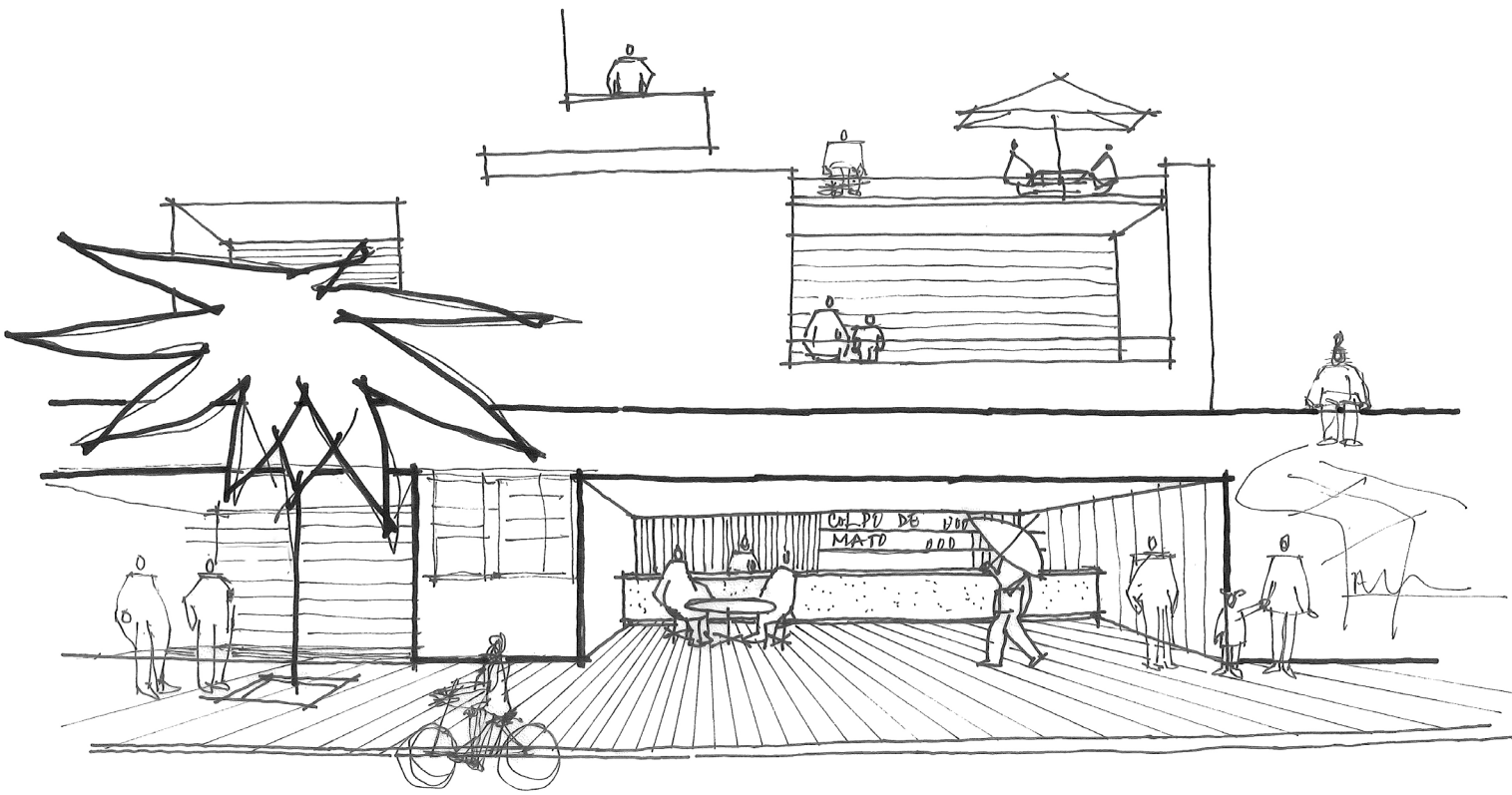
IS THERE A CITY BEYOND THE BUILDINGS?

Searching for Urbanity in Recife



The wall that separates two neighbours, home from street, and city from countryside, lies at the heart of the notion of law and society.
City building therefore is partly a boundary setting exercise, subdividing space and creating new functions and meanings, establishing new relationships between the two sides.

Ali Madanipour

To my nephew Théo,

my personal reference in how to make assertive questions and to explore cities, real or imaginary.

Acknowledgements

My sincerest gratitude goes to my mentors, Birgit Hausleitner, Dominic Stead and Paola Viganò for their involvement, constant guidance, inspiring comments and motivation.

To my dear colleagues at EMU, thanks for these two years of mutual learning and sharing experiences.

To my table mate Jane, thanks for the extra energy and for the inspiring talks.

To my step family in Venice, Germana and Aditya, I will miss our house routines.

To Professor Bernardo Secchi for the experience at IUAV and the consequent 'Viaggio in Italia' that affected my life in many aspects.

Here in Delft thanks to the teaching staff at EMU course, particularly to Meta Berghauser Pont, Daan Zandbelt, Vincent Nadin, Akkie Van Ness, Alex Wandl and Roberto Rocco.

On the other side of the Atlantic, thanks to my former professors and colleagues in Brazil for helping building my knowledge about Recife, without it this thesis would not be possible.

The effort that this thesis represents is dedicate to my family and specially to my parents, Luiz and Marlene, I cannot state how grateful I am for your constant support and strength.

Colophon

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EMU – European Postgraduate in Urbanism
Strategies and Design for Cities and Territories

AR9400 Frontiers
P5 Thesis report

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EUROPEAN POSTGRADUATE MASTERS IN
URBANISM
STRATEGIES AND DESIGN FOR CITIES AND TERRITORIES

TU Delft Delft University of Technology

I U A V

Content

Foreword

In this thesis I intend to make use of the knowledge produced during the EMU course to discuss certain aspects of the evolution and current status of the city of Recife in Brazil. Although the program of EMU is based on the European context and experiences, it can certainly be used as reference to other settings. One of my personal lessons from the course was to see how important is to have an external critical view to confront, contrast and compare with some of our established planning practices and assumptions. Therefore the topic proposed in this research results from the combination of the issues discussed during the course with my previous professional practice.

In my professional experience I have been able to observe the processes responsible for the expansion of Recife that are going to be described next. I had the opportunity to work at both sides involved in the construction of the city, initially in a private studio working for the real estate market and later on in an urban renewal unity at the state government.

Working at a private studio provide me with the clear perception of how construction market and architects are able to read between the lines of urban planning instruments, to follow trends that have been not identified or stimulated by urban regulations and moreover to dictate to a large extent the future of the city.

