

# Rehabilitation of the 44th Street in Goiânia





# Rehabilitation of the 44th Street in Goiânia

Master's degree final thesis

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# 44th STREET

FIGURE 01 - 44th Street by Douglas Schinatto



# REGION



THANK YOU  
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## TO MY LOVED ONES,

First of all, to my mother, **Jacqueline**, my eternal love and gratitude. I am grateful for your belief in education as a transformative process and for your support throughout my academic trajectory until this very moment. Also for being present by my side in all my conquests, vibrating, encouraging, and thrilling. Thank you for never letting me give up and being my biggest partner and inspiration.

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In the context of the creation of Goiânia in the 30s, the Northern Railway Sector was an area where the Railway Station was located, surrounded by illegal subdivisions that its employees inhabited. From the 1980s onwards, the space began to change, culminating in the current formation of the shopping area popularly known as Rua 44. The project site comprises the Interstate Bus Terminal, Praça do Trabalhador, and the conglomerate of stores, malls, and hotels considered the second-largest commercial hub and fashion distributor in Brazil. This work aims to create an urban rehabilitation project for the entire region. An urban-landscape project is proposed here that seeks to improve the traffic and flow of people in the area; improve users' shopping experience, and recover and preserve the historical memory of the place. On an urban scale, it is proposed to change Contorno avenue and its parallel streets into pedestrian streets during the week's commerce and 44th Street at weekends. The landscaping project, on the other hand, proposes a new design for Praça do Trabalhador that brings a diversity of uses, diversity of people (age group and socioeconomic status), engagement with the community, generates well-being, and an innovative design that strengthens the presence of the place on social media and internet. The entire project is intended to return to its historic purpose of being a meeting place and combine it with current commercial use to benefit the local community, consumers and workers in the region.

***Keywords: Goiânia; Northern Railway Sector; 44th Street; Urban Rehabilitation; Historical Heritage.***

# RIASSUNTO

Nel contesto della creazione di Goiânia negli anni '30, il Settore Ferroviario Nord era un'area in cui si trovava la Stazione Ferroviaria, circondata da suddivisioni illegali abitate dai suoi dipendenti. Dagli anni '80 in poi, lo spazio ha iniziato a cambiare, culminando nell'attuale formazione dell'area commerciale popolarmente conosciuta come Via 44. Il sito del progetto comprende l'Interstate Bus Terminal, Praça do Trabalhador e il gruppo di negozi, centri commerciali e hotel che è considerato il secondo hub commerciale e distributore di moda in Brasile. Questo lavoro si propone di creare un progetto di riabilitazione urbana per l'intera regione. Viene qui proposto un progetto urbanistico-paesaggistico che mira a migliorare il traffico e il flusso di persone nell'area; migliorare l'esperienza di acquisto degli utenti; oltre a recuperare e preservare la memoria storica del luogo. A scala urbana, si propone di trasformare Avenida Contorno e le sue strade parallele in strade pedonali durante il commercio della settimana e Via 44 nei fine settimana. Il progetto paesaggistico, d'altra parte, propone un nuovo design per la piazza che porta diversità di usi, diversità di persone (fasce di età e stato socioeconomico), impegno con la comunità, genera benessere e un design innovativo che rafforza presenza del locale sui social e su internet. L'intero progetto vuole tornare al suo scopo storico di essere un luogo di incontro, e combinarlo con l'attuale uso commerciale a beneficio della comunità locale, dei consumatori e dei lavoratori della regione.

**Parole-chiave:** *Goiânia; Settore Ferroviario Nord; Via 44; Riabilitazione urbana; Patrimônio.*



# RESUMO

No contexto da criação de Goiânia na década de 30 o Setor Norte Ferroviário se tratava de uma área onde se localizava a Estação Ferroviária envolta por loteamentos ilegais que os seus funcionários habitavam. A partir da década de 80, o espaço começou a se modificar culminando na formação atual da região de compras popularmente conhecida como Rua 44. O sítio do projeto compreende o Terminal de Ônibus Interestadual, a Praça do Trabalhador e o conglomerado de lojas, shoppings e hotéis que é considerado como o segundo maior polo comercial e distribuidor de moda do Brasil. Este trabalho tem como objetivo criar um projeto de Reabilitação urbana para toda essa região. Propõe-se aqui um projeto urbano-paisagístico que tem como objetivo melhorar o trânsito e fluxo de pessoas na área; melhorar a experiência de compras dos usuários; além de recuperar e preservar a memória histórica do local. Na escala urbana é proposto a mudança da Avenida Contorno e suas ruas paralelas em ruas pedonais durante o funcionamento do comércio na semana, e a Rua 44 aos fins de semana. Já o projeto paisagístico propõe um novo design para a Praça do trabalhador que traz diversidade de usos, diversidade de pessoas (faixa-etária e condição socio-econômica), engajamento com a comunidade, gere bem-estar, e um design inovador que fortaleça a presença do local nas mídias sociais e internet. Todo o projeto tem o intuito de retomar o seu propósito histórico de ser um local de encontro, e combiná-lo com o uso comercial atual para benefício da comunidade local, consumidores e trabalhadores da região.

**Palavras-chave:** *Goiânia; Setor Norte Ferroviário; Rua 44; Reabilitação urbana; Patrimônio.*



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*Why this area?*

## **MOTIVATIONS AND GOALS**

This work emerged from a concern as a user of the city of Goiânia regarding a very used, active, and highly economically important space for the town, however, left aside by the public authorities to the private initiative interest to obtain profit without any significance to the local urban quality.

Born and raised in Goiânia, my memories related to the area as a child lead me to feelings of insecurity and discomfort. In adulthood, the region's participation was more substantial and closer. During my graduation, between comings and going from Goiânia to Brasília, the Bus Terminal has always been the heart's welcome location. Being there meant being at home and close to those I love. Nevertheless, it also meant chaos, decay, and discomfort. The flow of people passing through the cars, vendors invading the street space, the heavy traffic and heat, everything in that environment was uncomfortable for me.

Also, in the same chaotic space, I saw myself as an architect and urbanist for the first time. The personal and academic experiences that I acquired during my undergraduate course changed my vision towards this place, and the feeling of discomfort gave way to excitement. From then on, the experience of the city changed. There was an urgent necessity to propose interventions to that space. Propose improvements that value the pedestrian, the human scale, the “urban being.” The problem was no longer the people passing in front of the cars, the vendors invading the streets, but the vehicle invading people’s area. The city again lost space for vehicles. From my studies, I can see architecture today beyond a technical profession. But as a profession that holds the knowledge related to artistic and humanitarian sensitivity regarding society’s most complex creation: The cities.

Within the city that created me, I choose this area, intending to claim the space back to people, improve their relations with this environment, offer back a sense of community to the region, recover the feeling of belonging, return the act of

wandering, and appreciation of the urban space. And from that, improve the shopping experience of users and workers of the area. I seek to investigate and experiment with local interventions without losing the place’s simple essence, rehabilitating the degraded area and placing limitations on the current disorderly commercial expansion. Finally, I attempt to summarize what professional I intend to be as an architect and urban planner.

The aim is to produce a rehabilitation project for the whole 44th Street region. Propose a pedestrian street and redirect traffic to parallel streets to facilitate traffic around the area and improving this way the shopping experience. Produce a landscape project for Praça dos Trabalhadores in which it recovers its cultural and historical value and generates a living space for the community. Also, create a new spatial configuration for the Hippy fair, a new route for the flow of cars in the region, and improve the area’s circulation with alternative transportation methods. Another aim would be to improve local infrastructure and do all of this based on sustainable technologies and new materials.

It will be an extensive work due to its complexity, scale, and sensitivity. Are on agenda matters of historical heritage, the private interest of large and growing commercial conglomerates, public government, a possible gentrification process, the different scales involved, and technical issues such as infrastructure, urban mobility, and the use of sustainable technologies. For this reason, this first volume will not be complete. It will be an academic work focused on the project’s macro scale, which will subsequently continue in a second volume more detailed and technical as my graduation thesis at the University of Brasilia.



FIGURE 02 - 44th Street 19



# M E T H O D O L O G Y

This thesis is based on the methodology proposed in the Manual for Preparation of Projects for Preservation of Cultural Heritage prepared by the Monumenta Program in 2005. It consists primarily of identifying and knowing the object of intervention. In this stage, historical research is carried out systematically to obtain information about the origin of the place, the urban and socioeconomic changes over time, and the functions during the beginning and nowadays. This part is called 'Part 2: Context', which searches into the local history of the city and neighborhood and makes an overview of the region today, presenting economic, demographic, social, and technical data.

Subsequently comes the so-called 'Part 3: Theoretical work', which collects theoretical

information on the subjects that the project permeates to support the construction of the academic thesis thought which inspired and were the practical basis for elaborating the project.

The last chapter turns out to be 'Part 4: Design Proposal'. It starts with a survey of local plans, topographic documents, maps of occupied and empty lots, land use, main roads, flows, accesses, photographic documentation, infrastructure such as road, transport, and the legal aspects. Following the survey comes the diagnosis phase and solutions for the problems diagnosed. Finally comes the intervention proposal itself, presenting the project in a schematic design phase.

## PART 1. INTRODUCTION

- Motivations and Goals
- Presentation

## PART 2 - CONTEXT: *Know more about the area*

Identification and Knowledge of the Intervention Object: Identify and characterize the project area regarding aspects related to the historical, socioeconomic and cultural context.

- Historical Research
  - *The origin and urban transformations of the project area, meanings and current aspects;*
  - *The relations established with the socioeconomic and cultural transformations;*
  - *Current functions and over time;*
- Research of the current situation
  - *Economic data*
  - *Demographic data*
  - *Social data*
  - *Technical data (infrastructure)*

## PART 3 - THEORY: *Theoretical Basis for the Project*

- Historical heritage
- Use of social media and technologies in heritage conservation
- Urban spaces promoting collective well-being

## PART 4 - DESIGN PROPOSAL

- Urban Analysis (Survey)
  - *Typologies (urban and architectural characteristics)*
  - *Photographic Documentation*
  - *Infrastructure Information*
  - *Legal Aspects*
  - *Socio-Environmental*
- Diagnostic
- Solutions
  - Intervention Proposal: Understands the definition of the set of actions necessary to characterize the intervention, determining solutions, defining uses and execution procedures, approached technically and conceptually.
    - *Schematic Design*



# P R E S E N T A T I O N

In the metropolises, forms or structures and socio-spatial practices or different dynamics make possible the coexistence of multiple urban centralities. In Goiânia, the Capital of the State of Goiás, 44th street surroundings can be considered one of those city's centralities. It is a consumer center specializing in retail and wholesale clothing, which during mid-2010 made itself a vital center by attracting a vast network of consumers and clothing retailers from the interior of Brazil. (GARBELIM, JUNIOR, MARQUES, 2020)

Villaça (2001) points out the difference between the terms centrality and sub-centers, classifying the sub-center as a replication of the center, with similar location importance, and offering the same services only on a smaller scale. The Northern Railway Sector can be considered a sub-center of Goiânia, as even being part of the original central design of the city, it has autonomy and is not dependent on the flow and economic importance of the center of the Capital. The centralities are where the most significant employment sources and income are concentrated and the most affected by the lack of urban planning (BAETA, SOUSA, 2019).

Like other sub-centralities in Goiânia and other cities throughout Brazil, the commercial region popularly known as "44th street" has also lost its essence of promoting meetings and ideas that its historical base shows us that it once was.

One of the central issues of contemporary architecture is precisely its relationship with history and the problems related to its meaning and cultural expression. We understand history as a complex topography. Hence, we start from a perspective that understands history as a transitive issue for action. A vision of history that incorporates simultaneous thinking and that places us in a disposition to contemplate history as present, as proposed by Lévi-Strauss. (ACQUA, FROTA, 2015)

The city is a collective work product of its history. Understanding the process of production of spaces, which goes beyond the project and the construction itself, extending to its appropriation, maintenance, and validity over time, is fundamental to understanding the work's meaning and historicity. Its relationship with the context material and cultural (the city and its users) and its importance in society's collective memory.

According to the Burra Charter, these places of cultural significance must be conserved for present to future generations under the principle of inter-generational equity. The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained." (ICOMOS, 2013)

In the morphological study carried out in different contexts (LAMAS, 1993), the streets were one of the main elements for the city's characterization. It is a space for movement/locomotion but also a place for exchanges and socializing. Through the street, the continuity of the urban fabric takes place, adding to the buildings that delimit them and shape the space.

Since the first civilizations, the morphology of the urban mesh has always taken into account the relationship between "inside" and "outside," "fixed" and "flow." The traditional city was established through the arrangement between streets, lots, and blocks where the human scale was the reference measure (AMORIM, 2017).



In the 1842 drawing, *Le Flâneur*, well-dressed man - flâné with his hands in the pockets of the long, baggy but still elegant trousers, shirt and coat, a stick under his left arm, a hat on his head, his face tilted towards the sun. Much ink has been spilled over this strolling figure, this aimless walker of 19th century Parisian streets, as he was a central figure in literary works by Poe, Joyce, Baudelaire, Döblin, and Proust. This romantic figure takes us - the readers - by the hand for a stroll into the city and shares all that he discovers with us. But the flâneur does much more than just discover secrets in the arcades of early modernity and cultivate his idleness. He is the prototype of the modern urbanist, a new sort of city goer as there were and are many types around. The flâneur dwells in the streets with “cool but curious eyes” (Rignall 1989: 112); he is the constant observer of the ever-changing spectacle that emerges around him. “Have we seen enough of the flâneur, the Parisian idler who sampled the sights and sounds of the city as he strolled with no destination in mind?” asks Gregory Shaya (2004: 46) in his essay: “He was a common figure of the nineteenth century, essential to any picture of the streets of Paris. The flâneur was the man of leisure who went into the street in search of some satisfaction for his overdeveloped sensibilities. He was, by various accounts, a gastronome, a connoisseur, an idler, an artist [...]” (Shaya 2004: 47)



The later attribution is the one that might be interesting in contemporary discourses: the flâneur as an artist, an actor, and a writer. Let us go back to Garvin's little image. The elegant man with his stick, standing still for a moment and looking up in the air - where is he looking and what is he seeing? A bird, a tree in blossom, a lady behind a window? Or is he just enjoying the sun as hinted at by the shadow behind him? We do not know and actually it is not of importance WHAT he is looking at but how that looking-at-whatever-it-is constitutes his specific experience and makes him important enough to become a subject for the painter. In other words: this flâneur is both a spectator and an actor in a play called 'the flâneur'. As Cees Noteboom notes (1996), flâneurs are artists even if they do not write, because they are witnessing that what is going on in the city, “they are the eye, the protocol, the memory, the judgement, the archive, in flâneurs the city becomes aware of itself” (Noteboom 1996: n. pag.; my translation). It is this double action of flâneurship that is of interest. By walking through the streets and collecting impressions, the flâneur is constantly producing a story of his lived experiences while being an actor in the play he is currently watching. Although Rancière is not voting for theatrical actions that force the audience to become physically active, he describes the constant activity of the spectator even in a classical setting of theater:

“The spectator also acts [...]. She observes, selects, compares, interprets. She links what she sees to a host or other things that she has seen on other stages, in other kinds of place. She composes her own poem with the elements of the poem before her. She participates in the performance by refashioning it in her own way - by drawing back, for example, from the vital energy that it is supposed to transmit in order to make it a pure image and associate this image with a story which she has read or dreamt, experienced or invented. [...] This is a crucial point: spectators see, feel and understand something in as much as they compose their own poem, as, in their way, do actors or playwrights, directors, dancers or performers.” (Rancière 2009: 13) The flâneur is not just an observer or passive spectator of a finished play, he is more a coproducer of that very city life. He is in a mode that is described as “a historically specific mode of experiencing the spectacle of the city in which the viewer assumes the position of being able to observe, command, and participate in this spectacle all at the same time” (Schwartz 2001: 1733). It was Walter Benjamin who introduced the concept of the flâneur into academia in 1929 with *Die Wiederkehr des Flâneur* (1991[1929]: 194-199), reviewing Hessel's *Spazieren in Berlin* and later in 1935 sketches of *The Arcades Project* (1999[1935]), where he pointed out that the flâneur is an active producer of the urban scenery he lives in: “It [the city] opens up to him as a landscape, even as it closes around him as a room” (Benjamin 1999[1935]: 417). For Benjamin, the city not a fixed thing anymore but a space that changes its appearance and functionality constantly depending on the action and choices of its visitor, user, inhabitant, actor. And the city even becomes a strange and unknown place: “To the flâneur, his city is - even if [...] he happened to be born here - no longer native ground. It represents for him a theatrical display, an arena” (Benjamin 1999[1935]: 347). Benjamin, reflecting Baudelaire here, propose to see the city as theater that is set up and used by actors, which in this case are flâneurs, but are increasingly all members of urban society in general. In other words: in the city that works here as a medium (cf. Kittler 1996) it is the citygoer, the passant, the active and emancipated spectator (cf. Rancière 2009) that turns the urban landscape into a “theatre of social action” (Mumford 2015: 93), a “theatre whose setting is the street” (Brecht 1987[1930]: 176) or a performance (cf. Schipper 2014a). The assemblage of collected impressions are merged into a texture of experiences, a storyboard of the film that we live at the same time. Or more generally and in the words of the human geographer Doreen Massey: “We are constantly making and re making the time-spaces through which we live our lives” (Massey 1999: 23). Massey not only discusses the inseparable relations of space and time but in her core argument points to the production of identities through the concept of relational aspects of space: “We cannot ‘become’, in other words, without others. And it is space that provides the necessary condition for that possibility” (Massey 2008: 56). The very performative notion of space - that it is not a fixed thing to walk through but more a mean or medium in which things and settings become possible - has been discussed by many scholars such as Lefebvre (1974), Certeau (1980), Merleau-Ponty (1945), Deleuze and Guattari (1980). I do not intend to dig deeper into relational space theories or the politics of space. However, it is obvious that these approaches to space and space production have an effect not only on how we receive space as such, but actually form the way we behave in that space and even what and how we see and understand things, objects, situations and actions in that space. In other words - the space we produce will structure the life-time we spend in it.

This is a highly performative approach to describing space and its narrative - the relational space production gets a kind of dramaturgical agency for the play that is called “my life”. Recalling our flâneur as a starting point and heading to questions of theatrical performances that use digital technologies and urban space, it seems to be useful to remember the dramaturgical importance that space production has.

SCHIPPER, Imanuel. From flâneur to co-producer. The performative spectator. In: Martina Lecker, Imanuel Schipper, Timon Beyes (Hg.): *Performing the Digital. Performativity and Performance Studies in Digital Cultures*. 2017.

However, with modernity, and the rapid growth and expansion of cities, the traditional city died in favor of a new hierarchical city image through ample avenues and boulevards. Goiânia was built under these molds. The modern city is the hygienist city, of cars, of expressways, of zoning, and owner of a new aesthetic standard. The streets become circulation routes, and the man who once inhabited these streets now merely moves on them. *The flâneur*, interpreted by Walter Benjamin in the poetry of Charles Baudelaire, is the new man who, as he walks through the streets, wanders through history and buildings. The new man who “floats” is the man who watches this transmutation and inaugurates modernity. (AMORIM, 2017)

Consequently, the distorted appropriation of the legacy left by modern urbanism brought about the fragmentation of cities in areas with disconnected centralities. The consolidation of the propagation process of the modern city and the propagation of the automobile as an object of desire stimulated by public policies that reinforced the implantation of expressways and long avenues generated the transformation of the man who walks for what he moves.

For Peter Blake (1999), the ideal city is the city of pedestrians, where the streets should be the stage for entertainment, interactions, and even discussions. What is lacking in the idea of utopian cities are people.

Therefore, for this project, it is believed to be of vital importance to analyze the streets in the region and propose the best way to use them. The modern city's thought of prioritizing cars must be put to one side. Consumers must experience a gratifying and comfortable journey while using the space that guarantees their safety.

From this point of view and perspective, this work will combine the currently commercial character of the place with the recovery of its history, taking the user to a new way of experiencing the place.

“The centralities serve the production, regulation, and consumption of capital, goods, and services. Nevertheless, they also promote the encounter between people, ideas, and things through the social use of space”

(LEFEBVRE, 2006)



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*Know more  
about the  
area*

## URBAN HISTORY OF GOIÂNIA

Founded in the 30s, the State of Goiás was a gold mining territory. With the decline of gold activity at the end of the century, the economy became related to livestock and agriculture activities. With the economic and political change in Brazil, during the Revolution of 1930, Getúlio Vargas appointed Pedro Ludovico Teixeira to oppose the dominant rural elite that exercised power in the territory to execute the plan of transferring the Capital of the State to a new zone. That action meant to break with the isolation and the stagnation that the State experienced until then.

Based on the prestige of the urbanist diploma earned in Paris - at the renowned Institut d'Urbanisme de Paris (IUP) - Attilio Corrêa Lima was then invited to elaborate an urban plan for the new capital of the State of Goiás between 1933 and 1934. The experiences lived during the years he lived in Paris influenced his decisions on how to plan a city on a clean slate basis in the middle of Brazil.



FIGURE 04 - Poster used to advertise the sale of plots of land in the new capital.

The main element of his urban design for Goiânia was the central square with a privileged focus on the perspectives created by the main roads drawn - avenues Goiás, Tocantins, and Araguaia. Lima considered that the capital needed the monumental and majestic archetype, so he used the design of Patte d'oie born in front of the palace of the state government, and continues with the three main avenues that radiate out from it.



FIGURE 05 - Civic Square and the three main avenues from left to right: Tocantins, Goiás, and Araguaia. Goiânia, 1957.



FIGURE 06 - Example of Patte d'oie: Palace of Versailles

“

[...] We took advantage from the topography to obtain the effects of perspectives as the main reason for the city, which is the administrative center. It dominates the region and is seen from all over the city and mainly by those who arrive there. The three most important avenues converge on the administrative center, emphasizing its importance to the design. By keeping an appropriate proportion, the grand effect desired is the same classic principle adopted in Versailles, Karlsruhe, and Washington.”

(LIMA, 1937)

The French influence of his education can be identified in all the plans from his work for Goiânia. Regarding the shape of the avenues, the square, and the aesthetic solution of the boulevards. Lima shows particular attention to some subjects such as zoning, topography, green areas, the hierarchy of roads, and traffic.

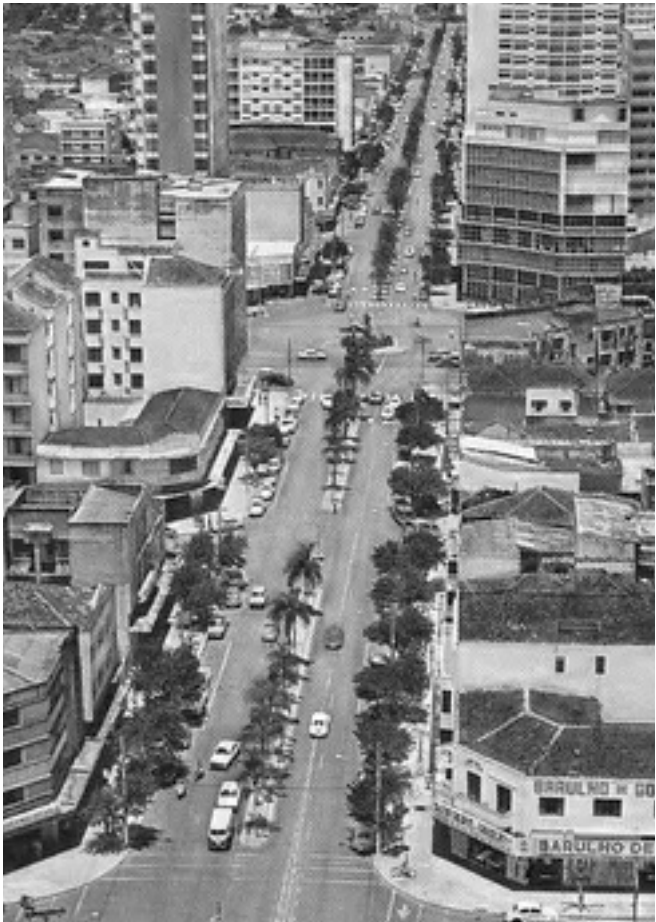


FIGURE 07 - Goiás Avenue in the 70s, influenced by the french boulevards.



FIGURE 08 - Praça do Bandeirante, Intersection between Avenues Tocantins and Anhangüera, 1960.



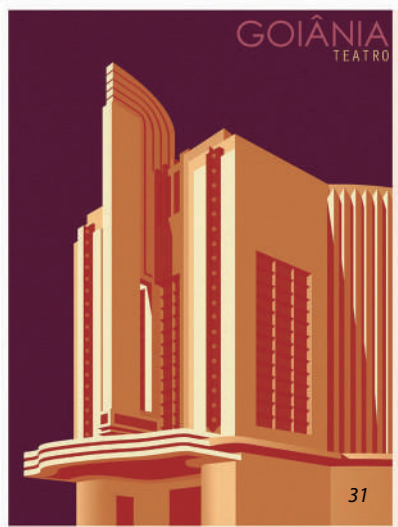
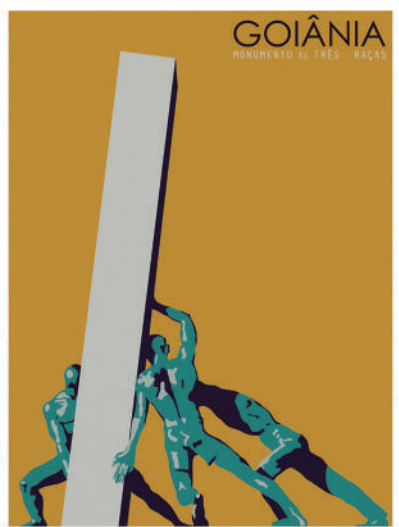
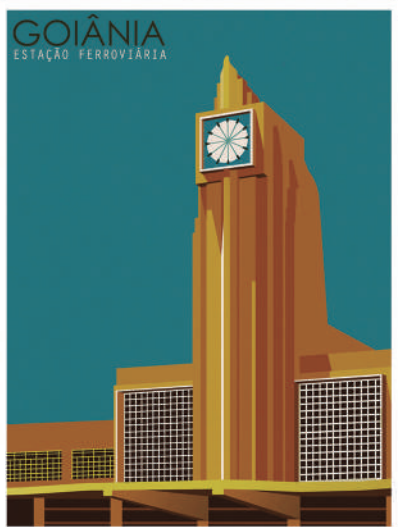
FIGURE 09 - Civic Square with the perspective of Goiás Avenue. Goiânia, 1957.



# ART DECÓ

In agreement with the scenario of the time, when Art Decó became a symbol of the state architecture of the Vargas era, the creation of Goiânia was no different: Corrêa Lima designed the Grande Hotel, the Government Palace, and the General Secretariat according to the promising characteristics of the modern style (MANSO, 2001). Although Art Decó has international recognition, in this specific case had a regional aspect. Established itself in Goiânia in an imposing way but at the same time simplistic, according to the technical facilities of construction and low cost. Which fits the national identity of the time, that reveal through the conjunction between modernity and tradition within the search for a legit modern Brazilian production. (BISPO, GIANNECCHINI, 2015).

FIGURE 10 - Set of illustrations of Art Deco buildings in Goiânia, by the Artist André Chiote. Up and from left to right : Museu Zoroastro Artiaga, Monumento às Três Raças, Teatro Goiânia, Jockey Club, Palácio das Esmeraldas, Torre do Relógio, Museu Pedro Ludovico Teixeira, Estação Ferroviária, Grande Hotel, and Trampolim do Lago das Rosas.



It is noteworthy that Goiânia was projected at the beginning of the Brazilian modernist movement, which asserted itself as a national language from the 1930s and established itself throughout the 1940s and 1960s. Even internationally, with the exhibition of the Brazilian Pavilion, designed by Lucio Costa and Niemeyer at the 1938-40 New York World's Fair, and the planning of the country's new capital, Brasília, in 1960.

Modern architecture represents Brasília as decó represents Goiânia, although the first includes the second. Art Decó was a way of being modern with some 'bossa,' modern and refinement. A way to differentiate from rationalist architecture, which is so economical in its lines. It had to be modern and exuberant, technological but luxurious. Goiás Art Decó can be considered as a modern architecture covered in frosting and sprinkles. It had geometric forms, cut-outs on the façade, stylized female forms, everything to differentiate from modern architecture and buildings destined for the working classes. Besides, decó was designed on a human scale, without the monumental scale of modernism. It is an architecture that invites people to get closer,

to observe the details one by one as if they were in front of a clean Gothic architecture. (FREITAS, 2019)

The first modern architects in the country graduated in the 1930s, at the National School of Fine Arts, in Rio de Janeiro, then the country's capital. Were the leading exponents of the so-called Escola Carioca gather around a singular theoretical and formal repertoire. Attilio Lima extracts from this source. In addition to having graduated as an architect-engineer from this school in 1925, he also lived and worked with important names of Brazilian modernism, such as Lucio Costa, the urban planner responsible for Brasília's project.

Although at first sight Goiânia and Brasília do not present apparent similarities, both were created under the government of Getúlio Vargas, and because of that have tons of similar fundamentals. A nationalist and authoritarian government establishes the country's modernization as its primary goal and constitutes a set of national symbols, above all to mobilize the masses. In this context, marked by solid political centralization and an attempt at cultural unification, Goiânia and Brasília are projected to occupy the country's center.

The Vargas government makes explicit stylistic contradictions in the elites' imagination marked by a strong antagonism between conservative forces, represented by all styles called "neo" (as neocolonial), and progressive forces, represented by modernism. Modern Brazilian production is based on the formal framework of Le Corbusier's Five Points of New Architecture. However, it brings together different materials and shapes, seeking to incorporate austerity, lightness, and simplicity, establishing a connection between colonial and modern language (BISPO, GIANNECCHINI, 2015). Thus, modern Brazilian architecture stands out for its plastic freedom and the use of local materials. Art Decó style of Lima also does that using regional, typical materials and construction techniques.

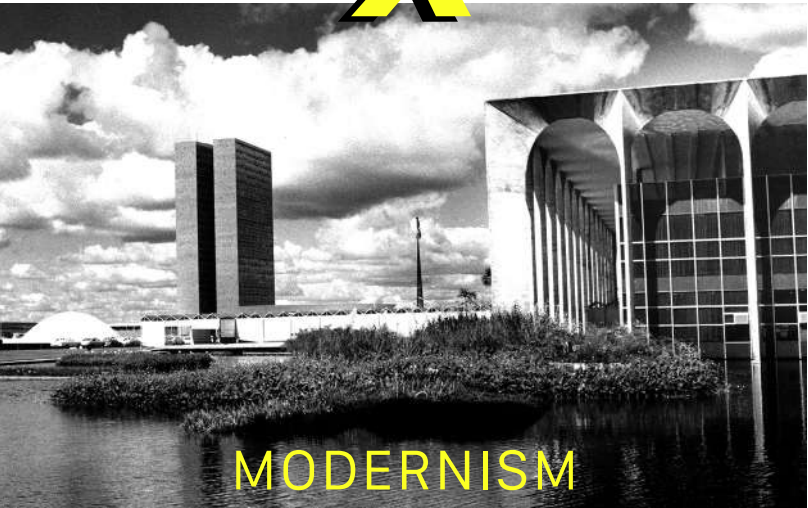
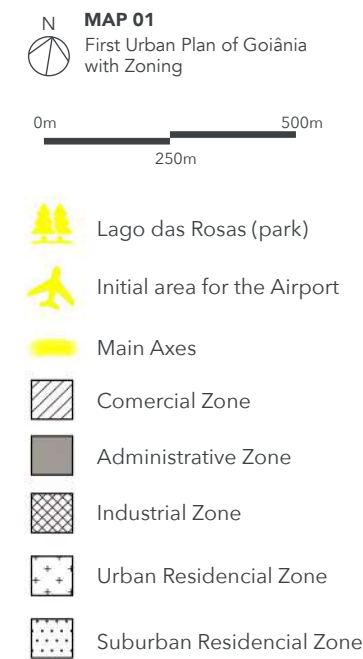
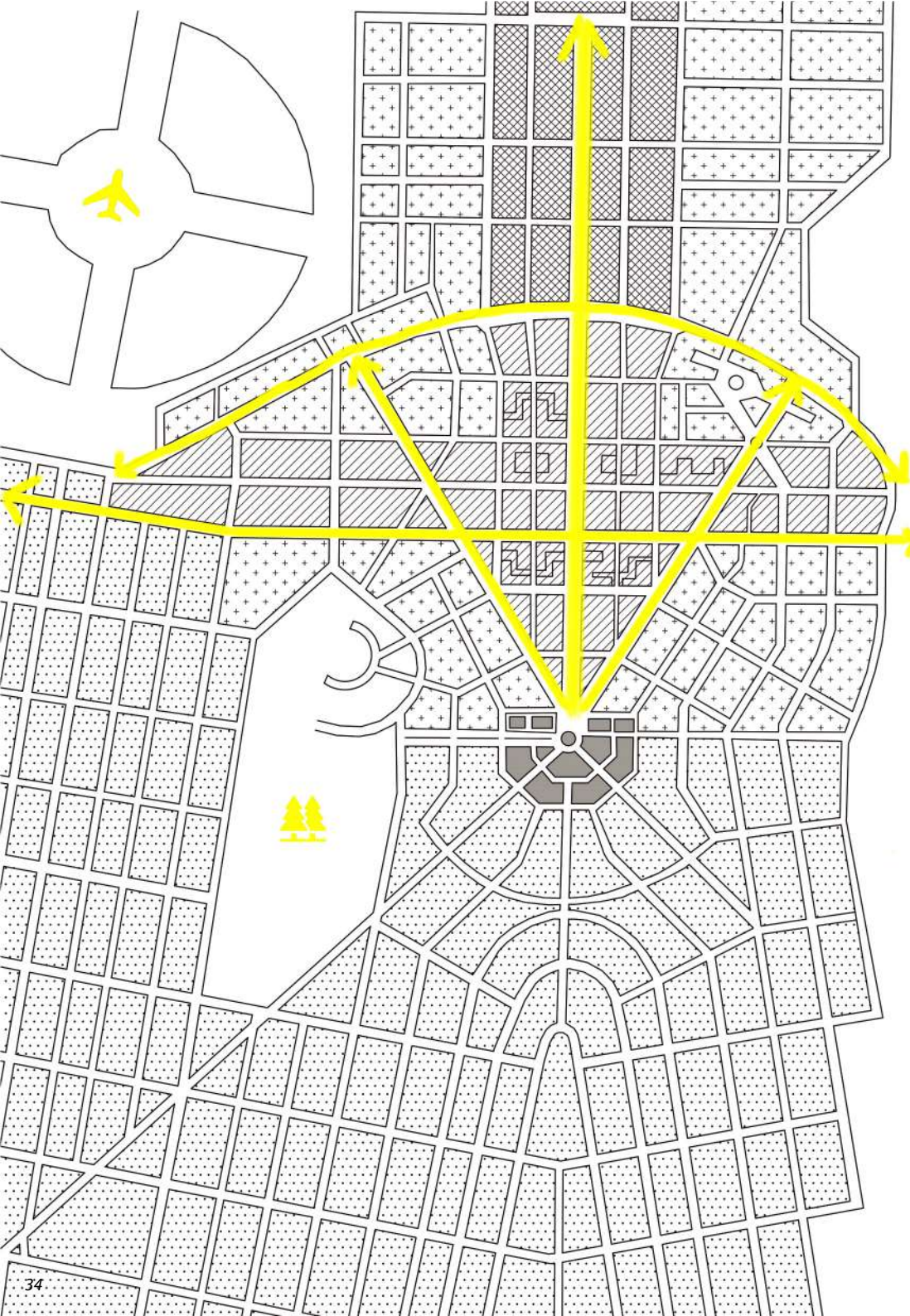


FIGURE 11 - Teatro Goiânia. Example of Art Decó

FIGURE 12 - Itamaraty Palace and National Congress on the background. Brasília. Example of the brazilian modernism





The urban plan creates five zones for different uses. The central square, concentrating the entire administrative structure of the State and the municipality; a commercial zone at the junction of Avenida Goiás with Avenida Anhanguera; a dedicated area to industries on the northern region of the city close to the railway station; a southern and western zona to suburban homes with influences on the ideas of Ebenezer Howard, and his Garden cities; and the rest of the area rural. (Map 01)

Another concern of Corrêa Lima was with the afforestation project of the city. The solution found was to establish parks and park avenues interspersed with small lakes. Lima handed over to the State Government a set of projects that placed the Goiânia plan with the preponderance of spaces for public roads, gardens, and parks. His project creates a good flow for the traffic and a big concern for the community's wellbeing.



FIGURE 13 - Lago das Rosas, 1980



FIGURE 14 - Arborization through Goiás Avenue, 1980



However, in 1935 Atílio abandoned the project for many reasons: lack of payment, difficulty living in Goiânia, and others. So the construction of Goiânia became the responsibility of the company Coimbra Bueno & Cia Ltda, which was already contracted for the execution of the work, which would later define numerous changes in the urban project developed by Atílio.

After the departure of Atílio Correia Lima, there was a revision of the urban plan of the capital. The government consulted another architect from Rio de Janeiro, Armando de Godoy, who was already known for a study he made in 1933 about the city's implementation, contrary to Atílio's urban ideals.

The main change made by Godoy in the urban plan of Goiânia refers to a significant transformation in the southern portion of the city, equivalent to almost 50% of the area of the initial urban core, where the southern sector was designed. Godoy also disagreed with Atílio

concerning the city's urban expansion, in which the limit of 50.000 inhabitants should be met, but the city should also expand through satellite cities. This argument for creating satellite cities by Armando de Godoy was used by the Coimbra Bueno brothers to approve the first private subdivision outside the urban plan of Goiânia, the Coimbra sector, approved in 1938, a time when this type of subdivision of the land was prohibited.

For this reason, we can say that real estate speculation was, from the beginning, decisive in the constitution of the city and carried out by the leaders of this process. (MOTA, 2004).

Armando de Godoy delimited the urban area of Goiânia in the sectors Central, South, North, and the satellite city Campinas. In this period, the North sector was still under construction where the industrial zone along Avenida Goiás was established, in the proximity of the railway, with the operating zone located close to Botafogo Park.

This division can be explained by the attempt to establish stages for the city's development. It is clear that from 1933 to 1947, the State is responsible for the land trade in the capital, which contributed to a monitored growth of the city, and also for following the initial urban plans, which contributed to the existence of only two fronts of expansion in the capital. One to the south towards the lands already purchased by the State, and another west, on Coimbra Bueno brothers lands. According to the Integrated Development Plan of Goiânia (PDIG-2000 1992), it is possible to distinguish some phases of the development of Goiânia: 1933 to 1950 corresponds to the creation of the place, 1950 to 1964 corresponds to the expansion of urban space, 1964 to 1975 corresponds to concentration from places in space, 1975 to 1992 urban expansion, 1992 to the present day corresponds to segregated urban spaces.

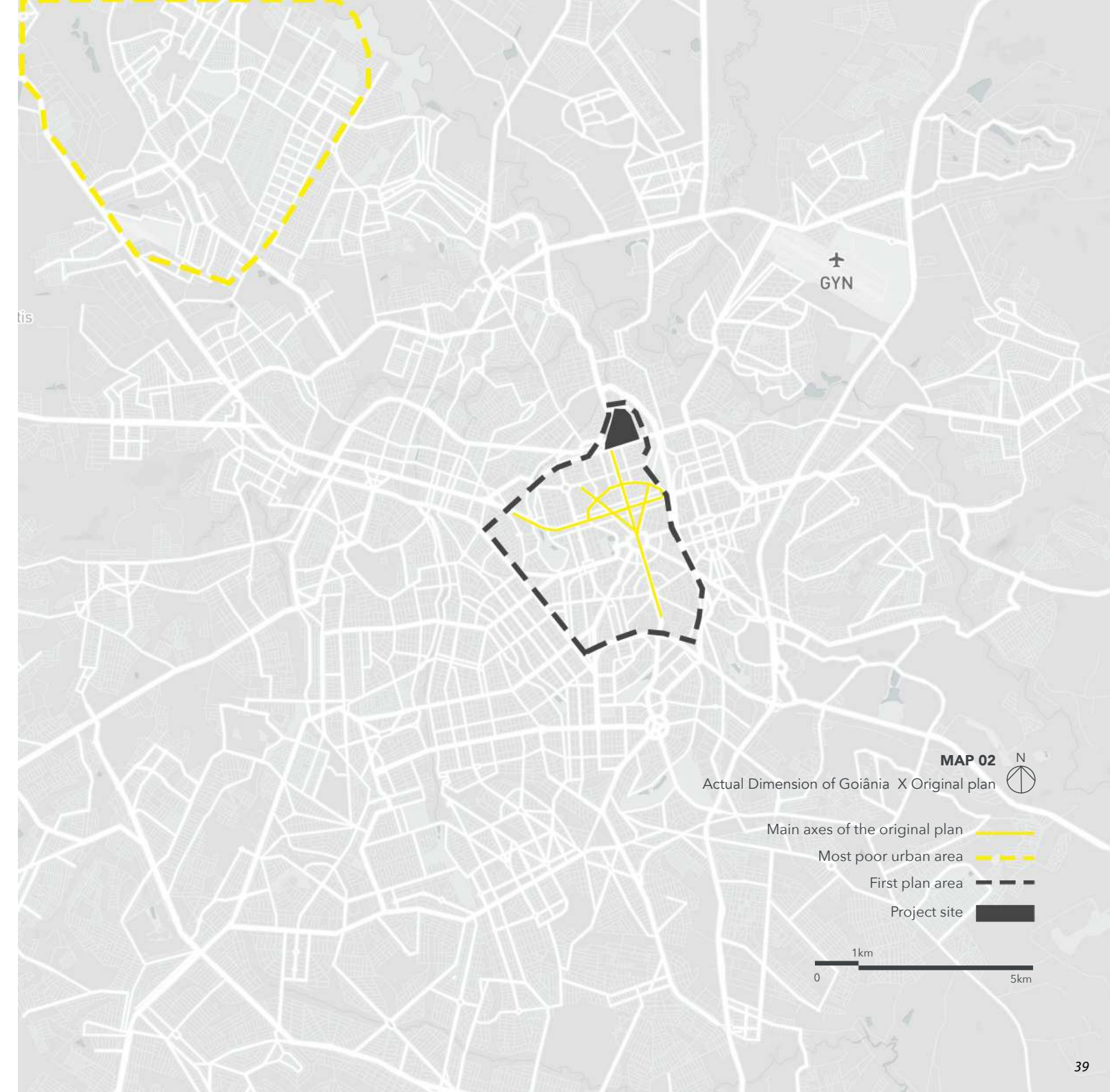


FIGURE 15 - Plan of South Sector, created by Armando de Godoy and executed by Coimbra Bueno & Cia LTDA.

Over the years, Goiânia jumped from 48 thousand inhabitants planned in the '40s to 390 thousand inhabitants in the '70s (source: IBGE). Due to this population increase, the city expanded horizontally to areas beyond the limits defined by the Lima plan. To better understand the area initially projected by Lima on Map 02, it is possible to see the first plan marked in the city's current map. We can perceive that it represents a tiny area within the current dimension. This growth has led to problems that are still visible today. Such as precarious public transport due to the distance that the population lives from the center and the lack of urban infrastructures such as public lighting, water services, and sewage treatment.

The most poverty people is located in the Northwest region of Goiânia, in

neighbourhoods such as Vitória, Floresta, São Carlos, Jardim Curitiba and Jardim Nova Esperança. Since the 1970s, people have been living there in the hope of getting a plot to build their own homes. Self-construction is a common way out for people who do not have access to government housing policies. While they struggle to at least feed their children, the population grows. In the occupation areas of the Northwest region, the last neighborhoods created and organized by the government were in the Complexo da Fazenda São Domingos in the 1980s (MOYSES, 2004). There has been no housing policy for an increasing number of people for at least the last 30 years. Neighborhoods are expanding, and violence, the lack of basic sanitation, adequate public services, and perspective also grows. Everything increases and creates a vicious cycle of poverty.



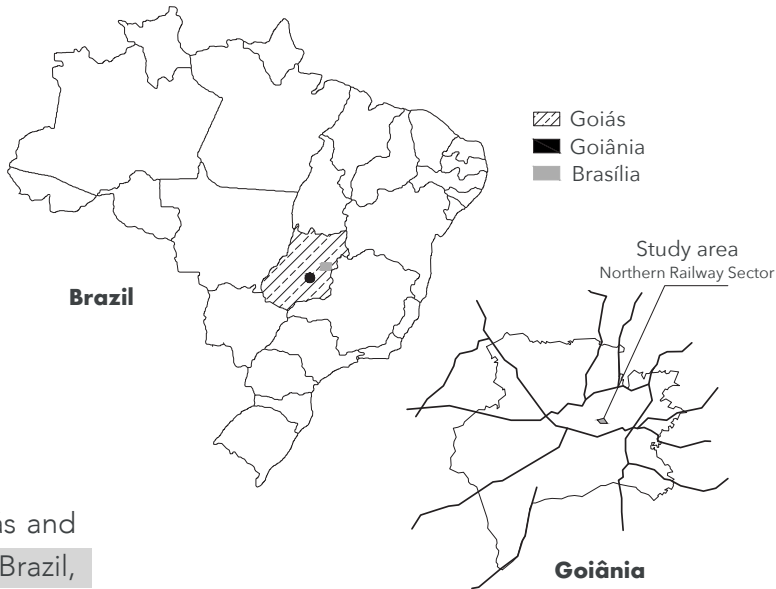




# GOIÂNIA NOWADAYS: DATA & MAIN ISSUES

Goiânia is the capital of the State of Goiás and currently the 10th most populous city in Brazil, with approximately 1.536.097 inhabitants (estimate \*IBGE/ 2020). With an estimated area of 739km<sup>2</sup> located in the central area of the country, it is considered the 6th largest city in Brazil and with a strategic and privileged localization. Next to Brasília, the political capital of the country, and São Paulo, the economic one. The estimated demographic density of the city is 2.078,6 inhabitants per km<sup>2</sup> (IBGE), one of the highest rates of demographic growth in the country.

However, the city's area of influence can be considered its entire metropolitan region, composed of 20 municipalities, with a total population of 2.173.141 inhabitants and approximately 7.397.203 km<sup>2</sup> of total area IBGE's demographic census. Some municipalities have a substantial conurbation with Goiânia, and others, some degree of economic relationship with the capital, therefore metropolitan significance (\*\*IPEA/ 2015).



Amongst the factors of demographic growth, the entry of immigrants living in Goiânia stands out. Most of them are from the North and Northeast of the country, of low social class, and searching for better living conditions. This phenomenon occurred since the beginning of the city's history and resulted in miscegenation in its population arrangement, which remains until these days.

The climate is defined as tropical, characterized by being dry and warm. From April to September, the city goes through the dry season. That compromises the water flow of the rivers.

Goiânia is among the cities with the best quality of life index in the country and is also the Brazilian municipality with the largest green area per inhabitant (94 m<sup>2</sup>) and second in the world (IBGE/ 2010), second only to Edmonton, Canada, with a rate of 100 m<sup>2</sup> per inhabitant.

\*IBGE - Brazilian Institute of Geography and Statistics  
\*\* IPEA - Institute of Applied Economic Research



In addition to the large number of green areas that exceed by almost eight times the rate recommended by the United Nations (12 m<sup>2</sup> per inhabitant), the capital of Goiás is the Brazilian city with the highest number of trees on public roads, approximately 1200 units. It is considered a city with the best urban infrastructure in Brazil (IBGE 2012). Despite being considered the Green Capital of Brazil due to the large fleet of vehicles present in the city, the air quality of Goiânia was considered awful during a survey carried out in 2007. Another problem is that the high quality of life index caused the city to become the target of real estate speculation.

The European Commission and the Inter-American Development Bank (IDB) chose Goiânia to be part of the global sustainable cities list. Since 2011, it has been part of the Urbelac Sustainable Cities Network, a group intended to develop programs directed to improving the quality of life and promoting collaboration between cities of intermediate size. As well as Florence and Bilbao, Goiânia serves as a practical reference for other cities that aim to develop their environmental responsibility. The cities in this program articulate innovative strategies and programs for sustainable and integrated urban development, with specific actions for the environment, urban requalification, income generation, and management.



FIGURE 17 - Jardim Botânico

The capital is the largest economy in the state, with a GDP of approximately R\$ 49.4 billion (\*IMB/ 2020), 25.2% of the state total, and 2.8% of Brazil's GDP, the 22nd most rich city in the world. As essentially defined by the third sector's predominance, which concentrates 80% of the municipality's economy, the economy consists mainly of the health industry, real estate activities, and the clothing industry. Goiânia is one of the largest clothing and fabric manufacturing centers in the country, notability to Rua 44, Feira Hippie, and Bernardo Sayão Avenue, areas of textile marketing that attract many retailers over the country.

However, all this wealth generated in the municipality is not well distributed. A study released by the United Nations Program for Human Settlements (UN-Habitat/2010) places Goiânia as the 1st most unequal city in Latin America and the 10th most unequal in the world. The city has a Gini index of 0.65. The index defined a scale ranging from 0 to 1. The closer to 1, the vaster the distance between rich people and poor ones. A more current factor not considered by this research is the Coronavirus pandemic situation and the political crisis in Venezuela. The number of refugees in Brazil increased seven times in the first

half of 2020 (\*\*CONARE), 90% of the Venezuelans. With the pandemic situation, the living conditions for those refugees managed to worsen since most of them cannot obtain documents due to the close of public offices. Without documents, they cannot find jobs; they do not have access to public shelters, schools, or any economic support from the Brazilian government. Many of them took asylum in Goiânia, further exacerbating the situation of social inequality in the capital.

In his evaluation, the director of the Center for Studies and Monitoring of the Cities of the UN-Habitat, Eduardo Lopez Moreno, says there is a direct link between inequality and crime. More than social costs, the gap between rich and poor also causes economic losses (LEITE, 2010).

“

It is possible that an unequal city generates disorders and social problems much more easily. The authorities of these countries will shift resources that should go to investments to contain these social movements. The social cost ends up translating into an economic cost”

(Eduardo Lopez Moreno)

\*IMB - Mauro Borges Institute of Statistics and Socioeconomic Studies

\*\*CONARE - National Committee for Refugees

Regarding public security, Goiânia is the 17th most violent Brazilian city (Ministry of Health / 2008), which may directly correlate with the high level of social inequality. The central zone where the study area is located is considered an area with a high crime and homicide rate.

Transport in the city has been showing signs of saturation during the past few years. Despite the various changes already made, traffic jams are still constant during the busiest hours. Several private vehicles are one of the main factors contributing to poor urban mobility in the city. In 2020 the city had approximately one car for every 2.42 inhabitants. The national average is one for every 3.82 inhabitants (\*CNM/ 2020), the 6th city with the highest private vehicles. Due to the dense traffic, Goiânia is the 10th capital with the most deaths caused by automobile accidents (IPEA/ 2019). The high number of vehicles is due to the prioritization of public authorities to alternatives that benefit cars rather than public transport and sustainable

urban mobility alternatives. Currently, there is 94 km of cycle paths in Goiânia (\*\*SMT) but with low population adherence as a method of transport due to recurring accidents and the lack of connection between them.

The most significant problems with the city's bus system are the high cost, lack of comfort, insecurity of arriving at the correct time, lack of frequency, and the fact that both buses and cars travel on the same road at a similar speed. A Bus Rapid Transit (BRT) system operates in Anhanguera Avenue, the longest line in the city, covering a 13.5 km route on the East-West axis. The North-South BRT is also under construction, involving communities in the South, Central, North, and Northwest regions. This construction reaches through the region under study and promises to benefit the region's mobility.

Inter-municipal road transport is mainly carried out from the Goiânia Bus Terminal, the study object, with more than 14.4 million visits per year and integrated with Araguaia Shopping since 2001.



