, implying that these two structures are not independent, but that they must be understood in the relationship between society, community, and individuals with their environment.

Understood in this way, the perspective proposed by socio-ecological justice is holistic and comprehensive, feeding back on itself from both extremes (from the social to the ecological and from the ecological to the social). When this framework is applied to urban planning in Bogotá, the result is the unification of those fragments that have, until now, been kept separate and isolated by an urban fabric focused on efficiency and space optimization, but not on the interests and needs of its people and the ecosystems it occupies. If within this perspective, furthermore, communities and their cultural diversity are considered, extremely interesting urban fabrics could be developed, where the pattern is set by the people themselves and their cultural expressions within space.

_REFLECTION

Talking with my mother the other day, just a few days before submitting my thesis, trying to gather strength and courage not to give up right before the end, she said: "How's everything going? You only have 7 days left of two years!" The phrase and the way she formulated the passage of time had the opposite effect, and from then on, my way of counting the days adapted to that friendly system that in her voice denoted pride but in my ears generated anxiety. 7 days of 2 years, 6 days of two years, 5 of two years, 4 of two, 2 of 3... two of two. In that was condensed this phase of my life that ended like this, with a final point, a click of a button, upload and sent. And it looked so different from how I imagined it. A stage of my life that I never foresaw and that, due to circumstances and without paying much attention to where life was leading me, brought me here, to the other side of the world to study a branch of my profession, which I couldn't say if it's the one I want to dedicate myself to in my professional life.

Likewise, and remembering what in a first flash of inspiration, I see that this thesis ended up being something completely different from what I imagined it would be, and it takes effort for me to understand how and why it unfolded the way it did, that no matter how much I planned and developed methodologies and timelines and outcomes by the thousands, I could never have foreseen. I'm not naive about the reasons... and I am aware of the causes and events that made me have to rethink plans and timelines in the process of the thesis. Personal matters, family matters, other responsibilities, the irresponsibility of a youth that still resists fading at my age, and the desire to enjoy life in a strange country, are all the usual suspects. It is the distance and these intervals of time that feel so long (but are so short) that make all this end up taking on a somewhat anecdotal nuance and the proposals of my thesis feel, in the eyes

of those who have not lived firsthand and have not seen the realities of other contexts (like the Latin American one), somewhat utopian like the chimerical amalgam of dreams, fantasies, and illusions that seem to have no technical or real foundation.

But believe me... the realities that I described here, the hopes and aspirations of these communities, and the feverish desire to see a Bogotá that does not fall apart under the weight of its own history, are as real as they are relevant when planning the city we deserve. This is just a light sketch of what I can see now of what my city could become, with the lenses and tools that this urbanism master has provided me, and it is open to reinterpretations, discussions, modifications, and alterations; it should be the result of the joint action of all Bogotans, and not just a few.

Following this idea, this thesis can be continued or deepened in various aspects. The main one involves delving into the communities that reside in the different sectors of the city and better specifying their origin, cultural characteristics, vulnerability states, current conditions of their realities, and how they ended up in Bogotá. This is with the aim of generating a social catalog that allows for easy identification of social groups and types of intervention, considering their adaptability and specifying in which sectors of the city it is possible that strategies and types of intervention.

The second, which is related to the previous one, is the formulation of specific participatory processes and their internal functioning, in order to be implemented with the different communities of the city. So far, the participatory part was stated as a strategy, but I do not have any specific tools with which it could be implemented. The planning of this is of utmost importance to be able to develop participatory planning and develop with the communities the traditional practices that could be implemented within the territory.

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