On the other side of the front, at a public institution I was able to understand the limitations of the current planning instruments, moreover the inability of certain planning instruments to cope with the speed in which construction market changes and acts. The general impression was that the city described and regulated in the plans was a city from the past; construction market action was already one step ahead.

During this time at the government I have also been involved in an exchange between Recife an Amsterdam, started by Arcam, Architectuurcentrum Amsterdam. This initiative aimed to confront how both cities, who to a certain extent have a shared past , are dealing with the future concerning heritage, water and mobility. In 2011 this exchange, named rXa (Recife exchange Amsterdam), promoted a series of video conferences where professionals and students from both sides could have an initial impression from each other cities that later resulted in an exhibition in Amsterdam. In 2012 still as part of this exchange I have coordinated a workshop in Recife involving Dutch and Brazilians professionals to discuss the future of the city of Recife.

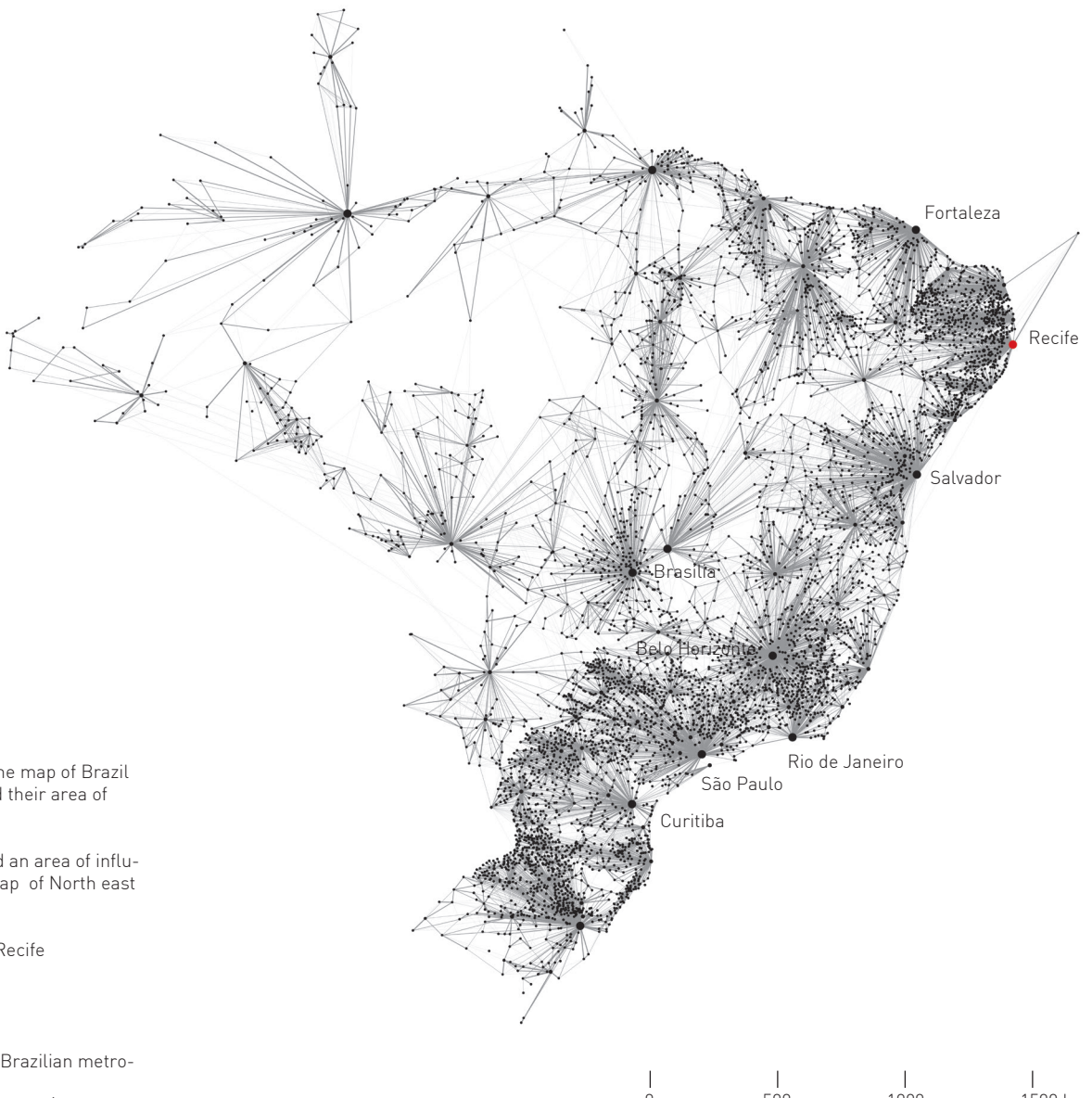
One relevant outcome of that experience was to see the differences and challenges for Brazilian and Dutch planning cultures. It was surprising to realize how both sides are looking for a point of balance between the role of the public and private sectors, but in opposite directions. From the Brazilian side the question is how to improve and reinforce the relevance of planning instruments as for the Dutch side is how to allow more flexibility in planning. Recently during the EMU course I was able to have a closer contact with the Dutch planning culture in an internship at the planning department in Amsterdam (Dienst Ruimtelijke Ordening – DRO)

So it appears natural to me to address in this thesis a theme that is inserted in this battle between construction market and governmental institutions that in a simplified perspective results in the construction of the city of Recife.

My initial thoughts were related to study the intense processes of verticalization and densification of the city and the consequences of those processes in city infrastructure and on natural and historical landscape. However I have soon realized that verticalization and densification in itself were not the problem; the question resides in a larger process that involves how urban form, as a result of insufficient planning instruments and ostensive market action, can prevent the active use of the city.

Therefore the contribution of this thesis is in one hand to discuss how the construction (historical, cultural and institutional) of the space of the city of Recife performs as a City in the sense of place to meet and exchange and on the other hand how that performance can be improved through planning as the city continuously evolves.

In an enlarged view, this study sheds light on the relevance of planning instruments and ultimately in the role of Urbanism and the limitations and possibilities it faces when addressing the processes behind the evolution of cities.