FIGURE 18 - Crowded bus at Novo Mundo Terminal



FIGURE 19 - Traffic jams in Goiânia

\* CNM - National Confederation of Municipalities  
\*\* SMT - Municipal Department of Transport



Goiânia also has an Art Deco architectural collection from the 1930s in the city center listed by \*IPHAN in 2003. The urban complex in Goiânia includes 22 buildings and public monuments, essentially concentrated in the city center, and the pioneering nucleus of Campinas, former municipality and current district of the capital of Goiás. Among these buildings, the Cine Teatro Goiânia and the Torre do Relógio of Goiás Avenue, from 1942, stands out. The architectural collection of Goiânia is considered one of the most significant in Brazil. However, this patrimony is little valued by the public

authorities. “The rescue of the Art Deco collection in Brazil is a duty to the national historical memory” (IPHAN). The style contributes to the continuity of social memory and its possible identity contribution corresponding to the foundation of the new capital of Goiás. Therefore it should receive special attention from the government for its maintenance and rescue in an appropriate way.

The list of Monuments and public spaces listed by IPHAN as historical heritage and pinned on Map 03 is the following ones:

- 01** - Clock Tower
- 02** - Bandstand of the Civic Square
- 03** - Fountain of the lights
- 04** - Obelisks with lamps
- 05** - Emerald Palace
- 06** - Building of the former State Department of Information (current Museum Zoroastro Artiaga)
- 07** - Former General Secretariat Building (now Centro Cultural Marieta Teles)
- 08** - Building of the former Forum and Court of Justice (current State Attorney General's Office)
- 09** - Building of the former Police Headquarters (current State Secretary of Culture)
- 10** - Former Tax Office building (future headquarters of Iphan, in Goiás)
- 11** - Regional Electoral Court Building
- 12** - Residence of Pedro Ludovico Teixeira

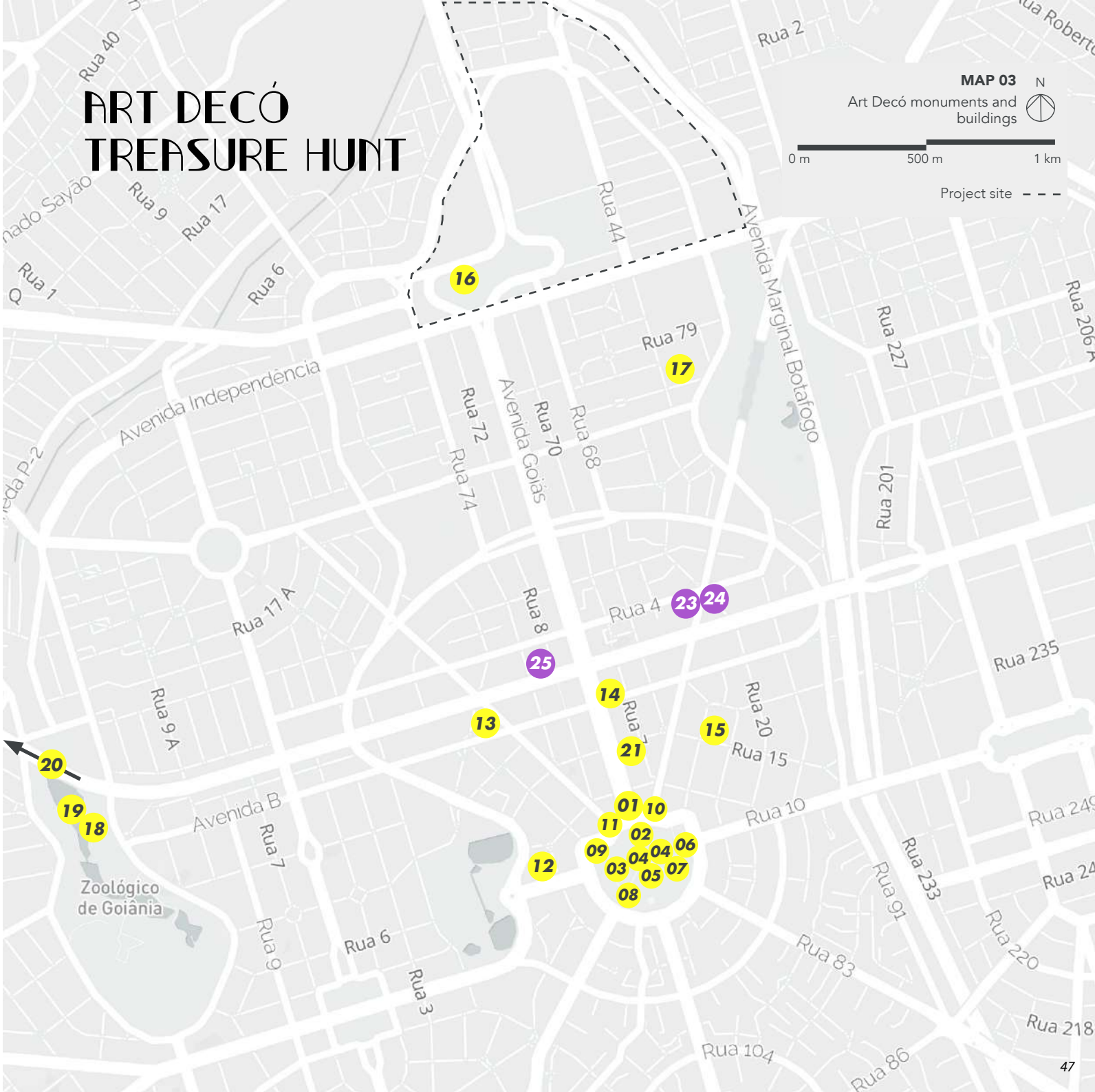
- 13** - Goiânia Theater
- 14** - Former Grande Hotel
- 15** - Building of the Colégio Estadual Liceu de Goiânia
- 16** - Building of the old Railway Station
- 17** - Building of the former Technical School of Goiânia (current Federal Institute of Technology)
- 18** - Protection wall of Lago das Rosas
- 19** - Trampoline of Lago das Rosas
- 20** - Former Palace Hotel ( not in the map)
- 21** - Former Campinas City Hall Building
- 22** - Urban plan of Pioneer Urban Centers

The next ones are Art Deco Buildings but are not in the list of historical buildings of IPHAN:

- 23** - Dom Bosco Hotel
- 24** - Araguaia Hotel
- 25** - Actual Palace Hotel

FONT: IPHAN

# ART DECO TREASURE HUNT







01



05



10



13



17



21



02



06



11



14



18



23



03



07



12



15



20



25

FIGURE 20 - Set of Art Deco Buildings 49



# SUMMARY DATASHEET

- **ESTIMATED POPULATION 1.536.097 INHABITANTS - 10<sup>TH</sup> MOST POPULOUS CITY IN BRAZIL, 6<sup>TH</sup> LARGEST CITY IN BRAZIL;**
- **DEMOGRAPHIC DENSITY OF 2.078,6 INHABITANTS PER KM<sup>2</sup>;**
- **AREA OF INFLUENCE (METROPOLITAN REGION), COMPOSED OF 20 MUNICIPALITIES, WITH A TOTAL POPULATION OF 2.173.141 INHABITANTS;**
- **TROPICAL CLIMATE, DRY AND HOT MOST PART OF THE YEAR;**
- **AMONG THE CITIES WITH THE BEST QUALITY OF LIFE INDEX IN THE COUNTRY;**
- **BRAZILIAN MUNICIPALITY WITH THE LARGEST GREEN AREA PER INHABITANT (94 M<sup>2</sup>) AND SECOND IN THE WORLD;**

- **22<sup>ND</sup> MOST RICH CITY IN THE WORLD - GDP OF APPROXIMATELY R\$ 49.4 BILLION, 25.2% OF THE STATE TOTAL, AND 2.8% OF BRAZIL'S GDP;**
- **ONE OF THE LARGEST CLOTHING AND FABRIC MANUFACTURING CENTERS IN THE COUNTRY;**
- **1<sup>ST</sup> MOST UNEQUAL CITY IN LATIN AMERICA AND THE 10<sup>TH</sup> IN THE WORLD - GINI INDEX OF 0,65;**
- **17<sup>TH</sup> MOST VIOLENT BRAZILIAN CITY;**
- **6<sup>TH</sup> CITY WITH THE HIGHEST PRIVATE VEHICLES, APPROXIMATELY ONE CAR FOR EVERY 2,42 INHABITANTS;**
- **MAIN PROBLEMS: INEQUALITY, INSECURITY, TRAFFIC AND MOBILITY.**



# NORTHERN RAILWAY SECTOR

In the original plan of Goiânia, the northern region of the city would be destined mainly for industrial and railway activities. The accelerated population growth of the 1950s caused several adjustments in its construction. At the same time, was built the city's railway station in the northern region. In a scenario of little control by public administration, coupled with weakening public housing policies, weakened urban planning has lost control over the city's expansion. The low socioeconomic conditions of the population culminated in disordered expansion, with the implantation of irregular and illegal divisions, without infrastructure located in the peripheral areas that grew disconnected from the initially planned area.

The creation of these new housing zones aimed to regularize the lots claimed by the low-income population. Neighborhoods were implanted

over invaded areas, regularizing the situation of ownership of its residents. Regularized in 1953, the Northern Railway Sector emerges from one of these illegal occupations to meet the popular demand for housing.

Initially occupied mainly by low-income family homes in the 1980s, the city's bus terminal transition to the region caused many homes' destruction in the area. With this change, the residential character of the region begun to change to a commercial character, which remains until today.

Hence, the territory of the Northern Railway Sector from 1938 to 1980 is determined by specific characteristics: for being a popular housing area, a camp of construction workers of Goiânia, area of the railway station, maneuvering area and railway loading/unloading yard, and finally for being a limit transposed by urban expansion in the new capital.

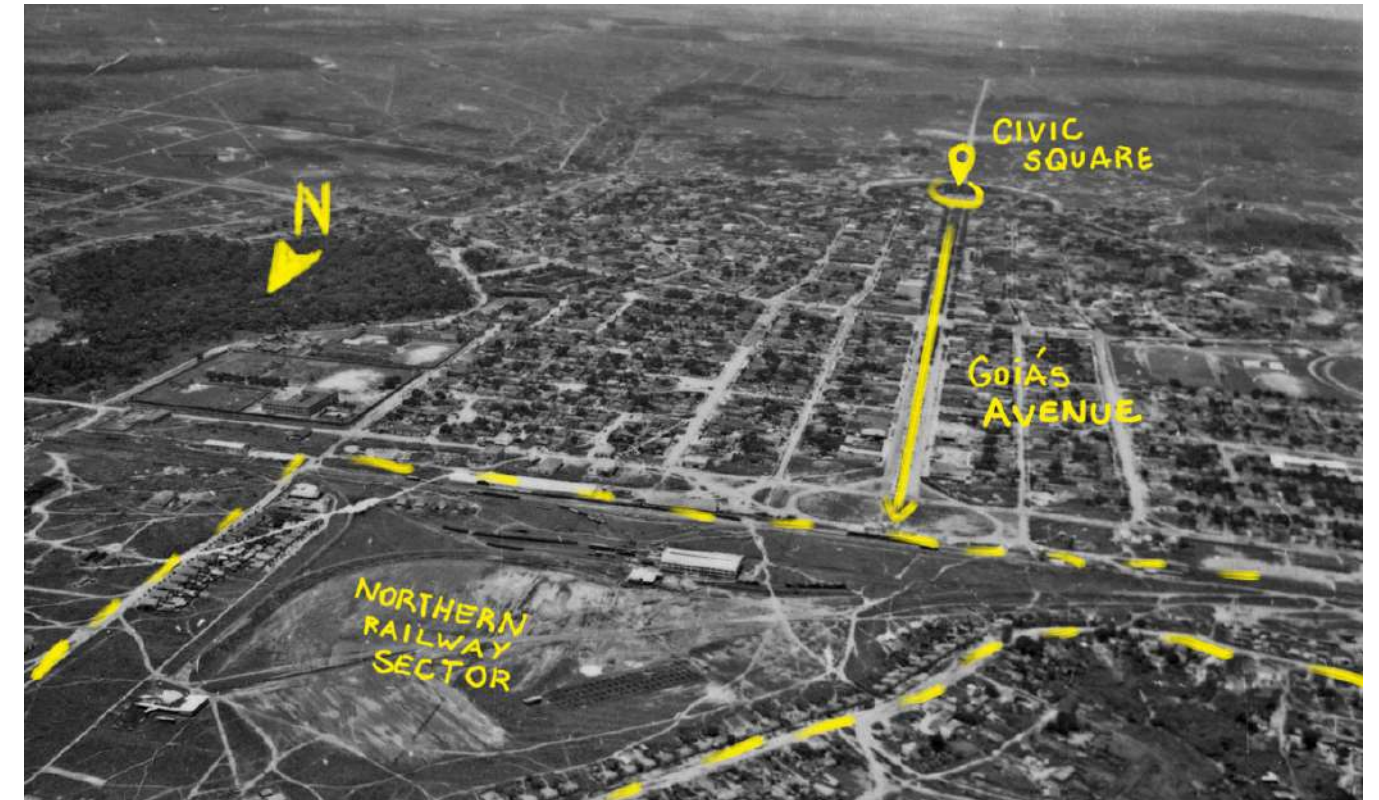


FIGURE 21 - Panoramic view of Goiânia in the 1950s.



FIGURE 22 - Railway Station and Goiás Avenue in the background. Goiânia, 1950s.



In 1982, the Federal Government signed an agreement with the Government of Goiás, ceding eight bushels of land in the capital's center to construct the new Bus Terminal. The area was the entire maneuvering yard of the old railway, allowing the expropriation and relocation of the Northern Railway Sector, including the entire Railway Station building area due to the construction of the new bus terminal in Goiânia.

In that scenario, it can be said that economic power would be preponderant in the territorial transformations in this neighborhood. After relocating the Northern Railway Sector, Praça do Trabalhador underwent a de-characterization process, removing all urban furniture in the square, the central roundabout, leaving only the old railway station building and the Maria Fumaça locomotive. There was an expansion of Praça do Trabalhador, releasing traffic in the north of the city. Due to the extension of Avenida Goiás, with the creation of Avenida Goiás Norte, which promoted the implementation of the north-south axis of mass transport and interconnection with the northern avenue perimeter, connecting the northern region with the center of Goiânia.

After relocating the Northern Railway Sector, the government was concerned with giving a function and meaning to that previously obsolete territory.

At that point, the reterritorialization of the economic bias in the neighborhood in question begins. The first public equipment created within this relocation was the Goiânia Bus Terminal built in 1985 and inaugurated in 1987, a fact that represented the economic development of the capital, meeting the popular demand for improvement in intercity transport terminals, making room for the growth of the city.

In 1995, another essential intervention in Praça do Trabalhador, which was that the hippie fair that has existed since the 1970s, ends up being transferred to that place. The appearance of the 44th Street region was encouraged by the move of the Hippie Fair from Goiás Avenue to Praça do Trabalhador. The boom in developments came in the second half of the 2000s and received strength with the decline of other commercial regions, such as Avenida Bernardo Sayão.

The appearance of the 44th Street region would have been encouraged by the change, in 1995, of the operation of the Feira Hippie from Avenida Goiás to Praça do Trabalhador, in downtown Goiânia. The business blast came in the second half of the 2000s and was established by the decline of other commercial regions, such as Avenida Bernardo Sayão.

With the change of Feira Hippie, the transformation of the residential character to the commercial one begins to intensify, but they remain mixed. As of 2004, large companies started to settle in the region, but many homes remain (Map 04). In 2007, the Leroy Merlin lot was expropriated and built, in addition to the construction of the old Estácio de Sá college, Shopping Estação da Moda and the growth of the Hippie Fair area (Map 05). Creating a significant economic generator for the region in 2012, Mega Moda starts the most intense change phase. From that moment on, the Northern Railway Sector becomes known as one of the main poles of country textiles. New hotels were constructed to support the high density of people in the region (Map 06). Also, the Supermarket Assaí construction and the transfer of the Faculty of Estácio de Sá into the basement of Leroy Merlin gave space for constructing new shopping malls and galleries that can be noticed on the map as the quarters become unique blocks of commercial units (Map 07).

**MAP 04**  
2004

- Empty plot, future Shopping da Estação
- Residential areas
- Empty plot, future College



**MAP 05**  
2007

- Leroy Merlin / Shopping Estação
- Estácio de Sá College



**MAP 06**  
2012

- Empty plot, future Supermarket
- Construction of Mega Moda
- Construction of Mega Moda Park



**MAP 07**  
2018

- Remaining Residential Area
- Construction of new Shopping malls
- Assaí Hipermarket constructed
- Mega Moda and hotel constructed





## STORYLINE OF THE AREA

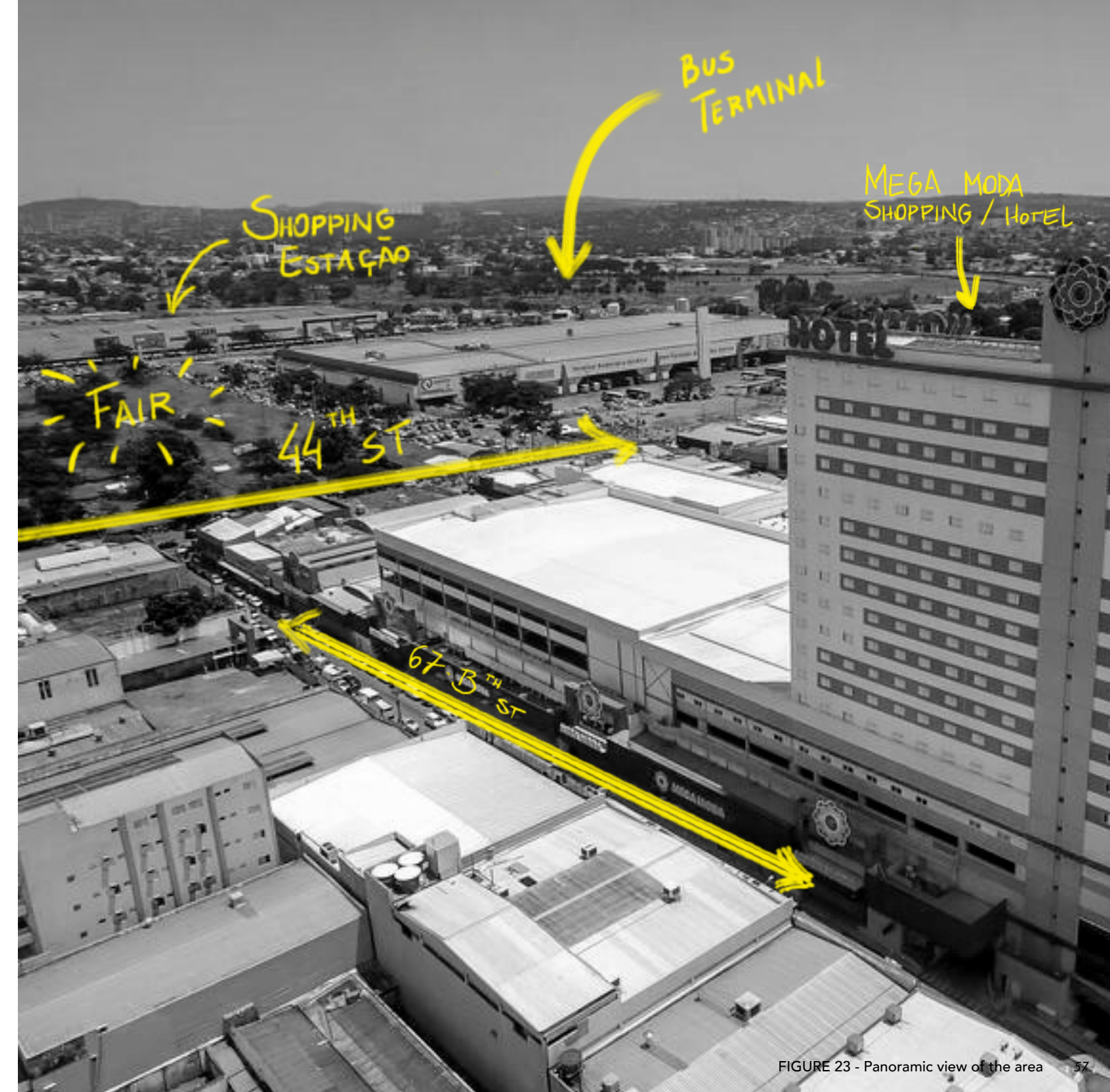
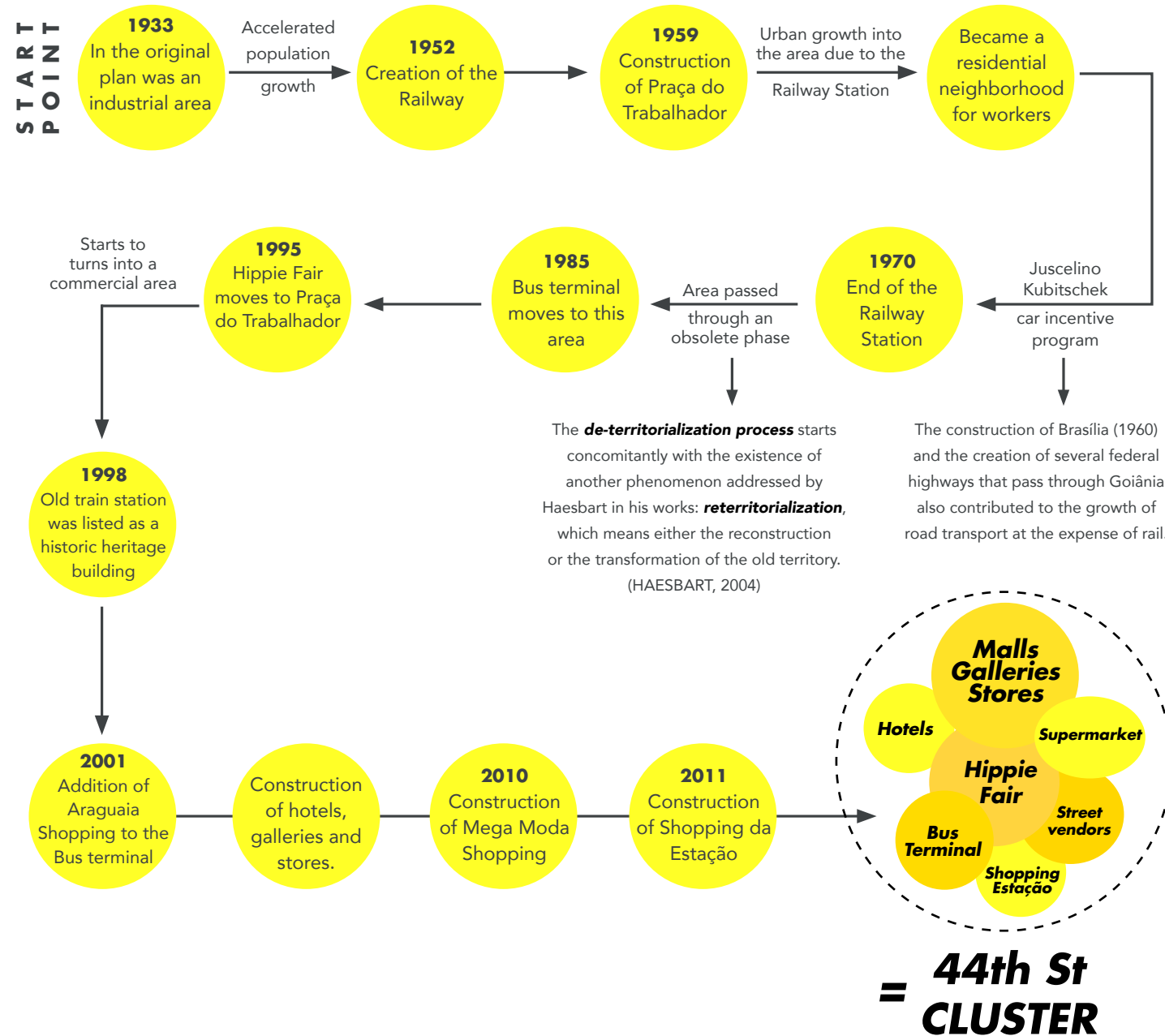
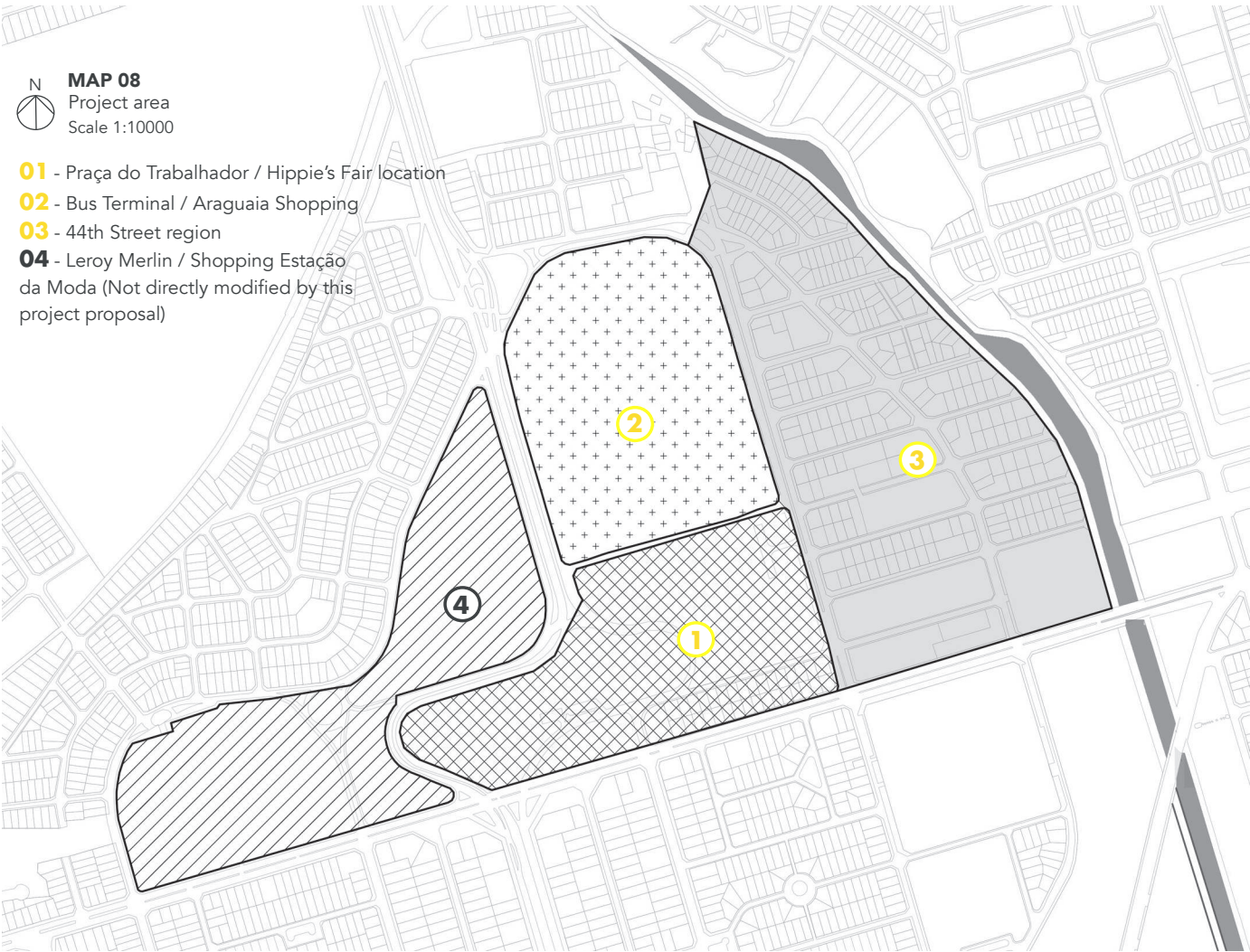


FIGURE 23 - Panoramic view of the area



To better understand the area, it will be divided into four parts. Three of them will be the object of study for this thesis, and the fourth will be taken into account because it has a direct influence but will not be directly modified (Map 08). The first part is Praça do Trabalhador, a place that hosts the Hippy Fair from Thursday to Sunday. The second one Goiânia Bus Terminal, the third is the commercial region known as Rua 44. The fourth is the Shopping Estação da Moda and Leroy Merlin store, which occupies a large lot in front of the west entrance of the Bus Terminal.

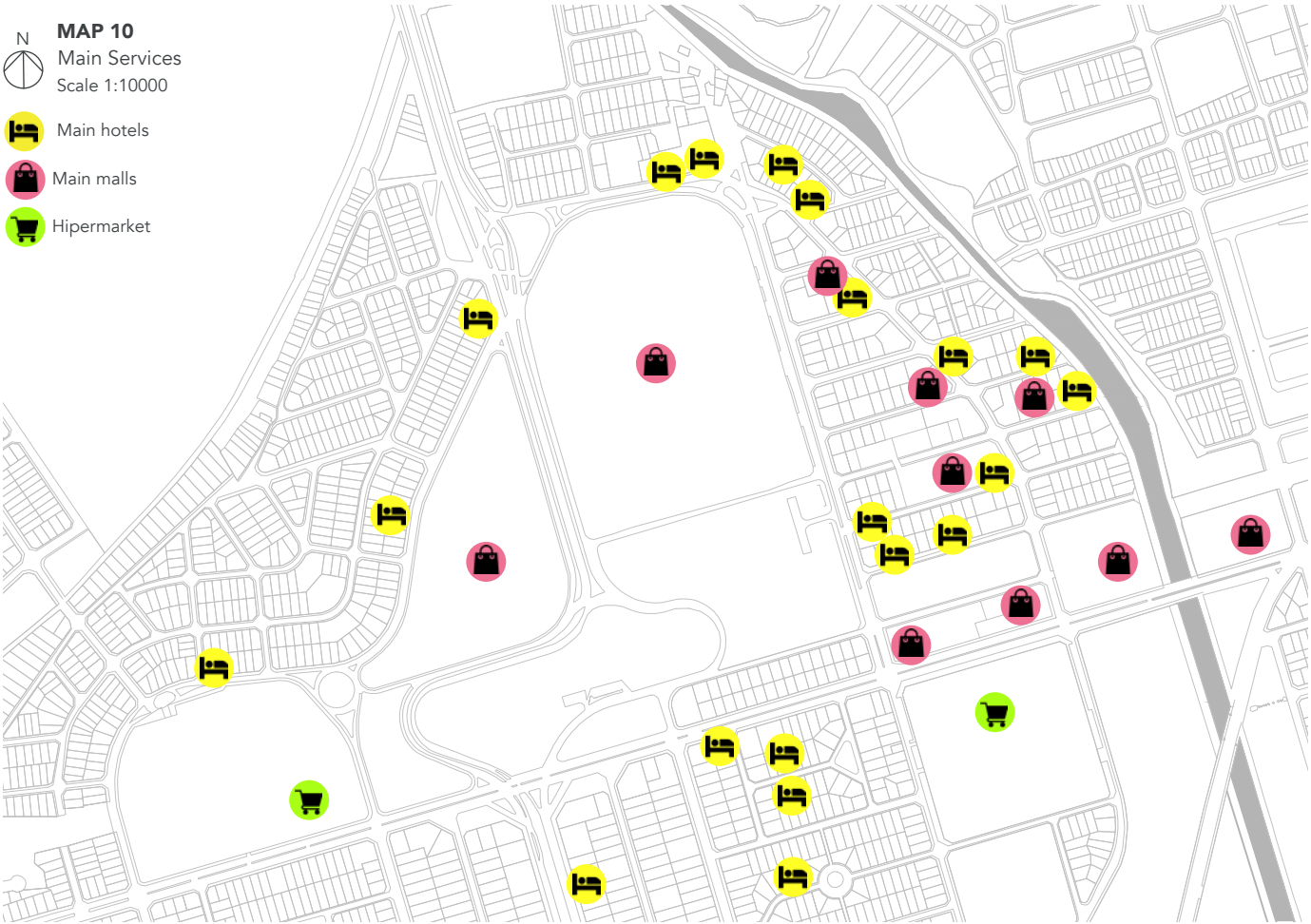


Regarding access to the region, the main access routes are Avenida Independência, Avenida Oeste, Avenida Goiás and Marginal Botafogo (Map 09). Commerce in the 44th Street area and the Bus Terminal move a meaningful flow on the roads, hence directly affecting traffic, both by the number of vehicles and the number of pedestrians being one of the main problems in the region together with the lack of security, grubbiness and presence of informal commerce.

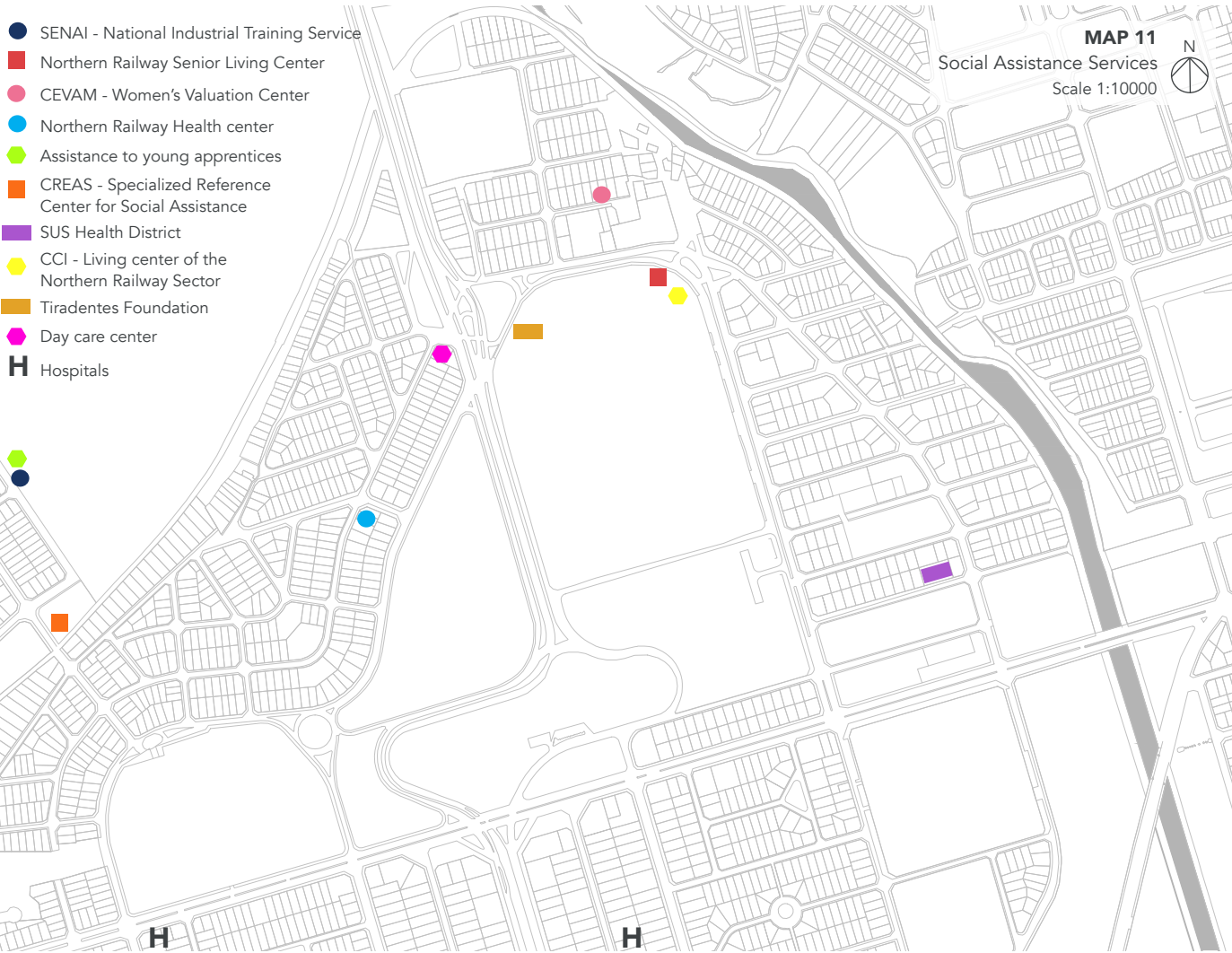




The region has become a primary commercial reference at a local, regional and national level. Consumers who come to Goiânia with the intention of shopping can do everything they need within a 500m radius due to the infrastructure that exists in the sector. Consumers arrive at the Bus Terminal and have all the mall's infrastructure, such as a food court, restrooms, and stores. Near the Terminal, consumers can find numerous hotel options. Many already choose to rent a room on the upper floors of galleries to save time. Not to mention the presence of a giant hypermarket in the proximity and the numerous restaurants. The consumer comes to buy retail and wholesale at 44 is "trapped" within this consumption bubble due to the tremendous commercial attraction that this region exerts. The reason why over the years, even in times of crisis, these consumers have remained loyal to 44.



Several public social assistance services exist in the area, such as the Northern Railway Senior Living Center, the Reference Center for Occupational Health, the Women's Valuation Center, the SUS Health District, and others marked in Map 11. These elements are reminiscent of associated needs from the occupation of humble workers on the edges of the old Goiânia Railway Station in the 50s until the 70s.





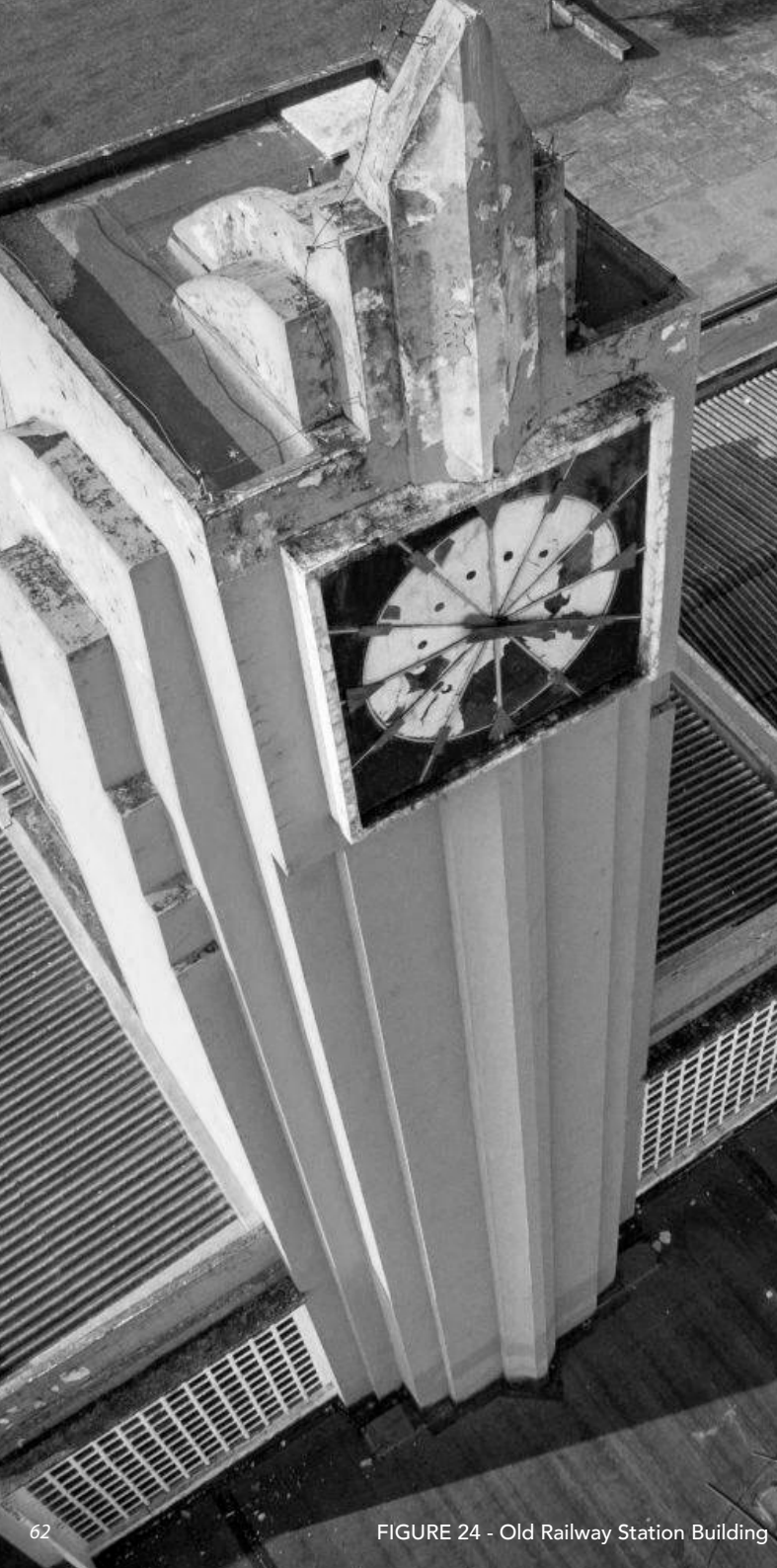


FIGURE 24 - Old Railway Station Building

# PRAÇA DO TRABALHADOR & HIPPIE FAIR

Inaugurated in 1959, as the so-called Praça Americano do Brasil at the end of Avenida Goiás, the Praça do Trabalhador was constructed around the old railway station in the city. The building constructed in 1950, which is currently disabled, has outstanding features and details that symbolize the Art Decó collection of the capital of Goiás. In 2018 the building underwent architectural restoration, seeking to transform the space, allowing new uses to energize the region, attracting the public to the place, preserving the railway memory, and valuing the Art Decó style that symbolizes progress and modernity in the city.



## OLD RAILWAY STATION

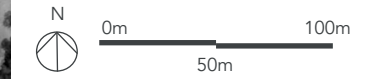


FIGURE 25 - Satellite view of the old Railway Station, 2020.



FIGURE 26 - Old Railway Station Building after restoration.



The restoration of the former Railway Station made it possible for details about the old construction to be discovered in studies carried out during the work. According to the National Historical and Artistic Heritage Institute (IPHAN, 2017), past interventions had already altered the original building since its inauguration.

The restoration project carried out by the architect Janaína de Castro included restoring the original structure based on historical data collected by IPHAN. From the layout of the windows, floor height, color, and the roof, everything was changed by the restoration project. The building underwent several studies to define a project that could be restructured without losing its cultural and historical essence.

The restoration was carried out from three lines of action. First, the analyses that led to the initial project's definitions were carried out. With that, the artistic restoration work began, in this case, the first stage of the restoration of the two murals painted by Frei Confaloni. They suffered a lot from the infiltration and the moss caused by the water, requiring the intervention of restorers. Another line of action was the restoration of the building itself. The place was abandoned, and its main problem was the infiltration of water accumulated in the slabs, which even affected the

concrete structures. The gutters were clogged, which generated the accumulation of water. To manage that, a chemical treatment was carried out to end the oxidation and reinforcement of the structure.

The last stage of the work was the requalification of the surroundings, which is also part of the project. Changes occurred to the site because of the social changes between the construction period and the current one. Due to security, the open area of the Station was closed with glass and added one wall with tiles to the main area, which was open previously. The old locomotive, known as 'Maria Fumaça', was completely restored and relocated on the boarding platform for public access and knowledge. In addition, the traditional clock in the tower was recovered and returned its functioning.

The project included installing an exhibition space, a Tourist Service Center (CAT), an 'Atende Fácil' office (easy-to-use city hall office), and the office of the City Hall's Urban Requalification and Heritage Division. In the view of the designers, the person could, when using one of the services provided by the city hall, also visit the exhibition. (SIAROM, 2019)



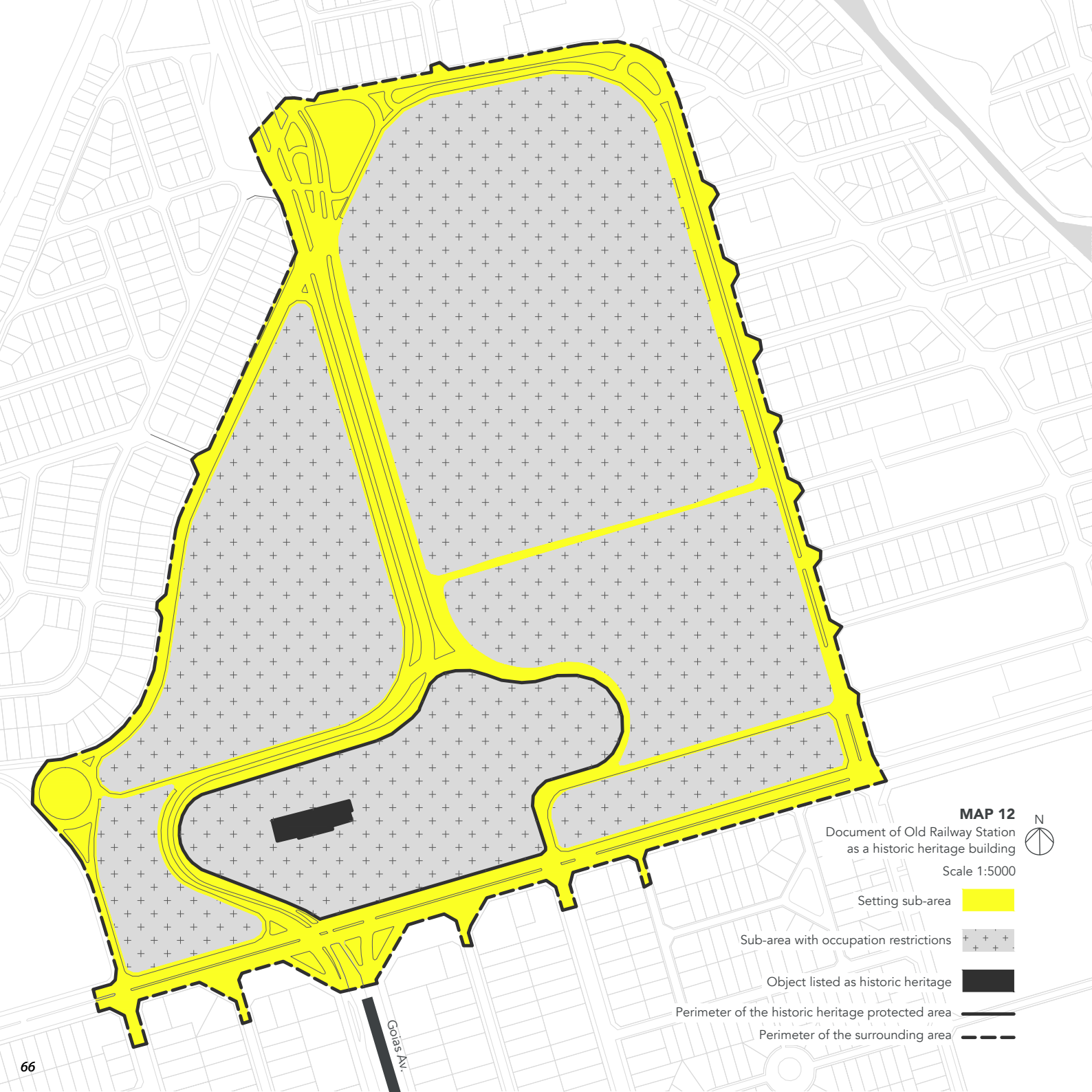
FIGURE 27 - Set of images of the former Railway Station Building previously its restoration project showing its decay problems.



FIGURE 28 - 'Maria Fumaça' after its realocation and restoration process.



FIGURE 29 - One of the murals painted by Frei Confaloni after the restoration project.



The main work of the square was a panel by the architect Elder Rocha Lima with a central concrete structure whose lines resembled the Cathedral of Brasilia. With two mosaics by Clóvis Graciano in the structure, made with Italian mosaic tiles supported by the concrete base, they were almost 15 meters long and 1,5 meters in height. It was like a permanent exhibition, an open-air gallery on a vital crossing point of the capital. With time gained notoriety and became known by the population as Praça do Trabalhador. Over there, mobilization acts and meetings were organized. It turned into a meeting point that started to be considered uncomfortable by members of the Communist Hunting Command (CCC) who worked in the capital and considered it subversive. During the radicalization process that Brazil went through in the '60s, they decided as a barbaric act to destroy the panel. Proving that the square always suffered to held its cultural value through the yerars.

Since 2003, many acts for its reconstruction were organized. However, recovery comes up against bureaucracy and lack of political will itself. Listed as a historical heritage, the Govern alleges that if they re-do the panel would be a conflict of styles between the Art Decó architecture of the current building and the contemporary lines of Elder Rocha Lima's work.



FIGURE 30 - Elder Rocha's Panel, 1961.



FIGURE 31 - Protest of workers in Praça do Trabalhador.



Without the cultural character that ties to the community that it once had, today, the square has only a commercial character. On Wednesdays and Thursdays, take place in Praça Do Trabalhador, the Dawn's Fair. On Saturdays and Sundays, the Hippie Fair, the oldest Fair in the city and considered the most extensive free market in Latin America. The Fair attracts consumers from all over Brazil who seek to buy products with good quality and honest prices for personal use or resale in their cities or stores in other parts of the city. Products such as clothing, shoes, accessories, handicrafts, and food. Thus focus on the sale of clothing items for men, women, and children.

The Goiânia Hippie Fair, according to Dossiê de Goiás (SILVA, 1999), started in the 1970s with an exhibition of handicrafts made by hippies who met on Sundays in a space where the Parque Mutirama now operates. The Fair emerged right after the Woodstock festival, considered one of the largest music festivals ever held globally, which took place in the United States in 1969, with the proposition to exemplify the counterculture era. Hence, the location was also widely used by artists who transformed it into an actual stage. Bands that emerged on the independent scene used to perform there and poets who recited their poetry and so many other performances that enchanted the population, demonstrating its solid cultural character at the beginning of its history.

This group grew and gained support from other artisans. Soon after, for the implementation of Parque Mutirama, the municipal administration moved the hippies to Praça Universitária. The Fair moved two more

times before settling in 1995 definitively at Praça do Trabalhadores. At that time, the offer of products was already quite diversified, with a predominance of clothing, shoes, food, and goods imported from Paraguay serving as a new source of income for the new market vendors.



FIGURE 32 - Hippies trading their product in the Fair.



FIGURE 33 - Hippie fair on Goiás Avenue, prior to move definitely to Praça do trabalhador.

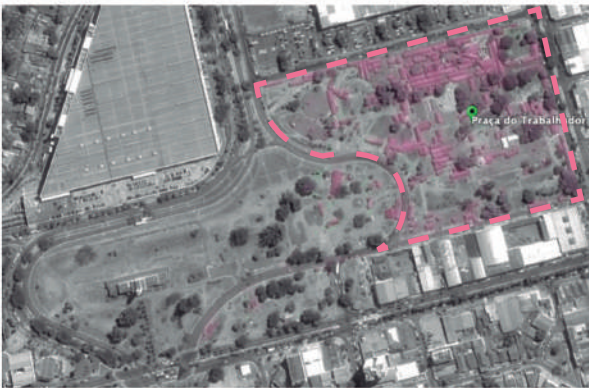
Several factors contributed to the change from the Hippie Fair to Praça do Trabalhador, among which are the uncontrolled growth of the Fair, security problems for visitors and exhibitors, difficulty in controlling what was sold, and disturbances in traffic in the city center and the lives of residents.

In this new location, the Government assumed that the Fair could be better-planned socio-spatially. However, it still represents a planning challenge for SEDEM (Municipal Development Secretariat), primarily due to the lack of data on its actual dimension. The Fair has a different dimension each week, so it is understood as a synonym of a municipal government's problem, which motivates constant debates about other spatial changes and measures of organizational control. The maps on the side (Map 13, 14, 15, and 16) help confirm this information. Through satellite images, we can check the difference in size over the years. For example, in the image from 06/2013 (Map 14), the presence of fewer tents is notorious than in previous and subsequent years. Despite this variation, it can be seen that even in different years and different economic scenarios, it has always remained stable as a landmark in the region. In the image of 2019, there is also a change in the part where the old train station is located, presenting a new landscape design on the site (Map 16).

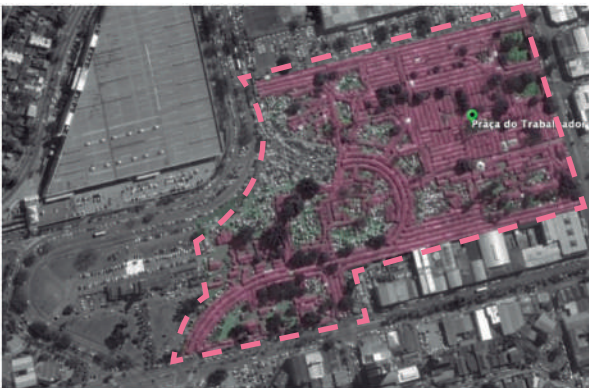
MAP 13  
2009



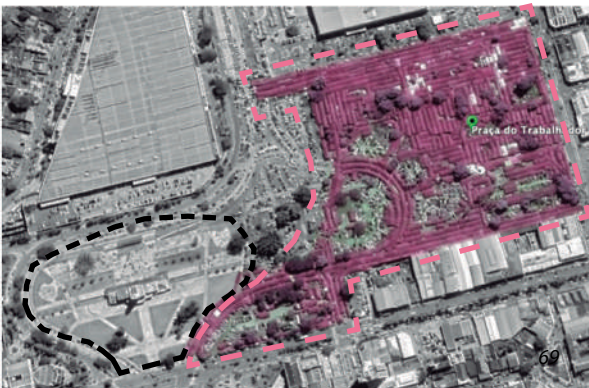
MAP 14  
2013



MAP 15  
2015



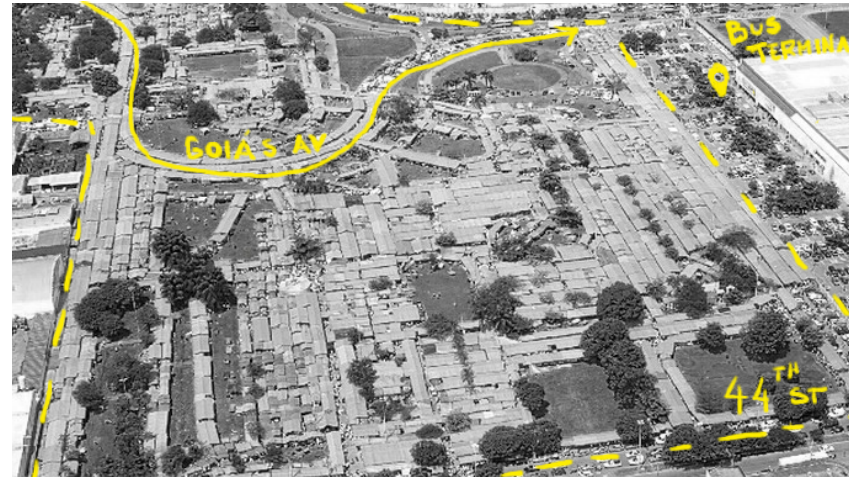
MAP 16  
2019



New Landscape design — — —  
Extension of the Fair use area — — —

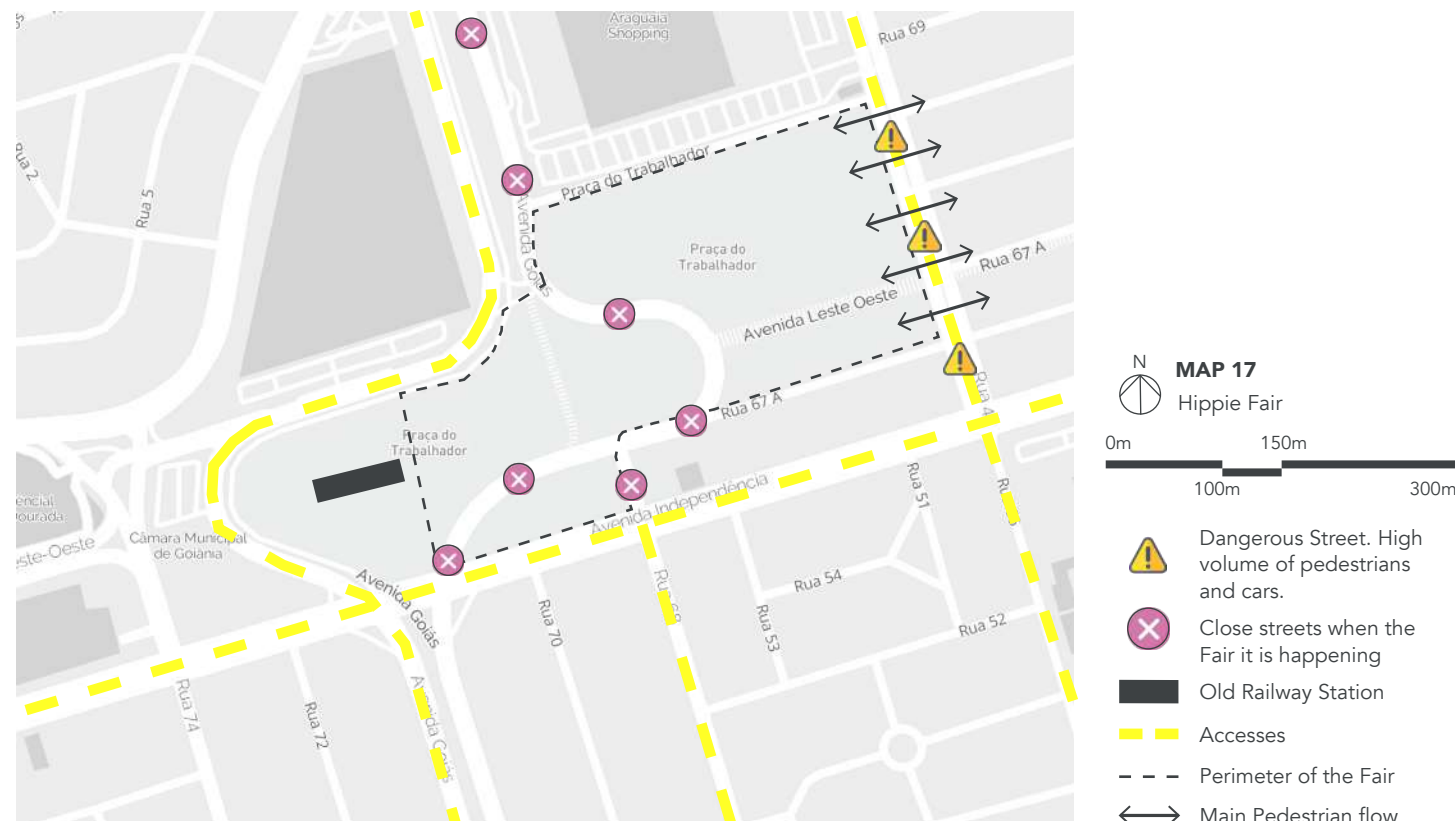


## HIPPIE FAIR



--- Perimeter of the Fair

FIGURE 34 - Overhead view of Praça dos Trabalhadores during the day the Fair takes place.

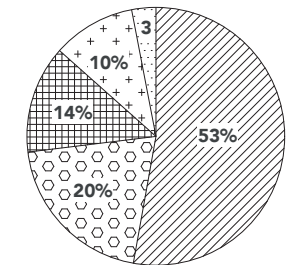


Currently, the Fair has about 10.000 exhibitors. Only 6.884 are formally registered (City Hall of Goiânia) with the City Hall and SEDETEC (Municipal Secretariat for Economic Development, Labor, Science, and Technology). Given its relevance for the local economy and many families, this Fair is considered the biggest and most prominent open Fair in Latin America.

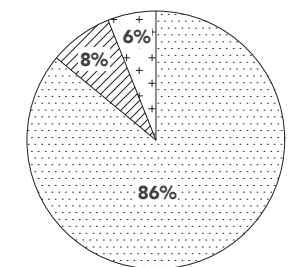
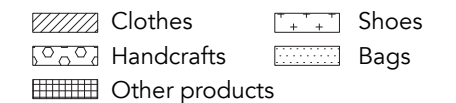
To understand the organizational dynamics of the Fair, it works on Saturdays and Sundays, but its assembly starts on Friday from 8 pm. Besides, there is another arrangement of the dynamic. Through the week, on a seemingly routine, vendors extend their stalls and remain until the end of the week to take advantage of the high flow of buyers of 44th region. However, the informal vendors occupy a small portion of the square, so during the week without the fair, the square has no significant activities or movement. The most significant flow of people on the fair is on those Sundays that precede holidays and mainly during December when the flow reaches its peak, with more than 50 thousand visitors.

According to a field survey carried out by the authors of the text 'The impact of the hippie fair in the tourist-hotel sector of Goiânia' (CARVALHO, MOTA, WENDLAND, 2007), the fashion industry is the most prominent among the products sold at the Fair. Of the 170 marketers interviewed, 53% earn their income from the sale of clothing items, 20% from handcrafts, 14% from other products (food, swimwear, jewelry, stones, sculptures, magazines, belts, and carpets), 10% of shoes and 3% of bags.

Regarding the origin of the products sold, 86% answered in this survey that they manufacture in Goiânia. Of the remainder, 8% come from other municipalities in Goiás and 6% from other Brazilian states. This data is a strong indicator of its economic importance, especially concerning added value, since production, job creation, and circulation remain concentrated in Goiânia.



TYPE OF PRODUCTS SOLD IN THE FAIR



ORIGIN OF THE PRODUCTS





The vast majority of sellers produce their products in Goiânia only to attend the Hippié's Fair, which corroborates, directly and indirectly, to create jobs. It is considered a historical-cultural and socio-economic heritage due to its value for society in Goiás. This Fair generates socio-spatial transformations that significantly affect the city center and motivate people's continuous flow at different scales (regional, state, and interstate). This movement changed the standard supply of hotels in the surrounding area that now receives a large flow of buses from other regions and, by extension, increases the number of galleries and stores specializing in clothing.



FIGURE 35 - Hippié Fair.

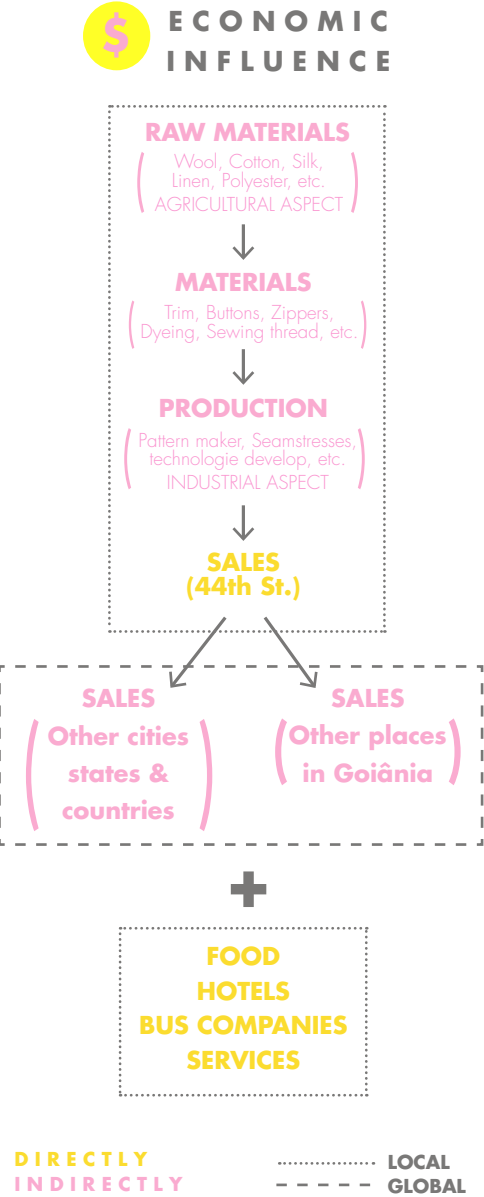


FIGURE 36 - Hippié Fair.



# GOIÂNIA BUS TERMINAL

The Bus Terminal is one of the most significant examples of the lack of characterization of a building. Profoundly transformed to meet commercial issues, it passed from an eminently public character to predominantly private use.

It was constructed in 1985 due to the inability of the Old Terminal (located at Lago das Rosas) to meet users' demand with the promise of facilitating bus transit and the access of travelers due to the proximity to the Center.

The Quattro Group designed the terminal project with consultancy from renowned architect Paulo Mendes da Rocha, the 2006 Pritzker prize winner.

The structure of exposed reinforced concrete is large and bold, whose beams and pillars combined with secondary structures of flat metal trusses create an exciting composition between full and empty, creating a monumental building. Two platforms (north and south) organize the flow of vehicles and users who search for ticket offices and intercity or interstate embarkations and disembarkations. Waits, routes, and accesses take place on wide walkways and ramps, in a game of levels configuring the walk and the continuous visual domain, with generous spaces consistent with the search for the essential - characteristic of Paulo Mendes da Rocha's architectural lexicon (ACQUA,FROTA,2015).

ORIGINAL  
PROJECT



FIGURE 37 - Set of images of the Bus Terminal original building.



Not restricted to a simple portal for entering and leaving the city, the initial idea was to create a space to support those who visited Goiânia without leaving the building. Thus, the original building offered services related to health, food, and aesthetics. Since the beginning of the building's appropriation, it has been idle, revealing an overdimensioning culminating in its mischaracterization. The bus terminal could not solve its idleness and added to its functions a shopping center in 2001 with a food court, supermarket, cinema, attendance by state agencies, stores, and parking. The new use of space caused significant changes in its original design in external and internal aspects, disfiguring the project's materiality. In addition to losing the building's modernist aesthetic, the initial flow and access to the building also were. Today the interior of the building has no remarkable characterization, and it seems like any other shopping mall in the world.



FIGURE 38 - Araguaia Shopping. Interior of the Bus Terminal nowadays.

According to the figures, the existence of the Bus Terminal is the main advantage of the 44 street region, especially if compared to other similar places. By the easy possibility for those who intend to shop and return their home city without going outside.

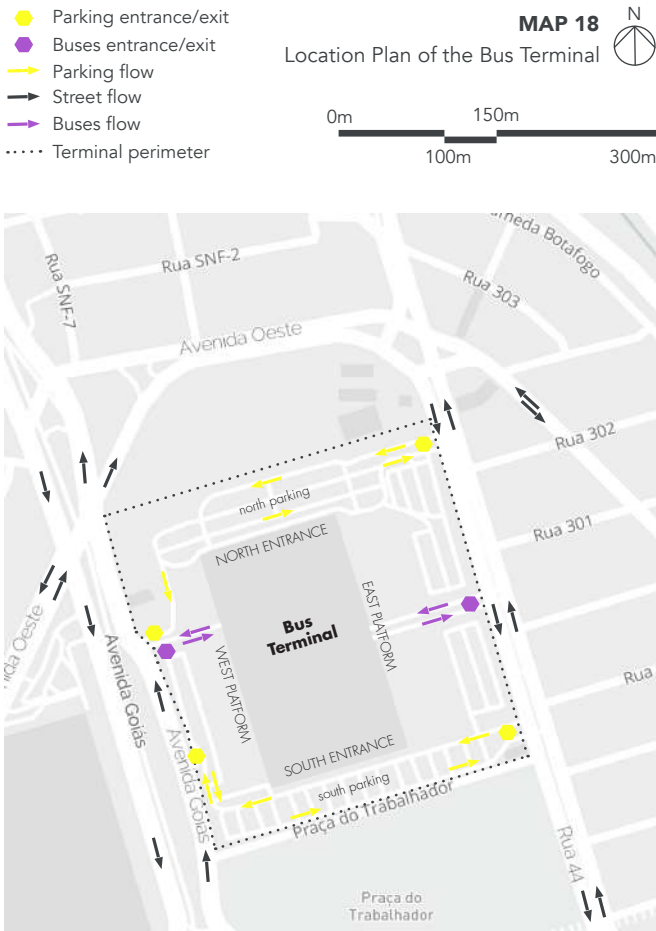


FIGURE 39 - Bus Terminal

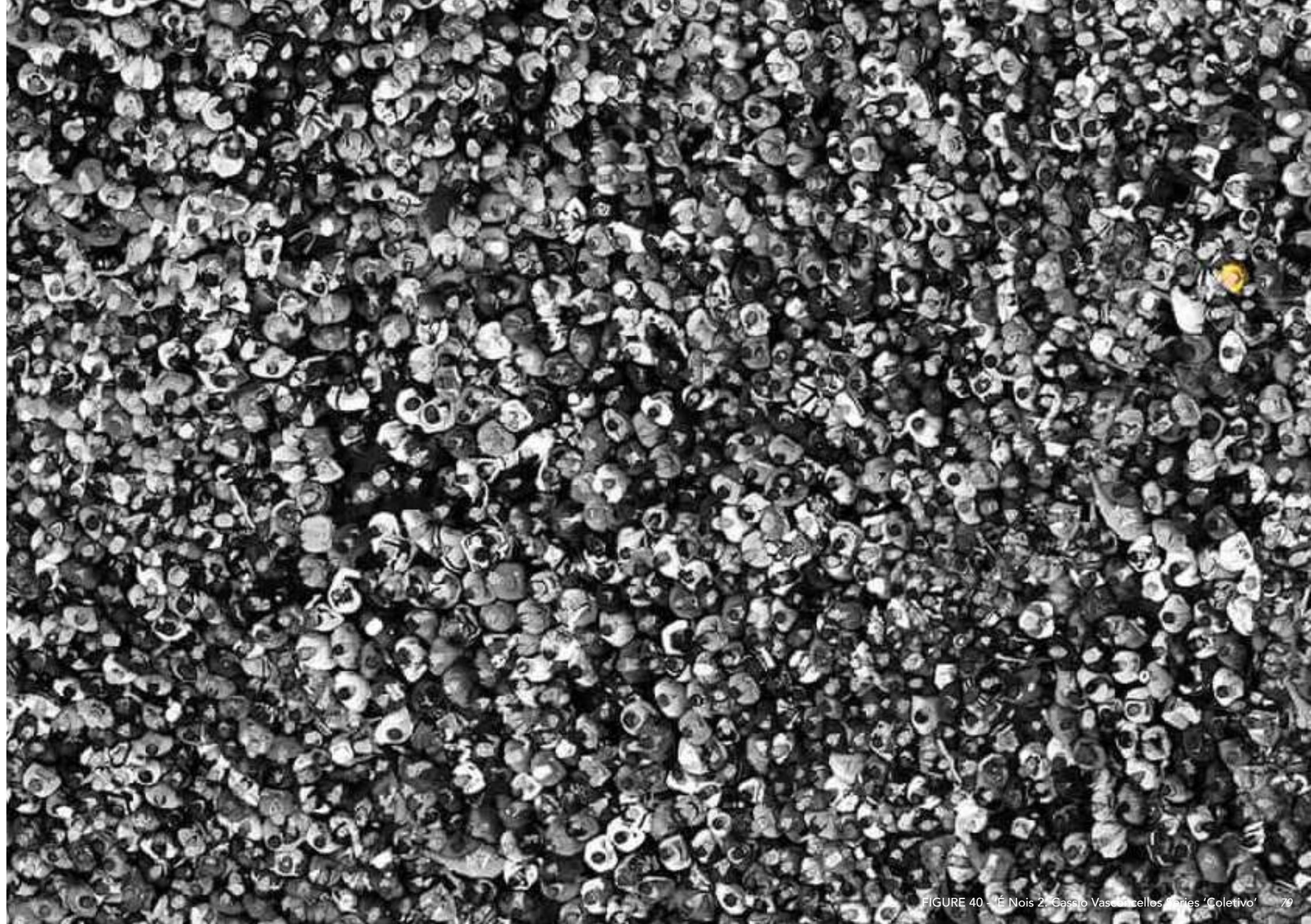


# 44 th S T R E E T

“

The 44th Street region, in Goiânia, scares anyone who is not used to everything in the superlative: sellers are competing for attention, shoppers full of bags, porters maneuvering bales of merchandise. The sidewalks are full of street vendors selling clothes, objects, food. On the streets, cars, motorcycles, buses, traffic... Problems and solutions there go hand in hand, competing to see who stands out. ”

(FREITAS 2017)





In the metropolises, forms or structures and socio-spatial practices of dynamics make possible the coexistence of multiple urban centralities. In Goiânia, the surroundings of '44th Street' are a commercial center specialized in retail and wholesale clothing, which since 2010 has been confirmed as an essential center attracting a vast network of consumers and clothing retailers from all over Brazil.

The success of the galleries and stores located on 44th Street was due to the excellent performance of Hippie's Fair in the clothing sector. The Fair is considered as a reference on account of its good quality and affordable prices. Thus, these clothing spaces sell pieces with a similar pattern and quality to the Fair and take advantage of the fame already created in the region. It feeds the tastes of a buyer who is already used to a network of services and products offered by the Fair but prefers to take advantage of better infrastructure, like bathrooms, dressing rooms, and covered areas. We can deduce that this is also the case of Estação Goiânia, the Shopping Mall located in front of the west entrance of the Bus Terminal. It was designed in 2007 to not slip into the problems that the Fair faced, and according to some marketers, "it would overturn the Hippie's Fair." At the time of its construction, sellers received

the news with great fear, but today, its creation did not hinder the flow of customers in any way.

The region's trade fosters an entirely local production chain, from the manufacture of raw materials, making clothes until the final product sale for traders in other parts of the city. At the same time, it is also synonymous with good deals for those who come from far to mine goods and sell them in their hometowns. Most of them come from the interior of Goiás and states such as Bahia, Maranhão, Mato Grosso, Pará, Piauí, Tocantins, the interior of São Paulo and Minas Gerais. Some even come to export products to countries in Africa, Europe, and United States. Part of these buyers occupies 5.000 hotel beds concentrated in these few blocks. Others choose not to even rest in Goiânia. They reserve just one day for shopping and return at the end of the day.

The centrality of '44th Street' reveals to be a compact space. The area encompasses the proximity of 44th Street and Avenida Contorno and some blocks and adjacent streets. The concentration conforms between essential roads in Goiânia, such as Independência Avenue, Goiás Avenue, Leste-Oeste Avenue, and Marginal Botafogo. (Map 19)

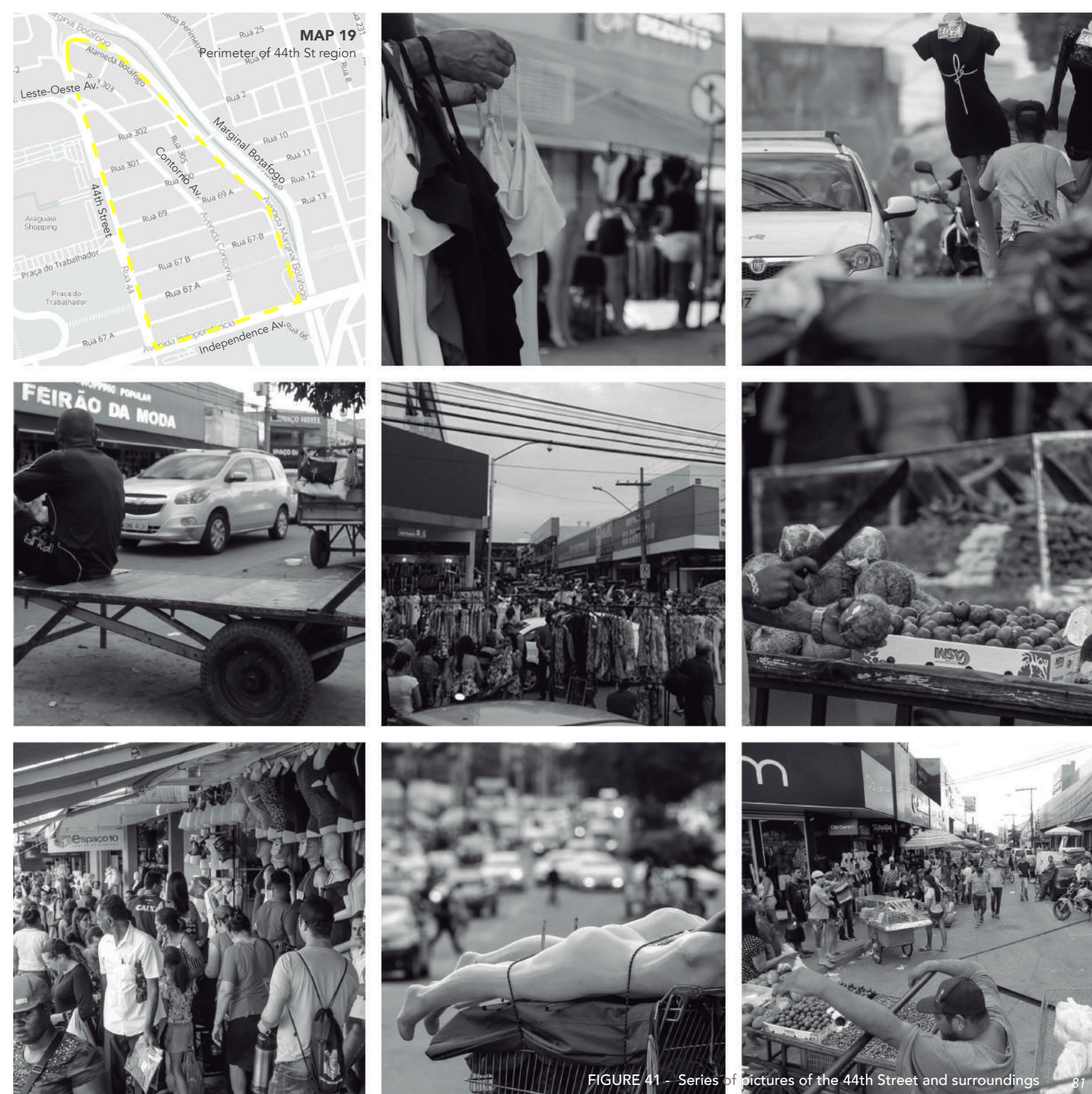


FIGURE 41 - Series of pictures of the 44th Street and surroundings



FIGURE 42 - Contorno Avenue image. 83



By visiting the area, there are numerous problems concerning its infrastructure. They are the lack of signaling of the roads and pedestrian crossings, and the width of the sidewalks, which is insufficient for the number of people who circulate there and most of them with carts to transport clothes. The galleries do not have fixed locations for loading and unloading goods. Another critical issue is the number of irregular street vendors, which shopkeepers often point out as one of the significant problems in the region. For most users, the major problem is the lack of cleanliness and local maintenance, and insecurity, with recurring thefts on the spot.

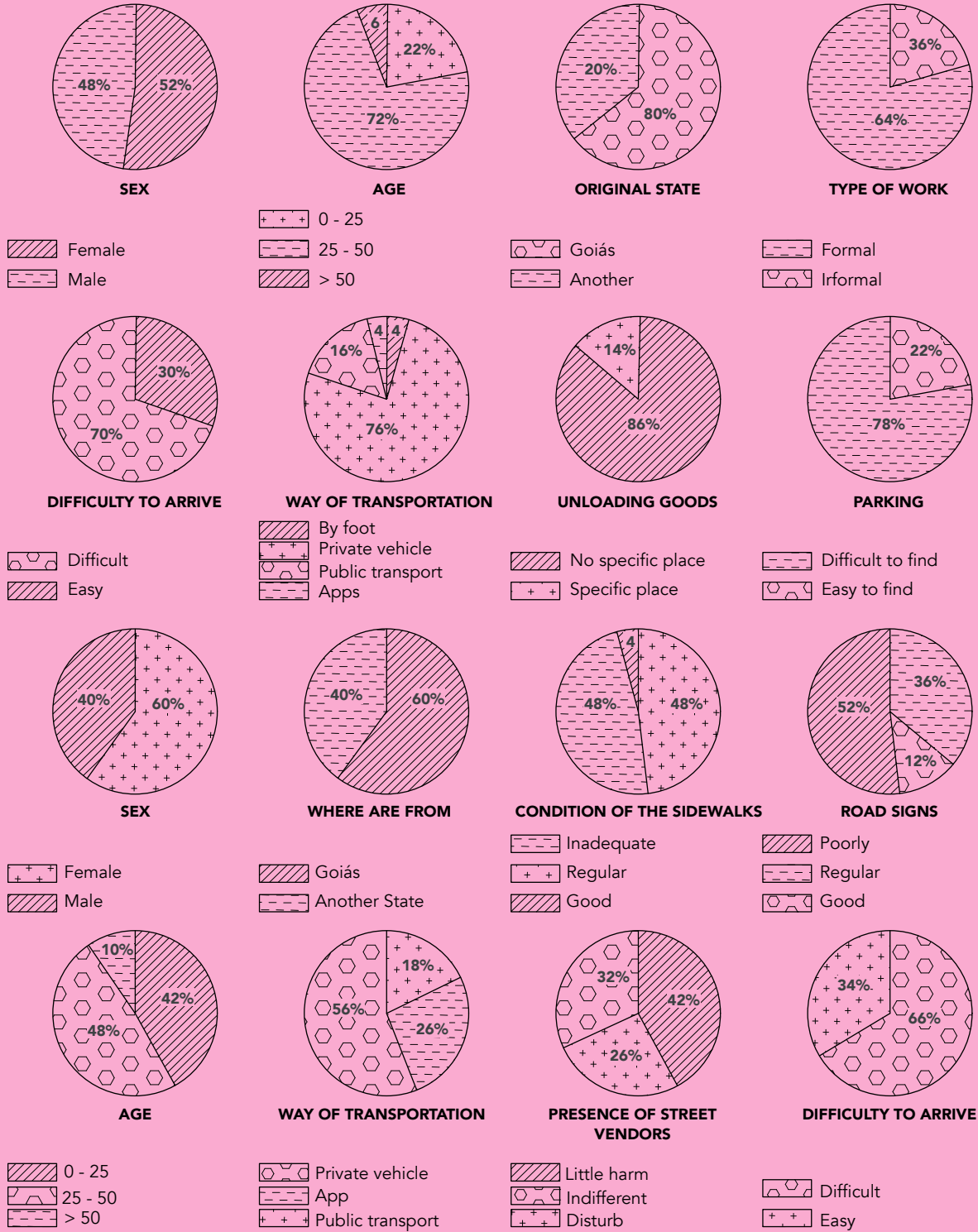
As a thesis developed during the COVID Pandemic period, it was impossible to produce an inquiry in loco for the safety of my own and the interviewees. Moreover, the local commerce operation is in an atypical performance, so the results of a possible survey would not be considered valid in such an adverse occasion as this one. Therefore, it was considered research done in 2019 (the last business year before the current scenario) to analyze better the area's social and behavioral data (BAETA, SOUSA 2019). In this field research carried out on 13th April, 2019, on 44th Street, a questionnaire was proposed for 100 people in total, 50 local traders/salespeople, and 50 customers/users.

Through the research results, we can confirm some of the perceptions when visit the place. Concerning the people profile, the public most frequents the space as a consumer or user is the female, young adult between 18 and 50 years old and from within the state. As for salespeople, there is a division, many female salespeople but almost the same number of male salespeople, especially when it is informal workers we can notice a male majority. The age group is similar, but a little older, mainly in the 25 and 50 years old range and mostly from Goiás. Although there are many informal workers in the area, and it is one of the main complaints of traders and users, the primary type of workers, even due to many galleries and stores present, is formal workers.

Regarding the condition of the local infrastructure, both groups have complaints about it. The salespeople in the survey are dissatisfied with load and unload areas, parking, and difficulty of access. On the other hand, consumers are dissatisfied with the road signs, the condition of the sidewalks, and the difficulty of access. Both groups mostly use private vehicles to reach the area, confirming why traffic in the region is chaotic.

Traders / Salespeople

Customers / Users



In '44th Street' daily practices, there is a profusion of smells, sounds, accents, landscapes, and perceptions, which refer to overlays of different social types. These social types are observed with their spatial practices, which overhang multiple scenarios in the area's daily routine.

Among all existent social diversity, the worst perceptions are always about informal sellers, especially marketers and salespeople. They criticize the sale of goods on the streets, a practice considered illegal, and the creation of barriers to the flow of customers on the sidewalks. Informal sellers argue that they also attract movement to the region and seek to guarantee the right to work. In the condition of 'refused presences,' they suffer from exclusionary orders in space simply because they exist in the condition of a social group (RIBEIRO, 2006).

An example is 'Rapa,' a popular name attributed to inspectors and municipal guards' action (spatial practice) for removing these sellers, which causes every day "rush" in the place. The other characters fear violent acts of retaliation by informal sellers, reinforcing their negative perception inside the space.

Marketers and customers often describe the Hippie Fair as a home for friendly coexistence, whose memory and longevity of the community drive the existence of a place of belonging. Such perception differs from the understanding of customers and salespeople. Those who see their spatial practices on '44th Street' mainly associated with purchasing and selling goods, without any connection with local memory.

“

In a maze of corridors, alleys, storefronts, colorful digital panels and photographs of mannequins, the various spatial forms of 44th Street integrate streets, stalls and galleries in densities and overlaps. This urban scenario differs greatly from the initial plans of Goiânia, in which was conceived as a limit to urban expansion to the north of the city.”

(GARBELIM, 2014)



FIGURE 43, 44, and 45 - 44th St Region



The commercial region of '44th Street', on an economic level, covers 150 thousand direct jobs and average revenue of R\$ 570 million reais per month. It handles almost R\$ 7 billion annually. If it were a municipal federated entity, it would have the fifth largest GDP among the 246 municipalities in the State of Goiás (LIMA, 2019). Until the end of 2019, economists' projections did not recognize or predict any crisis for '44th Street'. The construction of new developments and changes in applications for warehouses are constant. At the beginning of 2019, according to AER44 (Business Association of the 44th Region), there were more than 13 thousand points of sale, with the prediction that by the end of the year, it would reach a total value of more than 15 thousand, spaced out in 97 popular galleries and malls (MONTEIRO, 2018). If considering the 7 thousand stalls at Feira Hippie, 600 at Feira da Madrugada, street stores, and Araguaia Shopping, the thousands of informal vendors, no less than 25 thousand points of sale are at 44th Street. Reports exalt centrality in Goiânia as the second largest "fashion hub" in the country, just behind Brás in São Paulo. (MARZANO, 2018; MARINA, 2019).

Of course, the region's economic scenario was affected in its entirety by the Covid-19 economic and health crisis. On April 12, 2020, only 25 days after the region was paralyzed during the first lockdown in Goiânia, there were calculations by the AER44, based on the annual daily average, in which in those first 25 days had stopped being sold almost R\$ 600 million reais. A survey carried out by the AER44 association indicates that at least 10% of micro and small entrepreneurs have closed their stores, and another 15% were negotiating to close. Jairo Gomes, president of AER44, remembers that more than closed stores, which meant job losses. "We currently have about 14 thousand points of sale, and 10% of this already represents 1.4 thousand closed stores, which is reflected in at least more than 5 thousand jobs lost" (JORNAL A REDAÇÃO, 2020). It is not known for sure what the consequences of this crisis will be for the region that involves the most affected areas in the economy, the tertiary sector, and the services sector. In July 2021, with the pandemic still in progress, stores are open but following protocols that restrict establishments to up to 50% of their capacity, a maximum of 2 employees per store, availability of hand sanitizers, and the mandatory use of masks.



FIGURE 46 - 44th St Region being desinfected due to the Covid19 virus, 13/07/2020.



FIGURE 47 and 48 - 44th St Region on 21/05/2021, a sunday completely closed due to the Covid19 pandemy.

In addition to interests at the economic level, to understand the social structures acting in the centrality of '44th Street', it is necessary to understand how political power formulate strategies for this space, especially concerning institutional decisions. The economic interests, motivations, and wills added to the political actions define the conceptions of the spatial arrangement in this area.

In civil society's political sphere, positions can manifest at different times or intensities through collective representations. Among the heads that organize these representations, we have the Association of Marketers from Hippie's Fair, the Business Association of the 44th Region (AER44), the Association of Street Vendors of 44 - Dawn's Fair, and the Association of the Installers of Tents. Those are the ones with the most significant influence on 44th Street. These collectives represent the wishes of subjects moved by popular commerce. However, they do not behave as a social division. They represent daily tensions and convergences in the region.

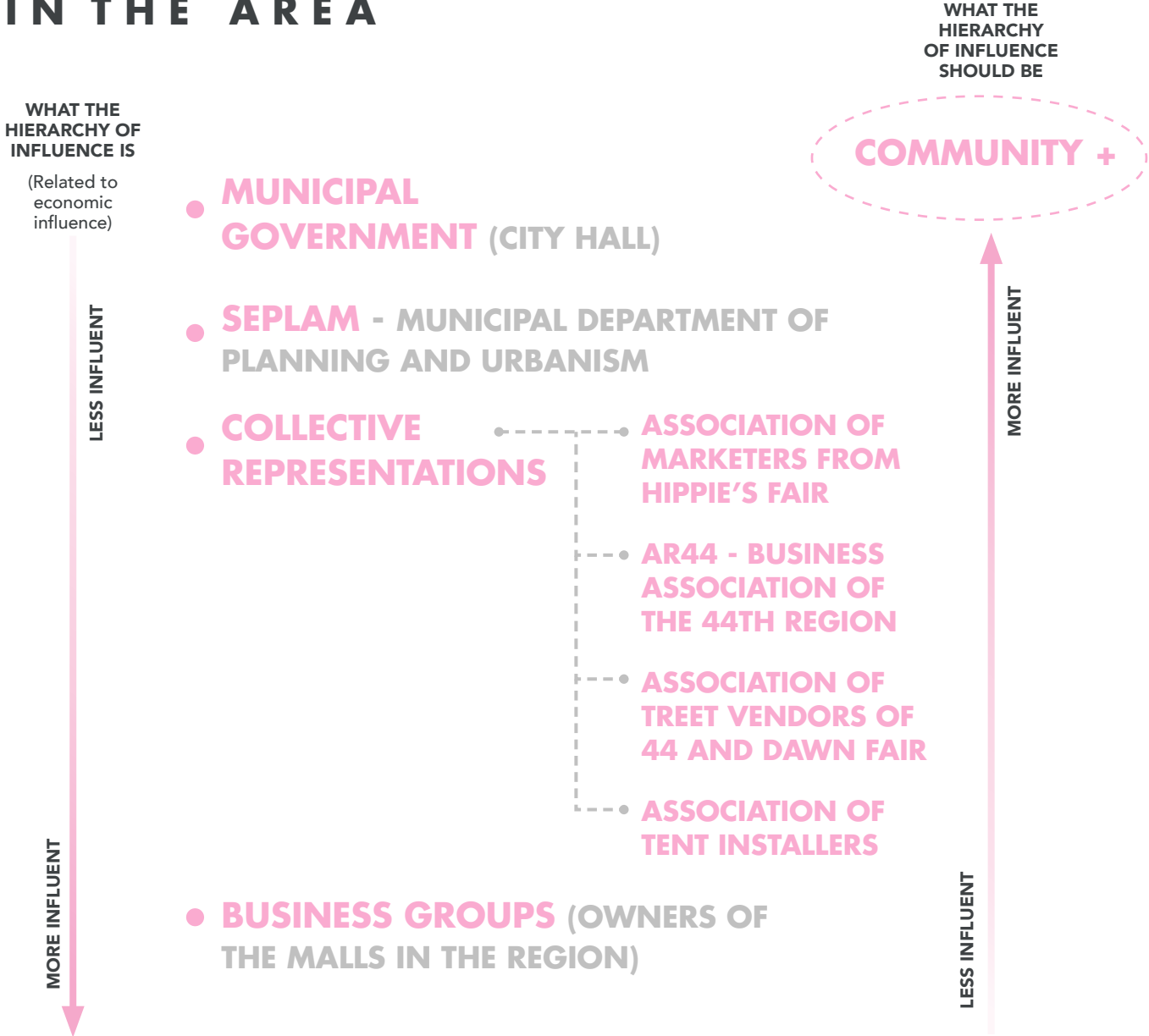
The multiple characters with different interests in the centrality of '44th Street' create an overlapping tension regarding spatial practices that also trigger social conflicts. On the one hand, we have the private interest represented by the Novo Mundo Group, owners of the Mega Moda Shopping, Mega Moda Park, Mega Moda Hotel, and Mini Moda, all the largest and leading commercial centers in the area. On the other, public interest, represented by the Municipality of Goiânia and the departments

responsible for the area, the agents already listed above representing the associations of interest in each area involved. However, none of these subjects involved in the representation of this space represents the user.

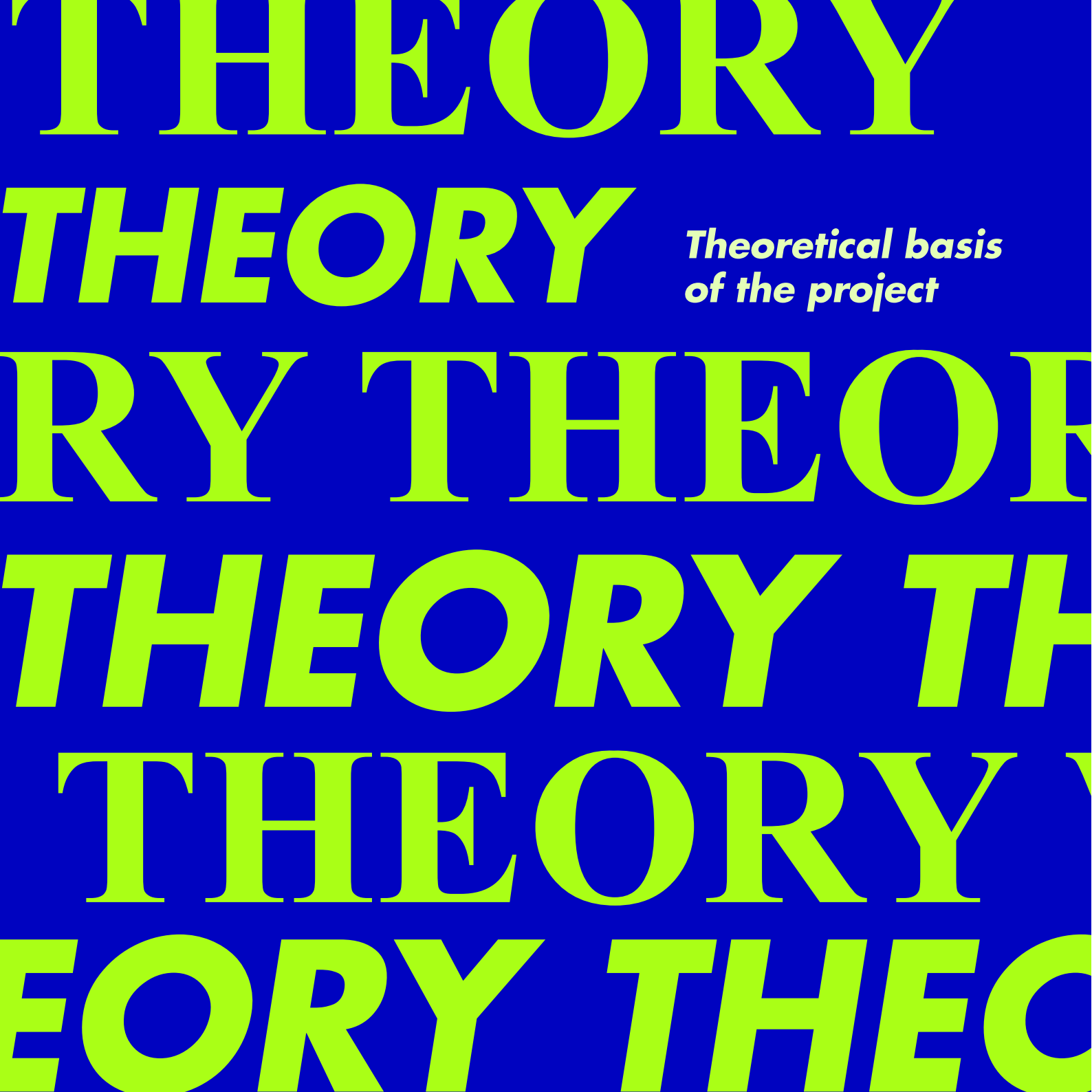
The common perception is that a large part of those affected in this spatial configuration searches to distance themselves from essential themes of interest to society. In this sense, the characters on '44th Street' assess the socio-political reality of dissatisfaction with the public space but with little motivation to express more elaborated arguments about the social contexts that generate these troubles. They generally justify the debility of the region caused by the "corruption" of politicians, a feeling inherent in large part of Brazilian society. When analyzing the national political culture, Souza (SOUZA, 2017) points out that the 'corruption' discourse tends to disapprove of the public and protect private illegalities. This discourse also criminalizes politics at first and shifts the focus from primary citizenship needs to minor causes.

The unwillingness with political-institutional at a deep level is also an expression of a political culture historically constructed with a slight possibility of opening the State to the participation of the population in decisions of common interest (AVRITZER, 2009). This element contributes to the devaluation of public space and the depreciation of political action, which justifies the need for the protagonists of direct action through repeated protests.

# ACTORS INVOLVED IN THE AREA







**THEORY**

*Theoretical basis  
of the project*

**HERITAGE  
INTERVENTION  
DICTIONARY**

There are several ways to designate an urban action, but such nomenclatures are not well defined, causing indiscriminate use. The importance of the proper use of terminologies is evident, as their nomenclatures qualify and embody the actions, concepts, and criteria used in each case.

The beginning of terminologies using the prefix “re” starts in the 50s, right after World War II, and is still applied nowadays. Examples are restructuring, revitalization, requalification, reappropriation, renovation, rehabilitation, recycling, restoration, among other re’s. Knowing how to differentiate such nomenclatures and apply them is an important step in the process of urban action. That is why this dictionary was put together. Understanding the subject with definitions collected from a vast bibliography allows us to understand the different terms and their applications better.

## REHABILITATION

Modification of a resource to contemporary functional standards which may involve adaptation for new use.

**ICOMOS APPLETON CHARTER, 1983**

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alteration, and additions while preserving those portions or features which convey its historical cultural or architectural values.

**U.S. SECRETARY OF THE INTERIOR, 1995 (GRIMMER, WEEKS, 1995)**

Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.

**U.S. DEPARTMENT OF THE INTERIOR, 2017 (GRIMMER, 2017)**

Actions considered of rehabilitation constitute an integrated process of recovery of an urban area intended to be safeguarded, implying the restoration of buildings and the revitalization of the economic and social fabric to make the area attractive and dynamic.

**VALENTIM, 2007**

Recently, in the new millennium, one of the most used terms is rehabilitation. It means the restoration of rights. In jurisprudence, it is "the action of recovering esteem and consideration". Rehabilitation is a more advanced operation than simple habitat improvements. Less costly than

restoration, it involves delicate work, which often discourages government actions.

**CHOAY AND MERLIN, 1988**

Many authors have used the "rehabilitation" term as a way of expressing "a mode of urban intervention aimed at overcoming environmental and economic duties resulting from a history of industrialization little concerned with its negative impacts". They have as a goal the reinsertion of the place in the economic cycle of the city and a "sustainable urban development".

**PASQUOTTO, 2010**

## CONSERVATION

The conservation of monuments is always facilitated by making use of them for some socially useful purpose.

**THE VENICE CHARTER, 1964**

Restoration is defined as the act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work.

**U.S. SECRETARY OF THE INTERIOR, 2006**

The objective of conservation is to maintain the significance of the architectural heritage or site. Significance is constituted in both the tangible and intangible forms.

**INTACH (INDIAN NATIONAL TRUST FOR ART AND CULTURAL HERITAGE) CHARTER, 2016**

The process of managing change to a significant place in its setting in ways that will best sustain its heritage values, while recognizing opportunities to reveal or reinforce those values for present and future generations.

**HISTORIC ENGLAND, PREVIOUSLY A PART OF ENGLAND'S HISTORIC BUILDINGS AND MONUMENTS COMMISSION, 2008**

The purpose of conservation is to care for places of cultural heritage value. Conservation means all the processes of understanding and caring for a place so as to safeguard its cultural heritage value. Conservation is based on respect for the existing fabric, associations, meanings, and use of the place. It requires a cautious approach of doing as much work as necessary but as little as possible, and retaining authenticity and integrity, to ensure that the place and its values are passed on to future generations.

**ICOMOS NEW ZEALAND CHARTER, 2010**

## RESTORATION

Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents.

**THE VENICE CHARTER, 1964**

The return of something to a former, original, normal, or unimpaired condition.

**JOHN H. STUBBS, 2009**

The proper meaning of the word Restoration is the re-establishment of parts of a building more or less damaged that one upgrades to its working order. In architecture, Restoration is said to be less mechanically natural than the work that the artist undertakes based on the remains or descriptions of a monument, its entirety and the comprehensive measurements, proportions and details. Very often it suffices for one to know some traces of columns, entablature and capitals of columns of a Greek architecture to rediscover the order of a temple.

**QUATREMÈRE DE QUINCY, 1832**

Restoration is generally understood as any kind of intervention that permits a product of human activity to recover its function ... Restoration is the methodological moment in which the work of art is appreciated in its material form and in its historical and aesthetic duality, with a view to transmitting it to the future.

**CESARE BRANDI, 1963**

The process of restoration typically involves reassembly and reinstatement, and may involve the removal of accretions that detract from the cultural heritage value of a place. Restoration means to return a place to a known earlier form, by reassembly and reinstatement, and/or by removal of elements that detract from its cultural heritage value.

**ICOMOS NEW ZEALAND CHARTER, 2010**



# PRESERVATION

Standards for Preservation: 1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships.

U.S. SECRETARY OF THE INTERIOR, 1995

The word preservation—in the broadest sense, being equivalent in some cultures to conservation or restoration—can be considered, from this point of view, as expressing the modern way of maintaining living contact with cultural works of the past.

PAUL PHILIPPOT, 1972

Standards for Preservation: 1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships.

U.S. SECRETARY OF THE INTERIOR, 1995

Preservation is no longer a retroactive activity but becomes a prospective activity.

REM KOOLHAAS, 2004

Preservation means to maintain a place with as little change as possible.

ICOMOS NEW ZEALAND, 2010

Preservation means maintaining a place in its existing state and retarding deterioration.

THE BURRA CHARTER, ICOMOS AUSTRALIA, 2013

# ADAPTATION

Adaptation means the process(es) of modifying a place for a compatible use while retaining its cultural heritage value. Adaptation processes include alteration and addition.

ICOMOS NEW ZEALAND, 2010

Adaptation means changing a place to suit the existing use or a proposed use.

THE BURRA CHARTER, ICOMOS AUSTRALIA, 2013

# REFURBISHMENT

Modernizing or overhauling a building and bringing it up to current acceptable functional conditions. It is usually restricted to major improvements primarily of a non-structural nature to commercial or public buildings. However, some refurbishment schemes may involve an extension.

DOUGLAS, 2006

The refurbishment of a building always means adapting it to meet current standards, too, whether because of change in users' demands or new technical regulations.

GIEBELER ET AL., 2009

From the most conservative term concerning heritage – conservation – to the most extreme – adaptation – the middle term choice for this project is rehabilitation. In conservation, almost nothing is changed. Its use, materials, construction techniques are maintained as the most faithfulness to its originality. On the other hand, when applied at its extreme, adaptation allows the project to change a lot, adapting a new use, applying new materials, techniques, and technologies. Moreover, as Rossella Maspoli (MASPOLI, 2019) addressed, a conservative intervention must induce an 'added value' that corresponds to the appreciation of the historical-testimonial and artistic-architectural value of the good – as well as to a positive social impact. That is why it is believed that a total conservation project is not the way to follow here. Each area, building, or urban space must be analyzed to create a project that best matches reality.

For the chosen area, the best choice is a rehabilitation project. Rehabilitation means the restoration of rights. Jurisprudence says it is "the action of recovering esteem and consideration" (CHOAY, MERLIN, 1988). According to Berrio and Orive (1974), the term rehabilitation had been consolidated until it became one of the fundamental aspects of conservation. The UNESCO Convention of 1972 practically replaced the term restoration, applied both in architecture and in urbanism. Choay and Merlin (1988) consider rehabilitation a more advanced operation than simple habitat improvements. Less expensive than restoration, it involves delicate work, which often discourages government actions.

The rehabilitation term stands out over others for being the one that most presupposes the preservation of the built environment (MARICATO, 2001) and occupied, but without carrying a meaning associated with different moments in the history of urbanism as the predecessor terms. Moreover, for including a preservation action of typical architecture (not just of historical interest) and conceiving the built heritage itself as a resource value (SCHICCH, 2005). Therefore, such actions considered rehabilitation constitute an integrated recovery process of an urban area intended to be safeguarded, implying the restoration of buildings and revitalizing the economic and social fabric to make the area attractive and dynamic.

For this reason, the term rehabilitation is chosen here. It is believed that the area deserves to be preserved with possibilities for changes in its uses that no longer fit the reality in question. As shown by the definition of the ICOMOS Appleton Charter (1989), rehabilitation can often involve adapting its use. That is the reason the practice also will be applied and explained in this thesis project. The likely changes to this territory involve additions to the former Railway Station building and Praça do Trabalhador. Despite the building having been through a recent restoration process, there is room for improvement to promote the Art-Decó heritage properly and attract more visitors. The square area may undergo more significant changes, adding to its current purely commercial space, leisure, and social features. So this way, the improved area can gather the interests of all subjects involved: stakeholders, users, small business owners, community, and government.