1Location of Recife in the map of Brazil with the main cities and their area of influence

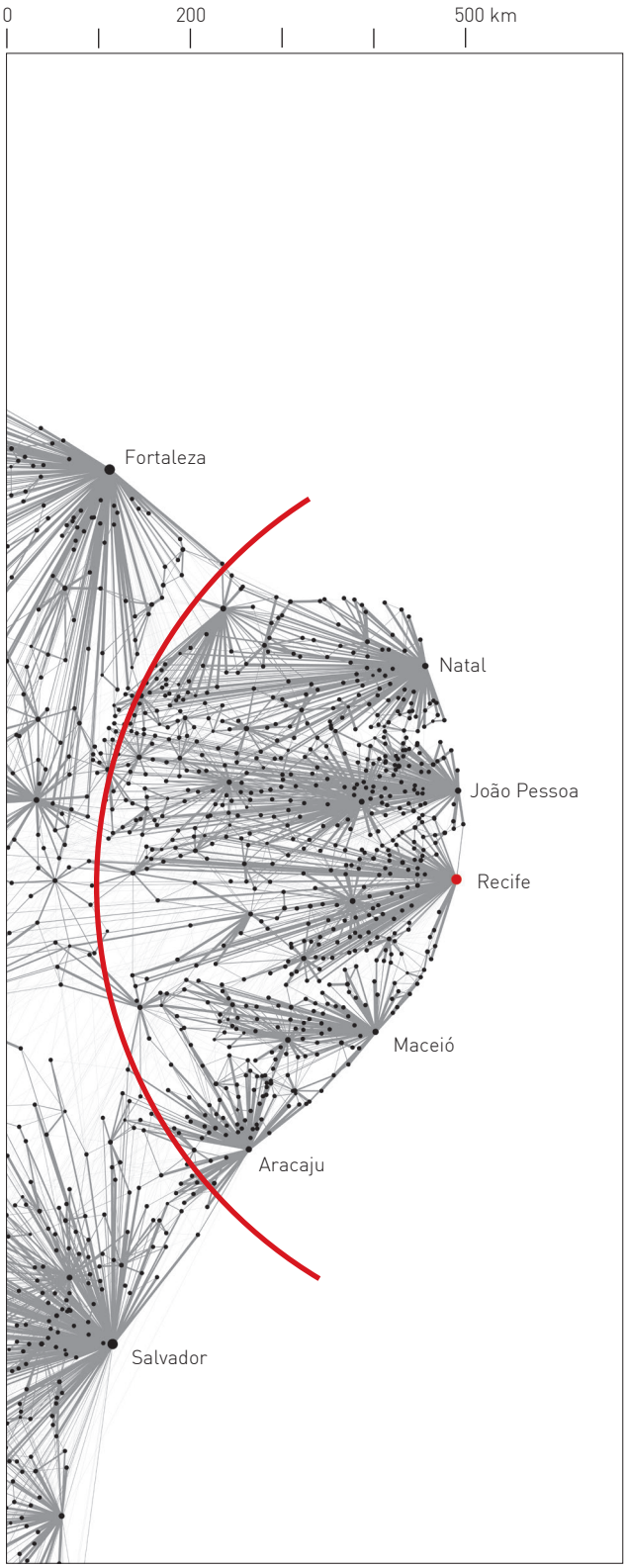
2 Location of Recife and an area of influence of 500km in the map of North east of Brazil

3 Metropolitan area of Recife

Source: IBGE

Next spread
Recife in the context of Brazilian metropolitan regions
Estimated population in 2013 (within city limits)
Source: IBGE

Base maps
Source:
Esri-NAVTEQ 2012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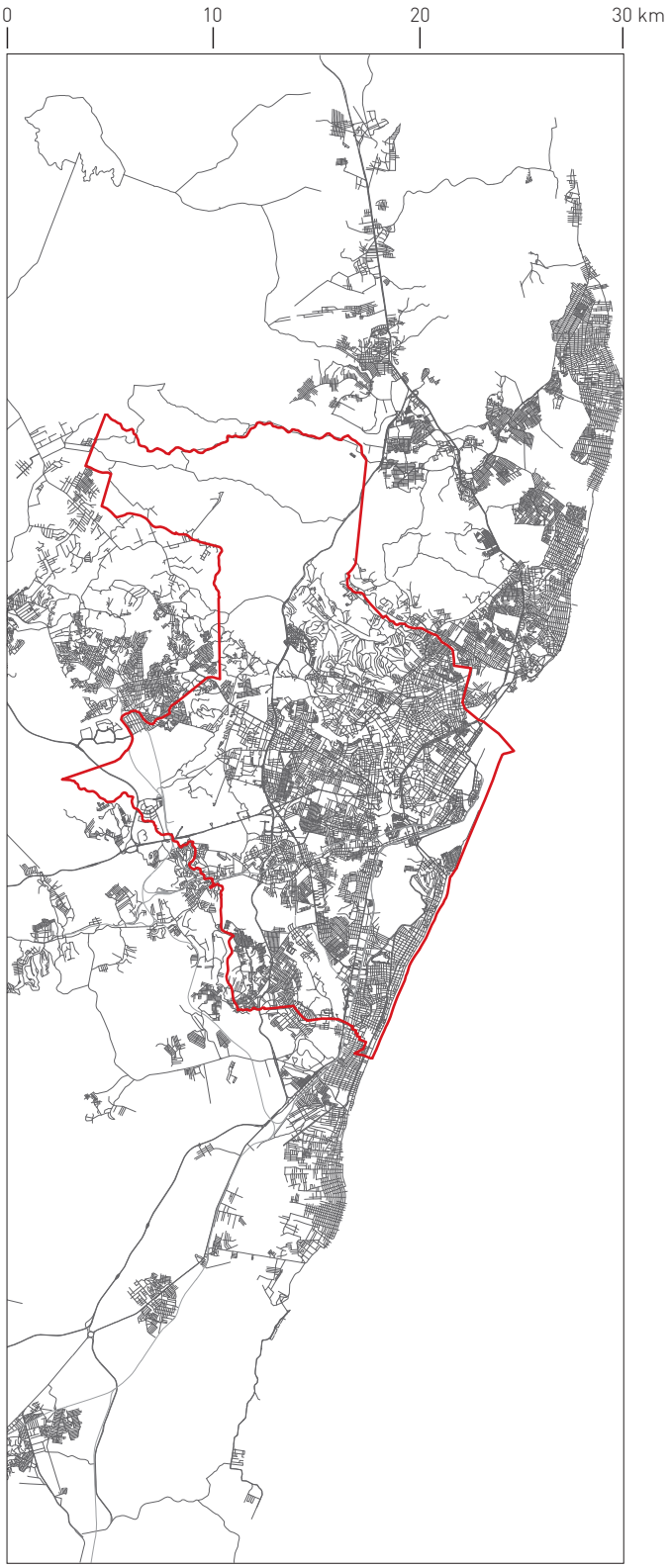
500 km
Fortaleza
Natal
João Pessoa
Recife
Maceió
Aracaju
Salvador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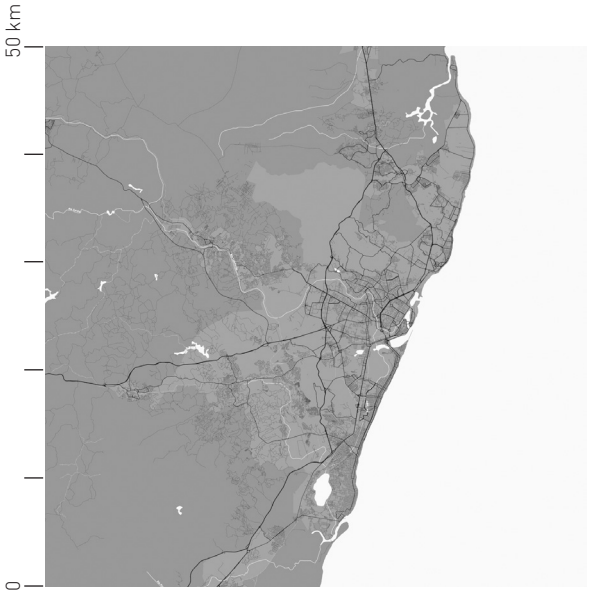
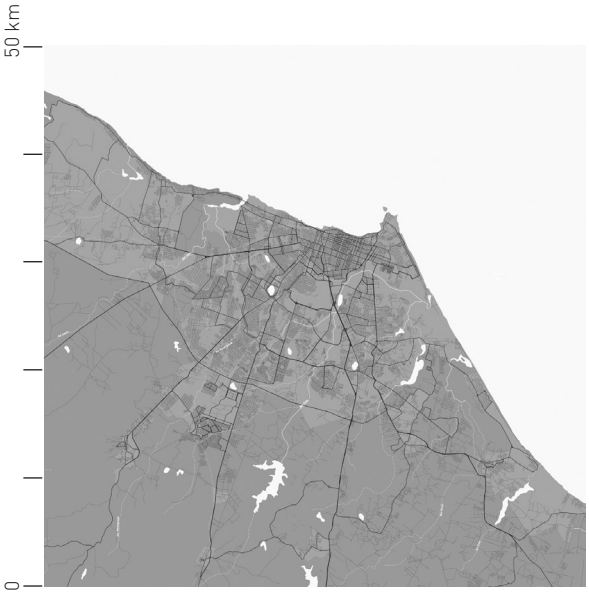