**HISTORICAL  
HERITAGE  
WHY & HOW  
PRESERVE IT**

Today, cultural heritage is inherently linked to the most pressing challenges that humanity faces as a whole. These range from climate change and natural disasters (such as loss of biodiversity or access to safe water and food) to conflicts between communities, education, health, migration, urbanization, marginalization or economic inequalities. For this reason, cultural heritage is considered “essential for promoting peace and sustainable societal, environmental and economic development.” (UNESCO, 2014)

The notion of heritage is essential for culture and development insofar as it constitutes the ‘cultural capital’ of contemporary societies. It contributes to the continual revalorization of cultures and identities, and it is an essential vehicle for transmitting expertise, skills, and knowledge between generations. It also inspires creativity and innovation, which result in contemporary and future cultural products. Cultural heritage holds the potential of promoting access to and enjoyment of cultural diversity. It can also enrich social capital by shaping an individual and collective sense of

belonging, which helps supporting social and territorial cohesion. Moreover, cultural heritage has acquired great economic significance for the tourism sector in many countries while at the same time engendering new challenges for its conservation. (UNESCO, 2014)

Proper management of cultural heritage development potential requires an approach that focuses on sustainability. In this regard, sustainability requires finding the right balance between benefiting from cultural heritage today and preserving its ‘fragile wealth’ for future generations. (UNESCO, 2014)

For Ghiardello and Spisso (2008), each individual is part of a whole society, and the environment in which they live and builds, with others, the history of this society. Through the products created and interventions in the environment, which grants to future generations, records can provide an understanding of human history for the future. The destruction of goods inherited from past generations causes the breaking of the current knowledge, leading us to repeat experiences already lived incessantly. Currently, the importance of preservation gains new focus due to the necessary awareness of reducing the impact on the environment caused by the production of goods. The preservation and reuse of buildings and objects reduce energy and raw materials needed to produce new ones.

2020 marked the beginning of the Decade of Action to achieve the Sustainable Development Goals (SDGs) by 2030. The 17 goals, adopted by all countries in 2015, represents the shared vision to end poverty, safeguard the environment and build a peaceful world. (United Nations)

Heritage conservation is addressed in the new Sustainable Development Goals (SDGs) on goal 11 that aims to “Make cities and human settlements inclusive, safe, resilient and sustainable.” This goal envisions sustainable, livable urban centers with universal access to green spaces. There are a total of 10 targets to be achieved under this goal. Target 11.4 calls specifically for “Strengthening efforts to protect and safeguard the world’s cultural and natural heritage”. Putting value to the local assets that are appreciated - historical, cultural and ecological - is the starting point for heritage conservation and preservation. Assigning such a value ensures that “... the present needs do not compromise those of future generations”. Aiming for longer-term sustainability will include conserving heritage assets. It calls for maintaining a delicate balance between the human need to improve lifestyles and a feeling of well-being. Preserving local resources and ecosystems on which we and future generations depend. Using sustainability as an eventual goal in conservation strategies has added multiplier benefits over time. Conservation has to include issues related not only to cultural and historical but also to ecological and natural assets of the locality. (SRINIVAS, 2020)



FIGURE 49 - 17 Sustainable Development Goals assembly by United Nations



“Places of cultural significance enrich people’s lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and lived experiences. They are historical records that are important expressions of identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us. They are irreplaceable and precious.”

THE BURRA CHARTER (ICOMOS, 2013)

“The cultural and environmental heritage in traditional communities works as belonging to the territory, symbolized environmentally, materially, and immaterially. Pluralist policies for preserving heritage must exist, valuing the environment in a broad sense, cultural diversities, and identities. Promoting a healthy relationship between people’s heritage and territory must start from guaranteeing the social inclusion of everyone who occupies spaces in urban and rural areas.”

COSTA, LIMA, SOUSA, 2019

“Preservation participates in a permanent game with destruction, a game that is similar to the one of memory and forgetful.”

It is from the fear of the destruction of objects to which value is attributed that social subjects mobilize themselves in the search for means of preservation. On the contrary, in the absence of the attribution of value, destruction or forgetfulness replaces preservation. The subject of the action must identify in the object to be preserved some value.”

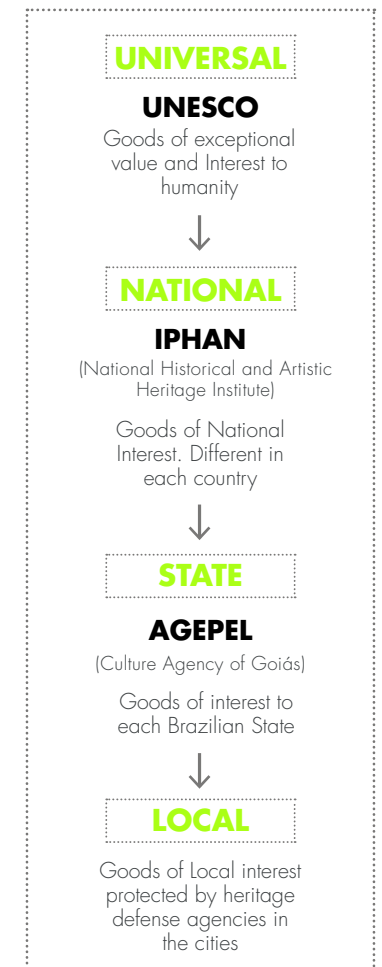
CHAGAS, 2005

But what exactly is cultural heritage? For UNESCO (2014), heritage is all the goods, material and immaterial, natural or built, that a person or a people owns or manages to accumulate. Thus, cultural heritage is the set of tangible and intangible assets that contain references to different social groups’ identities, actions, and memory. It is an essential element for sustainable development, promoting social well-being, participation, and citizenship. The intangible ones are the oral traditions, performing arts, and rituals. Moreover, the tangible ones are classified as:

- Movable cultural heritage: paintings, sculptures, coins, manuscripts;
- Immovable cultural heritage: monuments, archaeological sites;
- Underwater cultural heritage: shipwrecks, underwater ruins, and cities.

It is important to remember that preserving is not the same as the listing process. Preservation can exist without listing. Listing is a legal imposition, though there is no authentic guarantee of preservation without it. It is a meaningful action to be taken to guarantee the permanent preservation of the heritage, preventing, by law, its de-characterization/destruction and providing its full use. In the case of the area studied by this thesis, no legislation guarantees the preservation of the Northern Railway Sector as a whole. Only the building of the former Railway Station is listed as part of the city’s Art-Decó collection. Nevertheless, its whole preservation is necessary in order to guarantee the collective memory and cultural identity of the social groups existing there. Consequently, avoiding mischaracterization, destruction, and real estate speculation that has already taken place in the region.

## LISTING PROCESS SCALE OF IMPORTANCE



DEPENDING ON ITS RELEVANCE, A PROPERTY CAN BE INSCRIBED ON THE UNIVERSAL HERITAGE LIST AND LISTED BY THE OTHER THREE NATIONAL BODIES.

Preserved properties should be part of people's daily lives and not just used for specific functions. It does not matter what use is given to the property, as long as it is compatible with its physical structure and preserved its characteristics. This widely used strategy is called *Adaptive reuse*. A practice that is broadly defined as the "reuse of pre-existing structures for new purposes." (WONG, 2016)

In the definition given by the Heritage Council of Victoria (2013), *Adaptive reuse* is the conversion of a building, site, or precinct from one use to another. Where the site being reused has heritage value, the new use should support the ongoing interpretation and understanding of that heritage while also accommodating new functions. *Adaptive reuse* gives new life to a site rather than seeking to freeze it at a particular moment in time. It explores the options that lie between the extremes of demolition or turning a site into a museum. Adding a new layer without erasing earlier layers, an adaptive reuse project becomes part of the site's long history. It is another stage, not the outcome.

The first noted use of the term in 1973 curiously coincided with the global oil crisis, which triggered an awareness of natural resources. With a global focus in the last decades on the effects of climate change and acknowledging that "buildings are the major source of global demand for energy and materials that produce by-product greenhouse gases" (AUSTRALIA ICOMOS, 2013), the practice

of adaptive reuse has come into its own. Examples of adaptive reuse exist all around us. A few are highly celebrated conversions of notable heritage buildings. The majority, however, are simply part of a contemporary practice often driven by economics; schools converted to condominiums, jails to hotels, factories to artist studios, churches to restaurants. (WONG, 2016)

“*The best way to conserve a heritage building, structure or site is to use it ... Adaptation links the past to the present and projects into the future.*”

HERITAGE COUNCIL OF NEW SOUTH WALES, 2008



FIGURE 50 - The High Line in New York

In Brazil, the unit of SESC 24th May - a complex set of recreational facilities and services - occupies the headquarters building of the old Mesbla (chain of Brazilian department stores that bankrupted in 1999) downtown São Paulo, which is an exemplary example of transformation in the built urban heritage. A project from MMBB architects studio and Paulo Mendes da Rocha designed in 2017 aimed to create a simple use and adaptation of facilities that initially served the uses of nature so diverse to those usually proposed. Which also contributes effectively to the desired recovery of such a remarkable area of the city. It demonstrates the virtues of the future life of the city while claiming the privilege of occupying such a noble place in São Paulo is the main aim of this project.



FIGURE 51 - The old building of Mesbla



FIGURE 52 - The new project of SESC 24th May

Communities are not static. It is essential to consider building contingency into a project to accommodate all kinds of changes while still respecting the site's heritage. Communication and community consultation is an essential aspect of large urban regeneration projects. (HERITAGE COUNCIL OF VICTORIA, 2013)

A highly prominent international example is the High Line in New York, converting an old elevated freight rail line into a much-loved linear park. This project was begun by two residents who successfully lobbied to keep the structure and then worked with the City of New York to develop the park. Friends of the High Line continue to maintain and manage the park.

In Melbourne, the Substation Centre for Arts and Culture was initiated by community members who wanted to see the historic Newport substation retained and reused. The project took 15 years to be finished by a small and dedicated group of volunteers. A collective of local stakeholders brought together to facilitate community input, feedback, and participation in The Substation's program.



FIGURE 53 - Substation Centre for Arts and Culture



With the many opportunities to reuse and adapt different types of host structures, adaptive reuse practice is unique “for its requirement of taking a stand in the transformation of architecture in space and time. The rehabilitation of works of the past forces us to read a building as the sum of different juxtaposed texts, in which the new intervention is another chapter of its long history.” (WONG, 2016)

The Athens Charter of 1931 comprised seven main resolutions addressing the need for cooperation through national and international advisory legislative groups for knowledgeable restoration and historic preservation, protection of historic sites and surrounding areas, and modern techniques and materials for restoration. With acknowledging the reuse of a historical building as one based on continuity and purpose, the Doctrines section established adaptive reuse. With the implication that a new and different intervention must introduce modern materials where anastylosis\* is not possible, these concepts paved the way for the design intervention, a salient principle of adaptive reuse practice. (WONG, 2016)

Rehabilitation, refurbishment, and renovation (without a change of purpose) typically modernize an old structure. Varying in degrees of change, projects like these occur within an existing confine and update a pre-established order. They are

distinguished from adaptive reuse as interventions that assume and maintain the existing use of the building. Adaptive reuse, defined as the renovation and reuse of pre-existing structures for new purposes, requires introducing the new within the current order of the existing.

Buildings, like humans, also experience a finite life span. At its conclusion, they, like us, face an end: demolition. However, for some buildings, this end can be denied and perhaps even postponed indefinitely, sorts of immortalization through the practice of conservation and/or adaptive reuse. (WONG, 2016)

With changed methods, the notion of what we preserve and how we do it has expanded since the late 19th century. Together, the means and the mindset of our time redefine the acts of preservation. Adaptive reuse, the legacy of these debates on restoration and conservation, had also evolved since the latter half of the 20th century when key legislation such as the Venice Charter of 1964 first addressed the need for “some socially useful purpose” in conservation monuments. The 20th century proposed as an alternative the adaptive reuse practice based on alterations that offer new use within the built existing environment. Today, the world confronts the possibilities of an adaptive reuse practice at a new frontier.

The foundation document and essential reference for work on heritage sites, structures and spaces within Australia is The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013. That guides the conservation and management of places of cultural significance made by The Australian National Committee of ICOMOS (International Council on Monuments and Sites). The document advocates a cautious approach “Do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.” (ICOMOS, 2013)

When beginning an adaptive reuse project, it is crucial to start with a clear frame of reference and a coherent strategy for determining the heritage value of the building or site and ways to work with it. A Conservation Management Plan, including a Statement of Significance, developed following the Burra Charter process, will enable

considered and meaningful decisions for new uses and approaches, when assessing what to keep, and what to change, and for the long-term management of the site. (HERITAGE COUNCIL OF VICTORIA, 2013)

Adaptive reuse is not simply a matter of retaining the fabric or envelope of buildings. The heritage building, site, or precinct needs to be understood in complex ways. Other aspects to be considered include the spatial structures and configurations, the relationship between the site and its context, significant views to, from, and within site, and traces of activities and processes. Communities are not static. It is essential to consider how to build contingency into a project to accommodate all kinds of change while still respecting the site’s heritage. Designing the reuse brings the potential to ‘amplify’ some elements and aspects while downplaying others. (HERITAGE COUNCIL OF VICTORIA, 2013)

\*ANASTYLOSIS: Archaeological term for a reconstruction technique whereby a ruined building or monument is restored using the original architectural elements to the greatest degree possible.

# THE BURRA CHARTER PROCESS

STEPS IN PLANNING FOR AND MANAGING A PLACE OF CULTURAL SIGNIFICANCE

\* THE WHOLE PROCESS IS INTERACTIVE. SOME STEPS MAY NEED TO REPEAT ALONG THE PROCESS



COMMUNITY AND STAKEHOLDER ENGAGEMENT SHOULD OCCUR THROUGHOUT THE PROCESS

There are two principal ways to identify and protect heritage in Brazil: social experience and state intervention. Protection through social experience implies that culture is linked to people through their experience. Culture will exist insofar as it is part of everyday practical life objectively and symbolically. When culture disappears from meanings, there is no longer resonance. Therefore, that culture lost value as an identifier of that people. In this case, the cultural good is registered in orality and protected by everyday experience and community participation.

On the other hand, state protection implies intervention in the universe in which the cultural good is experienced. They are identified through surveys on the property, and the way to protect material and immaterial assets is different. The tangible heritage is listed, and the intangible is inventoried and registered in books by IPHAN - National Historical and Artistic Heritage Institute. The inventory has no federal regulation. Furthermore, as stated in article 24 of the CRFB/88, item VII, and article 30, items I, II, and IX, Federal States and Municipalities may legislate on the protection in the event of lack of national legislation and preservation of their cultural heritage. (COSTA, LIMA, SOUZA, 2019)

Listing process in Brazil is under the law, article 216 of the Federal Constitution of 1988: “The public power, with the collaboration of the community,

will promote and protect the Brazilian cultural heritage, through inventories, records, surveillance, registration, expropriation and other forms of caution and preservation”. In addition, some laws created the councils at their various levels and state: Federal Law (Decree-Law 25/1937), State Law, and Municipal Laws.

Despite being provided for by law, Brazil does not have laws or norms for elaborating projects of conservation, preservation, or intervention character in urban areas and buildings listed or considered historical and cultural heritage. The lack of a document with the recommended standards to conduct such projects dramatically affects the quality of projects created in Brazil for this purpose. For this reason, in 2005, the Monumenta Program, a federal program executed by the Ministry of Culture of Brazil and sponsored by the IDB, which consists of the reform and rescue of urban cultural heritage throughout Brazil, created the Manual for the Elaboration of Projects for the Preservation of Cultural Heritage. The manual aims to consolidate and transmit the concepts, norms, and precepts that guide the preservation of the Historical and Artistic Heritage protected by the Union (Decree-Law No. 25, of November 30, 1937. Organizes the protection of the National Historical and Artistic Heritage).



The guidelines for the preparation of complementary projects, which are part of the Manual, also constitute the compilation with adaptations of part of the Practices of the Secretariat of Public Administration (SEDAP), established in Decree No. 92.100, of 12/10/1985, aiming to enable its application in the works of intervention of the built Heritage.

The Manual covers seven chapters with scripts and guidelines for elaborating projects in Built Heritage and Urban Public Spaces. The General Provisions - deals with preservation principles and conditions for the elaboration of Intervention Projects. The Manual is intended to guide the preparation of Intervention Projects in cultural heritage assets, from the object identification stage to the executive project.

Nevertheless, unlike the Burra Charter, the Manual lacks a fourth step: Monitoring results, which says a lot about the Brazilian way of designing. After completing the project, there is a tendency to report the problem as solved and not monitor the work to detect necessary revisions or complementary works.

**MONUMENTAL PROGRAM PROCESS** ESTABLISHES GUIDELINES, GATHERS AND SYSTEMATIZES THE INFORMATION ESSENTIAL FOR THE ELABORATION OF INTERVENTION PROJECTS IN URBAN PUBLIC SPACES

**01. IDENTIFICATION AND KNOWLEDGE OF THE OBJECT OF INTERVENTION**

- I. Historical research;
- II. Physical Survey - (geometrical characteristics of space) graphically and photographically;
- III. Infrastructure Information Survey;
- IV. Survey of Legal Aspects;
- V. Social-Economic-Environmental Survey

**02. DIAGNOSIS**

- I. Conservation Status Analysis;
- II. Studies, Prospects and Tests;
- III. Analysis of Landscape Aspects;
- IV. Assessment of Urban Furniture and Visual Communication;
- V. Assessment of Existing Legislation

**03. INTERVENTION PROPOSAL**

- I. Preliminary Study;
- II. Basic Intervention Project in Public Spaces;
- III. Executive project

It can seem trivial or irrelevant to try to recover the historical memory of an area compared to more expressive issues such as infrastructure development or poverty mitigation. However, it is indispensable to tie together the feeling of belonging in this area that has already de-characterized itself. Reclaim the value of all the history that already occurred there. It is important to reestablish all connections made to promote a healthy bond between the users and space, in order to them wanting to keep it conserved to be more than just simply a market space that they go shopping does not take care of and do not mind to wreck it. Attaching the space with people's feelings and creating a community sentiment can help maintain all the projects' improvements in a long space range and help solve problems like insecurity and cleanliness, as an example. For the future, effective conservation of heritage resources helps preserve and safeguard the resources and revitalize local economies, achieve sustainability goals, poverty, alleviation, lead to well-being, and induce a sense of identity, pride, and belonging to residents.

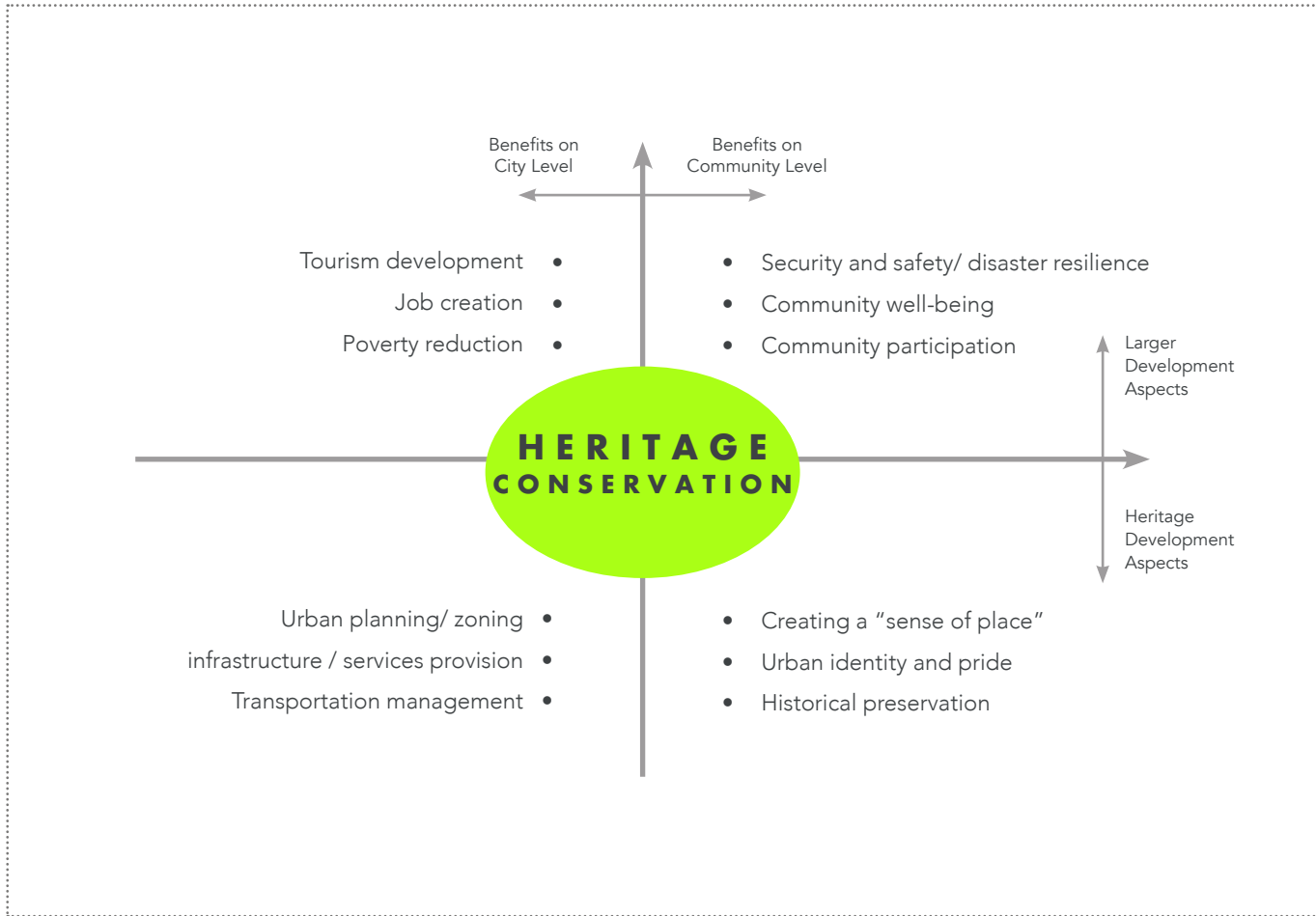
The appropriation by inhabitants of historical and testimonial heritage is a condition for its preservation, surveillance and management. In cases where the loss of memories has already manifested itself, institutions, experts and inhabitants can work together to put the traces on the territory still recognizable and characterizing (MASPOLI, 2019).

Good heritage conservation strategies require a better appreciation of the value of heritage assets (both tangible and intangible) and the integration of such strategies within the larger planning and development processes of a city or urban area.



FIGURE 54 - Family book stand at Hippie Fair before it was placed in Praça do Trabalhador, 1987.

# HERITAGE CONSERVATION POLICY DIMENSION



(SRINIVAS, 2020)

Some of the critical aspects of the four quadrants in the scheme illustrate a few of the contributing factors to heritage conservation but are not limited to these alone. There are several other aspects: geographical information systems and mapping, financial instruments, and others that have not been included.

More prominent developmental aspects of heritage conservation strategies at the city level cover issues as tourism development, job creation, and poverty alleviation. At the community level, priorities change to security and safety (including disaster resilience), community well-being, and community participation. Heritage aspects at the city level cover issues as urban planning/ zoning, infrastructure/services provision, and transportation management. At the community level, heritage conservation help in creating a "sense of place," urban identity and pride, and specific preservation of the community. (SRINIVAS, 2020)

Eight sections are presented that outline the justifications and implications of heritage conservation strategies.

## A GOOD HERITAGE CONSERVATION STRATEGY:

- It is critical to building a solid urban identity and pride in our cities and towns;
- Incorporates all aspects of a region's heritage - historical, but also natural and cultural, in an integrated manner;
- Should have well-being and human security as some of its eventual goals for the local community;
- Should be linked to the local economy in order to create jobs and alleviate poverty - particularly in developing countries;
- Inherently takes into account the long term sustainability goals of the region;
- Needs to be localized, contextualized, and customized in order for it to succeed and deliver on its goals;



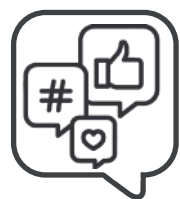
## COMMUNITY ENGAGEMENT

Active participation and involvement of the local community in all aspects of its development and implementation.

(SRINIVAS, 2020)

## AND WHAT'S BETTER FOR ENGAGING PEOPLE IN THE 21<sup>ST</sup> CENTURY THAN SOCIAL MEDIA?





## USE OF SOCIAL MEDIA & TECHNOLOGIES IN HERITAGE CONSERVATION

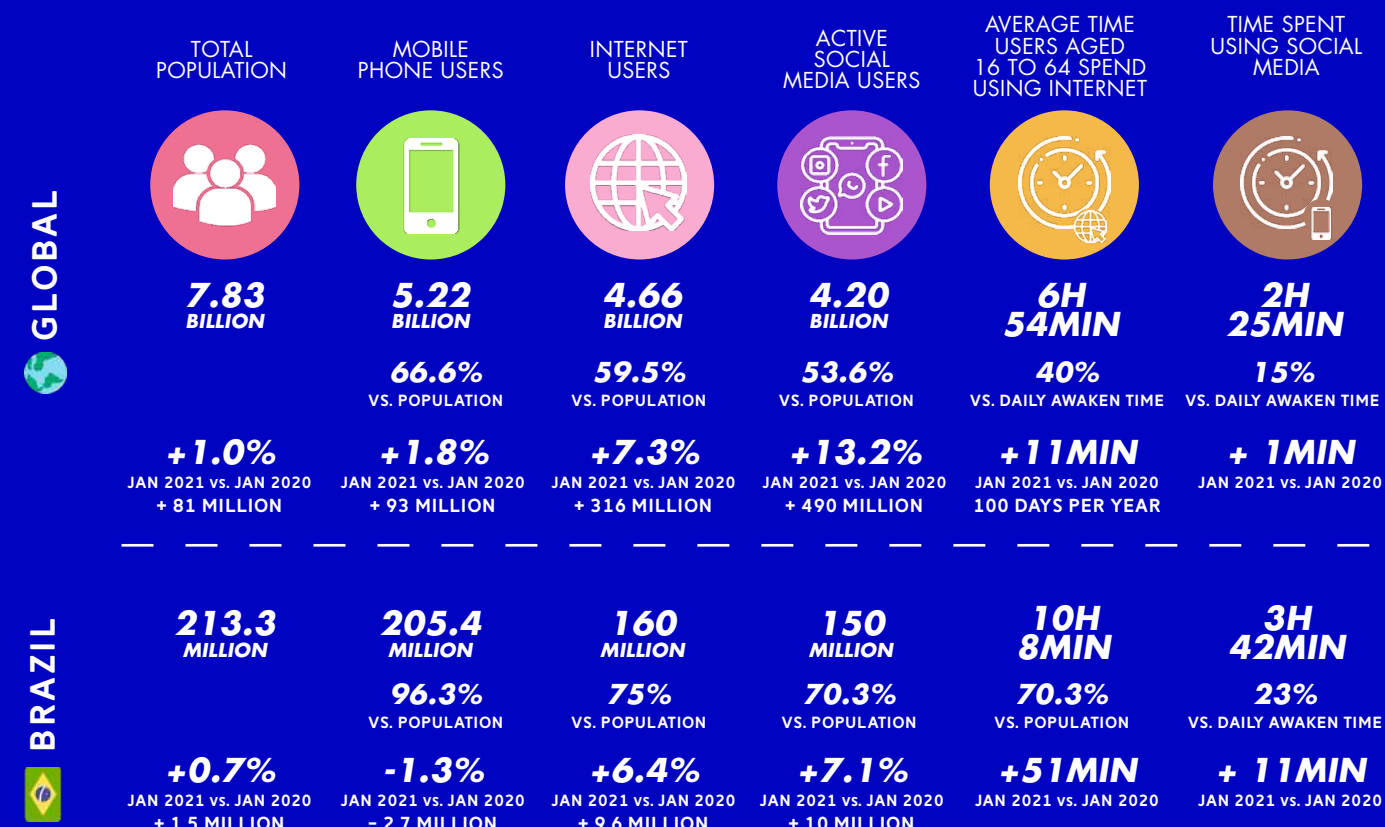
4.66 billion people worldwide already use the internet, of which 4.2 billion are on social media. Internet users are already 60% of the 7.83 billion human beings spread across the planet, according to the Global Digital Overview 2021 survey carried out by the We Are Social website in partnership with the Hootsuite platform (HOOTSUITE, 2021). The survey conducted annually shows that in 2021 a person is online for an average of 6 hours and 54 minutes a day, 11 minutes more than in January 2020. In practice, each user is connected to the internet for more than 100 days per year, or 40% of the time they are awake, considering a daily sleep of 8 hours a day.

According to the study, the number of mobile phone users is 5.22 billion, an increase of 93 million people (1.8%) worldwide in just one year. At the same time, social networks gained over

490 million new users, an increase of 13.2% in the period with a total of 4.2 billion active users, representing 53.6% of the world population.

Data related to Brazil are in line with the global reality. According to the study, 96.3% of the country's population has cell phone lines. Internet access reaches 160 million Brazilians, a 75% penetration, while social network users reach 150 million people, 70.3% of the country's total population. Brazil occupies second place in the ranking of countries that spend more time connected to the internet, 10 hours and 8 minutes, only from the Philippines. Moreover, third place in the hanking of populations that spend more time on social networks, with a daily average of 3 hours and 42 minutes, behind only the Philippines (4h15m) and Colombia (3h45m). In this regard, the world average is 2 hours and 25 minutes of use per day.

## DIGITAL HEADLINES



we  
are  
social  Hootsuite

(HOOTSUITE, 2021)

Another survey carried out by Comscore (American media measurement and analytics company) about the use of social networks in Brazil in 2020 demonstrates that the penetration of content among unique users of social networks in Brazil reaches 97%. The highest rate in the world, surpassing countries like China, India and the United States. Contents related to education and finance were the ones that grew the most in interactions, 60% and 47%, respectively. Video content also rose in the last year. In all, they accounted for 49 billion views and 4.7 billion interactions, a growth of 35% and 20%, respectively, compared to 2019. Among the frequent consumers of this content format, the analysis shows that most consume up to 3 hours of video per week.

The results of both surveys prove that if the behaviour of the world population concerning the way people communicate, socially interact, learn and recreate has changed, in Brazil, the influence of the internet and social networks has made even more substantial changes. The high connectivity of the population and the time dedicated to that demonstrate the potential and urgency of making the heritage conservation process part of this connectivity.

With the 5G Auction, which should take place later this year in Brazil, the country's Ministry of Communication says that the connectivity of

Brazilians will become even stronger. The bidding notice foresees that by the end of 2022, all Brazilian capitals will have the "pure" 5G (standalone) working, which could further accelerate the digitization process.

According to Grimaldi et al. (2019), a new relationship between heritage, digital information, and preservation is being developed, not enclosed by the common denominators of heritage, originally made of stone and lime. This is due to the very nature of digital information and the flow in cyberspace, now dominated by cyberculture that reshapes social values and objectives, resulting in advantages and disadvantages for the heritage field. This relationship is not yet fully outlined, but it requires attention, given the ephemeral situation of digital heritage.



FIGURE 55 - Social media connectivity

In order to make a strong heritage conservation program, Orbasli (2000) reinforce the importance of public involvement in the program, including property owners, local inhabitants, business owners, and others who benefit from the area. Therefore, in the conservation endeavour of heritage areas, the target on the urban community as the users and their relation with places that have become the locations of their residences or activities is crucial to do since humans are one of the decisive factors in the achievement of a conservation activity (DAMERIA et al., 2018).

As a result of the progress and development of communication and information technology, social media has influenced the behaviour of urban communities in the public space, including how they perceive a place. New media and information and communication technology influence how we develop social networks; understand places and locations (HOUGHTON, 2010) (DAMERIA et al., 2018).

The internet can offer a crucial community-based platform for sustainable and holistic heritage conservation. It fosters a vast atmosphere so that all the participants can quickly become involved in cultural heritage protection with access to the internet. Furthermore, ICTs\* offer an open, participatory platform in which citizens can play an active role to a vast range of stakeholders across

scales, classes, races, genders, and ages, crucial for collaborative planning and conservation. (LIANG et al., 2021).

Social media contribute significantly to collective community memory by storytelling practices and cultural expression by mapping. It is worth mentioning that Liang (2021) defined as social media any digital tool that allows creation and shares quickly content with the public, encompassing a wide range of websites and apps such as:

- Photo-sharing apps like Instagram, Flickr;
- Video and audio sharing apps like YouTube, TikTok and Podcasts;
- short written message sharing apps like Twitter and Facebook;
- Apps designed for geo-location sharing with social interaction functions.

The zest of people to obtain relevant real-time information and take part in the planning inspires much potential for involvement both in using social media and in addressing them to cultural heritage (DENG et al., 2015) (SPRUCE AND LEAF, 2017). Besides, social media highlight the equity of discourses by quickly accessing all Internet users to publish, communicate, read, or broadcast information inexpensively. In terms of time, social media allow users to publish information and get feedback in near-real-time (TZOUGANATOU, 2018) (LIANG et al., 2021).

\*ICTs = Information and Communication Technology: Diverse set of technological tools and resources used to transmit, store, create, share or exchange information. These technological tools and resources include computers, the Internet (websites, blogs, and emails), live broadcasting technologies (radio, television, and webcasting), recorded broadcasting technologies (podcasting, audio, and video players and storage devices), and telephony (fixed or mobile, satellite, Visio/video-conferencing, etc.). (Font: Unesco Institute of Statistics)



## NEW DIGITAL TECHNOLOGIES THAT PLAY A VITAL ROLE FOR THE PRESERVATION OF CULTURAL HERITAGE

In particular, social media and the use of web 2.0 have developed various forms of cultural participation. An interesting one for cultural institutions is that linked to the production of “User-Generated Content.” It is an example of the democratization of content production, used for a wide range of applications, including problem processing, entertainment, advertising, and research (MASPOLI, 2019).



FIGURE 56 - Presence of smartphones in museums is usual

Social media can enable and strengthen people’s engagement with heritage. Approaches to involving social media in cultural institutions – such as museums, galleries, libraries, and community cultural centers – are ongoing and rapidly growing in interest. Some agencies and authorities made an effort in programming and extracting data, such as information on QR codes, to improve the communication among participants (TZOUGANATOU, 2018) (YEATES AND GUY, 2006) (LIANG et al., 2021). Another prominent approach is storytelling by collecting and analyzing narratives, including short-term comments and blogs, through popular social media apps, such as Twitter, Facebook, and collective memory apps like Instagram (PSOMADAKI et al., 2019) (HOOD AND REID, 2018) (VAN DER HOEVEN, 2019). In parallel, mapping is crucial for obtaining insight into the community mechanism and user’s expectations (LIANG et al., 2021).

Thanks to social media, cultural institutions can combine traditional forms of participation (workshops, tours, conferences) with other solutions to engage a qualified public. So they have new opportunities for participation and marketing strategies in the perspective of an integrated and increasingly competitive market and economy of the culture (DE VITA et al., 2019) (MASPOLI, 2019).

Recently, online communities formed by specific cultural practices or gathered by a common topic based on heritage sites or other forms of cultural heritage have emerged. Unlike an offline one (real world), an online community can promote encounters between people with different cultural backgrounds and locations. People can share their memories or feelings, which could be part of the “sense of place” with close people or a crowd on the other side of the earth (LIANG et al., 2021). People express through social media what the built environment of cities means to them. This shared process of meaning-making makes social media particularly relevant to study in relation to historic urban landscapes (VAN DER HOEVEN, 2019).

Digital interactive applications have been widely used in cultural heritage sites and have so far concentrated on community engagement, the equity of multi voices, and community empowerment (LIANG et al., 2021). The main elements to allow the inhabitants to take part in the process and exploit different skills and points of view.

Following technological progress, the integration of digitized presentation and crowdsourcing technology in terms of communication and collaboration for cultural heritage has become a necessary trend (SROCZYNSKA, 2012). Co-production (also known as co-design, co-creation) as a way of collaborative participation has become increasingly popular in multiple activities, including

product design for museums, libraries, and heritage planning. Aligned with it, open collections can be used in formal and informal educational contexts (known as E-education) to share findings and exchange perceptions. Furthermore, citizens who gathered as an online community are empowered to create their digital heritage landscapes, museums, and archives by sharing photos, video audio records, and narratives (LIANG et al., 2021).

The traditional approach in conservation that only focuses on buildings preservation on the conservation list will fail to save urban heritage and urban sense of place. Martokusumo and Zulkaidi (2015) address the needs conservation focus that relates to the application of a sense of place concept in the main urban area to create a strong conservation program that is sustainable as well (DAMERIA et al., 2018).

Currently, images, videos, and movies available in the virtual world can provide a variety of messages and serve as a mediator in the experience of travelling. Tussyadiah and Fesenmaier (2009) studied the role of online shared videos applications used as the mediator of travel experiences by using the analysis method on the videos published online by tourists visiting a tourism site. The data collected in this study followed a purposive sampling process to select all videos containing tourism activities in New York City, a major tourist destination in the United States (DAMERIA et al., 2018).

In their analysis, Tusseyadiah and Fesenmaier (2009) explained that the video shared application offers viewers a travel experience as described by the tourists in the videos. When a video is available for viewing, there is communication and interaction between the sharing party and the viewers through the threaded comments. Viewers enjoy how they interact with the person or object in the setting that is an unfamiliar place to the viewers. Another fun viewers get from watching the video is the viewers' imagination as they put themselves as the actors and conduct tourism activities guided by the illusion of spatiotemporal narrative illusion offered in the video. In the narrative, the video maker shares information about a trip rich in personal opinion or perception of a place (DAMERIA et al., 2018).

The perception from imaginative access provided by social media could increase interaction between users and the urban setting. That is why Tusseyadiah and Fesenmaier (2009) found that after watching an online video, most viewers plan to visit the city of New York. This condition is driven by a process called by Escalas (2004) "narrative transportation," which is a concept of virtual mobility in which viewers feel taken mentally to a place. In other words, the experience of tourists in a technologically mediated place has succeeded in creating the mental pleasure of the living fantasy, the self-interpreted result of virtual mobility itself.

According to Tusseyadiah and Fesenmaier (2009), the experience in the built environment is often mediated by information technology that reshapes and changes the interpretation of a place to allow for mediatization. The concept of mediatization, according to Jansson (2002), occurs when the globalized media culture allows people to travel mentally and emotionally (one of them is experiencing tourism activity) without moving in physical geography (DAMERIA et al. 2018).

Immersive technologies, especially Augmented Reality (AR) based applications, can promote this mental and emotional journey and improve the visitors' experience, offering a different type of involvement with the space and providing more types of knowledge.

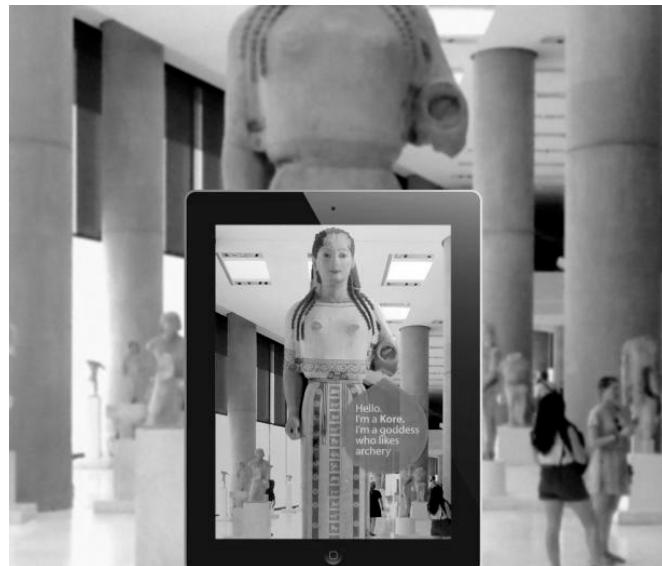


FIGURE 57 - Augmented reality (AR) beeing applied on a museum

Cultural heritage can be easily damaged or, in the worst case, destroyed. The digitization of cultural heritage is vital for the protection, restoration, research, conservation, promotion, and dissemination of tangible and intangible cultural assets, coming from all cultural institutions types (CORDIS, 2021).

Concepts such as the Virtual Museum are actively adopted, fuelled by the notion that the museum can come to them if some cannot physically get to the museum. Through extensive policy, coordination, and funding actions, the European Commission supports Member States' cultural policy, emphasizing digitization and online access to cultural material and digital preservation and curation, created Europeana. Europe's platform for digital cultural heritage. A web portal created by the European Union including digitized cultural heritage collections of more than 3,000 institutions across Europe to make cultural content easy to access, use and reuse. As of early 2020, the Europeana website provided access to 58 million digital objects – books, artworks, music, and more – with sophisticated search and filter tools and many themed collections, exhibitions, galleries, and blogs. All on a single platform and presented in a variety of ways relevant to modern users. It is the only pan-European platform of its kind.

In 2020, with the help of experts, the European Commission finished the ten basic principles for 3D digitization of tangible cultural heritage. An essential guideline for heritage professionals wanting to digitalize their content. Through the Horizon 2020 program, the Commission offers prominent and ongoing support to research and innovation in the cultural heritage domain, emphasizing the use of cutting-edge technologies. From 2014-2020, funds towards digital cultural heritage have been around EUR 70 million through the Horizon 2020 program. Likely, funding for these initiatives will continue with the subsequent research and innovation program, Horizon Europe (CORDIS,2021).

In total, CORDIS (Community Research and Development Information Service) made significant contributions to digital cultural heritage efforts. In particular, the ARCHES, DigiArt, and EU-LAC-MUSEUMS projects have been providing technologies such as 3D modelling and augmented reality and more comprehensive international cooperation to increase the accessibility and enjoyment of museums as a critical institution of cultural curation and preservation. ARCHES project, for example, developed innovative technological solutions to expand access to cultural artefacts. These included sign language video avatars, barrier-free apps for museum visits, tactile artwork reliefs, and games for smartphones and tablets.



Other projects have used technology to increase social awareness and interest in cultural heritage and preservation. For example, PLUGGY is a social network dedicated to promoting European cultural heritage. At the same time, the I-Media-Cities project has launched a platform that uses audiovisual material to allow people to discover the rich cultural heritage of nine European cities. Meanwhile, the EMOTIVE project tapped into the power of storytelling by offering heritage professionals tools to create interactive storytelling experiences that engage, inform, and provoke audiences' interest. (CORDIS, 2021)



FIGURE 58 - V4Design Project

Another project developed was the ArchAIDE. An innovative software to identify fragments of pottery found during excavations and store them in a dedicated database, hence helping the vital work of archaeologists and other professionals in the cultural heritage field. Time Machine has been developing large-scale digitalization and computing infrastructure using AI and Big Data mining to extract and analyze the vast amount of data generated when digitalizing archives from museums and libraries.

Of the four new projects added in 2021, the NewsEye project has developed new tools to help preserve newspapers and allow for more accessible search options when using historical newspapers for historical research. In a similar vein, TROMPA has pioneered its own digital tools to enrich and democratize publicly available classical music heritage through a user-centered co-creation setup. Technology created by the V4Design project will allow architects and video game designers to integrate existing digital content into their designs. Finally, the SILKNOW project helps preserve a vital part of our textile heritage, specifically silk. (CORDIS, 2021)

As proved, tremendous efforts are being made in Europe to help improve heritage conservation with technological help. Brazil is following this path, but with smaller steps. For example, the country has no digital platform that brings together as many resources and a vast collection as Europeana. However, there is already available a platform similar to it. The platform InfoPatrimônio gathers the Brazilian cultural heritage listed or registered in the four instances (international, federal, state, and municipal).

Unlike the European platform, the project was launched by the private initiative, the architect Antonio Zagato and engineer Caio Lucena, conceived in 2014 to create a solution-oriented towards knowledge, promotion, monitoring, and social control of the preservation of listed properties in the State of São Paulo. The project was so successful that in 2016 was extended to the whole country.

The platform seeks to contribute to heritage education, formulate public policies that encourage its registration and preservation, and the population's engagement in promoting and inspecting

heritage preservation. With more than 3,000 properties registered on the platform, it has accurate data obtained from the online databases of the leading heritage preservation agencies.

From a map, it is possible to inform much more about the physical space. That is what InfoPatrimônio believes, whose data were georeferenced and mapped based on geographic coordinates, allowing crossing a series of information from maps and statistics. The georeferencing of cultural heritage with public data adds a new dimension of analysis to the authorities, distributing information about the territory. New possibilities for knowledge, apprehension, and data evaluation by the state and society are generated. These, together, can analyze and act constructively in public policies.



FIGURE 59 - InfoPatrimônio also has three-dimensional models, like this one, from Estação da Luz, in São Paulo.

For the population, InfoPatrimônio expands knowledge about cultural references for the identity and memory of the different groups that make up Brazilian society already recognized by official bodies. New understandings are allowed regarding the spatial distribution of goods and the “patrimonial voids” – areas with no official representation of cultural goods. This allows users to reflect on their own identity and encourages social engagement in identifying, registering and safeguarding unprotected assets through interaction between users and platform administrators.

As it is collaborative, Heritage Education actions by institutions and citizens can rely on official data made available on the platform. Anyone can contribute to the maintenance of heritage in their city. They only need to send photos and information about the current condition of the property. The platform focuses on the user experience and offers a simple language ideal for research and knowledge. The search is performed in a friendly and intuitive way, enabling users’ reading and understanding with restrictions, such as the elderly or mildly visually impaired.

The content of InfoPatrimônio allows anyone without restriction to reuse the content, as long as the authorship is followed. The project receives donations from financial resources and specialized labor, reinforcing the participative nature of the solution, differing significantly from the European tool, which is part of a group of 16 projects with total funding of 45 million euros. The participative nature of the platform, the lack of funding from the Brazilian federal government, and the lack of a more significant structure do not allow the platform to accomplish its goals and assist more broadly in promoting the preservation of Brazilian heritage assets.



FIGURE 60 - The platform has virtual reality tours around the buildings

## THE ROLE OF DIGITAL TOOLS ALONGSIDE CULTURAL INSTITUTIONS DURING THE COVID 19 GLOBAL PANDEMIC

Digital technologies create new opportunities to preserve cultural content and make cultural heritage more accessible to all audiences. Museums and cultural organizations that embrace technology can offer innovative visitor experiences, as well as let the public access exhibitions remotely and see material that is not on display.

COVID-19 has highlighted the need to improve online access to cultural heritage. Indeed, whilst many cultural institutions around the globe had to close, many have since bounced back by expanding their digital offerings. As physical doors closed in 2020, digital doors were flung wide open as museums turned to social media as the principal means of communicating with the public during the lockdown.

That is the case of museums such as Reina Sofia in Madrid; the Museum of Latin American Art in Buenos Aires (Malba); The British Museum in London; and The Metropolitan Museum of Art (MET) in New York. All have made available exclusive content on their

website. Louvre Museum in Paris offered a 360° tour of the building and made it possible to see in detail one of the most famous works in the world, the Mona Lisa, by Leonardo da Vinci. Through an app on a smartphone, people can watch it in a 360-degree video or experience it in VR with a Cardboard viewer.



FIGURE 61 - Mona Lisa: Beyond the Glass runs as part of the Louvre’s Leonardo da Vinci exhibition



The same happened in Brazil. Brazilian museums driven by the closing of their exhibitions created virtual tours. Pinacoteca de São Paulo (Pina\_) is one of the institutions that followed this path. The lockdown did not prevent the institution from reaffirming its commitment to public visitation as it has always done as prescribed by its mission. They believe that cultural institutions are collective experiences that involve contact and exchange between people. However, while these cannot yet take place in person, the museum realized that other modes of visiting its collection and its programming could happen on this website and social networks. Based on these beliefs more than the virtual tour, they released the project #PINADECASA (#PINAFROMHOME) during the lockdown and continues until nowadays. The 'Distance' exhibition displays five audiovisual artworks from Pinacoteca's collection originally designed for exhibition rooms and now are presented in the virtual domain.

Virtual tours can also be done at the São Paulo Museum of Art (MASP), Casa Portinari Museum in São Paulo, Oscar Niemeyer Museum in Curitiba, and the worlds largest open-air museum, Inhotim, located in Brumadinho - Minas Gerais. It offers a virtual tour where it is possible to discover the Botanical Garden and the various works of art and sculptures exhibited in the museum's open-air side. The Moreira Salles Institute offers free courses, workshops, conversations, and online meetings with different topics on their website.

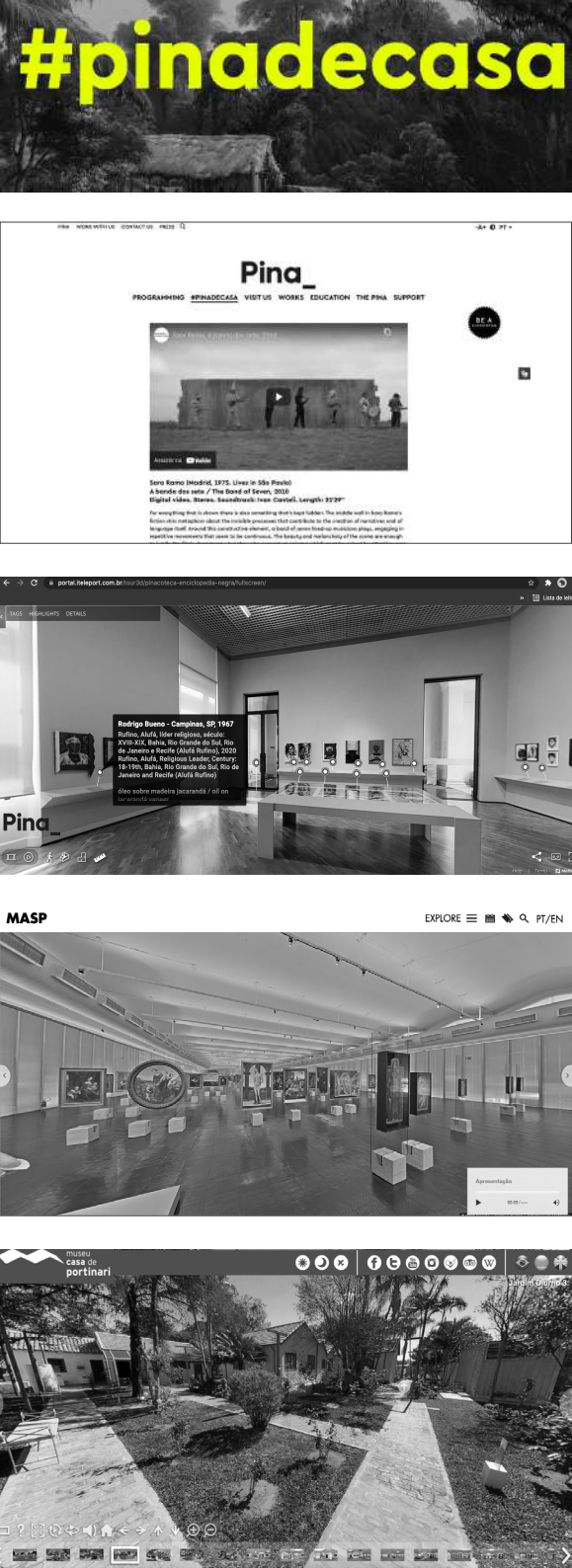


FIGURE 62 - From top to bottom: Virtual project #PINADECASA; Virtual tour at Pinacoteca de São Paulo; Virtual tour at MASP; and virtual tour at Casa Portinari Museum.

The effects of Covid-19 also changed the context of entire cities, which previously had their economies produced around events recognized as Brazil's Cultural Heritage. In 2020, numerous events were canceled or postponed, such as the 'Procession of Senhor Jesus dos Passos' in Florianópolis; the 'Festa do Divino Espírito Santo' in Pirenópolis, as well as the 'Bembé do Mercado', at Recôncavo Baiano. Also cancelled was the 'Feast of Divino Pai Eterno,' in the city of Trindade (metropolitan region of Goiânia), which has as Cultural Heritage the Pilgrimage of 'Carros de Bois.' The way to maintain many traditions around the country was to transmit them through television, radio, and internet channels.

Based on this, projects were created to keep the heritage alive during the pandemic. One of them was the action Cultural Heritage #EmCasa (#AtHome). Created by Iphan, in partnership with owners of heritage assets across the country, the idea was to continue promoting and spreading national culture through online broadcasts and giving visibility to the practices and knowledge of popular culture masters. Actions like this have spread throughout the online universe, allowing culture to become accessible in a country as socially unequal as Brazil.