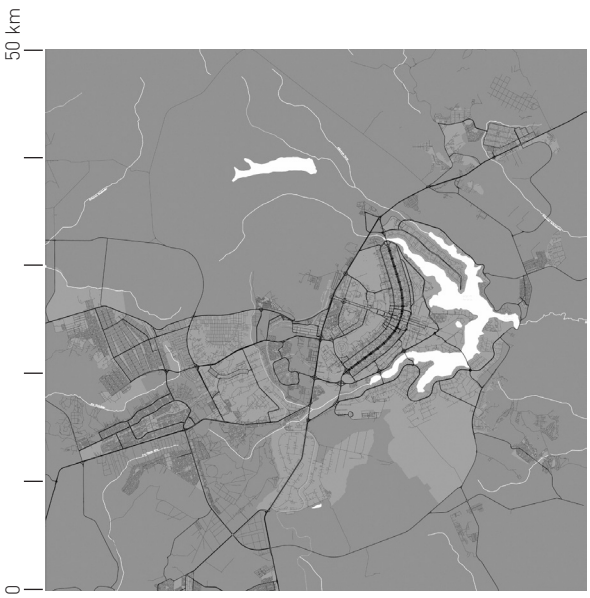
Recife

Population	1.599.513
Area	218,435 km²
Density	7.039,64 hab/km²



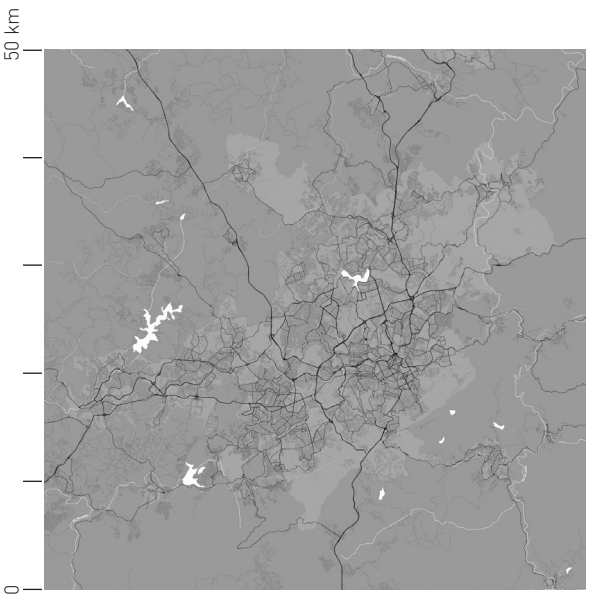
Fortaleza

Population	2.551.806
Area	314,930 km²
Density	7.786,44 hab/km²



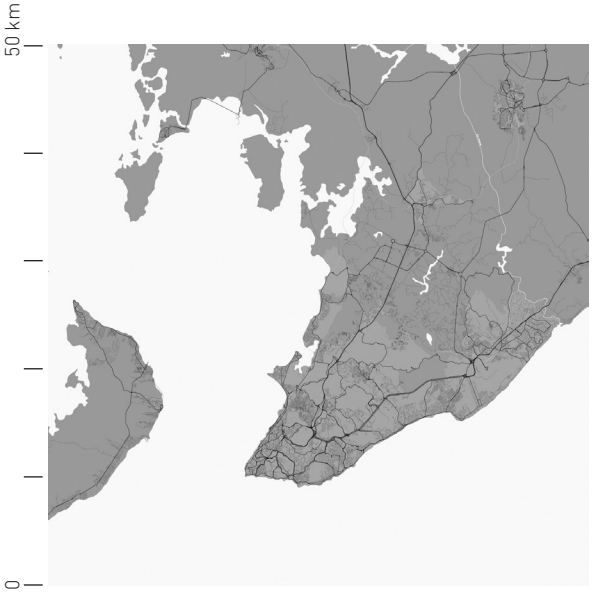
Brasília

Population	2.789.761
Area	5.779,999 km²
Density	444,66 hab/km²



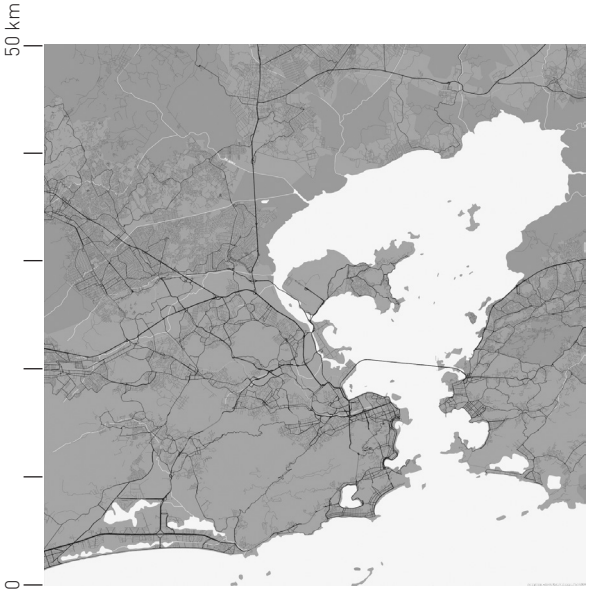
Belo Horizonte

Population	2.479.165
Area	331,401 km²
Density	7.167,00 hab/km²



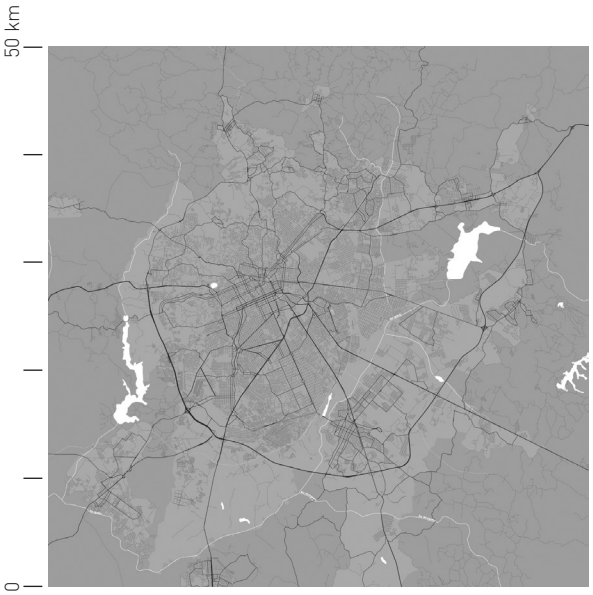
Salvador

Population	2.883.682
Area	693,276 km²
Density	3.859,44 hab/km²



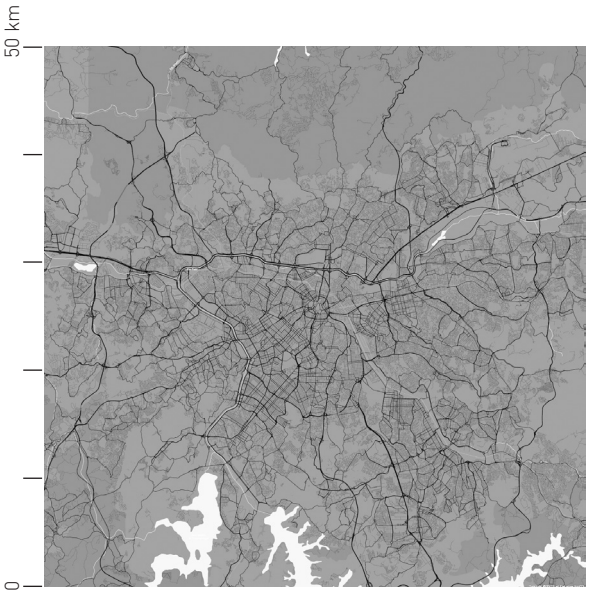
Rio de Janeiro

Population	6.429.923
Area	1.200,278 km²
Density	5.265,82 hab/km²



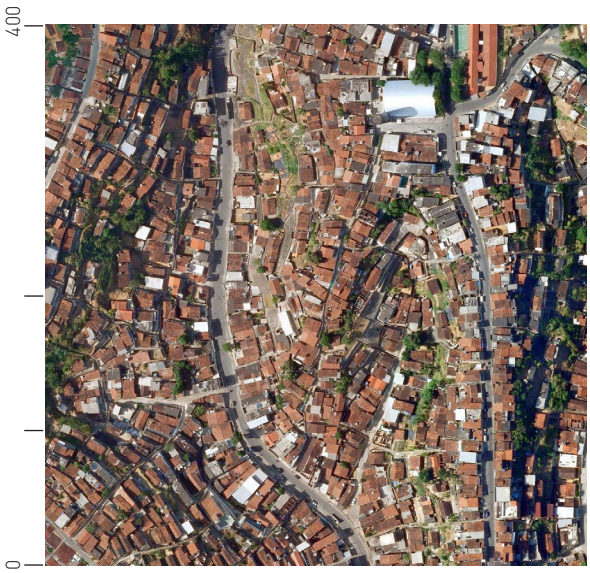
Curitiba

Population	1.848.946
Area	435,036 km²
Density	4.027,04 hab/km²



São Paulo

Population	11.821.873
Area	1.521,101 km²
Density	7.398,26 hab/km²



Density 19.000 hab/km²

Density 500 hab/km²

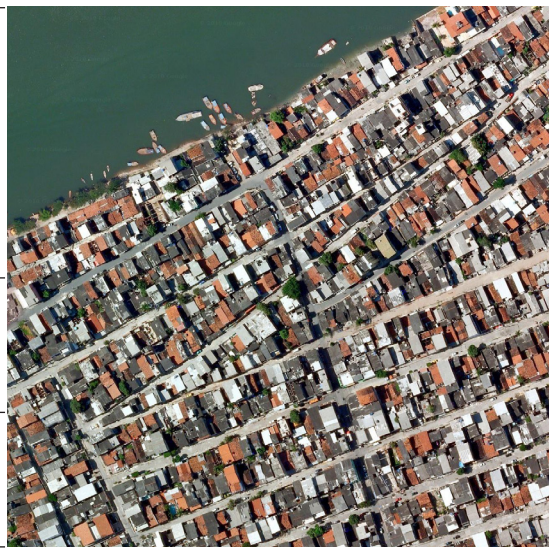
Density 222 hab/km²

Density 2,200 hab/km²

Density examples
(average per district)
source: IBGE 2012

Samples of the city fabric
source: Google Maps

400



0

Density 30,280 hab/km²

400

0

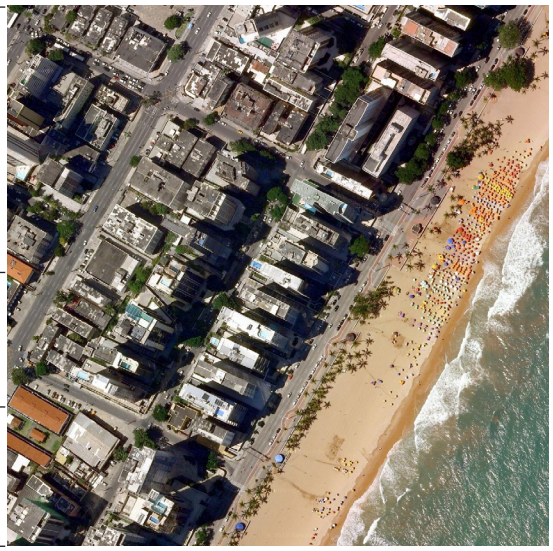
Density 5,500 hab/km²

400

0

Density 13,200 hab/km²

400



0

Density 16,300 hab/km²

View of the expansion of the city to the south.
Source: PCR

1 INTRODUCTION

Recife has a continuous history of expansion over its territory through landfills and dredging of wetlands. In the same way construction in the city has steadily expanded by densification and replacement of building structures. In the last decades there has been hardly any expansion of the territory; however construction in the city has continued to expand, mainly reinforcing the verticalization of buildings in the city. Such growth, is a result of market expansion, driven by social mobility and the restricted territory of the city, aggravates some of the urban problems that are historically rooted.

This process of expansion of the city has been paralleled by the two other processes that have serious implications in the use of the spaces in Recife. One is the vast amount of vacant or underused buildings left in the city centre, which express how fast the cycle of use and discard of buildings in the city is. The other point is that, even in a growing construction scenario, there is still a representative part of the population that is not addressed by the construction market. In the metropolitan region of Recife, estimates done in 2012 by the Federal Government show that there is a deficit of 108,000 units to cover those living in precarious or extremely dense conditions, sharing a house with others or paying excessive rent. This deficit represents almost 9% of the current number of households in the region.

The result of this phenomenon stresses social inequalities in the city and reinforces some aspects like high population density in low income areas and the profusion of high rise buildings in high income parts of the city. As mentioned before, in the comparison with other metropolitan areas in Brazil, Recife is a city with one of the higher population densities in the country, average figures are superior to 7.000 inhabitants per square kilometre, reaching 30.000 in certain districts.