FIGURE 63 - Example of videos of the project #EmCasa: Northeast popular puppet theater. From the facebook page of IphanGovBr

**EXAMPLE OF SOCIAL MEDIA ACTIVELY TAKING ACTION ON THE HERITAGE PRESERVATION PROCESS**

Social media nowadays is an indispensable player in the heritage preservation process. Some real examples include Villa Zanelli in Liguria, Italy. The part of local media communication and implicit participation (the casual rediscovery by cultural tourists, the current legend around the city, and the consequent growing numbers of followers on Facebook) has promoted symbolic architectural value to the place (MASPOLI, 2019).

Another example, and this one in Goiânia, was the mobilization on social media in 2017 to preserve the headquarters of the Jóquei Clube de Goiás. The modernist building, designed by Paulo Mendes da Rocha in 1962, was for sale with the possibility of being demolished. Part of the population of Goiânia then mobilized to exalt the architectural,

historical, and affective value of the place for the city through the hashtag #salvejóquei. The Jóquei Clube integrates the landscape of the Center of Goiânia and is part of the affective memory and identity of Goiânia's citizens. Its demolition was not an illegal act as it is a private area whose construction is not listed by IPHAN. Despite being in the region where the city's urban mash is listed, it did not prevent a potential buyer from demolishing it. With the pressure generated by social media, protests at the door of the building, and opinions against the sale and demolition, by important institutions in Brazil such as CAU-BR (Council of Architecture and Urbanism of Brazil), CAU-GO (Council of Architecture and Urbanism of Goiás), and IPHAN itself, a court order prevented the sale of the land. In March 2018, the Municipal Secretariat of Urban Planning and Housing (Seplanh) of the Municipality of Goiânia decided to file a lawsuit regarding the demolition of the headquarters of the Jóquei Clube of Goiás.



FIGURE 64 and 65 - Joquei Clube de Goiás

Considered a victory for the city's architectural and historical heritage, in 2020, there was a proposal for the building to become the future headquarters of the Banco do Brasil Cultural Center (CCBB). The initiative came from the Historical and Geographical Institute of Goiás (IHGG) and was supported by CAU-GO. Which stated that "The proposal unites the rescue of a Brazilian architectural treasure, which at the moment is abandoned and extremely deteriorated, to a cultural project that is already working very well in other capitals." Installed in the Center of Goiânia, CCBB would undoubtedly provide Goianienses with a successful, accessible, and democratic cultural program. The transformation of the location at the CCBB headquarters is still under negotiation, given the latest news in July 2021. Still, it is a clear example of how social media can generate unity, mobilization, give citizens a voice, and create results in favor of heritage conservation.

That is the intention of bringing the discussion of social media playing a role in the conservation process of heritage. Nowadays, the internet can bring back attention to places that once were abandoned by the public eye and generate debates through subjects left aside. Cultural institutions that bet in their social engagement on these platforms will have a tremendous power of spreading information and awareness to subjects of great interest to the cultural heritage process.

FIGURE 66 - Result of the tag #salvejoquei on Instagram





TOP 20 MUSEUMS WITH MOST FOLLOWERS ON SOCIAL MEDIA

  			SOCIAL MEDIA FOLLOWERS	CHANGE IN RANK FROM 2020	% INCREASE FROM 2020
1	•	MUSEUM OF MODERN ART - NEW YORK	13.010.000	-	5%
2	•	METROPOLITAN MUSEUM OF ART - NEW YORK	10.243.000	-	5%
3	•	TATE MODERN / TATE BRITAIN - LONDON	9.957.000	-	7%
4	•	MUSÉE DU LOUVRE - PARIS	8.634.000	-	12%
5	•	GUGGENHEIM MUSEUM - NEW YORK	6.910.000	-	3%
6	•	VAN GOGH MUSEUM - AMSTERDAM	6.170.000	+1	10%
7	•	SAATCHI GALLERY - LONDON	6.030.000	-1	3%
8	•	BRITISH MUSEUM - LONDON	5.764.000	-	12%
9	•	NATIONAL GALLERY - LONDON	3.780.000	-	12%
10	•	VICTORIA AND ALBERT MUSEUM - LONDON	3.674.000	-	11%
11	•	MUSEO NACIONAL DEL PRADO - MADRID	3.168.000	-	10%
12	•	CENTRE POMPIDOU - PARIS	2.906.000	-	7%
13	•	MUSÉE D'ORSAY - PARIS	2.902.000	-	18%
14	•	WHITNEY MUSEUM - NEW YORK	2.582.000	-	7%
15	•	GETTY CENTER - LOS ANGELES	2.283.000	+1	11%
16	•	LOS ANGELES COUNTY MUSEUM OF ART - LOS ANGELES	2.227.000	-1	4%
17	•	NATIONAL PORTRAIT GALLERY - LONDON	1.651.000	+3	10%
18	•	GALERIES NATIONALES DU GRAND PALAIS - PARIS	1.643.000	-1	4%
19	•	NATIONAL GALLERY OF ART - WASHINGTON, DC.	1.599.000	-1	5%
20	•	REINA SOFIA - MADRID	1.579.000	+1	12%

THE PROPAGATION OF CULTURAL INSTITUTIONS ACCOUNTS ON SOCIAL MEDIA

The dissemination of accounts of cultural institutions on social media brought the public that does not have access to them to experience the culture available in these institutions and brought closer the public that already attended, feeding them with new knowledge and a direct engagement.

The propagation of those accounts is attested by the global survey conducted by The Art Newspaper of museums' social media followers in March 2021 (Results left page). They calculated the total social media followers (for Instagram, Twitter, and Facebook) for the 100 most visited museums in last year's attendance survey to see what has changed in this most unprecedented of years. Instagram had the most remarkable growth in terms of social media followers for the top 100 museums. The platform's numbers went up by 13 million — a 30% increase — compared with a 13% increase on Twitter and just a 5% increase on Facebook. Instagram is now the most popular

social media platform for museums, having taken the title from Twitter (THE ART NEWSPAPER, 2021).

As an example, Italian institutions appear to be experiencing a social media renaissance, with significant growth in followers over the past year. While the social media at Florence's Galleria dell'Accademia is under 100.000 followers, this is 112% higher than last year, with the majority of its new followers coming from Instagram. The Vatican Museums in Rome increased its followers by 53% and has seen a growth of more than 600% on Instagram. The papal museum posts daily images with descriptions in Italian and English and uses the platform's Reels and IGTV video regularly to bring up close the believers. Meanwhile, Galleria Degli Uffizi in Florence has increased its social media followers by 50%. In the beginning of 2020, the museum did not even have a Facebook account, now, it has 100.000 followers and hosts creative content, including a weekly cooking show (THE ART NEWSPAPER, 2021).

The data was collected on March 7th from the three most popular English language platforms. It is worth noting that the omission of popular Asian sites in other languages such as Sina, Weibo, WeChat, and Line does skew the results towards Western museums

Last year also happened the rise of a new social media: TikTok. While many more significant museums have stayed off the video-sharing platform (none of the top ten museums has a significant number of TikTok followers), some institutions have found immense success. Galleria Degli Uffizi has more than 70.000 followers on TikTok, the Rijksmuseum in Amsterdam more than 80.000, and the Versailles Palace more than 135.000. TikTok can be a huge platform to connect even more people, culture, and heritage conservation with the escalating numbers and outstanding engaging factors.



FIGURE 67 - Galleria degli Uffizi official profile on TikTok

Among the many social networks mentioned, one of the most linked to heritage is Instagram. The fifth-largest social media globally, and the fourth most used in Brazil (HOOTSUITE, 2021), is a photo and video sharing social platform. More than a photo social media app, Instagram emerged as a market tool, essential for campaigns and marketing strategies. According to data from the survey “Digital Trends and Behaviors 2021” conducted by Comscore, Instagram is the social media with the second-largest audience.

This excellent market influence revolutionizes Instagram itself and the way people interact with each other on the internet, how they live their lives, and how they preserve their memories. Instagram could become what Debord (2003) called the accumulation of spectacles, where there is no longer direct life, only the smoke of representations.

Instagram stands out as the main option for posting private and public photos, in addition to being the first place to discover new options for shopping, leisure, food, and cultural establishments. A large part of these posts includes cultural heritage (listed or not), as currently, the current individual needs to post where he is and what he is doing. After all, it was only lived if it was posted.

Plus, Instagram leaves digital traces behind that helps to have a better understand of citizens urban experience and discrete human-place interactions in public places (COOK and THORSEN, 2021).



FIGURE 68 - The anatomy of an Instagram post; social media content provides a range of data points generated by users to document their use and perception of space.

There is great value in terms of dissemination and access to assets for the heritage field, given the broadness of information dissemination on Instagram. The same digital influencers used to increase consumption by large companies end up contributing to a current type of preservation of digital heritage: access.

For Grimaldi et al. (2019), social media are no longer used occasionally or even optional, but rather a constant that shapes people’s daily lives, activities, and memories. Social media became part of the dominant culture, or more specifically, they dominate cyberculture. They conducted a survey to understand how social platforms report everyday social practices and how social memories of digital heritage are established in this spectacular new configuration of Instagram. The questionnaire was carried out with a sample of 130 young people and adults between 18 and 35 years old (two different generations).



Questioned about the content of the posts, of the 130 people, 124 (95.4%) claim of being active Instagram users and have already posted images or videos from parks, museums, theaters, exhibitions, cinemas, events, or cultural places. In addition, 123 interviewees state that they follow public personalities, digital influencers, and cultural establishments. Among these users, 96 claims that they have already consumed something or went somewhere because they saw it on Instagram, and another 16 claims they intend to.

The numbers presented a question about the impact influencers cause within their social media profiles, influencing their followers to visit the same places and consume their culture. It is a cybrid\* culture, as stated by the authors (Grimaldi et al., 2019). What subjects experience online directly affects their offline life and is a constituent part of their social memory. These data refer us to the thought of Hamdan (2009) when he states that electrical signals, interpreted by the human brain, make subjects cybrid at the moment when the reality is no longer just what they see, but everything that the brain conceives as accurate—considering that cybrid subjects are part of a contemporary culture, which is guided by the interconnection of networks and systems online and offline mode.

The authors also classified Instagram as an agent of contemporary memory, as users use it to store memories digitally. However, based on the answers, the authors claim that social media makes memory even more ephemeral. Despite the significant number of users claiming that Instagram serves to record memory in the first instance, more than 60% claim they already have deleted their previously shared photos on the network. Among the justifications was changing opinions regarding the importance of the registration, for being too old, or simply because they are ugly. In other lines, there is no lasting added value for many, a value which is essential for the preservation of memory, as noted in the thought of Chagas (2005) “The subject of the action must identify in the object to be preserved some value.”

This analysis once again proves the thought of Beiguelman (2018) when he cites the mental instability that social media impose on subjects by redefining communication between society and the construction of their identity based on their constructed social memory (GRIMALDI et al., 2019).

When discussing society’s cultural heritage, one of the most critical issues is the initiatives and policies for its development, access, and preservation. All social aspects that aim at collective benefits are, in essence, the responsibility of the government and public initiatives, which, when not revised, end up not contributing to contemporary aspects. When we include heritage in digital information, new micro powers appear linked to the subjects, who are agents and responsible for preserving, disseminating, and perpetuating the social memory arising from the heritage. Such subjects in contemporary times have significantly contributed to a new type of preservation of digital heritage, through dissemination and access, mainly through photos or images. Social media have expanded this agency power of subjects, as they annihilate time and space, making everything accessible at the click of a button. The easiness of posting and finding assets is one of the many benefits social media add to the heritage field.

However, in a way, the importance allocated to access to networks is so significant for users that, as shown by Grimaldi et al. (2019), there is no room for the outdated and the ugly. The new relationships established require likes, comments, and repercussions. If the memory represented there is not able to bring this about, it is quickly deleted. In this sense, the dialogue between memory and oblivion becomes even more evident in the liquid modernity of social platforms.

Thus, it is still necessary to review the conceptual appropriation of digital cultural heritage and the repercussions of current preservation and access practices, taking into account the changes brought about by the fluid contemporaneity of the digital. Social media are an advance in access, but they are still fleeting and spectacular. Today, they may appear as an aid to the preservation and access to heritage. However, digital information is at the mercy of the subjects’ will, who have yet to define their identities and needs.

\*CYBRID: The concept of cybride involves the combination (or hybrids) of material and cyberspace. Font: ANDERS, Peter. Towards an architecture of mind. 2002. In:< <https://www.uoc.edu/caiia-star-2001/eng/articles/anders0302/anders0302.html>>

## POSSIBLE APPLICATIONS IN THE PROJECT



- QR Codes that offers information about the city, the Northern Railway Sector and the old Railway Station Building

Create a touristic/artistic circuit of QR codes through all Art Deco buildings spread in the city center.



Spread QR Codes that offers a map of the space with the shopping stores and the square facilities



Create some architectural elements to catch attention and generate online engagement on social media platforms  
ex: Superkilen in Copenhagen



Ephemeral technological installations that bring people to visit the site, such as projections on the building's facade



Use VR technology in the railway museum so people can see what the area was like at its foundation; see the railway in operation; Recreate a train ride through the lands of Goiás; ...



Through augmented reality (AR) technology, provide a QR code that enables visitors to view Elder Rocha Lima's destroyed panel through the camera of their smartphones.

## URBAN SPACES

### PROMOTING COLLECTIVE WELL-BEING

The northern railway sector in Goiânia, in addition to being an essential part of the city's historical and cultural heritage, is primarily constituted of public urban areas. In addition to Praça do Trabalhador being one of the city's green infrastructures, the shopping experience in the region is mainly carried out outdoors. Therefore, to better understand how the rehabilitation of this area will benefit the local community and the city of Goiânia, this chapter intends to explain how well-designed public spaces can help promote collective well-being.

The definition of the word 'public' is subjected to variations. Describing something as public can be perceived as exclusively funded by the government and complete responsibility of the state. However, public can also be intended as 'for public use, collective use', so in terms of space, it is related to its use, rather than financing or responsibility for administering (VIOTTI, 2019). This second meaning is the most interesting one to apply here.



Urbanists have long held a view that public space's physical and social dynamics play a central role in the development of public culture. A city's streets, squares, parks, and other shared spaces have been seen as representations of collective well-being and possibility, expressions of accomplishment and aspiration by urban leaders; sites of public encounter and creation of civic culture; and significant spaces of political deliberation and agonistic struggle. While urban commentators and practitioners have varied views on the specific aspect of collective achievement across time and space, they have usually not questioned the assumption that a strong bond exists between urban public space, political formation, and civic culture (AMIN, 2009).

Once a city's central public spaces were a prime cultural and political site. Today, the sites of civic and political formation are plural and distributed. Civic practices are shaped in circuits of flow and association that are not reducible to only the urban space anymore, mainly now on the Internet and social media. The dynamics of gathering in and passing by streets, parks, squares, libraries, cultural and leisure centers are more likely to be understood in terms of their influence on cultures of consumption, practices of adjusting the urban environment, and social response to unknown others, than in terms of their centrality in shaping civic and political culture (AMIN, 2009).

The political space is not only connected to the public space anymore. However, still exist a link between space, civic culture, and politics. The history of urban planning is one of the efforts to manage public space to build sociality and civic engagement out of strangers' encounters. According to Amin (2009), from the classical Greek philosophers to some theorists of urban modernity, they all agree that the free and unfettered mingling of humans in open and well-managed public space encourages tolerance towards others, pleasure in the urban experience, respect for the shared commons, and an interest in civic and political life.

The mix of people from different genders, classes, cultures, nationalities, and ethnicities enriches social practice in the public space. Low and Smith (2006) warn that if practices such as the privatization of entertainment, excessive surveillance, and the change of the middle and upper classes into fully gated communities continue, the last remaining spaces of democratic practices where people intermingle peacefully will soon be eradicated (AMIN, 2009).

“*Make sure that our urban public spaces where we all come together, remain public in the sense of providing a place for everyone to relax, learn and recreate, and open so that we have places where interpersonal and intergroup cooperation and conflict can be worked out in a safe and public forum.*”

LOW, SMITH, 2006

The formative sites of urban public culture need not be restricted to those with a purely human/inter-human character. However, they should include other inputs such as space, technological intermediaries, objects, nature, and others. One of the visions of a post-human reading of the social is that the collective agreement of public space is not deductible to dynamics of interpersonal interaction that prompt a sense of 'us'.

Amin (2009) argues that “the dynamics of mingling with strangers in urban public space are far from predictable when it comes to questions of collective inculcation, mediated as they are by sharp differences in social experience, expectations and conduct. That is why even the most imaginative attempts to engineer social interaction in public space, from experiments with street theatre to multicultural festivals and slow food celebrations, are normatively ambivalent. Some people might come to develop solidarity with others as well as with the city through such engagement, while others will not.”

Nevertheless, to her, it is not to deny that the public space plays a role in shaping public behaviour. Public spaces have not become simply another site of private spillover. Even the most frenetic and commoditized forms of urban consumption have not displaced the curiousness, fascination and studied regard for others nostalgically kept for the city of great public exhibitions, flânerie, and public deliberation.

The consumption and leisure practices and public space experience remain on the social recognition and general approval of the codes of civic conduct and the benefits of access to collective public assets. It continues to be an experience that reinforces building awareness of the commons, perhaps one that abandoned fostering active involvement in the life of a city but still underpins cultures of sociability and civic sensibility.

Her ideas become valid as in 2021, people's connectivity only increases. The public space user is often alone, connected with others through their smartphones, or even lonely trying to connect with themselves in an environment that brings a feeling of well-being. Thinking about a quality public space means thinking about a space for exchanges and all these new dynamics created in the last decades. However, without ignoring the general principle of “collective use” adopted here, that can generate positive communal meanings in the society.

“*When public spaces are successful [...], they will increase opportunities to participate in communal activity. [...] In the parks, plazas, markets, waterfronts, and natural areas of our cities, people from different cultural groups can come together in a supportive context of mutual enjoyment. As these experiences are repeated, public spaces become vessels to carry positive communal meanings.*”

(CARR, ET AL., 1993, P. 344)

Public spaces can create even more than communal feelings, leisure spaces, and political environments. Urban spaces, especially the green ones, can help to improve and benefit the community's health. Physical activities in outdoor urban spaces and parks improve general well-being and play a vital role in reducing chronic diseases (MASPOLI, 2016).

The World Health Organization defines human health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948). This definition implies that the concept of health more factors are considered, including biological, psychological, and social.

The link between an individual's socioeconomic position and their health is well-established. Disadvantaged populations are less inclined to have easy access to places that encourage an active lifestyle. When this minority choose to be active, they often face risks related to road security and perceived risk of crime (Edwards, Tsouros, 2008). Safe public neighbourhood parks and outdoor spaces can reduce inequity in access and choices for physical activity, providing facilities and equipment for active living, such as fitness areas, playgrounds and multi-purpose sports fields (MASPOLI, 2016).

Parks and sites in a healthy city must offer a physical and built environment that supports recreation, well-being, security, social interaction, easy mobility, a sense of cultural identity and accessibility to the needs of all urban users and citizens. Therefore, innovative neighbourhood planning and design must respond to the different ways of using the public space of coexisting communities for health, welfare and social exchange (MASPOLI, 2016).



FIGURE 70 and 71 - Physical activities being practiced around Goiânia

Furthermore, epidemiological studies have indicate evidence of a positive relationship between longevity and access to green space. According to a study made by the team at the Harvard School of Public Health (JAMES et al., 2016), higher levels of green vegetation were associated with decreased mortality. This may be explained through mental health pathways of depression risk and social engagement, which subsequently affected mortality. In cause-specific mortality analyses, they observed associations between greenness and respiratory, cancer, and kidney disease mortality. The findings for respiratory and cancer mortality are consistent with the pathway that greenness reduces air pollution exposure and increases outdoor physical activity, which is known to lower the risk of these outcomes (HAMRA et al., 2014) ( HOEK et al., 2013) (LEE et al., 2012) (JAMES et al., 2016).

Policies to increase vegetation may provide opportunities for physical activity, reduce harmful exposures, increase social engagement, and improve mental health. Planting vegetation may mitigate the effects of climate change, and it also might be used to improve health (JAMES et al., 2016).

Even though these studies were controlled for socioeconomic factors, the possibility of confounding factors is impossible to exclude, especially concerning the lifestyle that may be prevalent in communities near parks.



FIGURE 72 and 73 - Longevity vs Green spaces



The concept of Green Infrastructure has been introduced to upgrade urban green space systems as a coherent planning entity (SANDSTROM, 2002). It can be considered to comprise all-natural, semi-natural and artificial networks of multifunctional ecological systems within, around, and between urban areas at all spatial scales.

The elements and components of a complete Green Infrastructure could contribute to ecosystem health in various ways. Urban and peri-urban habitats increase the overall vegetation cover (natural, semi-natural and artificial), thus contributing to the conservation of biological diversity. Furthermore, a Green Infrastructure maintains the integrity of habitat systems and may provide the physical basis for ecological networks. The development of ecological networks has been advocated to alleviate the ecological impacts of habitat fragmentation. This makes biodiversity conservation an integral part of sustainable landscapes (TZOULAS, K et al., 2007).

Regarding social outcomes of green space, Kim and Kaplan (2004) suggested that natural features and open spaces in a residential area play an essential role in residents' feelings of attachment towards the community and their interactions with other residents. On the other hand, green spaces that are perceived to be overgrown or unmanaged may have a negative effect on people's well-being by increasing anxiety caused by fear of crime, a common aspect especially in areas with high rate crimes as the one that the proposed project takes place. That can explain why it is so important to create a project that ties the community together spatially and socially (TZOULAS, K et al., 2007)

The relationship between the amount of green space, well-being and health can be noticed by studies that show that people even passive viewing of natural environments can have health benefits. A study in Japan (PARK et al., 2010) shows that walking in a nature reserve initially fosters blood pressure changes that indicate more significant stress reduction than that afforded by walking in

city surroundings. The physiological experiments conducted on this study yield convincing answers explaining the relationship between the natural environment and the relaxation effects in a human being. Laumann et al. (2003) had reported that, when subjects viewed natural environment through videos, including those of waterside scenes, they had a longer cardiac interbeat interval and lower heart rate, measured as the difference from the baseline with subjects who viewed urban environment through videos.

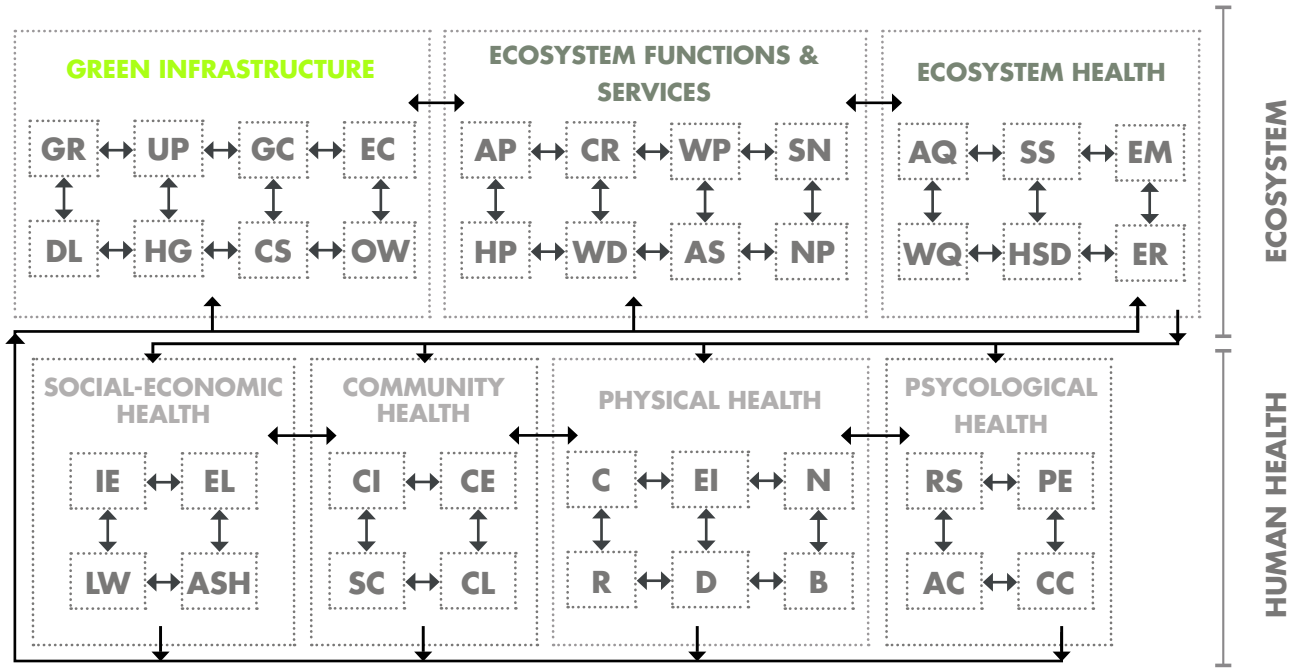
Moreover, according to parents' assessments, Faber-Taylor et al. (2001) found that 7–12-year-old children with attention deficit disorder functioned better than usual following participating in activities in green settings. Also, it is reported that the greener a child's play area was, the less severe his or her attention deficit symptoms were (FABER-TAYLOR et al., 2001).

There is a close relationship between ecosystem health and ecosystem services: increasing ecological stress reduces both the quality and quantity of ecological services (CAIRNS AND PRATT, 1995).

Therefore, ecological functions and ecosystem services derived from a Green Infrastructure contribute to ecosystem health and public health, respectively (TZOULAS, K et al., 2007).

Tzoulas, K et al. (2007) developed a conceptual framework linking Green Infrastructure, ecosystem, and human health and well-being (next page). The top half of the schemes shows the two-way interactions (indicated by two-way arrows) between Green Infrastructure, the ecosystem functions and services it provides, and the aspects of ecosystem health that these influence. The Green Infrastructure and associated improvements in ecosystem health provide the environmental settings of public health. These environmental settings contribute to but are also affected by (two-way arrows) aspects of public health, which encompass physical, psychological, social and community health. Hence, the lower half of the framework comprises four boxes representing these aspects of health and the two-way interactions between them (two-way arrows). These four points are all interrelated since they affect the health and well-being of both individuals and communities.

# CONCEPTUAL FRAMEWORK LINKING GREEN INFRASTRUCTURE, ECOSYSTEM AND HUMAN HEALTH



The framework has two main parts separated by two-way arrows. The top half (ecosystem) has three interrelated boxes and the bottom half (human health) four interrelated boxes. Two-way arrows indicate two-way interactions.

## SUBTITLE :

- |  |  |   |  |
|--|--|---|--|
| <b>GR</b> - Green roofs                                | <b>AP</b> - Air purification                 | <b>WQ</b> - Water quality                   | <b>C</b> - Cardiocascular                    |
| <b>UP</b> - Urban parks                                | <b>CR</b> - Climate and radiation regulation | <b>HSD</b> - Habitat and species diversity  | <b>EI</b> - Endocrine functions and immunity |
| <b>GC</b> - Green corridors                            | <b>WP</b> - Water purification               | <b>ER</b> - Ecosystem resilience            | <b>N</b> - Nervous system                    |
| <b>EC</b> - Encapsulated countryside                   | <b>SN</b> - Soil and nutrient cycling        | <b>IE</b> - Income and employment           | <b>R</b> - Respiratory                       |
| <b>DL</b> - Derelict land                              | <b>HP</b> - Habitat provision                | <b>EL</b> - Education and lifestyle         | <b>D</b> - Digestive                         |
| <b>HG</b> - Housing green space and domestic gardens   | <b>WD</b> - Waste decomposition              | <b>LW</b> - Living and working conditons    | <b>B</b> - Bone tissue                       |
| <b>CS</b> - Churchyards, cemeteries and school grounds | <b>AS</b> - Aesthetic and spiritual          | <b>ASH</b> - Access to services and housing | <b>RS</b> - Relaxation from stress           |
| <b>OW</b> - Open standing and running water            | <b>NP</b> - Noise pollution control          | <b>CI</b> - Sense of community identity     | <b>PE</b> - Positive emotions                |
|  | <b>AQ</b> - Air quality                      | <b>CE</b> - Community empowerment           | <b>AC</b> - Attention capacity               |
|  | <b>SS</b> - Soil structure                   | <b>SC</b> - Social capital                  | <b>CC</b> - Cognitive capacity               |
|  | <b>EM</b> - Energy and material cycling      | <b>CL</b> - Culture                         |  |

## ECOSYSTEM FUNCTIONS & SERVICES

The Green Infrastructure and its ecosystem functions and services create the urban ecosystem settings within which the socio-economic and other aspects of public health exist.

## ECOSYSTEM HEALTH

Ecosystem health relates to the quality, quantity, configuration and variability of ecosystem functions and services.

The conceptual framework presented, shows opportunities for interdisciplinary collaboration for studying the relationships between the Green Infrastructure and ecosystem and human health. Also provides a basis for the establishment of an interdisciplinary approach to urban planning.

In conclusion ecosystem services provided by a Green Infrastructure can provide healthy environments and physical and psychological health benefits to the people residing within them. Healthy environments can contribute to improved socio-economic benefits for those communities as well.

## SOCIAL-ECONOMIC HEALTH

The healthy living and working model and the arch of health also recognize living and working conditions as determinants of public health. Therefore, the residential environment and workplace and educational level and access to health care and other housing facilities are significant determinants of public health.

## COMMUNITY HEALTH

Community satisfaction and involvement, and community identity are fundamental to the social well-being of both communities and individuals. The arch of health also recognizes culture and lifestyle as determinants of health. Hence lifestyle, community factors and socio-economic factors work synergistically to affect the well-being of individuals.

## PHYSICAL HEALTH

Epidemiological studies linking Green Infrastructure and health suggest that outdoor or indoor physical activity, if engaged infrequently, also promotes health and well-being. Exercise is suggested to have direct health maintenance effects, both preventative and curative (Department of Health, 2004). Therefore, physical health, physical activity and socio-economic and community health are inseparable.

## PSYCHOLOGICAL HEALTH

Psychological aspects are considered concerning contact with green spaces. Psychological aspects, including emotional and cognitive elements, are fundamental components of human health.



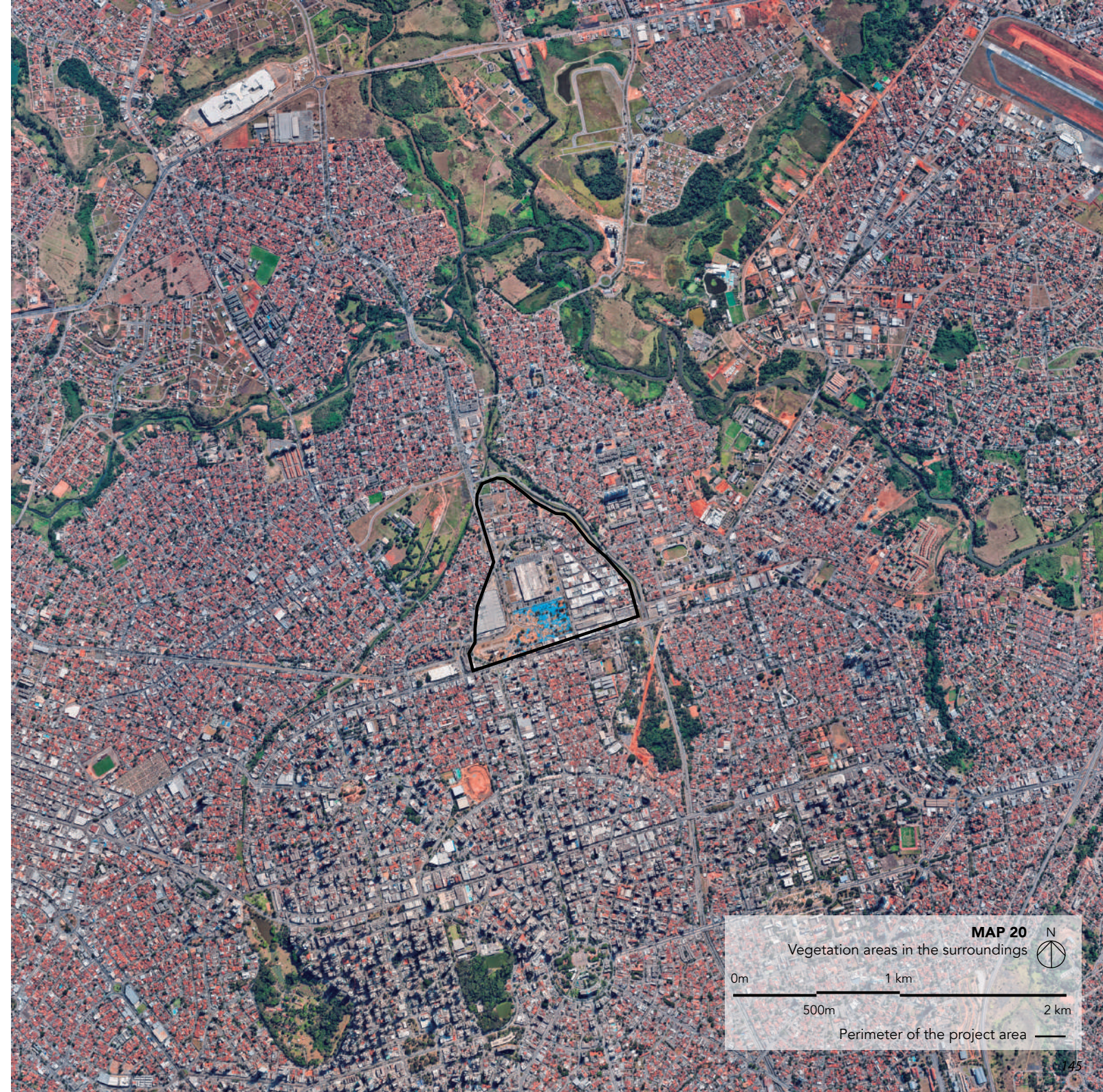
The concept of Green Infrastructure underlines the quality and quantity of urban and peri-urban green spaces, their multifunctional role (Sandstrom, 2002), and the importance of interconnections between habitats. If a Green Infrastructure is proactively planned, developed, and maintained, it can guide urban development by providing a framework for economic growth and nature conservation. Such a planned approach would offer many opportunities for integration between urban development, nature conservation and public health promotion (TZOULAS, K et al., 2007).

That is the problem of Goiânia. Despite being considered the green capital - the municipality with the largest green area in the country and the second in the world (94m2/ inhabitant) - does not necessarily convert this green area into spaces for socializing, health practices, or recreation. So here we have a case of a quantity but not precisely of quality, or at least not equally spread.

This difference can be noticed when map 20 (right map) is compared with map 21 (next page). Map 20, which is a Google Earth picture,

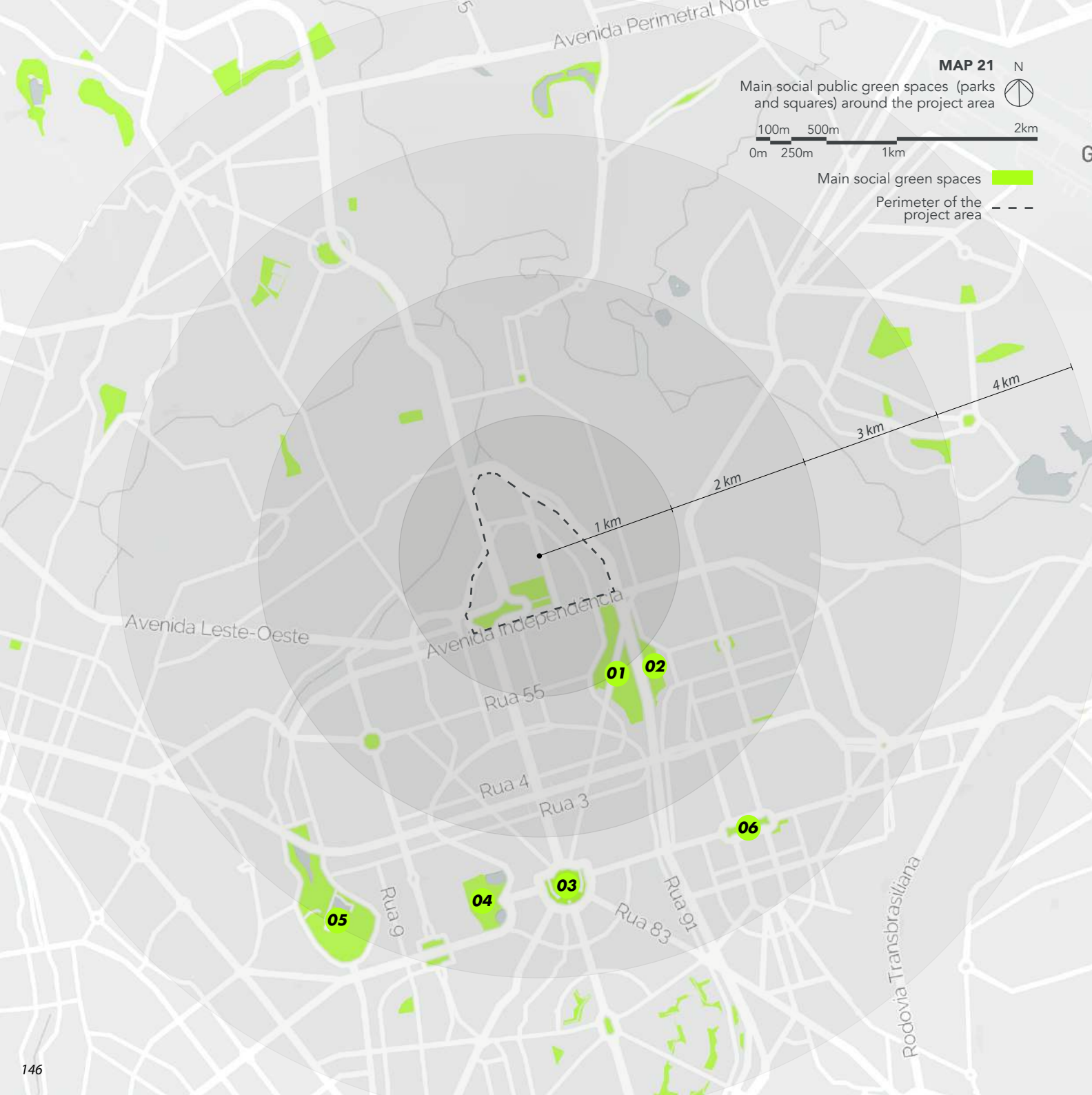
shows large areas of vegetation all over the city. Map 21 is a map of the same territory but marked by green spots, parks and squares. It is possible to recognize that there are just a few spots on the map instead of large areas, as is the vegetation, which proves the lack of connection between these spaces dedicated to promoting good urban green infrastructures to the citizens in the city. It is essential to highlight that the map shows what is marked as a park or square. It is not an indicator of their quality, as is the Praça do Trabalhador itself, marked on map 21 as a square but does not bring the community many benefits as leisure, sports practices, or social interaction.

Also on map 21 are marked the five main parks surrounding the area and their walking distance from Praça do Trabalhador. Although they can be close to each other, each has different uses, but considered sizes and infrastructures available to their users. All five listed as main ones are located in regions of high socioeconomic status and frequented mainly by users with a higher economic power than those who visit Praça do Trabalhador.



**MAP 20**  
Vegetation areas in the surroundings  
0m 500m 1 km 2 km  
Perimeter of the project area





## MAIN PARKS AROUND THE AREA:



FIGURE 74 - Set of figures of the main parks around the area

<b>01</b> - Mutirama (Park/Amusement park /Planetary)	1,5 km	<b>04</b> - Bosque dos Buritis	3,3 km
<b>02</b> - Botafogo Park	1,7 km	<b>05</b> - Lago das rosas / Zoo	3,4 km
<b>03</b> - Civic Square	2,8 km	<b>06</b> - Praça Universitária	3,4 km

Walking distance from the project area



**01 - Mutirama Park** : Located next to Botafogo Park, Mutirama is in an area created and planned since the foundation of Goiânia. Inaugurated in 1969, it currently has 21 attractions that make fun of children and families from Goiás. In the space, the public can also enjoy the Parque dos Dinossauros, which contains life-size replicas, a skate park, and the planetarium that belongs to the Federal University of Goiás (UFG). It is only open from Thursday to Sunday from 10 am to 4 pm. Admission is free, but entry to toys and planetarium is charged.

**02 - Botafogo Park** : With an area of over 172,000 square meters, it is the ideal place for those looking to keep in touch with nature, as it is located in an area of dense forest. The park has a jogging track and gym station, with free access during the day and night, with no entrance fees.

**03 - Praça Cívica** : Location of most of the Art Decó buildings in Goiânia's heritage, it tells part of the capital's history and provides several spaces for leisure and socializing. In addition, every Sunday takes place an initiative of the city hall called the "Sunday in the Center Sector" project. From the inner street of the Civic Square throughout Avenida Goiás, up to Rua 4, it is closed to cars, and free for sports, cultural, artistic, and gastronomic practices, from 7 am to 4 pm. The square is also the stage for cultural presentations and annual events such as Goiânia's birthday, Christmas chants, New Year's festivities, Corpus Christi celebrations, and many popular manifestations.

**04 - Bosque dos Buritis** : Park located in West Sector, it is the oldest park and scenic heritage of Goiânia. With an area of 400,000 m<sup>2</sup>, remaining today, approximately 124,800 m<sup>2</sup>, including the Legislative Assembly, the Museum of Art of Goiânia, and the Free Arts Center of the City Hall, which are inside the park. Around 72,000 m<sup>2</sup> comprises its effective area, which due to anthropic action, part of its original vegetation was replaced by exotic vegetation, leaving only 10% of the native forest. There are several species of aquatic animals such as ducks, turtles and fish,

and numerous birds. Two works that please the inhabitants and tourists who pass there are the Monument to World Peace, which houses soil from diverse countries and a fountain that reaches up to 50m in height. The park's lakes are connected by a waterway, which forms several small waterfalls inside the forest. Alongside this waterway are the main trails and places of contemplation. Among the main activities carried out in the park include hiking on the local slopes, gym equipment, exercises, playgrounds for children, visits to museums and the various free events promoted by the city seasonally.

**05 - Lago das Rosas** : Also located in the West Sector, has the public side park and the side with the city's zoo. Lago das Rosas has sidewalks, tracks for running/hiking, exercise areas with equipment, kiosks, children's playground, multi-sport courts, benches for contemplation, and pedal boats on the lake. Due to its privileged location and the landscape it offers, the park's surroundings are one of the residential areas with the highest real estate value in the city. Animals populate the park, and varied birds, small mammals such as pacas and opossums, turtles, and numerous birds can be observed. The lake has a varied fauna of fish and ducks that roam the place. The diversity of the park's flora is composed of native and exotic species.

**06 - Praça Universitária**: Receives this name because it is located in between universities buildings. Considered an open-air museum, it has numerous sculptures scattered around the square. It is also where the Palace of Culture is located. The space is very similar to Praça do Trabalhador, as it is part of the city's history and is currently in a state of negligence. This square is not used as the others. In the 50s, it was used as a meeting point for cultural groups that were part of the bourgeois mass. Goianienses have already participated in several demonstrations in the square, which was the stage not only for meetings between friends but also for student events, concerts, festivals and weekly fairs. The lack of security, even with constant policing, is one of the main reasons the population does not use it.

**SOME ACTIVITIES PRACTICED IN THESE PARKS:**



FIGURE 75 - Group "Melhor idade" practicing activities at Bosque dos Buritis



FIGURE 76 - Children's playground at Bosque dos Buritis



FIGURE 77 - Skate park at Mutirama



FIGURE 78 - Dinosaur park at Mutirama

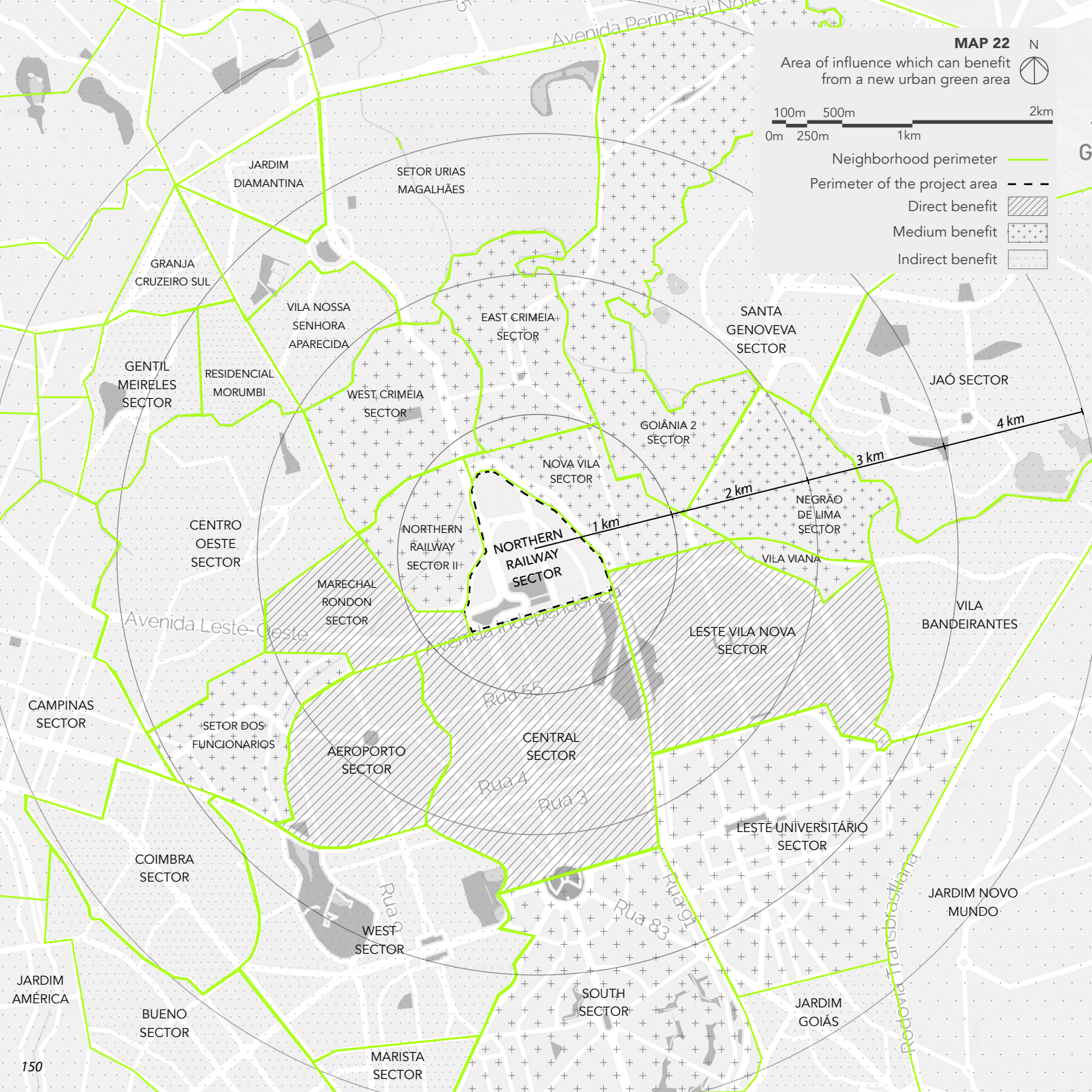


FIGURE 79 - Seasonal activities promoted by the city hall in the Civic square



FIGURE 80 - City's zoo at Lago das Rosas





Although Praça do Trabalhador is a public square, currently, its use is not active by the community, has a purely commercial character without any benefit to the well-being of the local community and surrounding areas. Map 22 shows the possible neighbourhoods that could benefit from the Praça do Trabalhador rehabilitation project. It must be considered that the rehabilitation of an extensive green infrastructure and leisure area such as this one can bring benefits to the city of Goiânia as a whole, becoming a reference for the entire city as it happens with other large parks. However, it is worth analyzing the influence that this new project can have in a more direct impact on adjacent areas to the northern railway sector, as some may prefer long walks on the weekend in locations further from home while others may prefer regular shorter visits to parks in the local area.

The neighbourhoods painted by the stripe hatch are the ones considered to benefit the most from the project. These being the Central Sector in the first place, then the Sectors Leste Vila Nova, Aeroporto and Marechal Rondon. All due to the proximity to the area and their easy access by foot or more sustainable means

of transport such as bicycles and scooters. This new project is more likely to become an area included in the users' routine from these neighbourhoods as a leisure place that improves their daily quality of life.

Neighbourhoods painted with small dots represent the ones indirectly influenced by the square's rehabilitation. They are more distant neighbourhoods from a radius of more than 3km and are challenging to access, requiring users to arrive by car or bus. It does not prevent the user from using the new square but makes it more difficult and less usual.

In the middle of these two categories, have the neighbourhoods painted with small crosses hatch, which is affected in a medium way. Most of them are due to their more remote distance, within a radius of about 2 km to 3 km away from the square, being them Sectors Goiânia 2, Negrão de Lima, Leste Universitário and Setor dos Funcionários. Some other neighbourhoods painted with this hatch require a more detailed analysis (Map 23 next page) than just their distance from the project area, the Sectors: **South, Nova Vila, North Railway 2, East Crimea and West Crimea.**



- **South Sector** : It is considered a medium influence because even within the long distance as the West sector, it has easy access to the area due to its fast connection through Avenida Goiás (see map 23).

- **Nova Vila Sector** : Considered as a medium influence because even with a short distance in the drawn distance radius, there is a difficulty of access caused by the natural barrier of the Botafogo river (see map 23), with just two connections through the Avenida Independência and 301th street;

- **Northern Rail Sector 2** : It is considered medium influence as it is not a predominantly residential neighbourhood, so there is no community to benefit from the new green infrastructure. However, the new project can also help to improve the crime rate in the area, cleanliness, street lighting, in addition to serving as an environment for short breaks for workers in this neighbourhood;

- **West Crimea and East Crimea** : Both neighbourhoods, despite their short distance from the project area, are considered to be of medium influence due to the difficulty of accessing the area caused by the presence of the high-speed road Marginal Botafogo (see map 23), which makes the crossing dangerous for pedestrians and users of bicycles and scooters.



The project area is located further north of the city, on the boundary of the city's noblest regions. To the north of the northern railway sector are located the poorest neighbourhoods, and it can be seen on both previous maps that they are neighbourhoods without expressive parks and squares. Note that the main parks are all located to the south of the project area. Other major city parks that have not been marked on the maps for not being close to the area are located in southern neighbourhoods. The lack of green areas in these northern regions is a factor that supports the creation of an area that brings sports, leisure and culture to this side of the city that lacks well designed green infrastructure.

In addition to the rehabilitation project contributing to the well-being of inhabitants living in areas around the region, it aims to generate an immediate sense of well-being for those who work and shop there. The intention is to design a space for workers to take a break from their shifts, feel the contact with the outdoors and even have their meals. The project's purpose concerning the Praça do Trabalhador area is to harmonise the use by the community with local businesses. Mitigate the new rehabilitated infrastructure and its new uses during the week with the infrastructure of the Hippie Fair on weekends.