However, high population density and vertical buildings cannot be considered a problem per se, there are several examples of cities with higher average densities and where far taller buildings coexist with spatial quality and an effective use of the spaces in the city. What seams grave in the case of Recife is the fact that the expansion of the city is carried out increasing exclusion and segregation. Segregation in the case here is not only about excluding parts of society from the formal city but it is also and moreover a question of segregating users from the spaces in the city, mostly through new constructions deprived of contact with street life.

The urgent question regarding Recife as the city evolves and that will be addressed in this thesis resides in the fact that the city lacks interaction between their different groups of inhabitants and its spaces. What seems to be missing in Recife has been defined as Urbanity, that here borrows the definitions of Bill Hillier and John Peponis (Hillier, 2007) (Hillier, et al., 1987) and can be resumed to the adequate level of interaction between buildings and public space, residents and passers and the different scales of movement in the city. In other words is the quality of a city and its spaces to promote contact and exchange between people and people, people and space, ultimately between public and private domains.

It is argued by some studies that the relation private and public domain in Recife was never so intense and that the perception and use of the public space is a strange concept to most of the population (Leitão, 2009) (Leal, et al., 2012). Yet what is currently observed in the city is difficult to explain only by using a certain historical cultural social approach to the city as an excuse.

Recife in the current setting appears to go towards what Hillier calls anti urbanism (Hillier, et al., 1987) that represents a conscious shift towards a place where there is a rupture in the qualities related to Urbanity, the replacement of certain vital functions of the public space by the private, resulting in the worst cases in the denial of city life.

1.2 Relevance

Academic relevance

This thesis is inserted in the debate about density, urban form and spatial quality. It intends to contribute in the study of Urbanity, the dimensions it involves and methods to evaluate and achieve it in an adequate level in cities, especially in the context of developing countries.

Regarding the research developed at the TU Delft department of Urbanism, the themes addressed in this thesis are mainly aligned with the research goal of the Design of the Urban Fabric theme, as the research proposed here aims to study, in the context of Recife, variables related to urbanity in an approach that combines quantitative and qualitative aspects. Another point that this research shares with the investigations on this theme is related to the study of how urban spatial compositions or the morphology of the city adjusts to deal with competing demands like density and spatial quality.

Social relevance

Recife is a city that has experienced in the last years a greater involvement of broad sectors of the society in the urban debate. Motivated by the fast and ubiquitous action of real estate market, common citizens, urbanists and academics are promoting a debate that has to a certain extent reached those involved in the city planning and influenced the course of some projects.

One might say that such debate has only gained momentum now because the impact of the expansion of the city is affecting inhabitants of Recife in general; in fact most of the points of discussion currently about urban life quality and right to public space are no news for those living in the periphery of the city. However it is undeniable that currently these discussions have fostered the development of initiatives that are promoting interesting approaches towards urban questions especially related to a more intense use of public space. The relevance of the thesis in that aspect is to explore how the relation with public spaces resulted in what can be observed now in the city.

A point of major controversy currently is the question related to the omnipresence of vertical buildings. The debate tends to be polarized into those who are questioning the impact of verticalization in the infrastructure, landscape and heritage of the city and those who associate vertical buildings with progress and as the natural result of the process of expansion of the city by replacing existing constructions. It seems that

such simplification of the discussion is somehow beneficial to the construction market as it reduces the argumentation to a mere aesthetic and personal taste question.

In that sense the relevance of this thesis is to contribute to that debate, to show that there are many other aspects to be taken into account when questioning the impacts of the evolution of the city. The market claims that the current process observed in Recife is the only way to deal with the demands for new unities, this thesis will argue for the contrary, at least that there ways to mitigate and moreover to conciliate new buildings with the existing dynamics of the city.

In other words this thesis will investigate how Urbanity can be fostered in the spaces of the city as Recife continues to evolve.

Screenshots from the video 'Velho Recife Novo' available at http://vimeo.com/40913933

2 METHODOLOGY

2.1 Aim and objectives

The aim of this thesis is to contribute to review planning instruments in Recife by investigating what is Urbanity, what does it mean in Recife and how it can be addressed trough planning instruments. The objectives are related to how to translate an abstract concept – Urbanity, into a lexicon that can be shared by those who are responsible for planning, building and using the spaces of the city.

The starting point of the work carried along this research is the assumption that even in the Brazilian context and more specific in the case of Recife, planning instruments are still relevant and somehow the main resource of public institutions in dealing with city evolution. It is clear that currently something is missing in fulfilling this objective, however the analysis of the context of Recife and what are the processes behind the construction of the city will hopefully present directions to improve planning instruments and reassess their role in providing the conditions for Urbanity in the city.