PROJECT  
PROJECT  
PROJECT  
PROJECT  
PROJECT  
PROJECT  
PROJECT

*Applying theory  
into the area*

## **U R B A N A N A L Y S I S**

- LAND USE
- BUILT PATTERN
- CONSOLIDATION MAP
- ENVIRONMENTAL ANALYSIS
- GEOGRAPHY
- CLIMATE ANALYSIS
- ROAD SYSTEM
- ROAD DIRECTION
- TRAFFIC FLOW
- PEDESTRIAN FLOW
- TRANSPORT ANALYSIS
- PARKING
- MAIN FUNCTIONAL POLES
- DIAGNOSTIC
- SOLUTIONS



# LAND USE

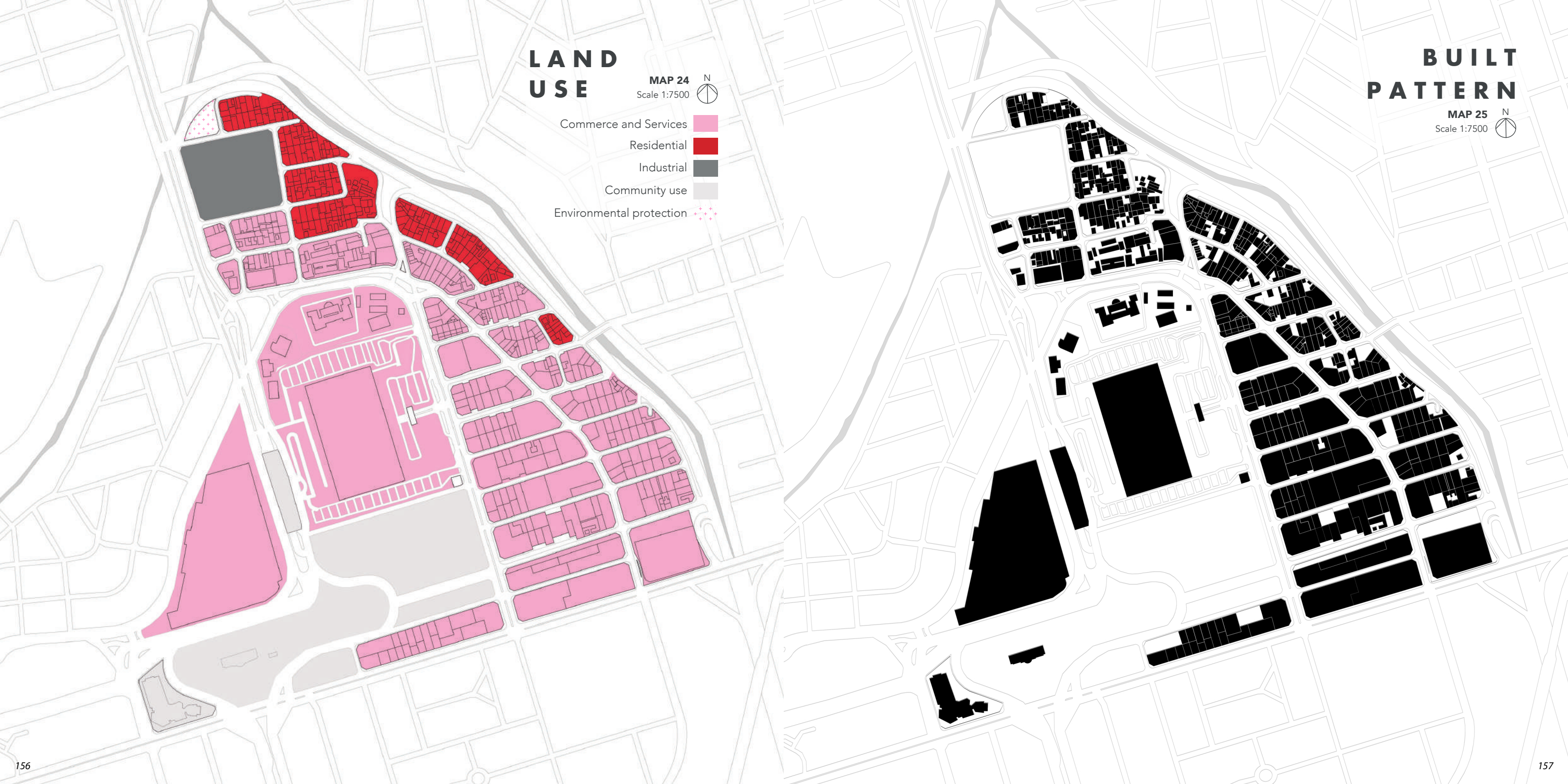
MAP 24  
Scale 1:7500



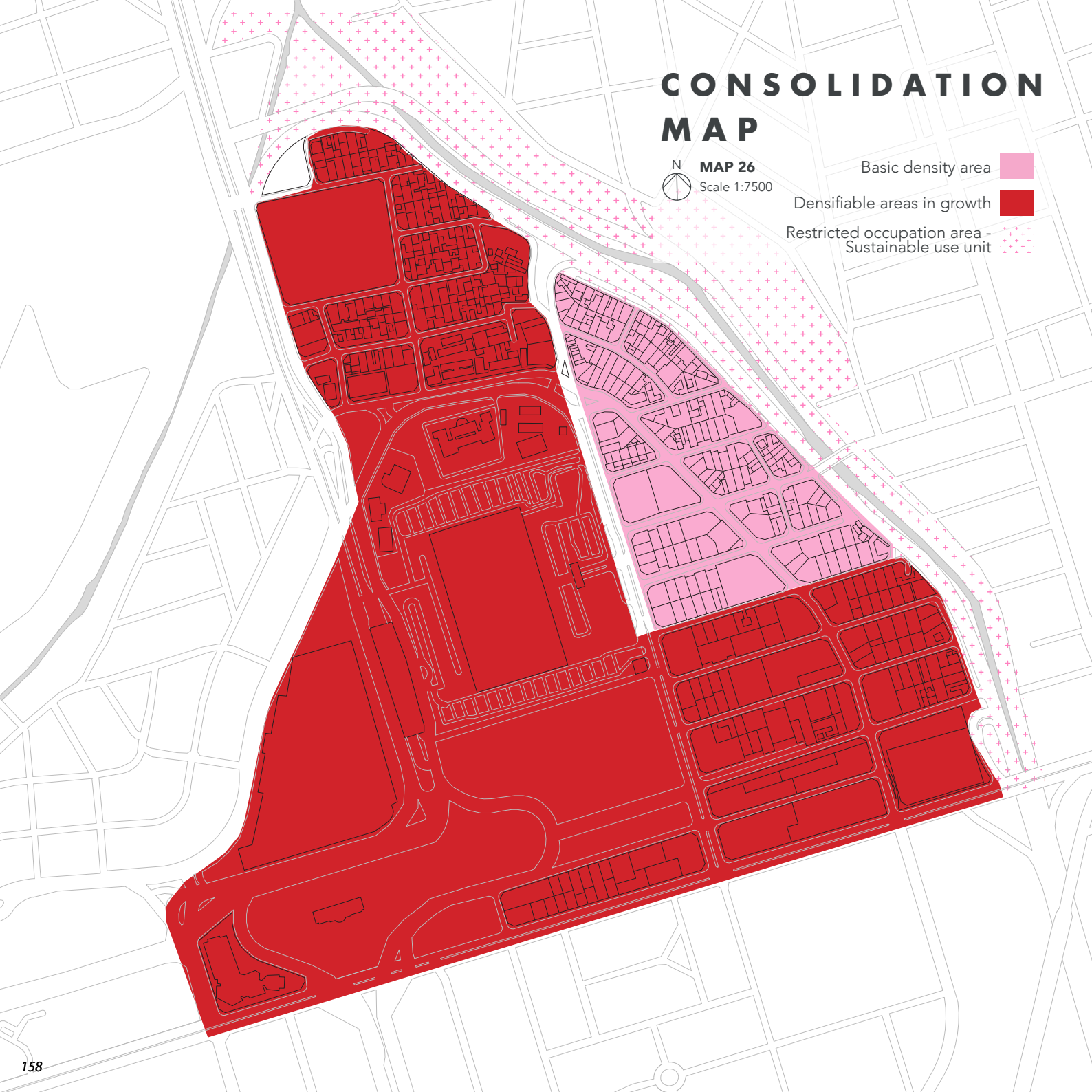
- Commerce and Services 
- Residential 
- Industrial 
- Community use 
- Environmental protection 

# BUILT PATTERN

MAP 25  
Scale 1:7500







## CONSOLIDATION MAP

N  
MAP 26  
Scale 1:7500

Basic density area  
Densifiable areas in growth  
Restricted occupation area -  
Sustainable use unit

### ACCORDING TO CITY'S URBAN PLAN DIRECTIVES :

• **BASIC DENSITY AREA** : According to Complementary Law n. 171 of 05/29/2007, the following uses are allowed in these areas:

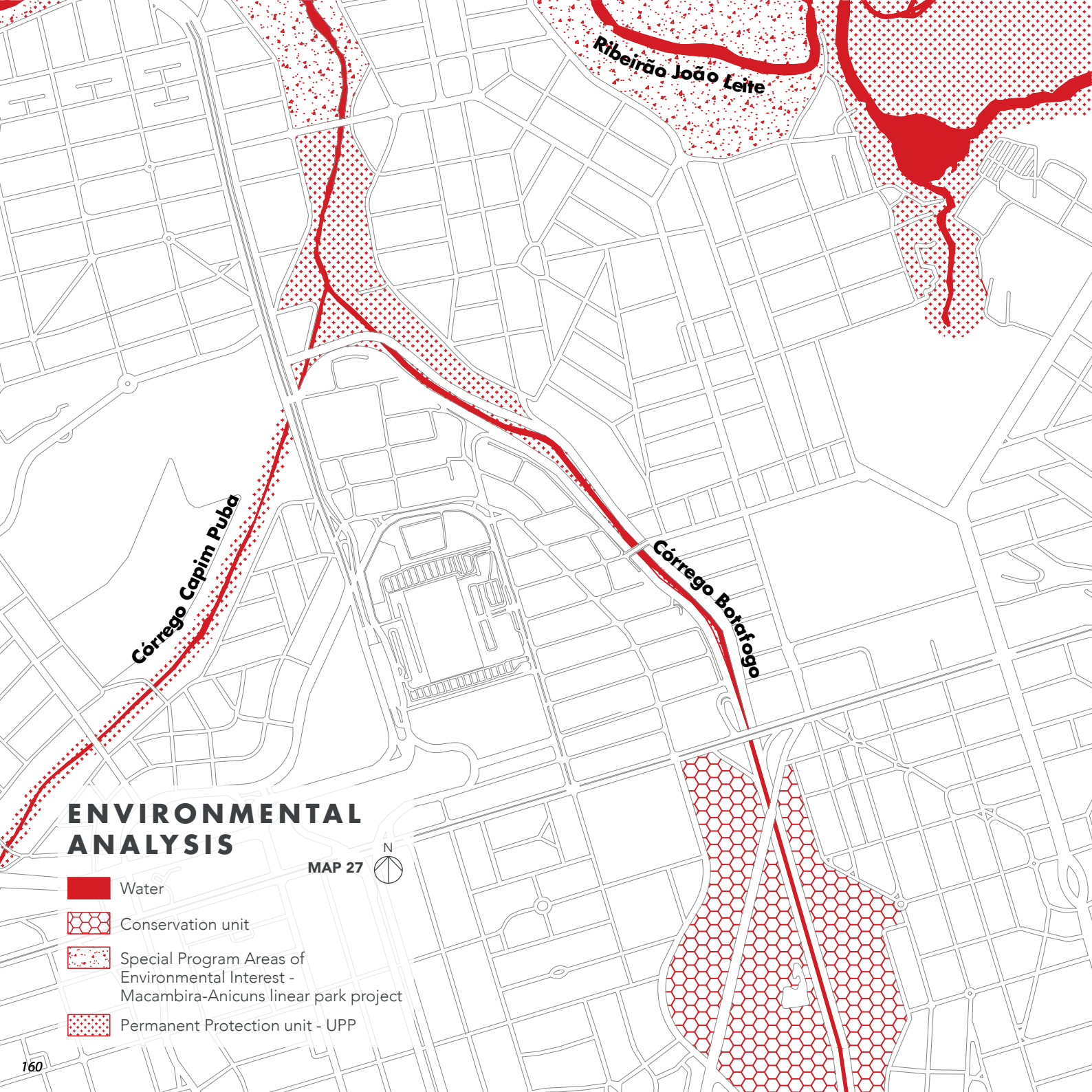
RESIDENTIAL	COMMERCIAL
<ul style="list-style-type: none"><li>• SINGLE-FAMILY HABITATION</li><li>• SEMI-DETACHED HOUSING</li><li>• SERIAL HOUSING</li><li>• COLLECTIVE HOUSING</li></ul>	<ul style="list-style-type: none"><li>• Economic activities (non-residential) with degree of inconvenience 1 and 2, with an occupied area of up to 1,500m<sup>2</sup></li></ul> <p>* PROJECTS AND ACTIVITIES DEFINED AS MACRO-PROJECTS NOT ALLOWED, characterized by the project's total built area exceeding 5,000m<sup>2</sup>, excluding parking areas, as per art.94 to 95 of Law 171/2007.</p>

• **DENSIFIABLE AREAS IN GROWTH:** According to Complementary Law n. 171 of 05/29/2007, are areas encouraged to greater densities of housing and economic activities, supported by the road and transport network, subdividing into two types:

- Areas with greater density, along the Exclusive Development Axes and in areas characterized as urban voids;
- Areas of medium density, along the Preferred Development Axes.

(FONT: CITY HALL OF GOIÂNIA)



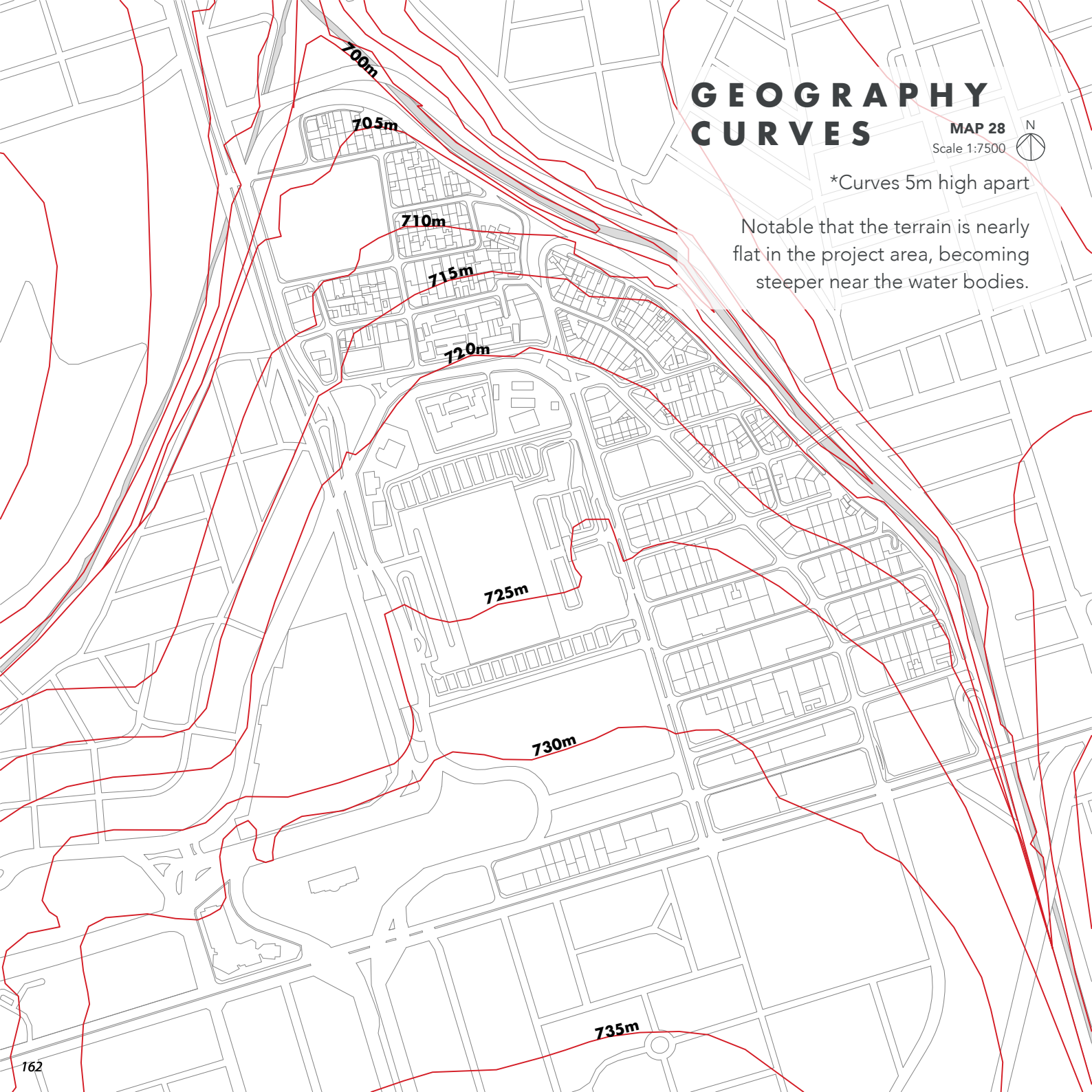


**ACCORDING TO CITY'S URBAN  
PLAN DIRECTIVES :**

- **CONSERVATION UNITS** : they aim to preserve nature, only indirect use of their natural resources being allowed, with the exception of cases provided for by law and correspond to all Permanent Preservation Areas – APP's existing in the territory. They are part of the Natural Heritage Areas in accordance with Federal Law No. 9,985, of July 18, 2000, which established the National System of Conservation Units - SNUC.
- **SPECIAL PROGRAM AREAS OF ENVIRONMENTAL INTEREST - MACAMBIRA-ANICUNS LINEAR PARK PROJECT** : it is a special program area. It comprise parts of the territory subject to intervention programs of an environmental nature, aimed at the recovery and conservation of degraded areas, aquatic ecosystems, fragments of native vegetation, soil recovery and containment of erosion processes, through the implementation of public projects, or public-private partnerships.
- **PERMANENT PROTECTION UNIT (UPP)** : protected areas, covered or not by native vegetation, with the environmental function of preserving water resources, the landscape, geological stability and biodiversity, facilitating the gene flow of fauna and flora, protecting the soil and ensuring the well-being of human populations. They are untouchable natural areas, with strict exploration limits. Direct economic exploration is not allowed.

(FONT: CITY HALL OF GOIÂNIA)



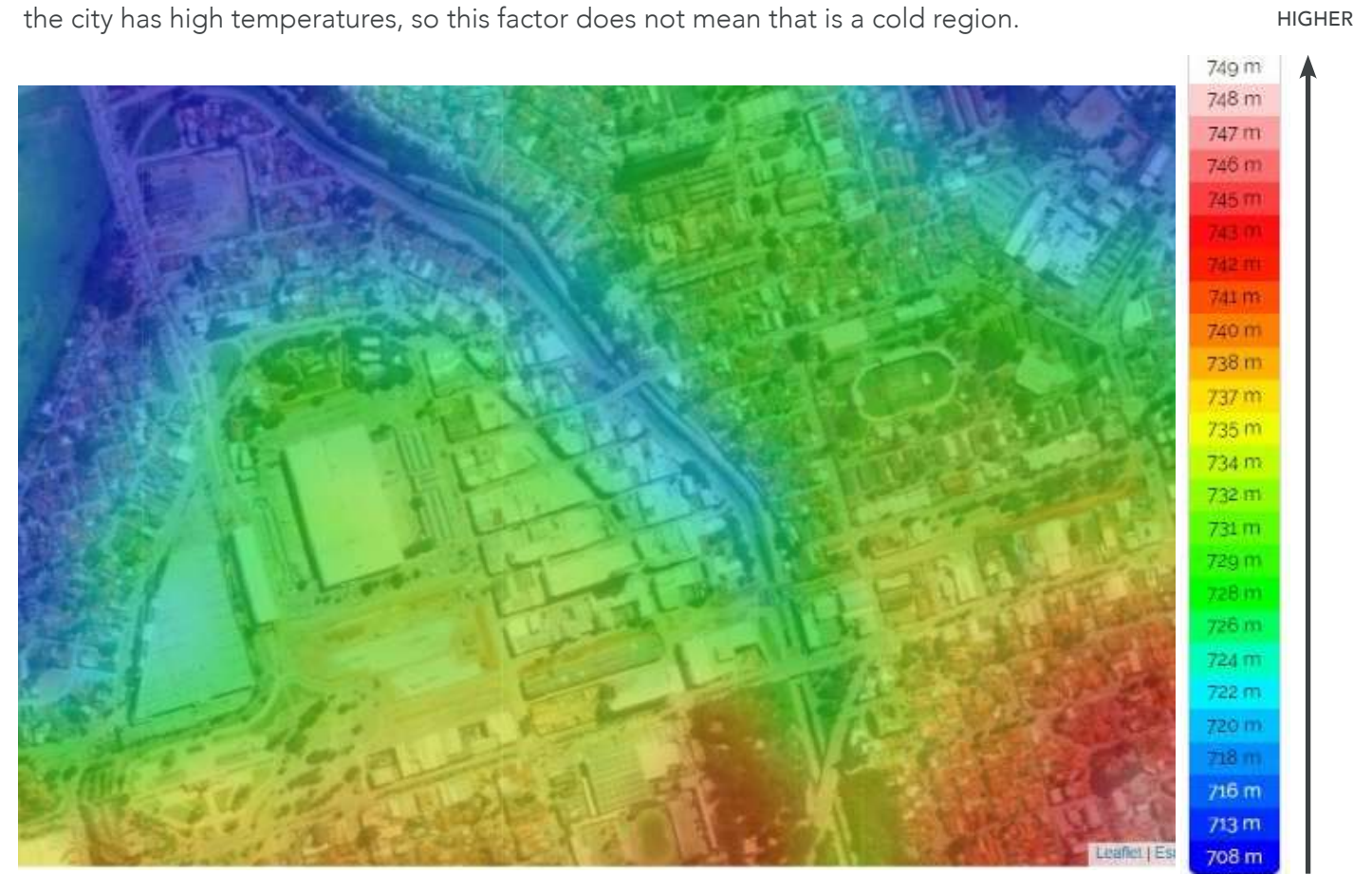


# ALTITUDE MAP

MAP 29

Cold Hot

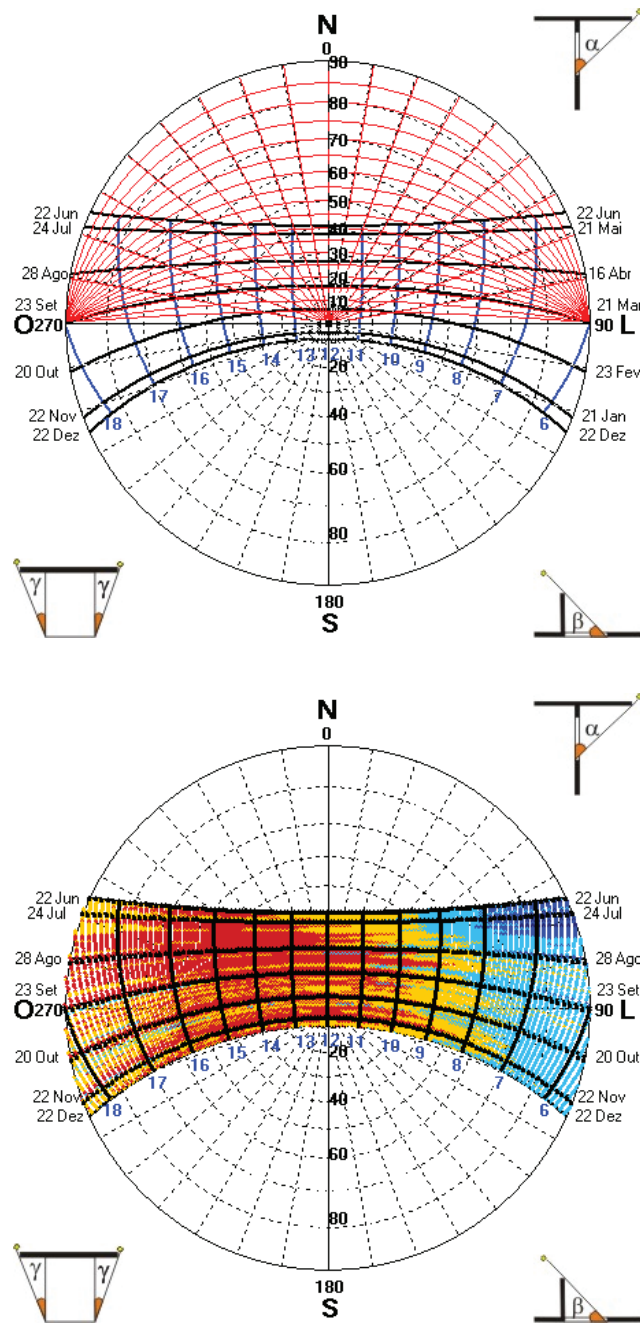
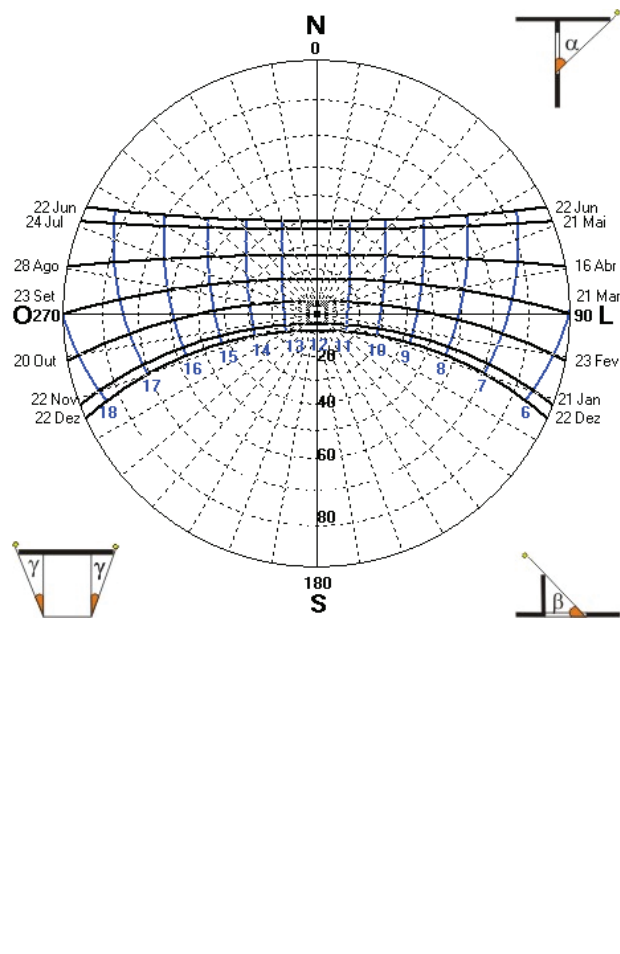
In addition to altitude, this map is also related to the temperature of the environment. The more towards the red color, the warmer the region and it is noted through the map that this is directly connected with the presence of water. The region closer to the water tends to have milder temperatures than more distant areas. The project site benefits of being established close to two rivers, so has mildest temperature other areas far from water bodies. Although the city has high temperatures, so this factor does not mean that is a cold region.





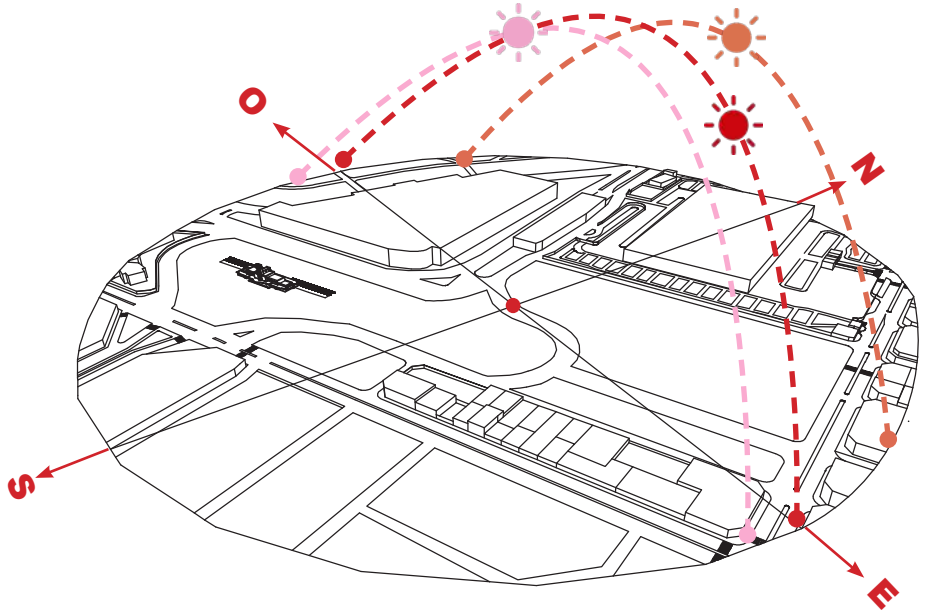
# CLIMATE ANALYSIS

SOLAR CHART OF GOIÂNIA  
COORDINATES 16.6869° S  
49.2648° W



The climate of Goiânia is defined as tropical, characterized by being dry and warm. From April to September, the city goes through the dry season. That compromises the water flow of the rivers.

The project site receives significant solar incidence throughout the year, with the north façade being its most exposed façade. The sun rises before 6 am and sets after 7 pm, featuring long hot sunny days in summer. Thus, the study area has very sunny spaces, and the lack of vegetation affects the comfort and leisure of visitors. The ideal to solve this problem is to create spaces with trees for shading or roofing.



PRAÇA DO TRABALHADOR

AUTUMN

MARCH  
21°C/30°C  
188mm

WINTER

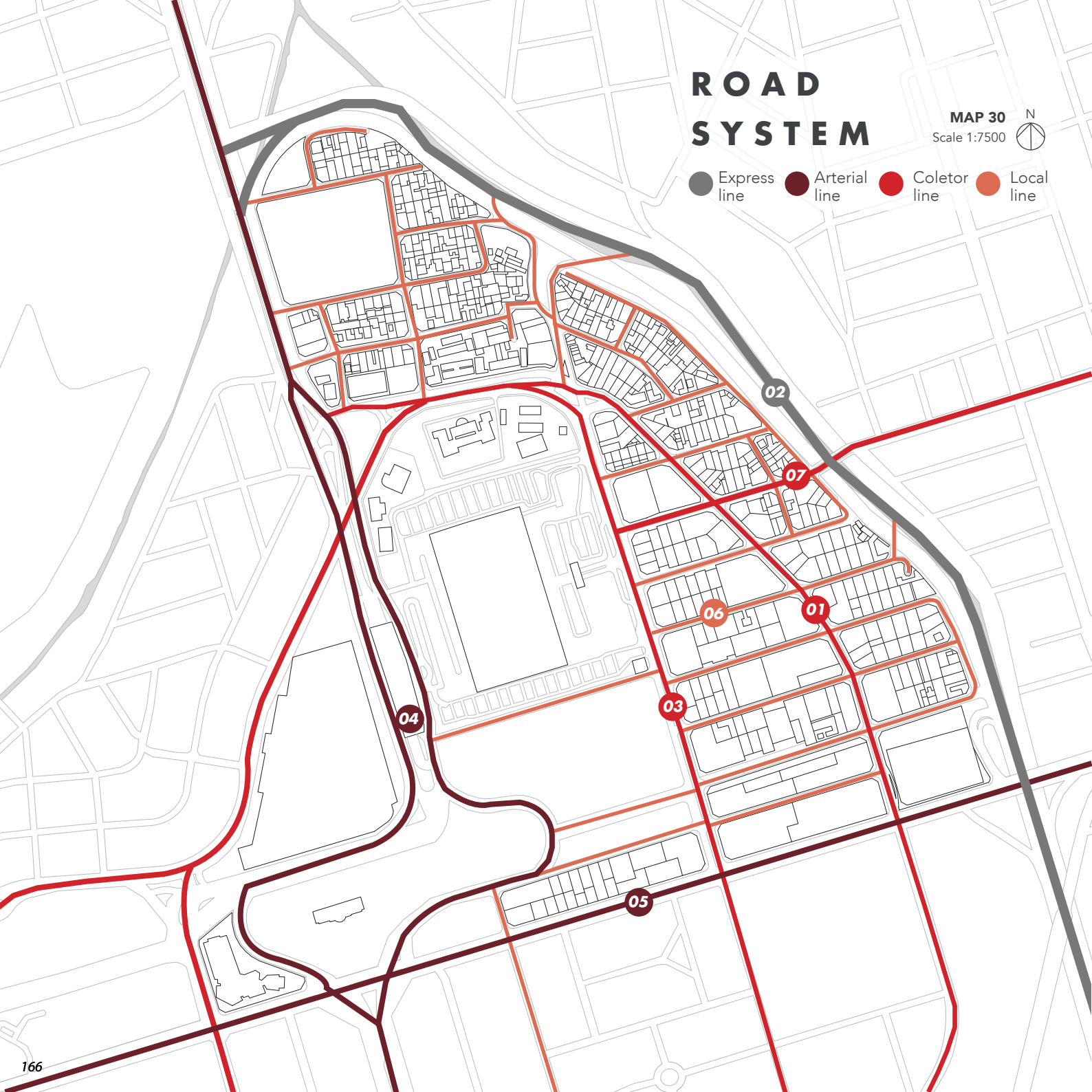
JUNE  
18°C/29°C  
9mm

SPRING

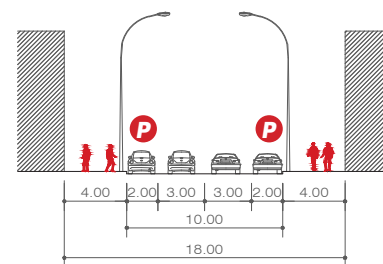
SEPTEMBER  
21°C/32°C  
22mm

SUMMER

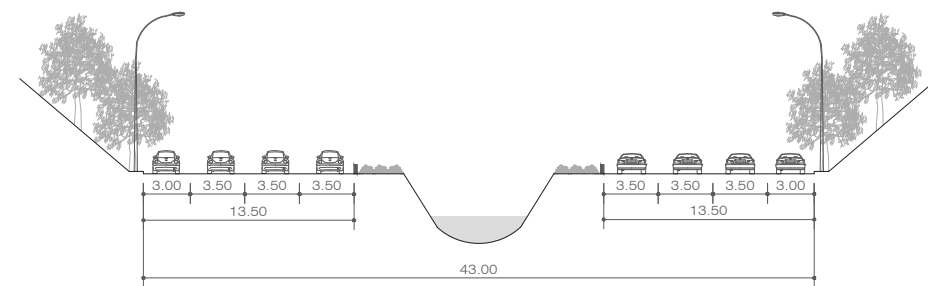
DECEMBER  
21°C/30°C  
194mm



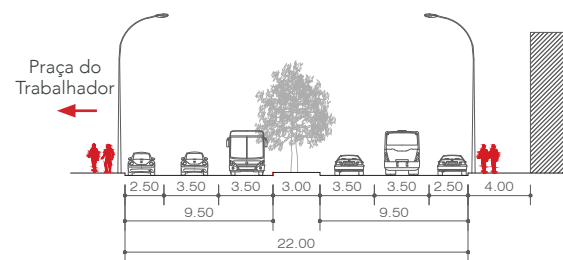
01 Contorno Avenue



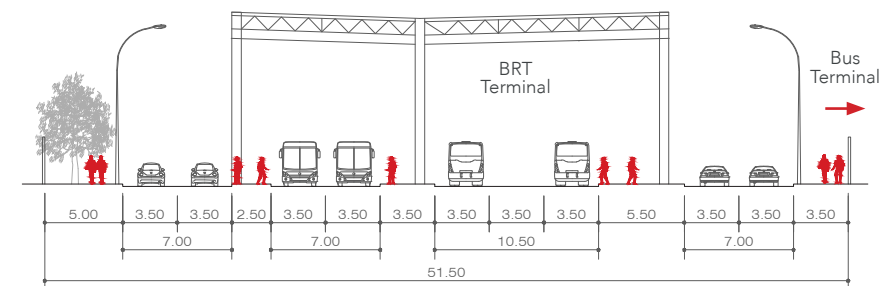
02 Marginal Botafogo



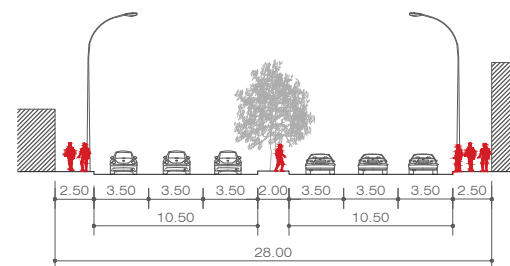
03 44<sup>th</sup> Street



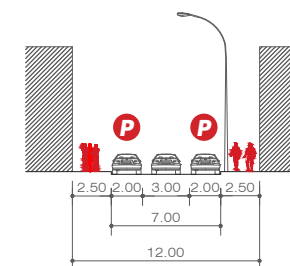
04 Goiás Avenue with the new BRT terminal



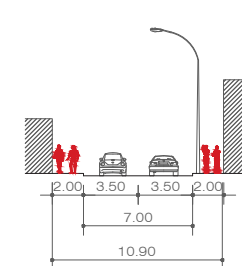
05 Independência Avenue



06 General local street



07 301<sup>st</sup> Street

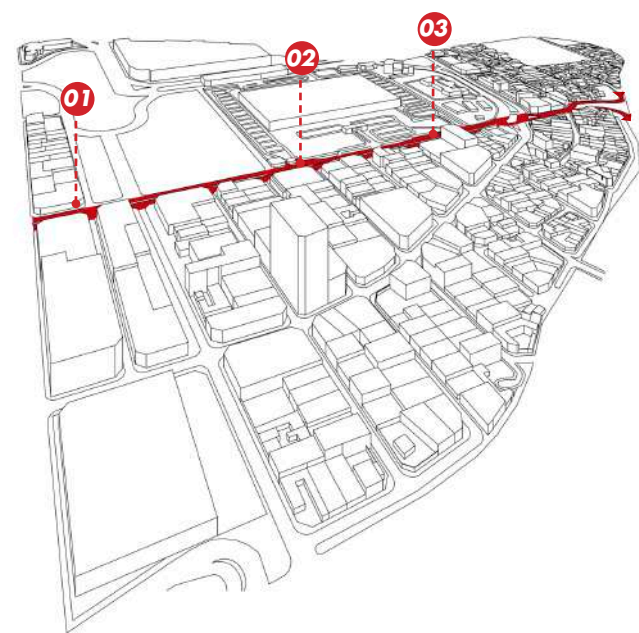


P = Parking



# 44<sup>TH</sup> STREET

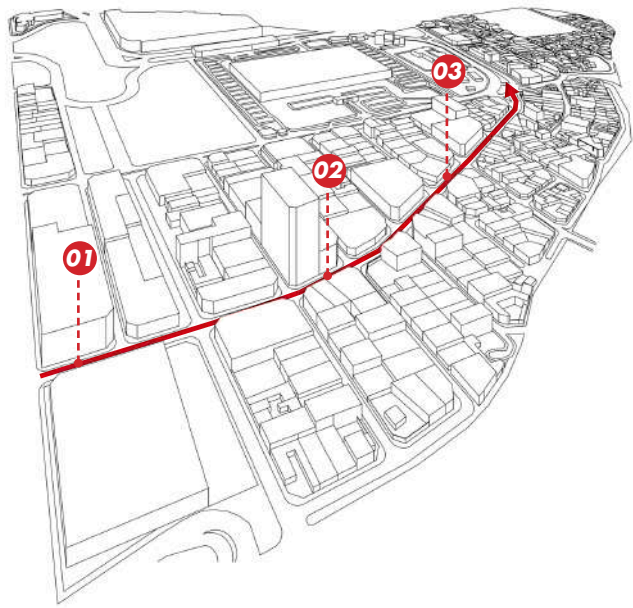
44th Street is the central axis of the area, widely known for its commerce which is why it even gives its name to the whole shopping area. It is a street with heavy traffic, concentrated commerce, and the main access to the Goiânia Bus Terminal and the Hippie Fair. Divide its flow between pedestrians, cars and regional buses. It is a short street that starts at Independência Avenue and ends at Marginal Botafogo, on the edge of the Northern Railway Sector.



SET OF FIGURES 81 - Google street views of 44th Street.

# CONTORNO AVENUE

A narrow, commercial avenue in the part that passes through the project site. Although residential in its initial range. It starts at Paranaíba Avenue near Anhanguera Avenue in the city's center and ends at Oeste Avenue in the Northern Railway Sector. A bustling and narrow avenue with heavy traffic throughout the week is a second option for arriving at the site from the southern part of the city. By "cutting" all small shopping streets in the project region, there is a high flow between people and cars, as does 44th Street.

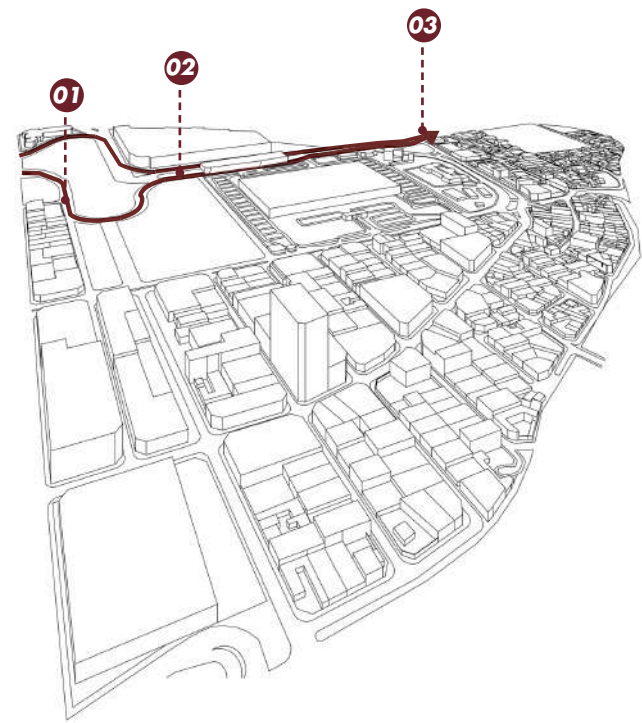


SET OF FIGURES 82 - Google street views of Contorno Avenue.



# GOIÁS AVENUE

It is one of the first avenues to be built in the city and one of the leading public thoroughfares in the city. It starts at Praça Cívica, extending to Avenida Nerópolis, in the northwest region. Vital in connecting the site on the north-south axis of the city. Inspired by the French boulevards, it is a wide lane with vegetation, and in the section that passes through the project, the site will receive an exclusive bus lane (BRT system).



SET OF FIGURES 83 - Google street views of Goiás Avenue.

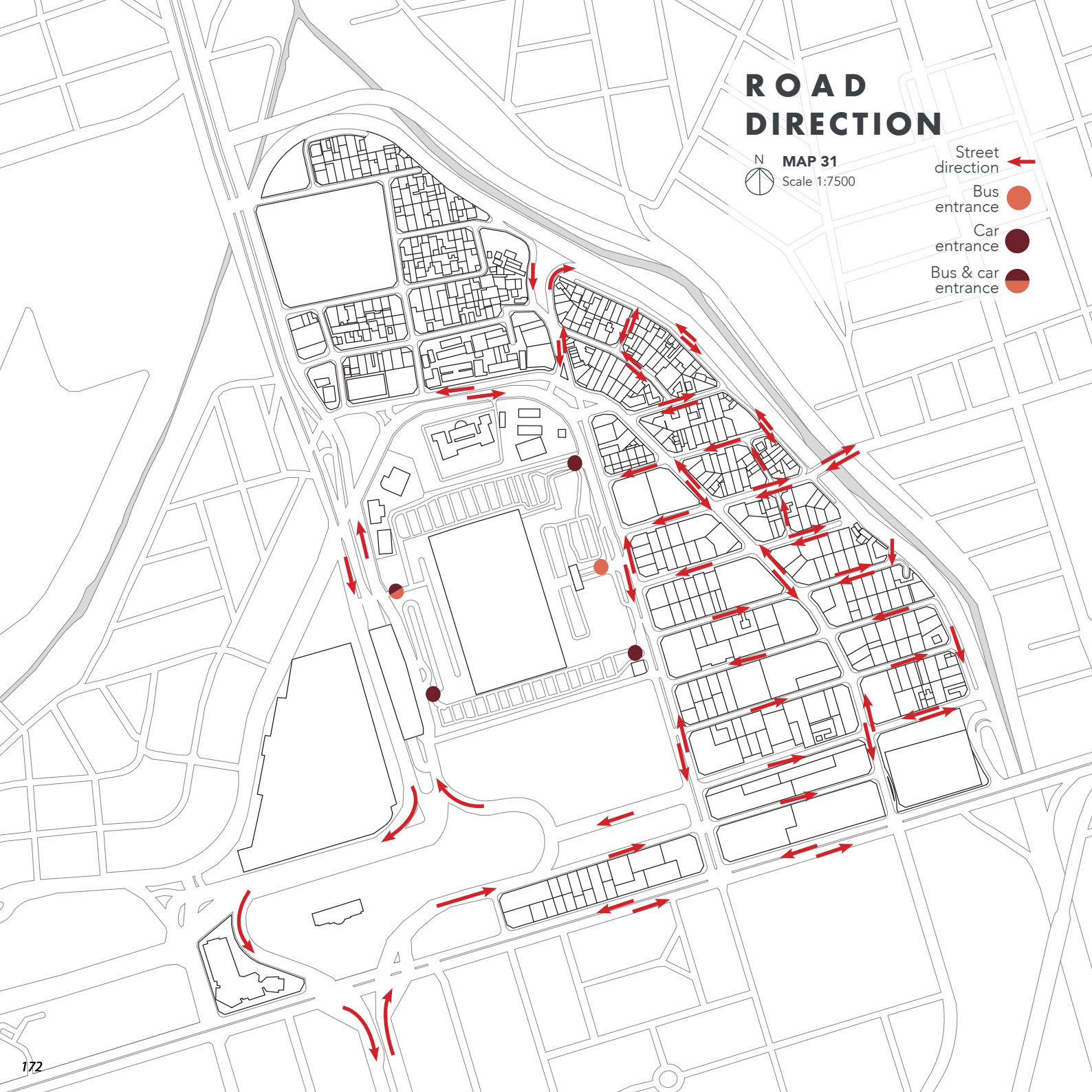
# GENERAL LOCAL STREETS

The other small streets that formulate the shopping area of 44 follow the same pattern: narrow, one-way streets, narrow sidewalks, commercial, and a large flow of people and street commerce. All start at 44th street and end almost at Marginal Botafogo, but just a few access the Marginal.



SET OF FIGURES 84 - Google street views of Streets from the area

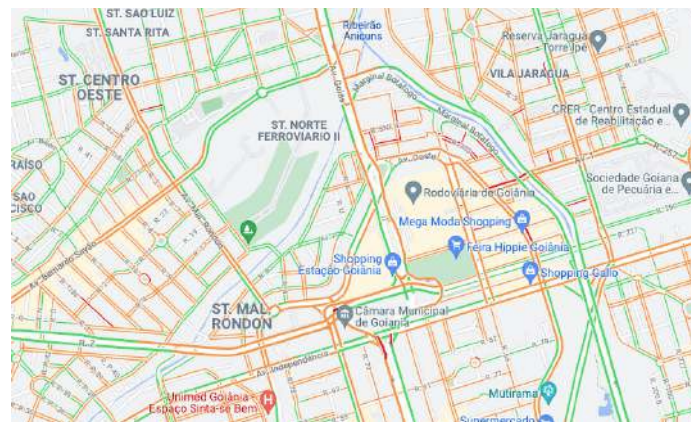




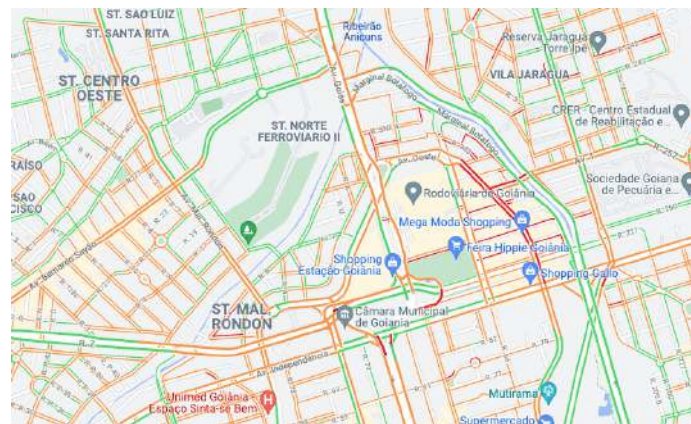
# TRAFFIC FLOW



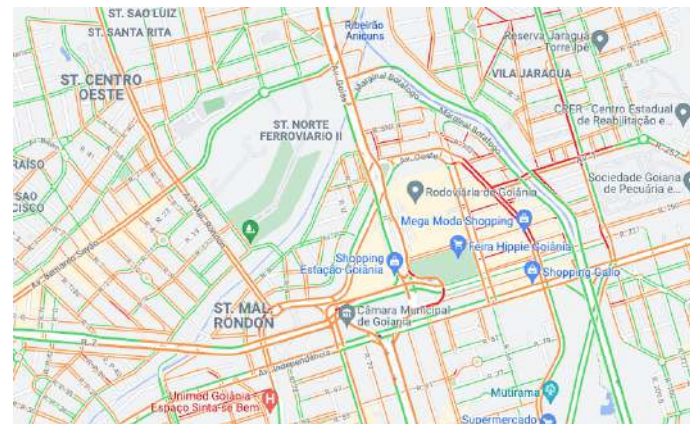
- 44th Street - Usually
- Contorno Avenue - Usually
- Goiás Avenue - Usually
- General Streets of the area



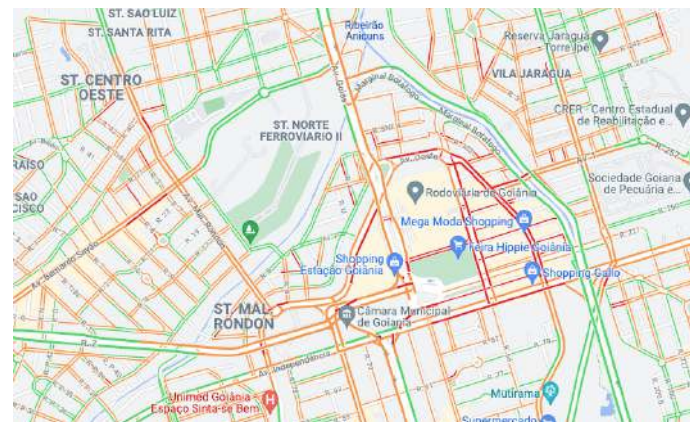
Typical Tuesday traffic



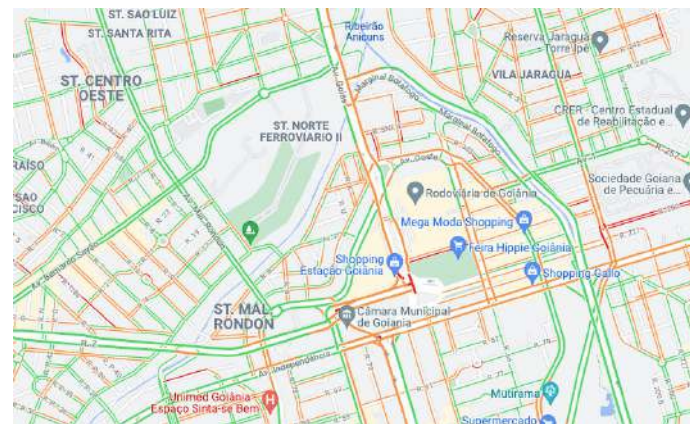
Typical Thursday traffic



Typical Friday traffic



Typical Saturday traffic








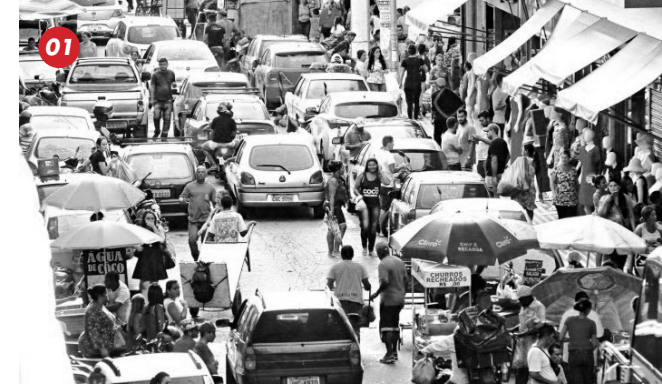
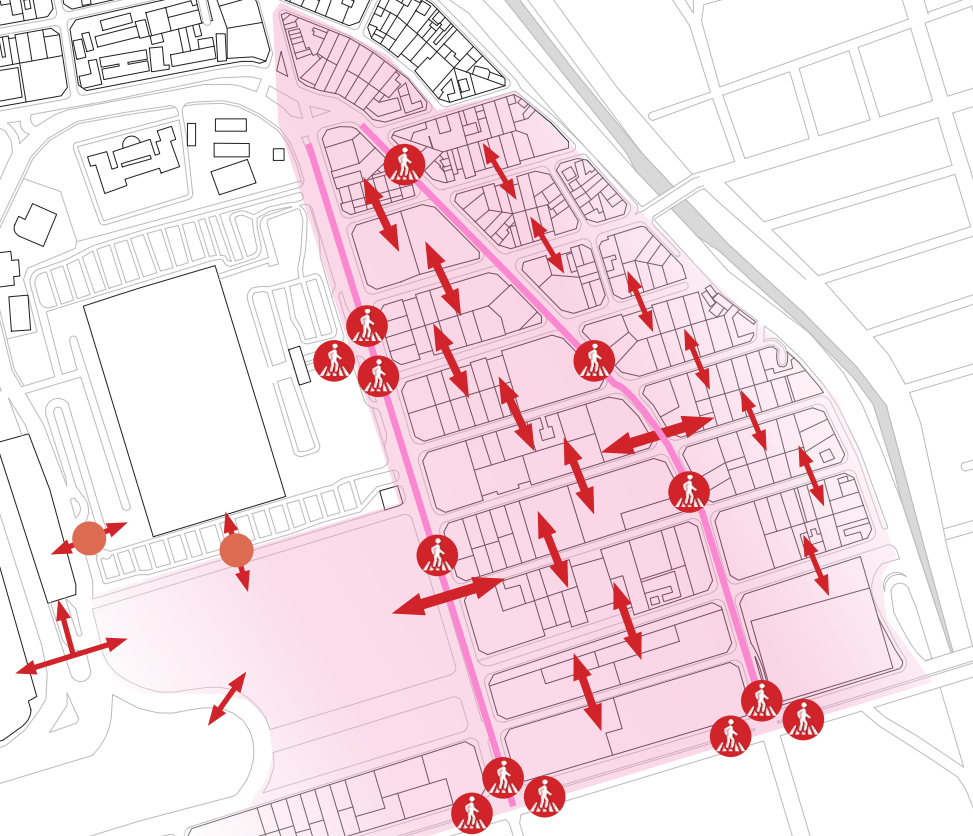
Typical Sunday traffic



# PEDESTRIAN FLOW

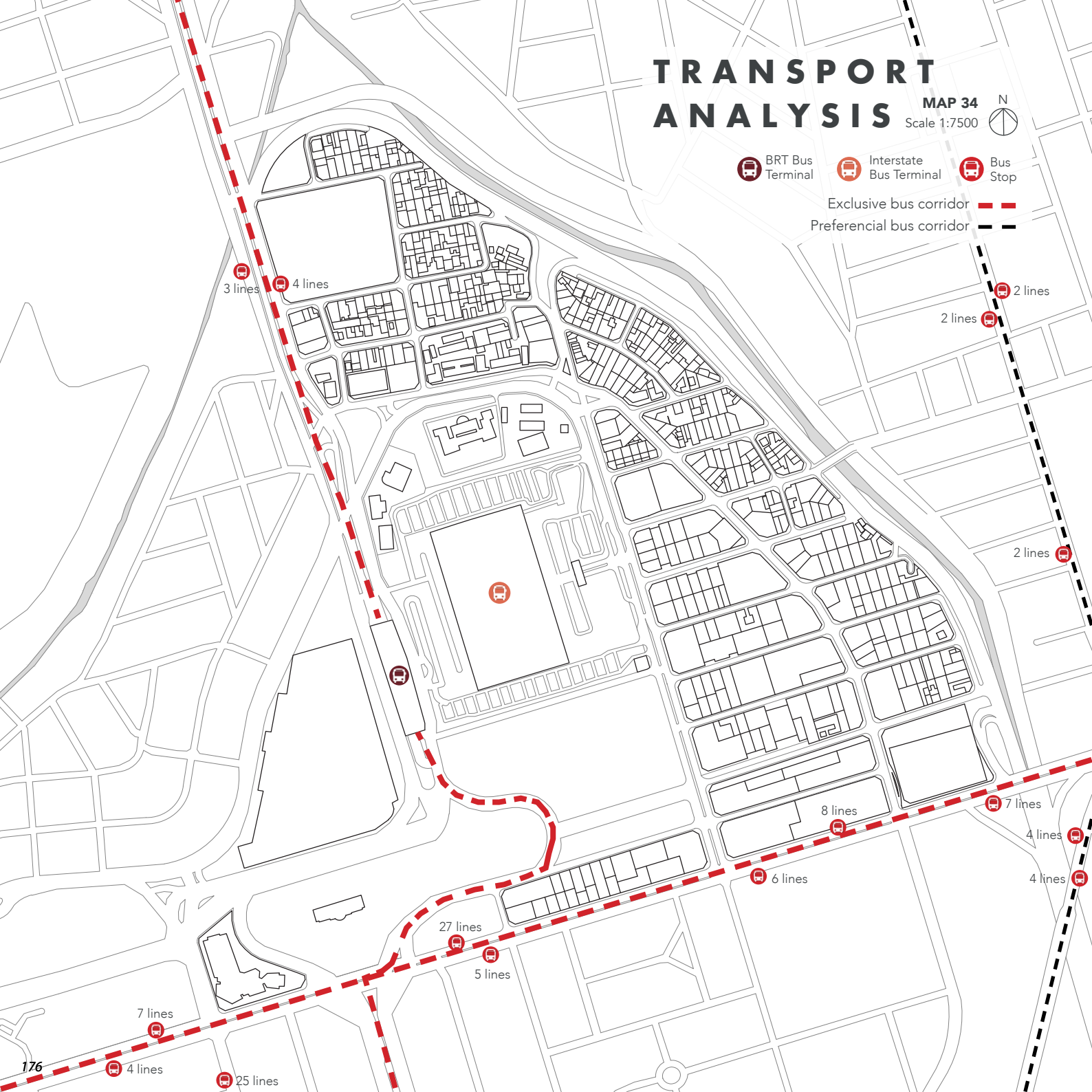
N  
MAP 33  
Scale 1:7500

- Crosswalk 
- Pedestrian entrance to the bus terminal 
- Area with the most flow of pedestrians 
- Main Streets that the people flow conflicts with car flow 
- Main directions of the flow 



SET OF FIGURES 85 - Pictures of the site showing the high flow of people





# TRANSPORT ANALYSIS

MAP 34  
Scale 1:7500

- BRT Bus Terminal
- Interstate Bus Terminal
- Bus Stop
- Exclusive bus corridor
- Preferential bus corridor

From the map on the left side, it is notable that the access to the shopping area via public transport is good considering the proximity of bus stops and variety of lines available.