2.2 Hypothesis

Assuming that there is an embedded potential for Urbanity in the urban structures of Recife, this thesis will assess to what extent the following hypothesis are valid.

> The potential for Urbanity in Recife is directly and indirectly influenced by the context.
>
> The potential for Urbanity in Recife can be evaluated studying how private and public domains interact in different spaces of the city.
>
> Current planning instruments of Recife can be improved to address the dimensions that Urbanity involves and to be more effective in dealing with the city evolution.

2.3 Research Questions

Urbanity, liveability, spatial quality, those concepts are commonly used but not fully understood, what makes a city merit a label or a classification? What are the aspects to classify and qualify cities and urban space?

What has been described earlier in the problematic, lack of urbanity in the streets and public spaces even and somehow especially in dense residential areas is to a certain extent contradictory to what a several authors dedicated to the study of city life would expect (Gehl, 1980) (Jacobs, 1961).

Is this a direct result of the typology of buildings? Is this a reality in the city in general or is this related to different income levels and social groups? Can we blame exclusively the historical and cultural background for the reduced urbanity?

The subliminal question in this research is: What is the role of planning instruments in the construction of the city? The lack of Urbanity is just a question of inaccuracy of Recife´s specific planning instruments or the question is graver and planning instruments are irrelevant to promote Urbanity as to control the evolution processes in cities?

The context of a city where segregation of the population is evident, that faces a reduced role of public institutions in planning and that has an expanding construction market sets the bases for the main research question of this study:

> How to foster Urbanity in Recife?

The following research questions derive from the main one:

> What is Urbanity?
>
> How Recife´s context affects the conditions for Urbanity?
>
> What is the potential for Urbanity in Recife?
>
> How to improve the potential for Urbanity in Recife as the city evolves?
>
> How to incorporate the dimensions related to Urbanity in the planning instruments of Recife?

2.4 Thesis structure

The approach used in this research is based on typomorphology and space morphology studies and follows certain steps in order to achieve the aim proposed. The structure presented here is an attempt to register the process behind the studies carried along the research. What can be seen here as a linear path represents in fact a process of several backs and forth and adjustments along the way.

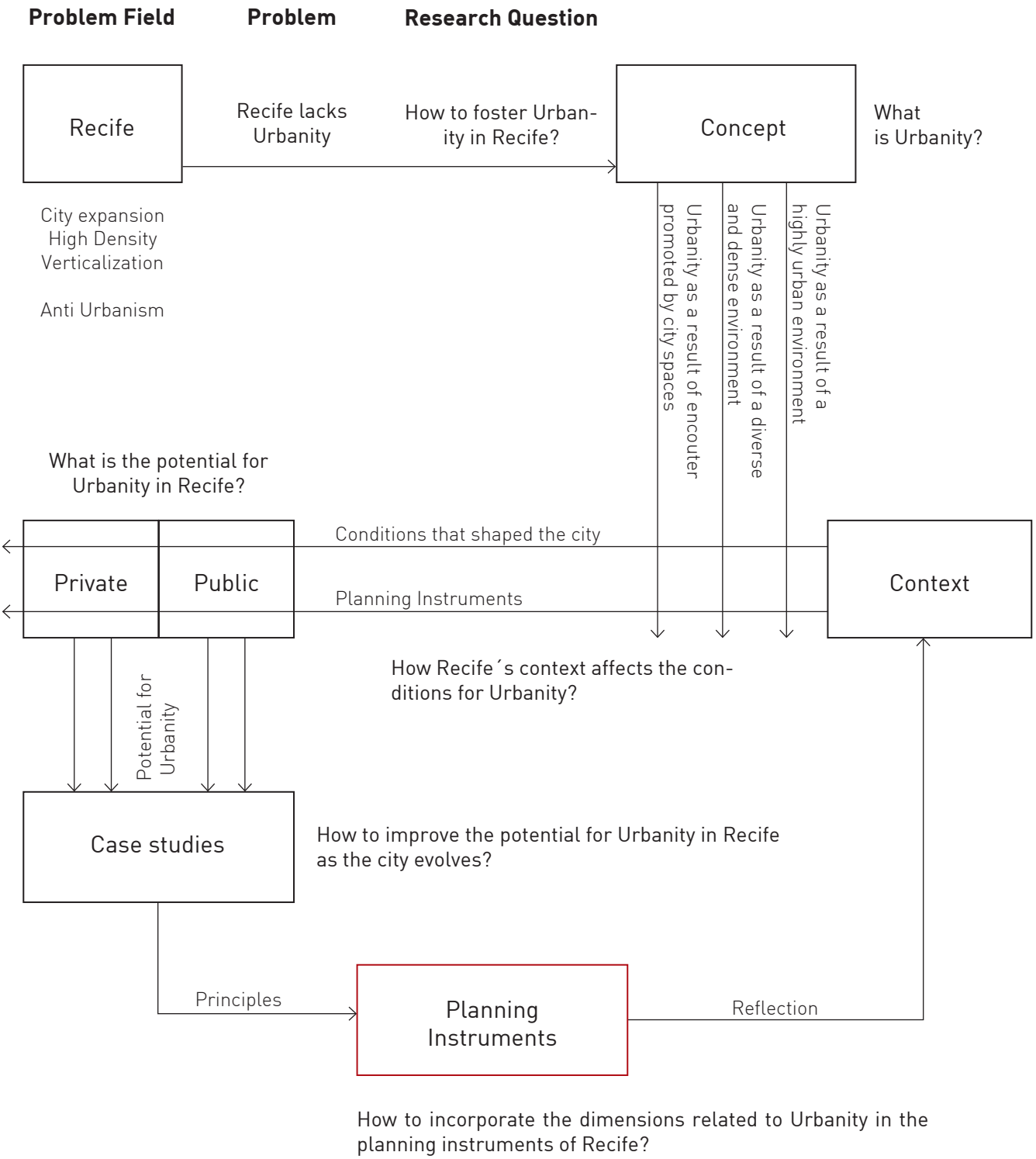
The first part is dedicated to review the concept of Urbanity trying to position the debate around it and identify the dimensions inherent to the subject. The method here is to try to identify and cluster concepts and dimensions that Urbanity involves. The objective in that initial part is to establish a conceptual framework that will be used in the analysis to follow. The product of that chapter is a formulation of a generic definition of Urbanity and the different dimensions that the concept can incorporate.

In the next step the context of Recife will be analyzed using the framework established in the first chapter, the objective now is to identify restrains and potentials for Urbanity given by the context of Recife. The product is an overview of the conditions that shaped the city that will point out the limitations and specific aspects the context posses to the concept of Urbanity to be observed in the rest of the research.