Goiânia does not have underground transport systems or light rail vehicles. The only urban public transport system is the conventional buses that have exclusive and preferential lanes for better functioning.

Connecting the city in the East-West direction, there is the exclusive bus corridor on Av. Anhanguera. In the North-South direction, the BRT (Bus Rapid Transit) is being implemented.

The lines of the North-South BRT is almost 22 km long, totally exclusive for buses, favouring mobility from Recanto do Bosque to Terminal Isidória. Until then, it is the most extensive urban mobility project in the city. The corridor connects the northern region of the capital to the city of Aparecida de Goiânia, and its works are almost complete.

With the works completed, the system will benefit the entire city of Goiânia and the Northern Railway Sector since Praça do Trabalhador will have one of the connection stations for this system.

**Connection Station:** Smaller equipment, with operation predominantly of crossing lines, establishes the articulation between lines of the transport network coming from different corridors.

**Integration Station:** Larger equipment in which there is, predominantly, the operation of lines with operational control where the journeys begin, and which constitute the operational base of the transport network.

## MAP 35

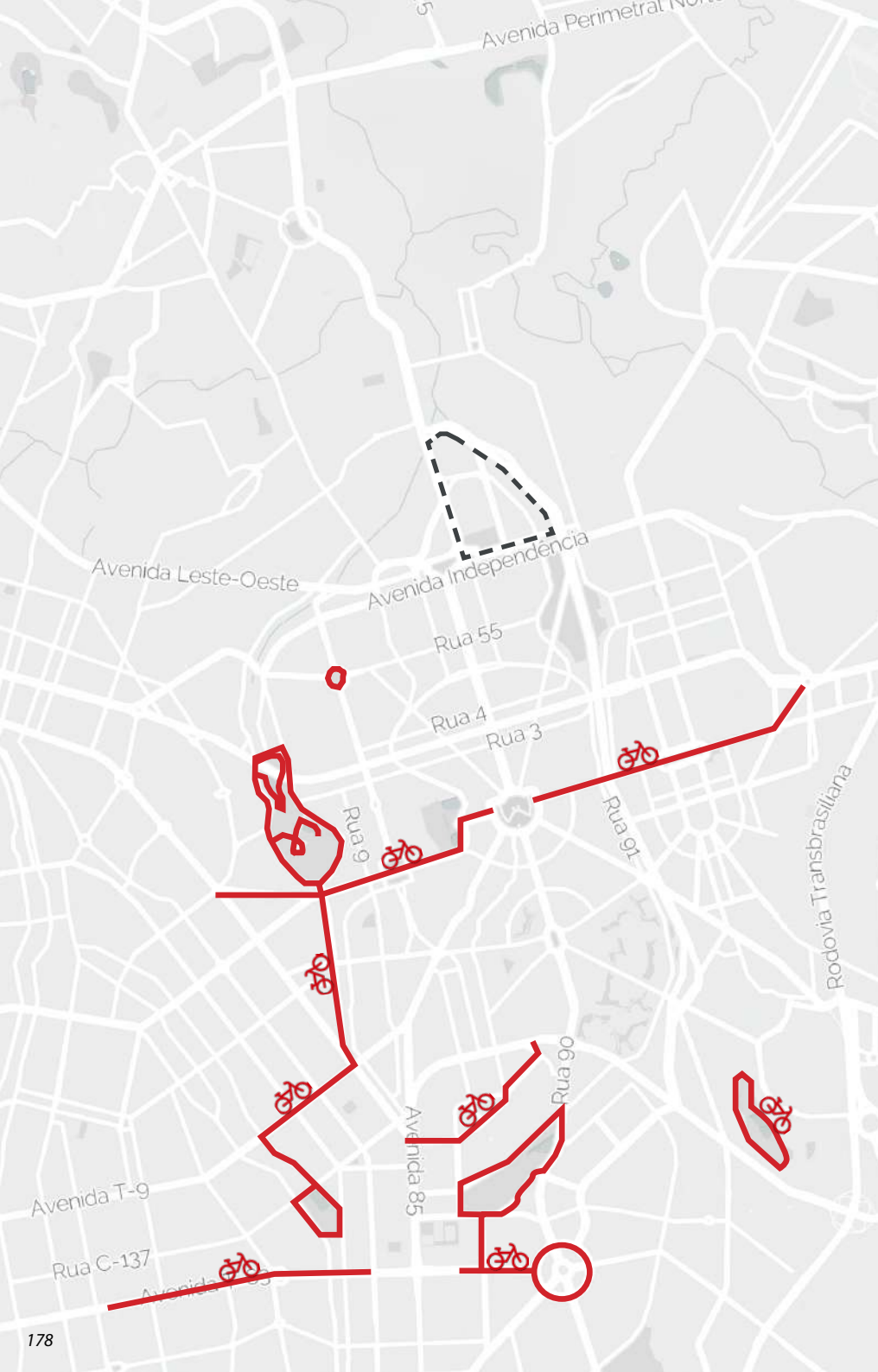
Bus corridors and terminals

- Connection Station
- Integration Station
- Preferential bus corridor
- Exclusive bus corridor
- Exclusive bus corridor on Anhanguera Avenue
- Project site



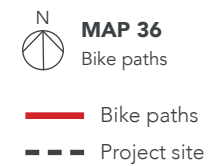
FIGURE 86 and 87 - Exclusive Bus lane; Construction site of Praça do Trabalhador connection station.





## BIKE PATHS

It is notable from the map on the side that Goiânia, in addition to not having many bike paths, the few that exist are disconnected, mostly only in parks and all far from the project site.

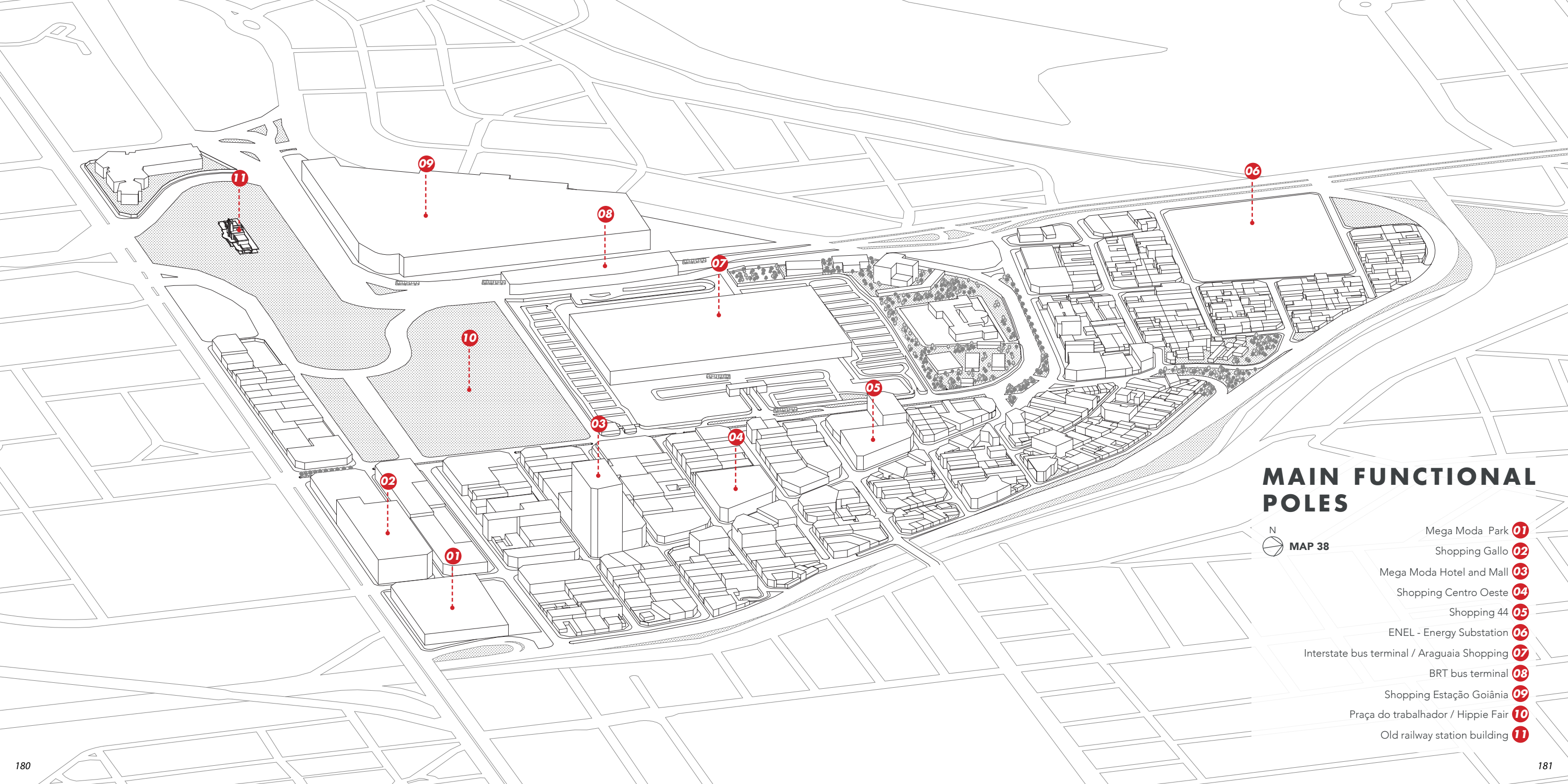


## PARKING

**MAP 37**  
Scale 1:7500

Parking lots 





# MAIN FUNCTIONAL POLES

N  
MAP 38

- Mega Moda Park 01
- Shopping Gallo 02
- Mega Moda Hotel and Mall 03
- Shopping Centro Oeste 04
- Shopping 44 05
- ENEL - Energy Substation 06
- Interstate bus terminal / Araguaia Shopping 07
- BRT bus terminal 08
- Shopping Estação Goiânia 09
- Praça do trabalhador / Hippy Fair 10
- Old railway station building 11

# DIAGNOSTIC

## SWOT ANALYSIS



### STRENGTHS

- Location is already widely used and known by the regional and national community;
- Area easily accessible by city residents as it is located in the center;
- Great touristic infrastructure (hotels, restaurants, ...);
- Area with large investments being made;
- Great potential for improvements.



### WEAKNESSES

- Heavy traffic / streets too crowded;
- Security;
- Unclean space;
- Lack of infrastructure that can absorb the current and new buildings that are being built (water drainage system, public transportation...);
- Social disparity.



### OPPORTUNITIES

- Recovery/preservation of local history;
- Create sense of community;
- Implementation of equipments to promote collective well-being (health, cultural, and leisure);
- Improvement of shopping experience;
- Improvement of connectivity/mobility.



### THREATS

- Possible gentrification process;
- Difficulty to design a project that pleases both marketers and users.
- Lack of greenery and environmental quality;
- Absence of distinct preferential routes for public vehicles - private vehicles - cycles - pedestrians.

## MAIN PROBLEMS OF THE AREA



### 01. OVERCROWDED AREA

There is a conflict between the flow of pedestrians and cars. The consumers flow throughout the stores, malls, and the Fair conflicts with the car flow mainly on 44th Street and Contorno Avenue. In addition, the presence of informal commerce on the sidewalks contributes to the pedestrian flow towards the street. Essentially: there is no space for cars and people in the same place.

### 02. LACK OF COMMUNITY ENGAGEMENT

The lack of sense of community in the region generates an absence of empathy and attention towards the space. Consequently generating a dirty, dangerous, and identityless place.

### 03. LOSS OF HISTORICAL MEMORY

Over the years, the area has lost its historical identity of meeting, small family businesses, and protests. It turned into a purely commercial region.

### 04. HEAVY TRAFFIC

### 05. PRIORITIZING PARKING OVER URBAN MOBILITY

Because the city prioritizes the automobile and is the primary transportation model, it is economically

attractive to create parking lots in vacant lots. In addition to these smaller ones, the malls have underground parking lots. Even though there are many available, the offer is still not enough to supply the flow of visitors and workers arriving at the site by private vehicles.

### 06. UNCONTROLLED EXPANSION OF MALLS

As it is a very prosperous area financially, it attracts big investors who build enormous shopping centers and galleries in the region, which does not have the infrastructure capable of receiving all these new properties. The lack of legal parameters and urban planning in the region allows these projects to be approved. In addition, there is the fact that government actors operating in the region encourage this type of project because it attracts more people to the region, generates jobs, more income for the city, and attracts foreign investment.

### 07. PRIVATE STAKEHOLDERS POSSESS A LOT OF DECISION POWER IN THE AREA

The major investors in the area, such as the Group Novo Mundo, have big decision-making power. They are the agents with the most significant economic power and influence within the municipal government, as they generate considerable revenue for the city, jobs, attract tourism, etc.



# SOLUTIONS

## 01. FOR AN OVERCROWDED AREA:

- **PEDONAL STREETS** - Turn Contorno Avenue and parallel streets into a pedonal street during the week from 08:00 to 18:00h (open stores time), and on weekends close also 44th Street from 08:00h to 18:00h (fair open time)

## 02. LACK OF COMMUNITY ENGAGEMENT:

- **DIVERSIFYING USE** - Create a pleasant environment with different uses beyond shopping: relax areas, group meetings locations, spaces for physical activity and play, area for concerts and events, etc.;
- **DIVERSIFYING PUBLIC** - Create areas and activities that embrace audiences of different ages. Children's leisure and sports area; skateboarding for teenagers; yoga for adults; etc.;
- **NIGHT USE OF THE SPACE** - Promote events, concerts, parties, which bring the young public to enjoy the downtown nightlife, and thus make the area busier at night, also helping with the security of the place. Take advantage of the fact that there is no proximity to residential areas and noise pollution is not a concern;
- **ONLINE ENGAGEMENT** - Create an innovative architectural design for Praça do Trabalhador to attract visitors and create a strong presence of the place on social media. Helping to promote tourism in the city's historic center and preserve the place;
- **TOURISM** - Creating an aesthetically innovative project can increase tourist visits to the site, which makes people interested in the place, learn about its history and help in its conservation.



## 03. LOSS OF HISTORICAL MEMORY

- **DEVELOP DEBATE SPACES**
- **TOURISM** - Know more about the area and its history helps preserving it;
- **TECHNOLOGY + SOCIAL MEDIA** - Use of technologies to help recover and preserving the local memory



## 04. HEAVY TRAFFIC

## + 05. PRIORITIZING PARKING OVER URBAN MOBILITY

- **PUBLIC POLICY** - Creation and application of public urban mobility policies that allow more people to move around the city with quality, reduce the environmental impacts caused by the excess of vehicles in circulation, and encourage and generate the population's well-being.
- **CREATION OF BIKE PATHS**
- **LAND USE REGULATION**
- **OFF HOURS DELIVERY STRATEGIES**



## 06. UNCONTROLLED EXPANSION OF MALLS

## + 07. PRIVATE STAKEHOLDERS POSSESS A LOT OF DECISION POWER IN THE AREA

- **LEGISLATION** - A well done urban planning can outline the use of the land, determine maximum heights, occupation of the lot, distances, etc., in order to control the growth of the area and prevent that the economic influence does not play a prominent role in making the decisions.

# URBANISTIC DESIGN PROPOSAL

## 01. NEW PEDONAL STREETS

### DURING THE WEEK:

Since the Hippie Fair does not work during the week, there is no intense flow from the commercial streets to Praça do Trabalhador. So, from Monday to Friday, just Contorno Avenue from Av. Independência to 301<sup>st</sup> St. and the parallel streets between are going to be close. 301<sup>st</sup> street can not be close because it connects the area to the other side of Marginal Botafogo and is a vital route to those buses which arrive from the Northeast side as those coming from Brasília, Anápolis, Bahia, and others.

NEW CAR  
FLOW

MAP 39

MONDAY TO FRIDAY  
8AM TO 6PM



## NEW ROAD SYSTEM

MONDAY TO FRIDAY  
8AM TO 6PM

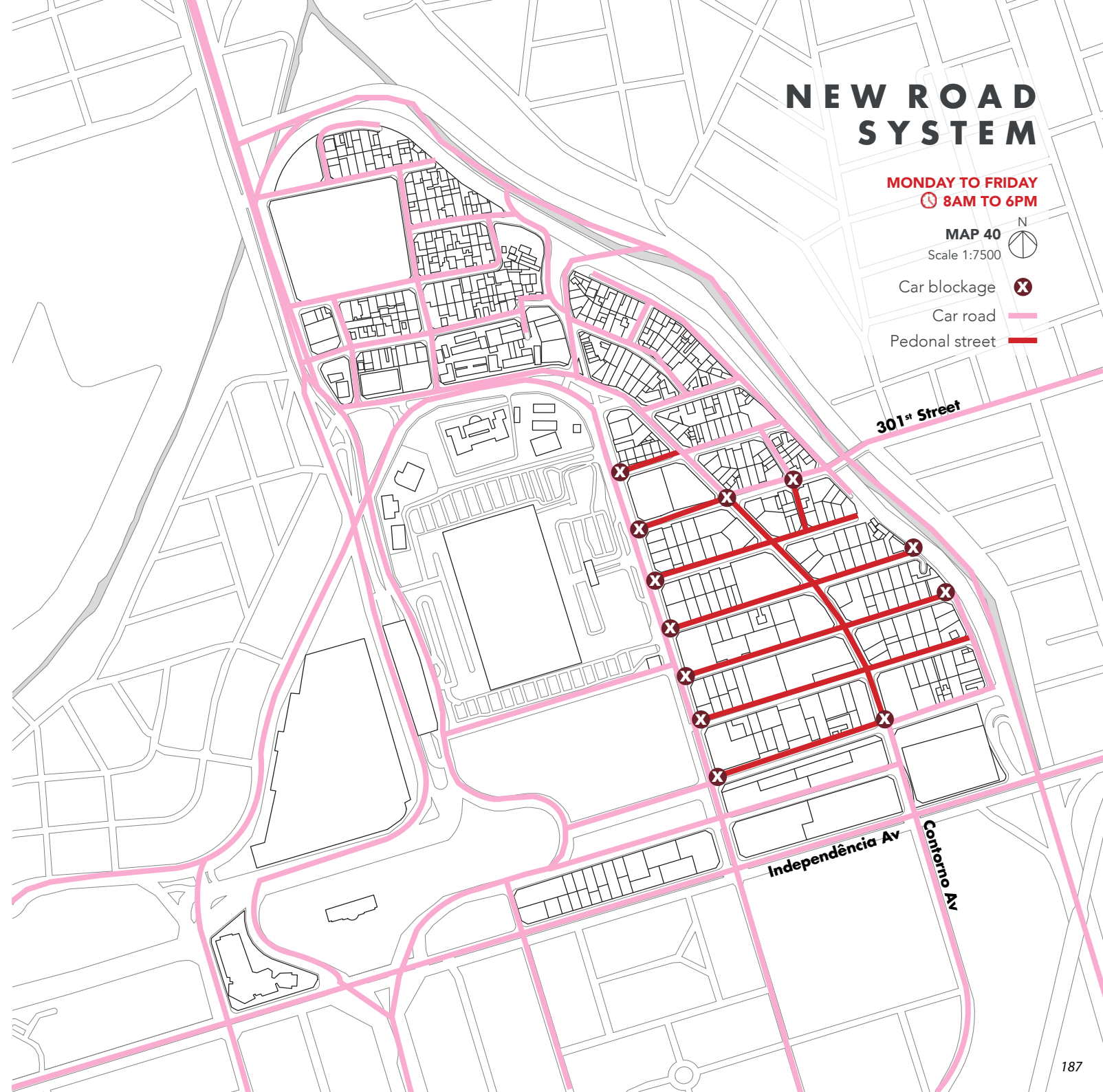
MAP 40

Scale 1:7500

Car blockage

Car road

Pedonal street





PEDONAL  
STREETS

DURING THE  
WEEKENDS:

During the weekends with the Hippie Fair, there is an intense flow from the commercial streets to Praça do Trabalhador. So, also 44th Street is going to be close. All the original flow from 44th street is redirected to Goiás Avenue. Since the Bus Terminal has entrances on both sides, only the west entrance will work for buses during the weekends, and cars will be able to access normally the first entrance on the east side.

NEW CAR  
FLOW

MAP 41

SATURDAY AND SUNDAY  
8AM TO 6PM

Bus Terminal working entrances



NEW ROAD  
SYSTEM

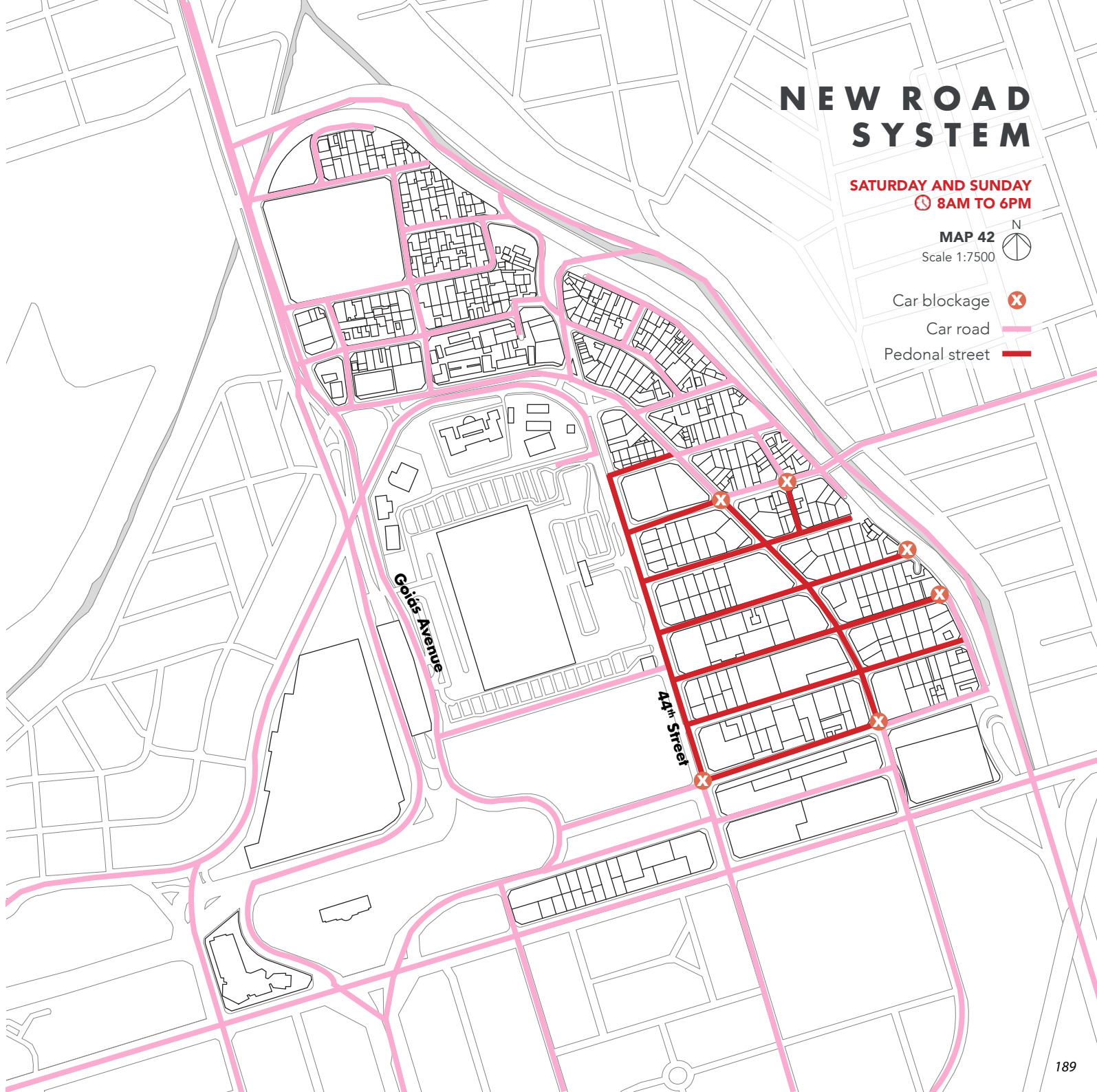
SATURDAY AND SUNDAY  
8AM TO 6PM

MAP 42  
Scale 1:7500

Car blockage

Car road

Pedonal street

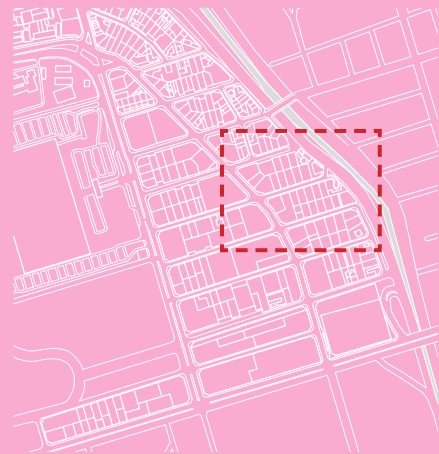




Example pedonal street  
Torino - Italy

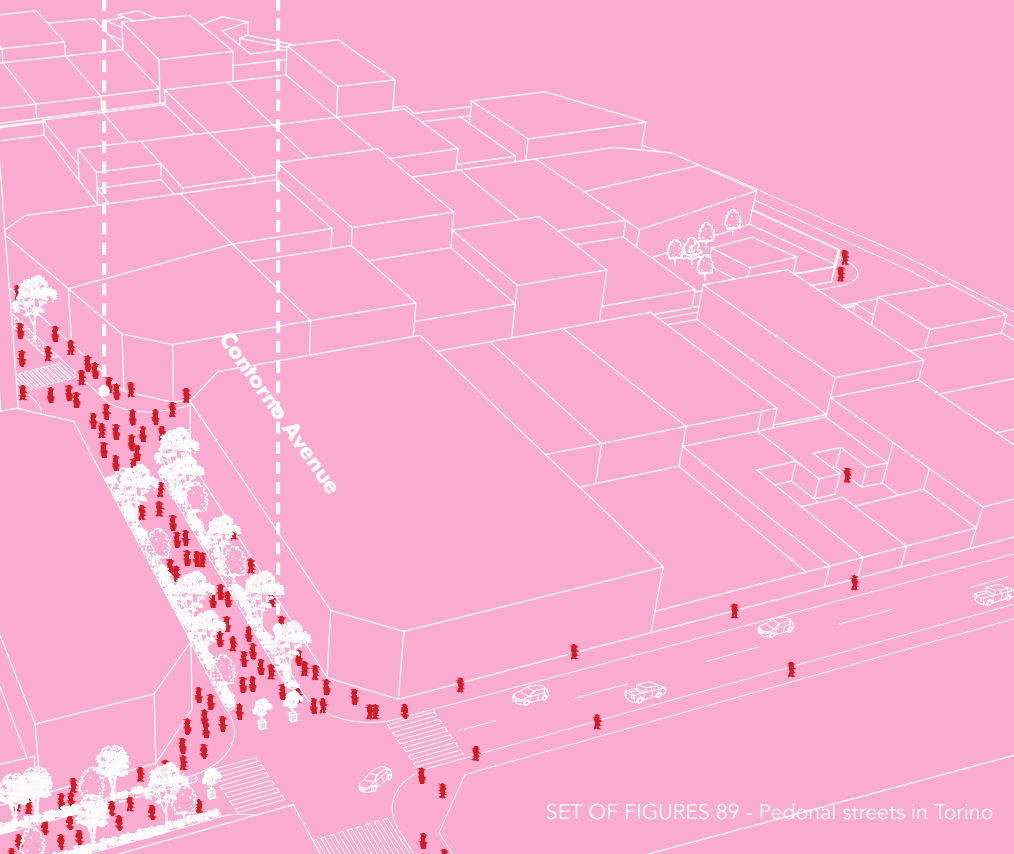


Example of  
car blockage  
Torino - Italy



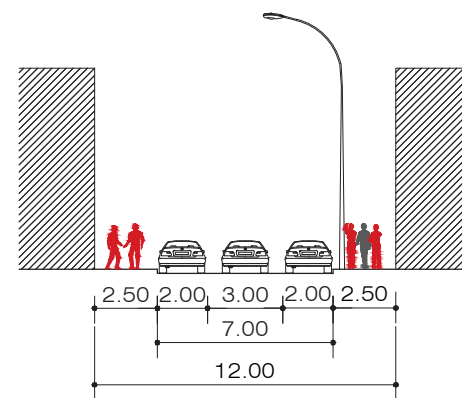
Interventions in road design are capable of forcing cars to reduce speed in a natural way so that streets prioritize pedestrians and are safe for them. Measures taken:

- LEVELING THE CAR LANE WITH THE SIDEWALKS. For safety and to facilitate locomotion at times when the routes are exclusively for pedestrians;
- ELEMENTS OF PROTECTION AND DELIMITATION of the car and pedestrian area along the road (BIOSWALES);
- MOVABLE CAR BLOCKING ELEMENTS for exclusively pedestrian days (potted plants)
- PARKLETS

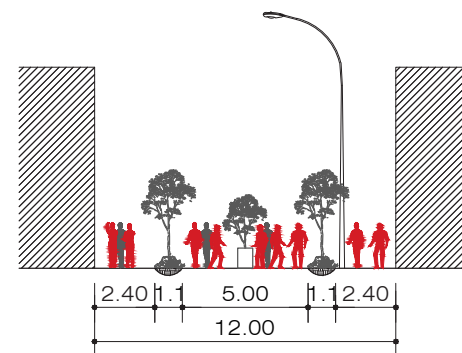


SET OF FIGURES 89 - Pedonal streets in Torino

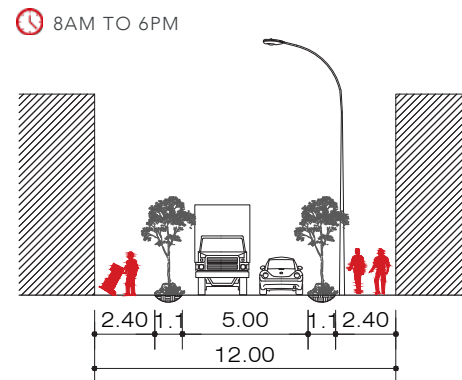
#### SECTION OF THE NEW PEDONAL STREETS:



GENERAL STREETS - BEFORE



GENERAL STREETS - AFTER



GENERAL STREETS - AFTER

BEFORE 8AM - AFTER 6PM



VIEW OF MEGA MODA STREET

BEFORE 8AM - AFTER 6PM



# CREATION OF BIOSWALES ON THE ROADSIDE, PARKINGS AND SIDEWALKS

## STEPS:

- **01. WATER FLOWS IN:** Dirty water from neighborhood roads and rooftops enters the bioswale
- **02. WATER SLOWS DOWN AND IS CLEANED:** Plants, rocks, and dirt slow water down in the bioswale, giving time for pollutants to settle out. As water infiltrates the soil, plants and microbes break down some of the pollutants
- **03. WATER SINKS INTO THE GROUND:** Water enters the perforated pipe where it is slowly absorbed into the ground. This helps recharge groundwater.
- **04. WATER FLOWS OUT:** Excess stormwater exits the bioswale and flows into the near rivers cleaner than when it entered.

(Font: The watershed project)

Bioswales: planted or mulched canals that slow the flow of water and allow it to infiltrate the soil. Useful along roads or in parking lots where they can divert water from roads and pavements. The planting of native plants (cerrado vegetation) from the water point of view can be self-sustaining, without irrigation costs.

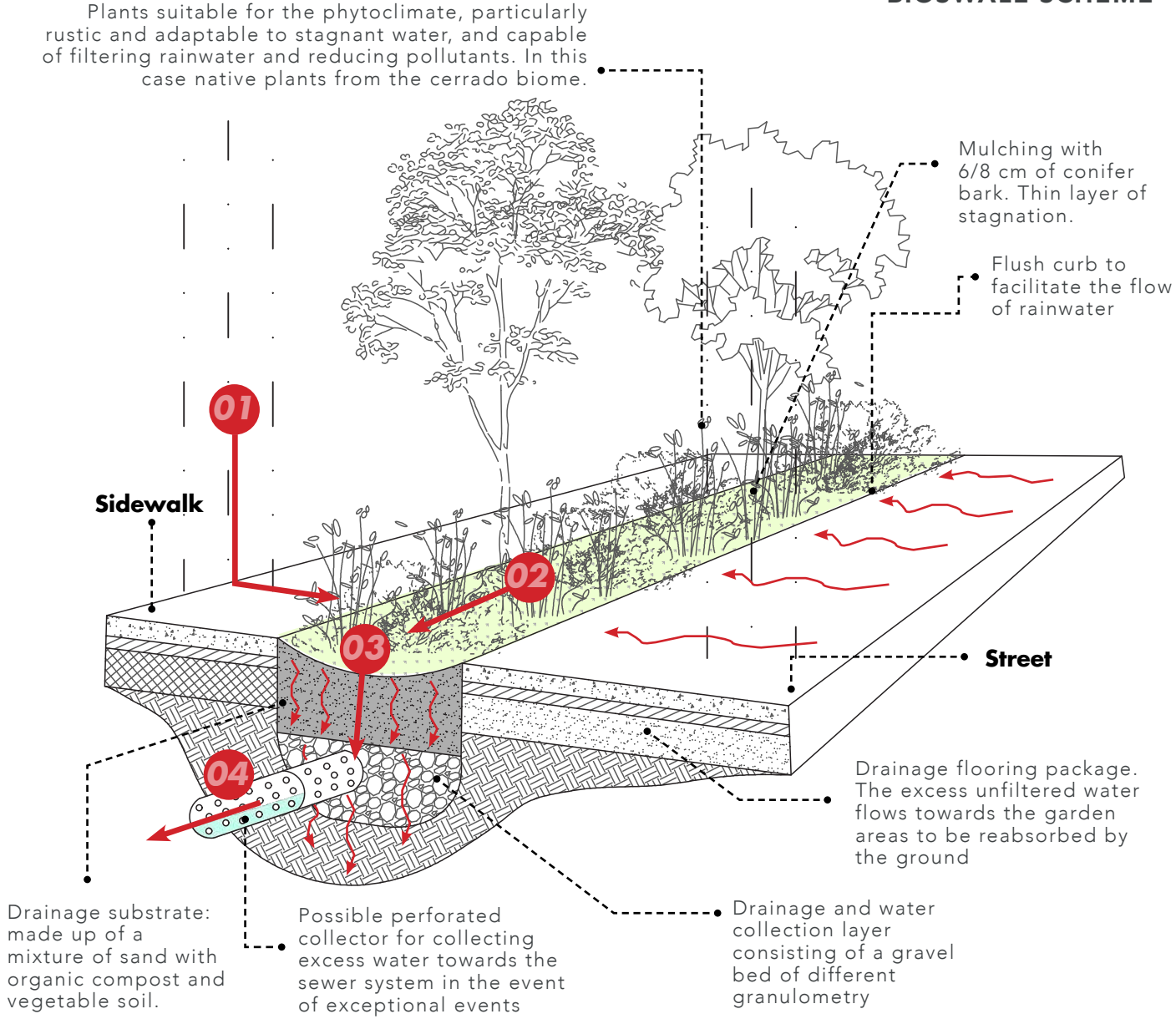
An environmental benefit of using this in the project is to help reduce flooding by slowing the movement of rainwater. Potential pollutants from the stormwater runoff are filtered out before they can harm aquatic habitats or deter economic activities. Plus, in this case will help dividing the pedestrian and the car side when the streets are open for cars, generating security to the area.



### Main species:

- |                                 |             |
|---------------------------------|-------------|
| • Ipê (purple, pink and yellow) | • Cagaita   |
| • Copaíba                       | • Jatobá    |
| • Pequi                         | • Buriti    |
| • Palmeiras do cerrado          | • Aroeira   |
| • Barú                          |             |
| • Peroba                        | • Jacarandá |
| • Pau-doce                      |             |

## BIOSWALE SCHEME



CREATION OF PARKLETS

“ Parklet is a small seating area or green space created as a public amenity on or alongside a pavement, especially in a former roadside parking space.

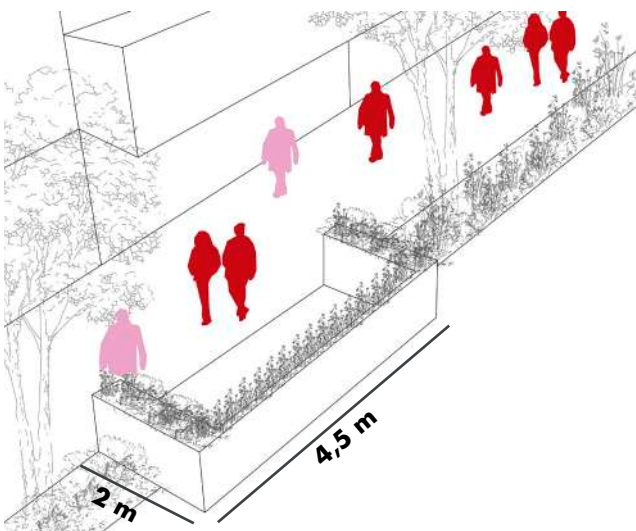
“the parklet features planters full of tall shrubs that shield visitors from traffic”

(OXFORD LANGUAGES DEFINITION)



SET OF FIGURES 90 - Parklets references

It is proposed the creation of some parklets along the sidewalks, interspersing them with the bioswales, in order to create shopping rest stops along the streets.

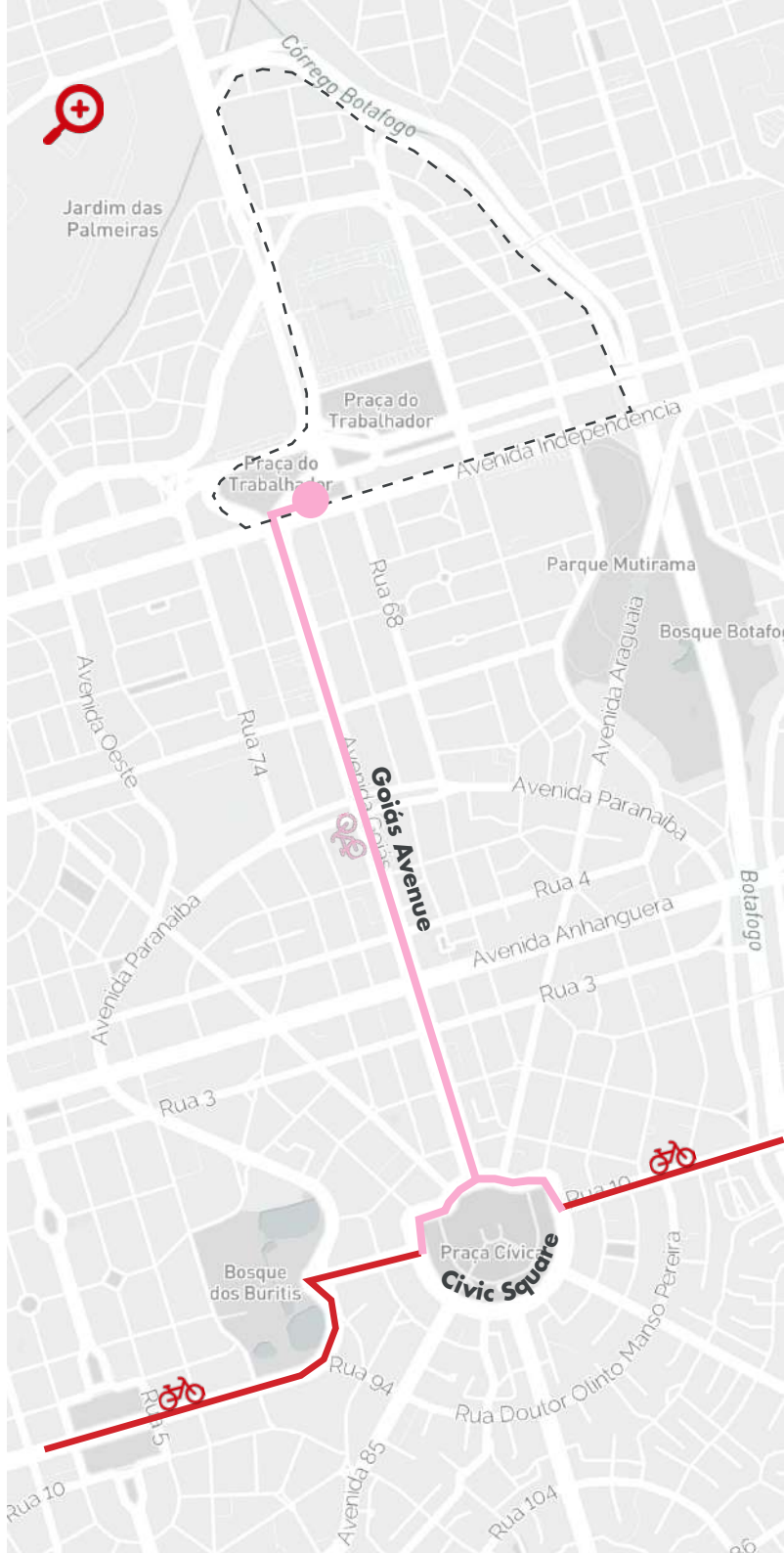
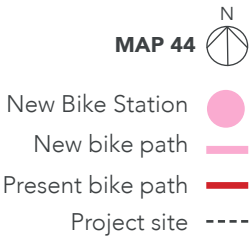
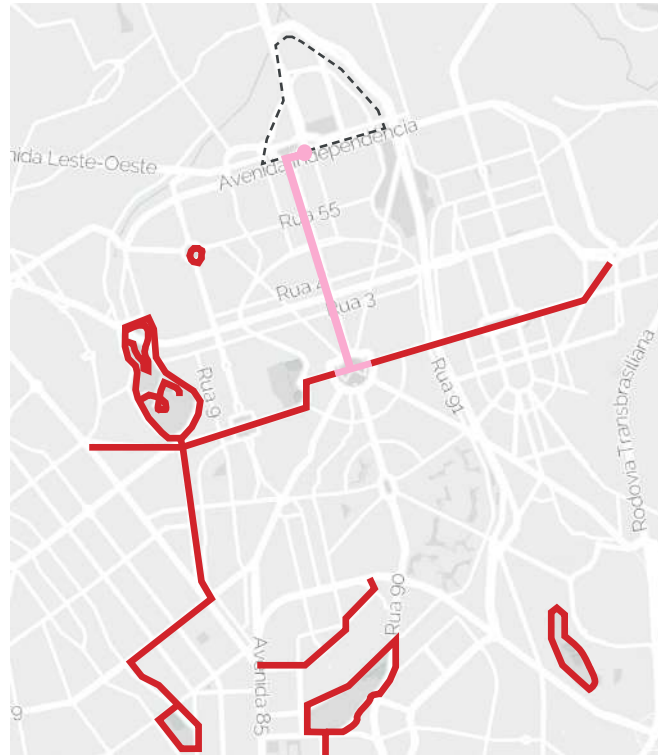


MAP 43  
Scale 1:1000  
Parklet  
Bioswales

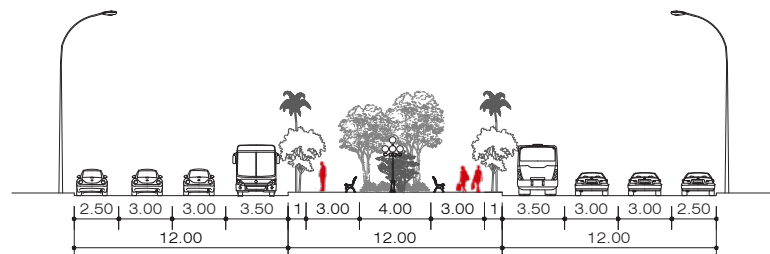


# 02. BIKE PATH CONNECTING THE CITY CENTER TO THE PROJECT SITE

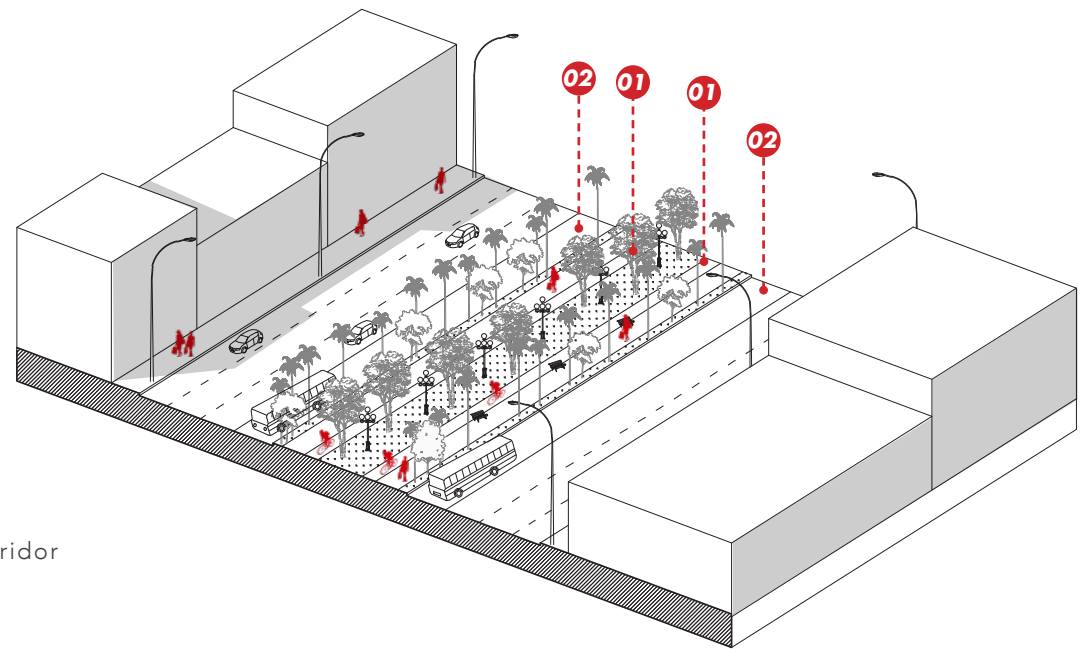
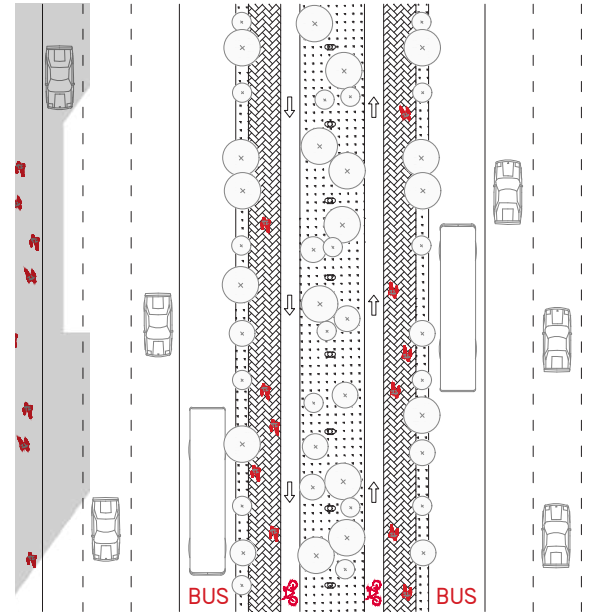
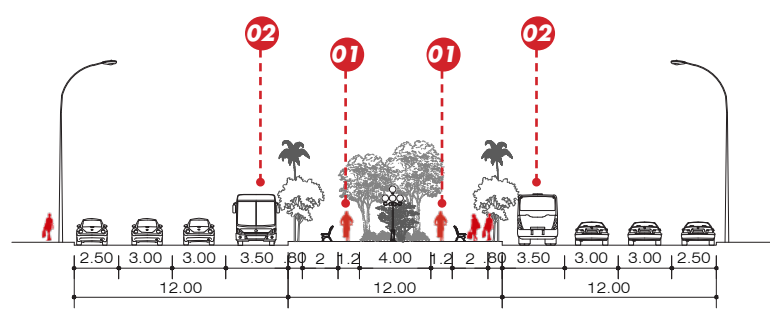
The proposition is to create a bike path on Goiás Avenue, connecting the project site to the Civic Square – the core of the city center – and the pre-existing bike paths that are disconnected.



ROAD SECTION - BEFORE



ROAD SECTION - AFTER



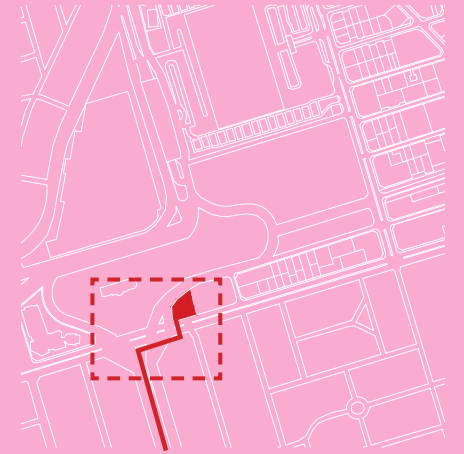
- 01 Bike path
- 02 Exclusive bus corridor



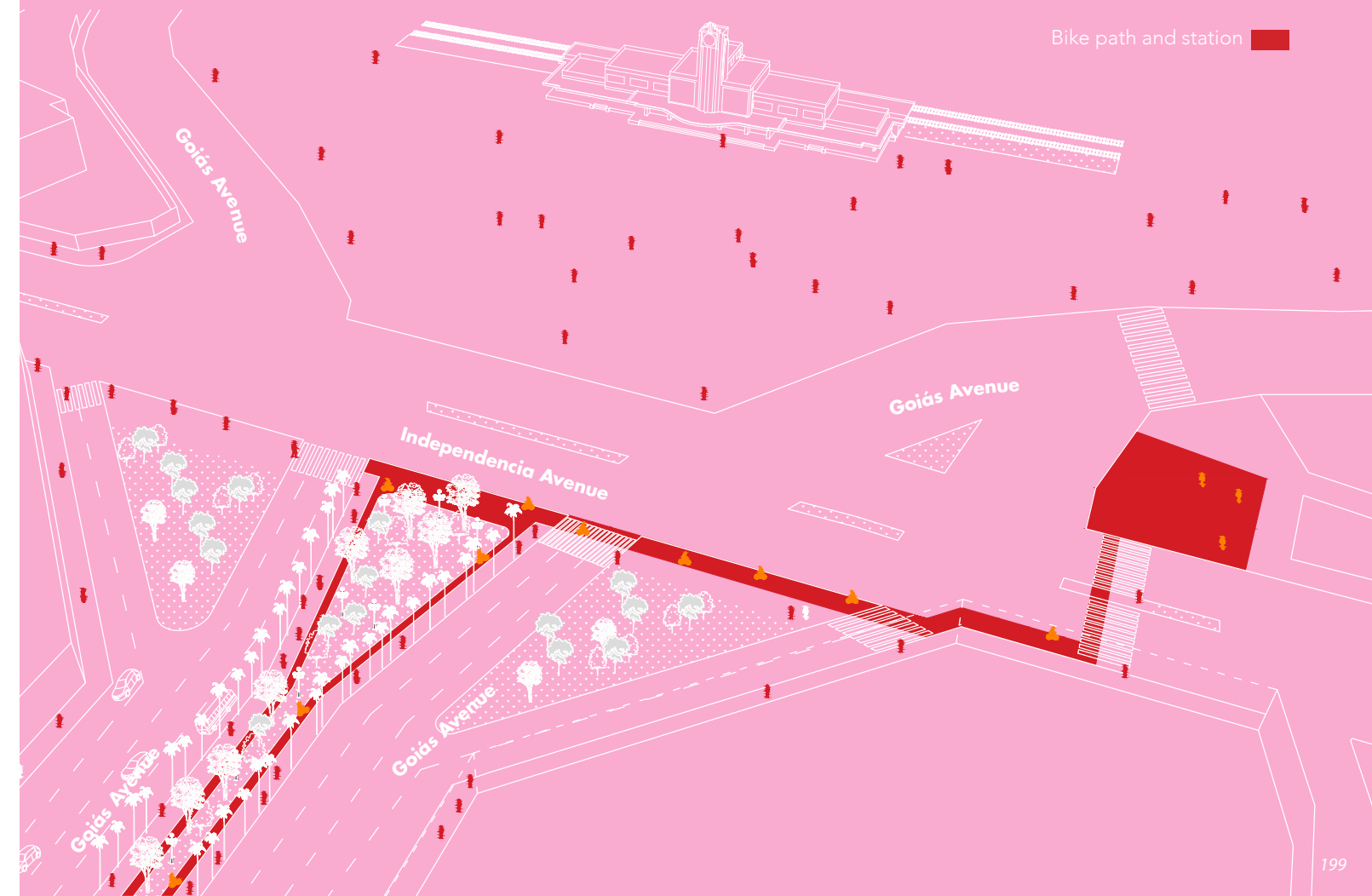
VIEW OF NEW BIKE PATH IN GOIÁS AVENUE

## NEW BIKE STATION

It is also proposed to create a new bicycle station that will have spaces available for parking of private bicycles, shared bicycles and electric scooters app station.



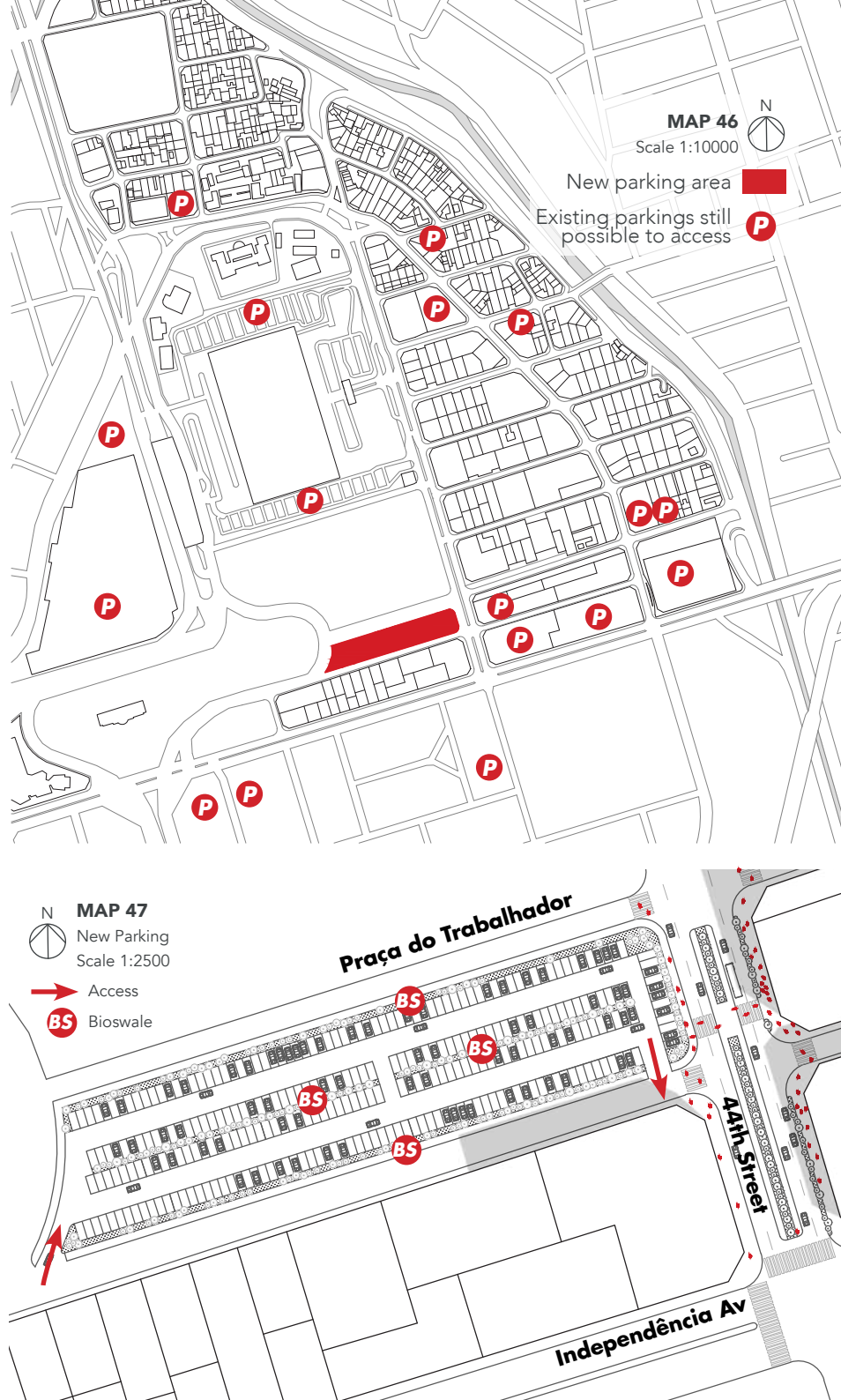
Bike path and station





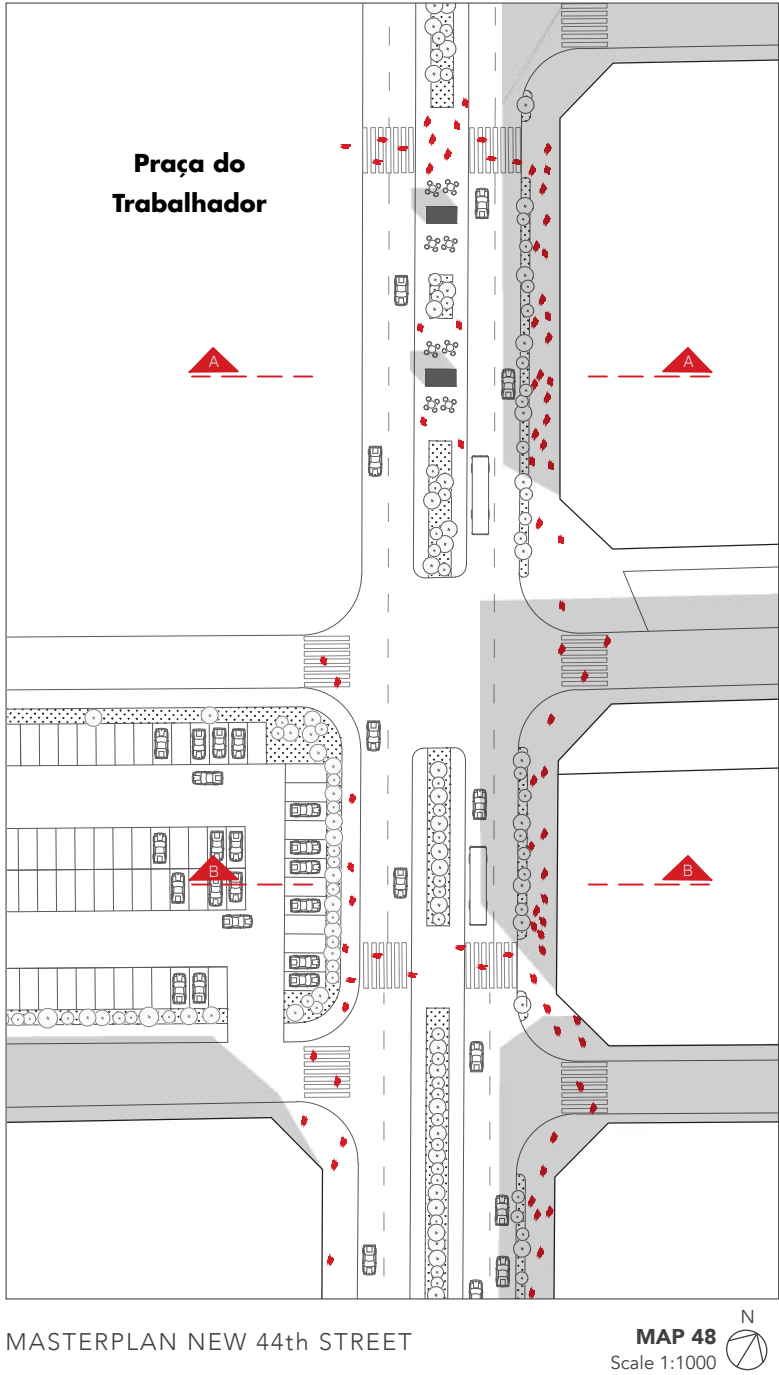
### 03. NEW PARKING AREA

With the streets operating during business hours for pedestrians only, many parking lots will become blocked from receiving cars. Despite the intention of this project to promote the use of more sustainable means of transport for the city, private car parks are still needed to receive the flow of people who frequent the area. Many existing car parks will continue to have normal access as the streets close, and in addition, a square area has been designated for a new car park with 300 spots.



### 04. TRANSFORM 44<sup>TH</sup> STREET INTO A BOULEVARD

The proposition is to create a more attractive and dynamic path for the consumers, with more vegetation, urban furniture, and food stalls, in order to promote a better shopping experience to the public.

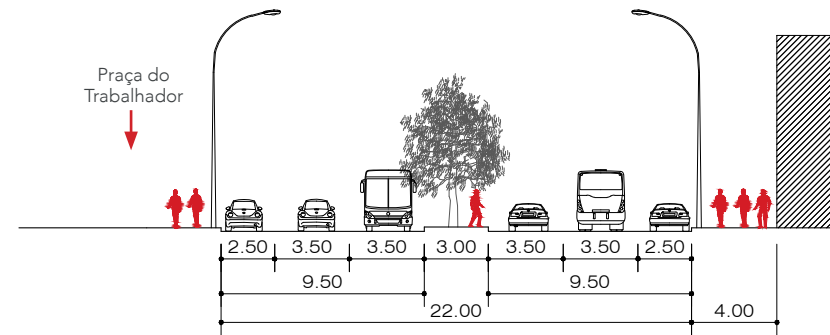


“

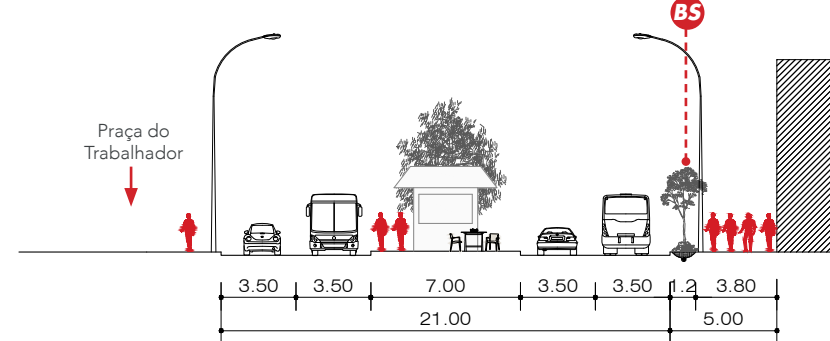
Suppose we associate the characteristics inherent to the pedestrian's condition, their attention to the environment surrounding them, such as stores, kiosks, or stalls. In that case, they are more capable of having opportunities to spend than people who move in another way like a car. This attention to detail is not only reflected in commercial spaces, but also the conditions for walking in a commercial area are important for their use and permanence in the space. The main concerns of consumers in an open-air commercial area are the width of the sidewalks, the priority given to pedestrians in the urban structure, the congestion of car traffic in the area, and safety.”

(TOLLEY, 2011)

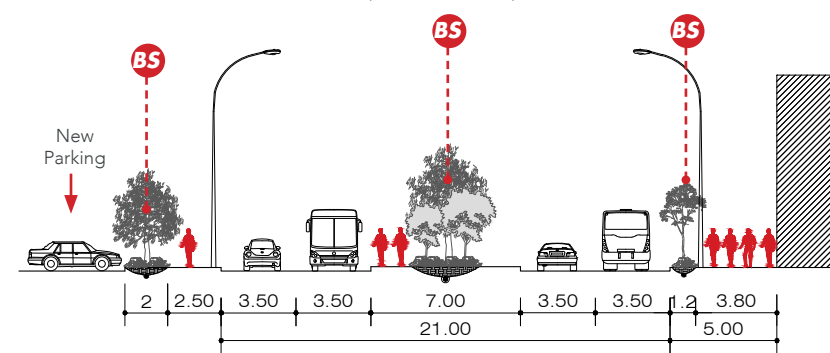
SECTION 44th STREET- BEFORE:



SECTION 44th STREET - AFTER (SECTION AA) :



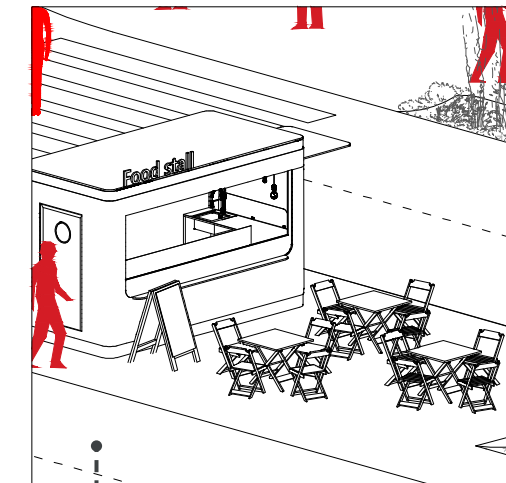
SECTION 44th STREET - AFTER (SECTION BB) :



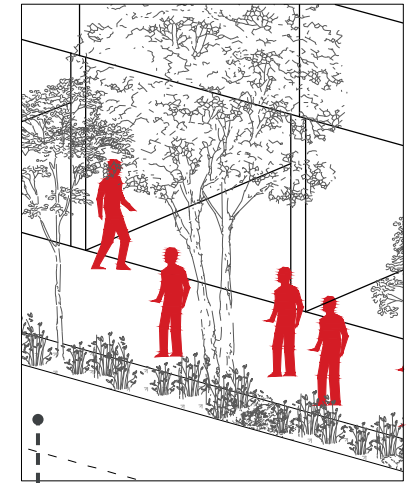
**BS** = Bioswale

## PROPOSED CHANGES:

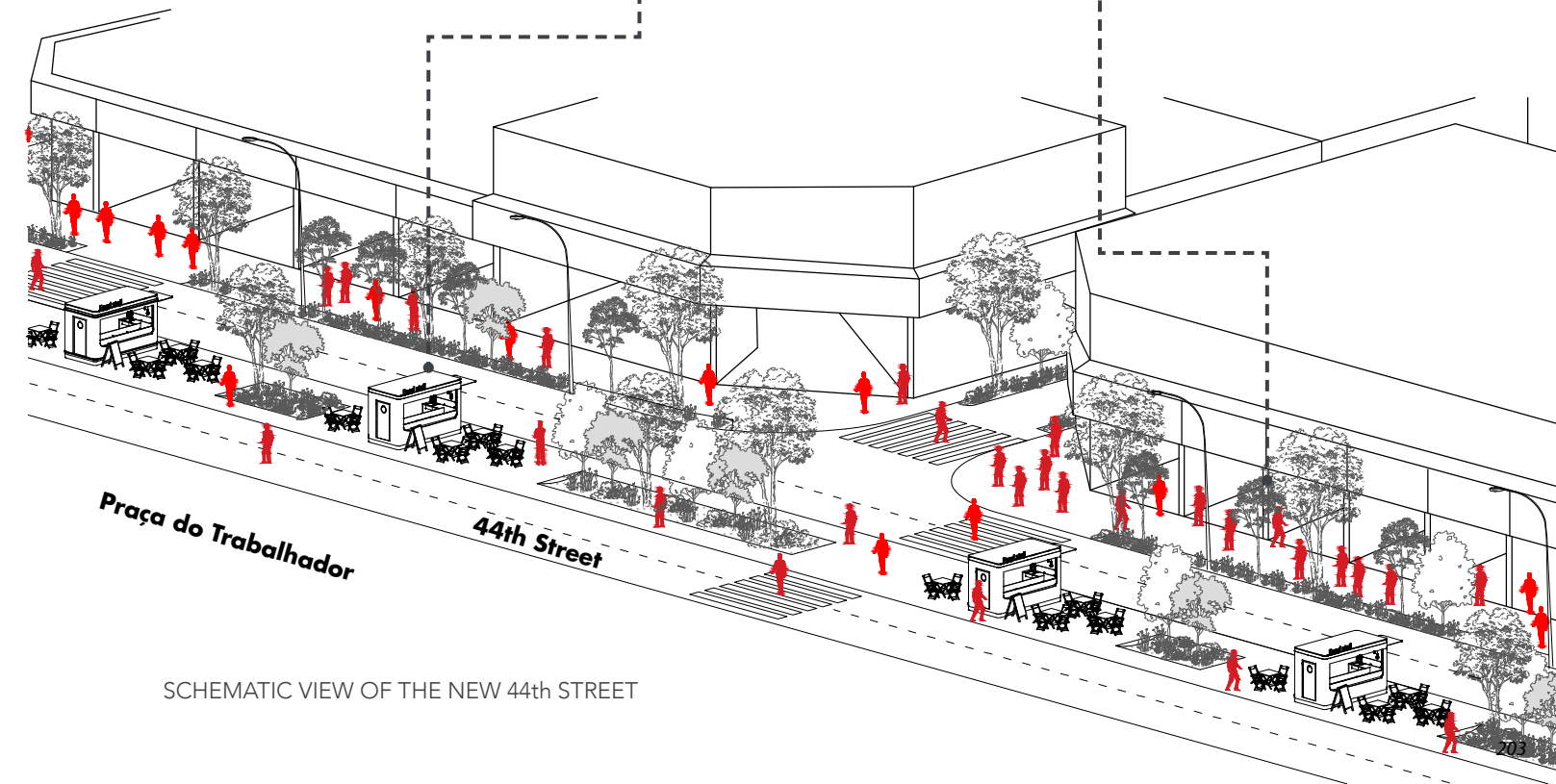
- Implementation of food stalls and kiosks on the central path;
- Seating spaces;
- Widening of the central path;
- Trees on sidewalks;
- Widening of the sidewalk;
- Dedicated pedestrian street on weekends



ADDITION OF FOOD STALLS AND SEATING AREA



CREATION OF BIOSWALES WITH TREES PLANTED TO SOFTEN THE HOT WEATHER, GENERATE SHADING ON SIDEWALKS, AND HELP PREVENTING FLOODS.



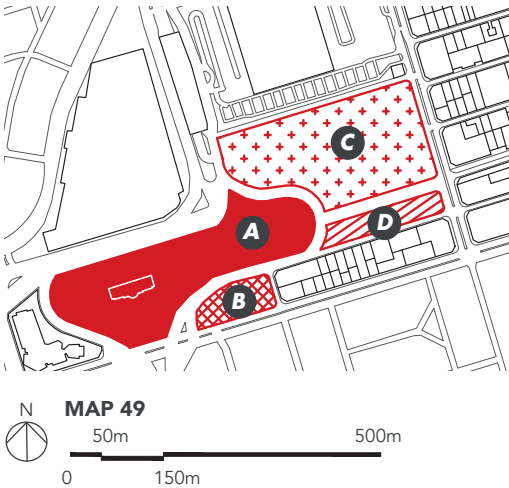
SCHEMATIC VIEW OF THE NEW 44th STREET



# LANDSCAPE DESIGN PROPOSAL

## 01. DEVELOPEMENT OF A NEW DESIGN FOR PRAÇA DO TRABALHADOR

Create a new landscape design  
for the square with diverse uses  
to relate to a diverse audience  
— age, social condition, interests  
— to benefit the communities  
around, consumers, and local  
workers.



### PROGRAM:

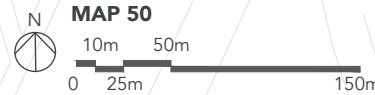
- Sports court
- Skate ramp
- Children playground
- Hippie Fair space
- Relax area
- Adult sports area (yoga, jogging, workout equipment)
- Lunch place / work break
- Meeting space
- Debate space (modern agora)
- Bike station
- Parking
- Coffee Shops

### AREA :

A = 44.700 m<sup>2</sup>  
B = 6.550 m<sup>2</sup>  
C = 45.270 m<sup>2</sup>  
D = 9.280 m<sup>2</sup>

**TOTAL AREA : 105.800 m<sup>2</sup>**

## MAIN FLOW OF THE SQUARE

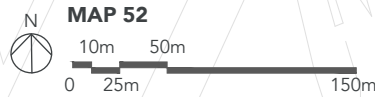


# ZONING USES



- Railway Station Building
- Area with main activities
- Less activities due to the Fair
- Passage / Bike station
- Parking
- Limits of Praça do Trabalhador

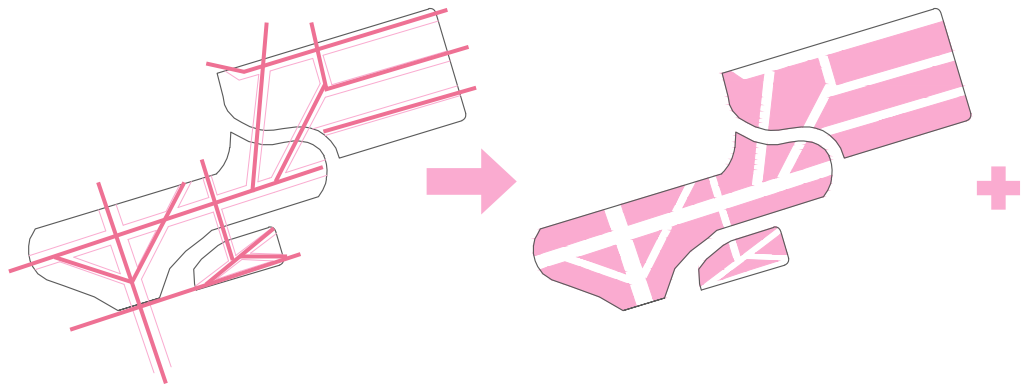
# ZONING USES





CONCEPT

USES + FLOW + REFERENCES = PROJECT



LINES FROM THE FLOW

TURN INTO SHAPES



JOINED WITH ORGANIC SHAPES,  
BOLD PATTERNS AND CURVILINEAR  
PLANTING BEDS INSPIRED ON  
ROBERTO BURLE MARX WORKS

JOINED WITH  
ALL THE OTHER  
REFERENCES



REFERENCES



Sugar Beach Toronto - Claude Cormier



Bus Terminal and  
Urban Renovation  
in São Luís, Brazil -  
Natureza Urbana.



Beiqijia Technology  
Business District,  
China - Martha  
Schwartz



Fudoki garden at the Shimane Museum of  
Ancient Izumo, Japan - Fumihiko Maki



BGU University, Israel - Chyutin Architects





# MASTERPLAN

MAP 53

Scale 1:2500

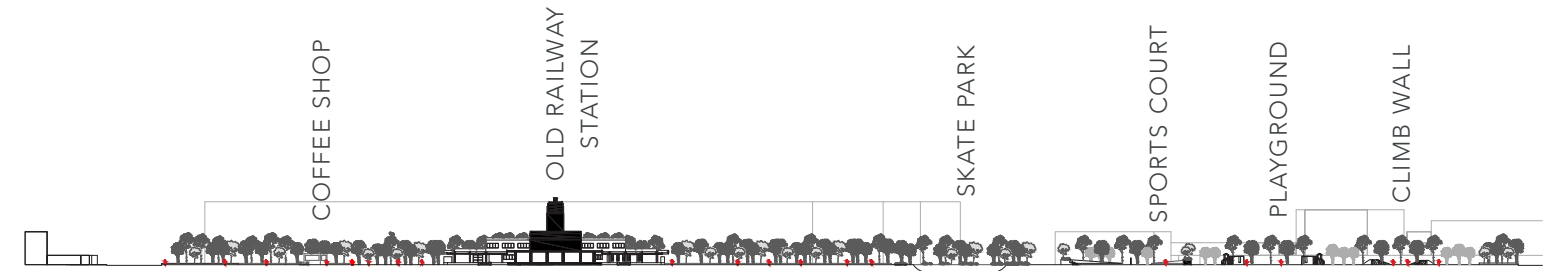




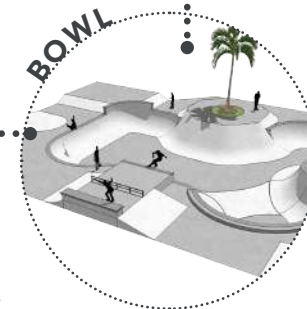
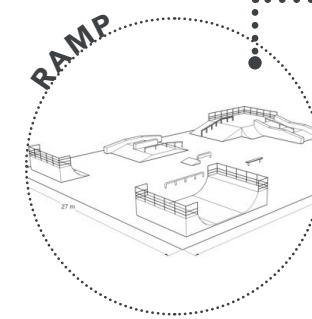
# MASTERPLAN ZONES A + B

MAP 54  
N  
0 10m 25m 50m 150m

- Public Restrooms
- Coffee shop / Snack bar
- Bike station
- Relax / intimate area
- Climbing wall area
- Skate park
- Games area (chess/ping-pong table) and hammocks
- Sports court (basketball and volley)
- Elements with water to play
- Kids Playground
- Gathering Square



SECTION AA  
Scale 1:2500



São Luiz MA, Brazil

São Luiz MA, Brazil

Kids playground from  
**Erê Lab.** Brazilian  
company that has a  
great design, with use  
of sustainable and safe  
materials





REFERENCES FOR  
GAME AREA



HUMAN SCALE CHESS



CONCRETE PING  
PONG TABLES



BOUNCING FURNITURES

REFERENCES FOR RELAX/  
INTIMATE AREA



SET OF FIGURES 93 - References

REFERENCES FOR  
URBAN FURNITURE

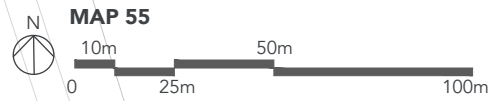


Urban furnitures  
from MMCITÉ

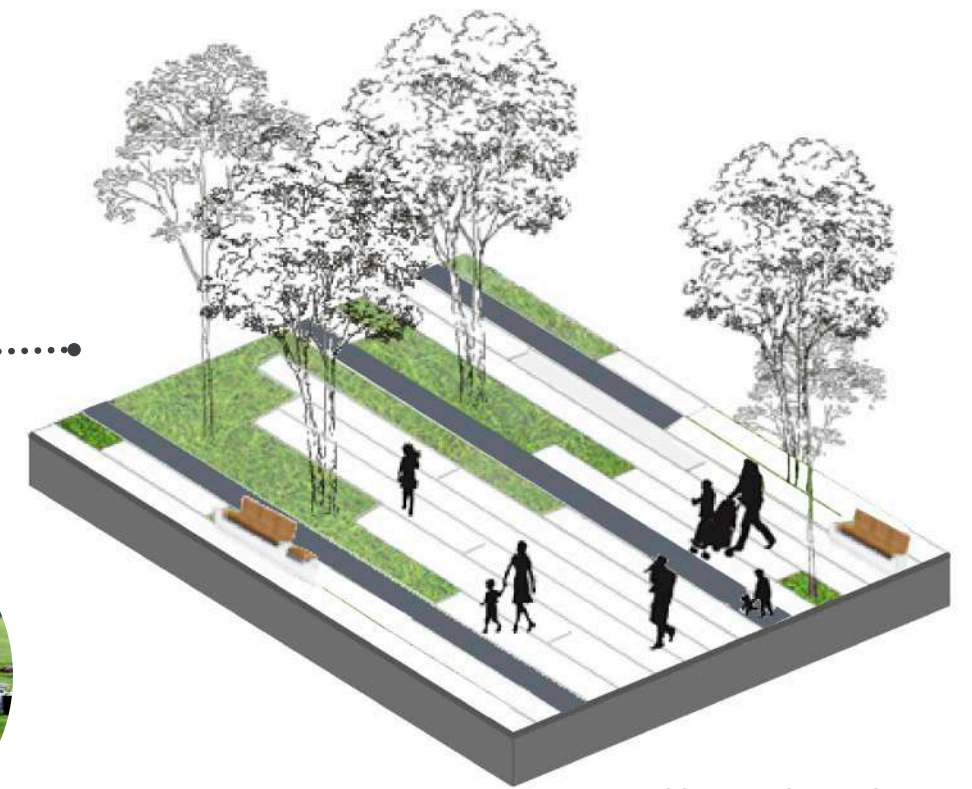
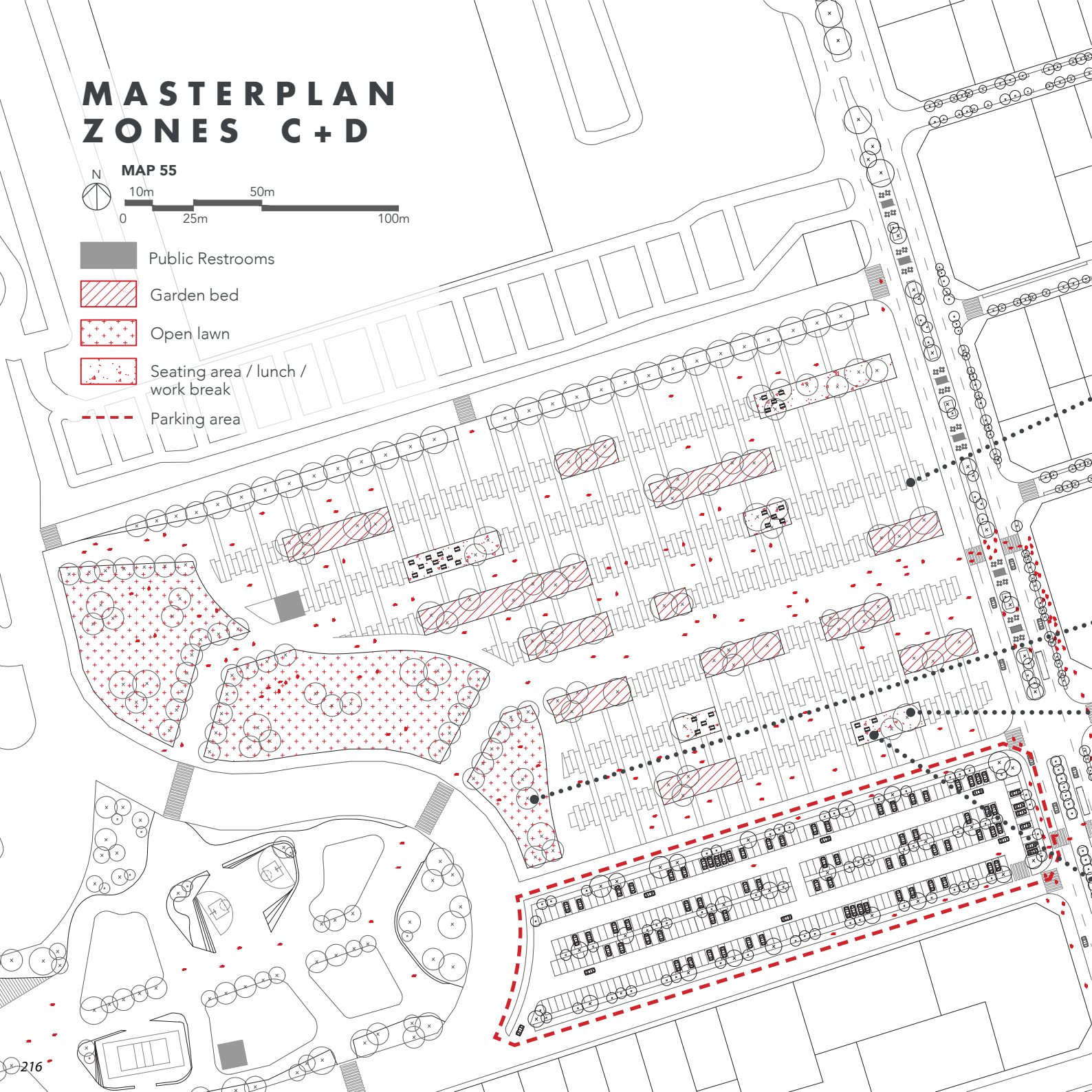
SET OF FIGURES 94 - References



# MASTERPLAN ZONES C + D



- Public Restrooms
- Garden bed
- Open lawn
- Seating area / lunch / work break
- Parking area



SCHEMATIC VIEW OF THE  
SQUARE ZONE C



The floor design allows at the same time to delimit a path for pedestrians, fill the area visually, but remain open to receive the fair on weekends.



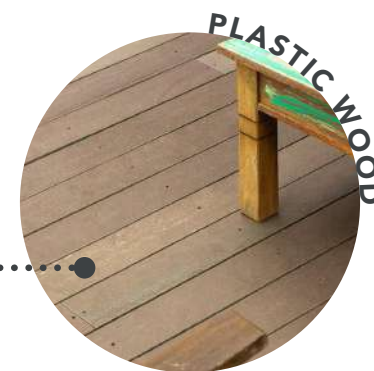
The open lawn allows people to use it as they wish. Practice outdoor sports, stay under the shade of trees to relax during a break from work, during lunch, or as a gathering place.



# MATERIALS



- Grass
- Permeable concrete Grafiti
- Permeable concrete Branco
- Plastic Wood

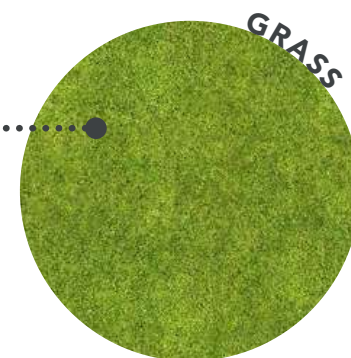


Used on the decks and furniture  
Brand: EKOBIO  
Color: Caramelo

Plastic wood from EKOBIO® has numerous advantages, as it is solid, which makes it extremely resistant to use, and therefore does not split or loosen splinters; uses recycled raw material and is recyclable; immune to pests; easy customization and flexible for different types of applications; and low maintenance.

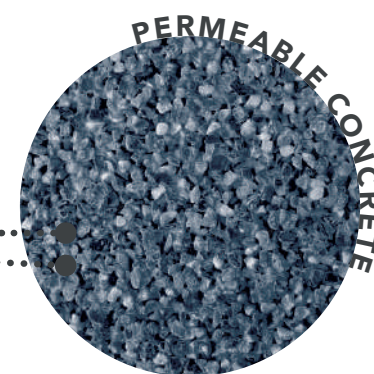


Example of pavement design but using with permeable concrete of this colors



Used on the furniture and sidewalks

The so-called sustainable concrete was developed at the Institute of Architecture and Urbanism at USP, in São Carlos. Its advantage lies in the fact that it reuses industrial solid waste in its composition, unlike those usually applied. It is only suitable for the production of pieces aimed at paving and applied to sidewalks, urban furniture and subfloors. Besides being cheaper.



Used on the grey part of the pavement  
Brand: Braston  
Color: PRATA Grafite

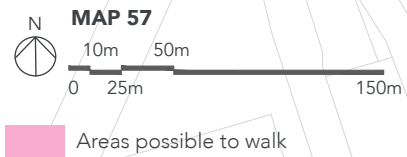


Used on the white part of the pavement  
Brand: Braston  
Color: PRATA Branco

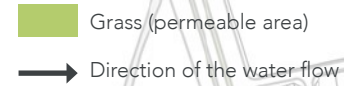
Megadrain permeable cement slabs have hundreds of small openings that allow water to pass through the floor, reaching the ground. Developed by the brazilian company BRASTON®, it is the first permeable floor developed in the country.



## CIRCULATION



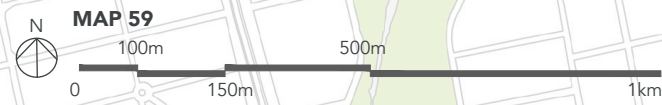
## WATER DRAINAGE



The lawns and garden beds perpendicularly designed to the flow of rainwater serve as a barrier, so the water does not descend directly towards the river. In addition to acting as a barrier, they also help infiltrate the native soil, thus reducing peak water flow and the risk of flooding and contributing to the recharge of aquifers and groundwater.



# GREEN CONNECTION



Green connection created between the protected native vegetation around the river and the green areas proposed in the project

# ISOMETRIC VIEW





# FINAL REMARKS

## FINAL REMARKS

### FINAL REMARKS

#### FINAL REMARKS

##### FINAL REMARKS

###### FINAL REMARKS

###### FINAL REMARKS

###### FINAL REMARKS

###### FINAL REMARKS

###### FINAL REMARKS

Through all the research carried out from the history of the capital of Goiás through the industrial origins of the specific area studied here, to the current formation of the 44th street cluster. One can see how important a recovery project for the area is that add not only economic value but also recover part of its history and characteristics lost over time.

After studying the context of the region, the main problems diagnosed were the crowds of cars and people fighting for the same space; the lack of a sense of community and their engagement with the space; the prioritization of private transport vehicles; and the exacerbated power that large developers have in decision making under the area. Many of the problems mentioned can be solved with public policies, the development of more specific land-use laws, the construction code and greater rigour in inspection and enforcement of the legislation. Other problems are solved through urban design and project proposals.

The work in this way sought to develop a proposal that would dialogue with the existing

uses of the area, but which would also take up local history and solve the diagnosed problems. From this, an urban-landscape project was proposed to provide an exclusive environment for pedestrians not to have to fight for space with cars and to be able to connect to the area through other modes of mobility, in addition to enjoying a new environment with different uses in the city center. Despite not having been identified as one of the region's main problems, the environmental aspects of the site were considered in this new design. The new proposal collaborates with the evasion of rainwater and its purification when it returns to springs and aquifers and promotes shading to improve the user experience in the arid environment of Goiânia. The new projected green infrastructure aims to enhance the dialogue of the 44th region with its history and its current surroundings.

The entire project was developed on a macro scale. In the future, continuity will be given to a more in-depth design of all the proposed ranges, thus reaching the project's detailed scale in order to be complete.

# REFERENCES

## BIBLIOGRAPHIC REFERENCES

ACQUA, M. V. D.; FROTA, J. A. D. *Terminal Rodoviário de Goiânia: Abandono da memória e a caracterização do espaço*. Faculdade de Artes visuais, UFG, Goiânia, Goiás, 2015. In: < <http://www.sbpcnet.org.br/livro/63ra/conpeex/pibic/trabalhos/MARIA001.PDF> >.

AMIN, Ash. *Collective culture and urban public space*. Text produced for the project «Inclusive cities: challenges of urban diversity» that took place throughout 2006 as an initiative of the Woodrow Wilson International the Center for Scholars, the Development Bank of Southern Africa and the CCCB. Spain, 2009. In: <<https://www.publicspace.org/multimedia/-/post/collective-culture-and-urban-public-space>>.

AMORIM, Matheus. *(In)transições - entre fixos e fluxos sobre a marginal botafogo*. Trabalho final de graduação do curso de Arquitetura e Urbanismo na Universidade Estadual de Goiás. Dez 2017. In: <[https://issuu.com/amorindie/docs/caderno\\_tcc\\_1\\_final\\_impress\\_o](https://issuu.com/amorindie/docs/caderno_tcc_1_final_impress_o)>.

AVRITZER, Leonardo. *Sociedade civil e participação no Brasil democrático*. Experiências nacionais de participação social. São Paulo: Cortez, 2009.

BAETA, Michelle Costa; SOUSA, Camila de Lima. *Evoluções e transtornos em polos geradores de viagens - Estudos sobre o Setor norte-Ferrovário em Goiânia*. 2019.

BEIGUELMAN, Giselle. *Está chegando a cultura híbrida: expansão das redes sem-fio aponta para revisão dos paradigmas de leitura, rede e comunicação*. Revista Trópico, São Paulo, 2018. In: <<http://www.revistatropico.com.br/tropico/html/textos/1634,1.shl>>.

BERRIO, Salvador Díaz, ORIVE, Olga B. *Terminologia general em materia de conservacion dei Patrimônio Cultural Prehispanico*. Roma: ICCROM. 1974.

BISPO, Alba Nélida de Mendonça; GIANNECCHINI, Ana Clara. *Das Retóricas do moderno nacional ao reconhecimento de Brasília como patrimônio cultural*. Oculum ens. Pág 127 - 139. Campinas. Janeiro - Junho 2015.

BRAGA, Sylvia Maria Nelo; GOMIDE, José Hailon; SILVA, Patrícia Reis. *Manual de elaboração de projetos de preservação do patrimônio cultural*. Brasília: Ministério da cultura. Instituto Programa Monumenta. 76p. 2005.

BRANDI, Cesare. *Teoria del restauro*. Rome: Edizioni di Storia e Letteratura, 1963.

CAIRNS, J.J.; PRATT, J.R. *The relationship between ecosystem health and delivery of ecosystem services*. In: Rapport, D.J., Gaudet, C., Calow, P. (Eds.), *Evaluating and Monitoring the Health of Large-scale Ecosystems*. Springer-Verlag, Heidelberg, pp. 273–294. 1995.

CAIXETA, Julia Lobo; ENOKIBARA, Marta. *Revisitando um sonho moderno. O sistema de áreas verdes do Setor Sul em Goiânia: dos planos de Attilio Corrêa Lima e Armando de Godoy à atualidade*. Revista Nacional de Gerenciamento de Cidades. V. 05, n. 33. Pp 123 - 138. 2017.

CARR, Stephen; FRANCIS, Mark; RIVLIN, Leanne G.; STONE, Andrew M. *Public Space*. Cambridge: Cambridge University Press, 1993.

CARVALHO, Gisélia Lima; MOTA, Ana Maria Guimarães da ;WENDLAND, Simoni Miriam. *O impacto da feira hippie no setor turístico-hoteleiro de Goiânia*. Boletim Goiano de Geografia, vol. 27, núm. 3, pp. 29-48 Universidade Federal de Goiás. 2007. In: <http://www.redalyc.org/articulo.oa?id=337127148002>

CHAGAS, Mário. *Casas e portas da memória e do patrimônio*. In: GONDAR, Jô; DODEBEI, Vera (Org.). *O que é memória social?* Rio de Janeiro: Contracapa. p.115-132. 2005.

CHOAY, Françoise; MERLIN, Pierre. *Dictionnaire d'urbanisme et de l'aménagement*. Paris: Presses Universitaires de France. 1988.

CITY HALL OF GOIÂNIA. [www.goiania.go.gov.br](http://www.goiania.go.gov.br)

















# LIST OF FIGURES

## LIST OF FIGURES

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**FIGURE 03** - People passing by. Retrieved from: [https://diaonline.ig.com.br/2018/12/20/vai-comprar-na-44-confira-11-dicas-que-podem-te-ajudar/?utm\\_source=Isabela+Gon%C3%A7alves&utm\\_campaign=diaonline-author](https://diaonline.ig.com.br/2018/12/20/vai-comprar-na-44-confira-11-dicas-que-podem-te-ajudar/?utm_source=Isabela+Gon%C3%A7alves&utm_campaign=diaonline-author)

**FIGURE 04** - Poster used to advertise the sale of plots of land in the new capital. Retrieved from: <https://br.pinterest.com/pin/713890978428124962/>

**FIGURE 05** - Civic Square and the three main avenues from left to right: Tocantins, Goiás, and Araguaia. Goiânia, 1957. Retrieved from IBGE.

**FIGURE 06** - Example of Patte d'oie: Palace of Versailles. Retrieved from: <http://anneedujardinier.blogspot.com/2012/03/le-territoire-de-compiegne.html>

**FIGURE 07** - Goiás Avenue in the 70s, influenced by the french boulevards. Retrieved from the Facebook page 'Goiânia Antiga'.

**FIGURE 08** - Praça do Bandeirante, Intersection between Avenues Tocantins and Anhanguera, 1960. Retrieved from the Facebook page 'Goiânia Antiga'.

**FIGURE 09** - Civic Square with the perspective of Goiás Avenue. Goiânia, 1957. Retrieved from the Facebook page 'Goiânia Antiga'.

**FIGURE 10** - Set of illustrations of Art Deco buildings in Goiânia, by the Artist André Chiote. Retrieved from: [https://www.archdaily.com.br/br/933083/artista-celebra-o-patrimonio-moderno-de-goiania-com-serie-de-ilustracoes?ad\\_medium=gallery](https://www.archdaily.com.br/br/933083/artista-celebra-o-patrimonio-moderno-de-goiania-com-serie-de-ilustracoes?ad_medium=gallery)

**FIGURE 11** - Teatro Goiânia. Example of Art Decó. Photo by Jackson Bianco. Retrieved from: <https://gshow.globo.com/TV-Anhanguera/no-balaio/noticia/conheca-locais-encantadores-em-goiania-no-estilo-art-deco.ghtml>

**FIGURE 12** - Itamaraty Palace and National Congress on the background. Brasília. Exemple of the brazilian modernism. Photo by Pe Vedadano Brasil. Retrieved from: <https://outracidade.com.br/brasilia-poderia-ser-diferente-mas-seu-destino-era-o-modernismo/>

**MAP 01** - Map of the first Urban Plan of Goiânia with the zoning. Made by the author.

**FIGURE 13** - Lago das Rosas, 1980. Retrieved from: <https://www.curtamais.com.br/goiania/17-fotos-rarissimas-de-uma-goiania-que-voce-nao-conheceu>

**FIGURE 14** - Arborization through Goiás Avenue, 1980. Photo by Hebert Flores. Retrieved from the Facebook page 'Goiânia Antiga'.

**FIGURE 15** - Plan of South Sector, created by Armando de Godoy and executed by Coimbra Bueno & Cia LTDA. Retrieved from: <https://aprosul.com/setor-sul/>

**MAP 02** - Actual Dimension of Goiânia X Original plan. Made by the author.



**FIGURE 16** - Intersection between Araguaia Av. and 4th St. Author unknown. Retrieved from the Facebook page 'Goiânia Antiga'.

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# Master's degree final thesis

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Master degree  
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In the context of the creation of Goiânia in the 30s, the Northern Railway Sector was an area where the Railway Station was located, surrounded by illegal subdivisions that its employees inhabited. From the 1980s onwards, the space began to change, culminating in the current formation of the shopping area popularly known as Rua 44. The project site comprises the Interstate Bus Terminal, Praça do Trabalhador, and the conglomerate of stores, malls, and hotels considered the second-largest commercial hub and fashion distributor in Brazil. This work aims to create an urban rehabilitation project for the entire region. An urban-landscape project is proposed here that seeks to improve the traffic and flow of people in the area; improve users' shopping experience, and recover and preserve the historical memory of the place. On an urban scale, it is proposed to change Contorno avenue and its parallel streets into pedestrian streets during the week's commerce and 44th Street at weekends. The landscaping project, on the other hand, proposes a new design for Praça do Trabalhador that brings a diversity of uses, diversity of people (age group and socioeconomic status), engagement with the community, generates well-being, and an innovative design that strengthens the presence of the place on social media and internet. The entire project is intended to return to its historic purpose of being a meeting place and combine it with current commercial use to benefit the local community, consumers and workers in the region.



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