Following the sequence of this research that goes from an abstract concept to a specific and contextualized one, the next part of the study will analyze the potential for Urbanity in the private and public domains. The result of the comparison of the two domains will provide an alternative image of the city based on the potential for Urbanity. The product here is an identification of different dimensions of Urbanity grounded on the spatial structure of Recife, in other words the generic concept of Urbanity previously identified will acquire distinct dimensions that result completely from the local character identified in the city.

Having in mind these local conditions for Urbanity or even more the different possible Urbanities for Recife the next phase is to test through design how the potential for Urbanity can be improved in different cases. The method is to assess the results of changing certain aspects in private and public domain and evaluating the results in terms of potential for Urbanity. The objective here is to identify principles that relate intensity of construction with use of public space that can be used to review planning instruments in Recife. These principles that results from the study of local conditions are combined to identify strategic synergies that will correlate the potential for Urbanity in the city scale. The subsequent part of the research aims to demonstrate how the principles resulting of the design exercises carried out in the previous section can be incorporated in the planning instruments.

Finally the reflection paper discuss to what extent the initial hypothesis can be confirmed and what are the possible developments of this study.


Problem Field
Problem
Research Question
Recife
Recife lacks Urbanity
How to foster Urbanity in Recife?
Concept
What is Urbanity?
City expansion
High Density
Verticalization
Anti Urbanism
Urbanity as a result of encouter promoted by city spaces
Urbanity as a result of a diverse and dense environment
Urbanity as a result of a highly urban environment
What is the potential for Urbanity in Recife?
Conditions that shaped the city
Private
Public
Planning Instruments
Context
How Recife´s context affects the conditions for Urbanity?
Potential for Urbanity
Case studies
How to improve the potential for Urbanity in Recife as the city evolves?
Principles
Planning Instruments
Reflection
How to incorporate the dimensions related to Urbanity in the planning instruments of Recife?

Urbanity as a result of the city image.

Urbanity as a result of a diverse and dense environment.

Urbanity as a resulte of encounter mediated by space

The place of Urbanity

Source: The author and Jenya Bobkova

3 URBANITY

Overview

This chapter presents an approach to the concept of Urbanity aiming to detect certain dimensions that are capable of relating an abstract concept to the social and spatial features of a city. The review of theory about Urbanity aims to identify relational conditions between people and space that enables Urbanity in order to have a framework to guide the rest of the research. In order to accomplish to that aim some concepts around Urbanity will be positioned and organized in a time and scope perspectives. At the end of this chapter a generic definition and the conditions for Urbanity will be discussed.

Introduction

One might say that one of the main struggles in the current debate about the study of life in cities is the constant attempt to coin terms to precise certain qualities or to define a proper or ideal form for city spaces. In recent years there has been a succession of terms that come closer to brands or mottos trying to embody in one word what is in the end what makes a city or space to perform better than others or in a way that is considered adequate. There is a constant search for topics with a common ambition: to capture the nature of the urban and the conditions of urban life.

Sustainability, Resilience, Liveability, Connectivity... the list is vast and does not seem to be close to an end. What normally occurs is that these terms loose relevance after a while, as they begin to be widely used to refer to some situations that are not necessarily related to the original concept behind the label. The objective here is far from finding a term that suits Recife, but to understand the concepts and dimensions around Urbanity in order to have a framework sufficient robust to help in the evaluation of instruments and processes involved in the construction of the city.

In that sense the use of Urbanity in this thesis is as a framework to put the evolution of Recife in perspective, there is not the aim to define a precise and fixed ideal model for the city.

Urbanity

The Oxford dictionary defines Urbanity as:
1 - Courteousness and refinement of manner.
2 - Urban life.

In the literature about cities and life in cities the term Urbanity is commonly mentioned, but there are hardly any authors giving a precise definition for that. In fact there is quite a confusion in the use of the term, as it sometimes is used as a synonym for urban. Regardless of the accuracy of its use the term has in general a good connotation and it has been used to express certain qualities related to the intensity of the use of the city mostly opposed to overcrowding. (Pont & Haupt, 2010)

There are several aspects and dimensions appointed as the conditions for Urbanity in studies about public life in cities. However one premise permeates most of them, even if not always explicit, that is that the Urbanity is conditioned by the way a city is experienced. That experience of the city in the way it provides the conditions for Urbanity occurs mainly in the zone between public and private spaces. Therefore most aspects or conditions for Urbanity must relate to the interaction allowed, prevented or stimulated by this specific space of the city.

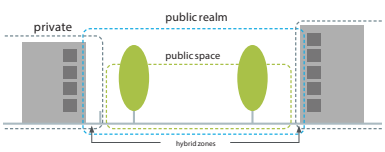


Diagram of the public realm
Source: The City at Eye Level (Glaser, 2012)

In 'The city at eye level' (Glaser, 2012) the authors described the area between public and private spaces as public domain and stated that this part of the city is crucial for a proper experience of public life.

> *Urbanites experience their cities in what we call the 'public realm'. It has a broader meaning than just 'public space'; it includes facades of buildings and everything that can be seen at eye level. Plinths are therefore a very important part of buildings: the ground floor, the city at eye level.*

Having established where Urbanity takes place, meaning the public realm, the next step is to try to group some concepts according to the perceived relevance of each part of the components of the public realm for Urbanity. In other words the conditions for urbanity will be discussed relating them to the components of the public realm.

3.1 Urbanity as a result of the city image.

Urbanity as a relevant concept gains notoriety in the urban discourse from the decade of 1960´s and 1970´s mostly influenced by a movement of reaction to the effects and negative impacts in cities of the ideas of Modernism. The context was no longer the one of urgency like in the post WWII years and the need for fast and rational solutions to the city is replaced by demands of quality of urban space.

The reaction against Modernism resulted in studies that praised organic and non planed cities as the space for Urbanity, some authors like Christopher Alexander (Alexander & al, 1977) proposed even that the qualities that derives from continuity lines of occupation and superposition of functions present in informal settlements are unlikely to be achieved in a planned environment. This perception of the importance of the image of the city in order to have a pleasant experience in cities is echoed by Kevin Lynch (Lynch, 1960).

A highly imageable (apparent, legible, or visible) city in this peculiar sense would seem well formed, distinct, remarkable; it would invite the eye and the ear to greater attention and participation.
The sensuous grasp upon such surroundings would not merely be simplified, but also extended and deepened.
Such a city would be one that could be apprehended over time as a pattern of high continuity with many distinctive parts clearly interconnected.

Relating back these studies to the place where Urbanity occurs, the public realm, it seems difficult to evaluate the importance of one single component compared to the others. It can be said that Urbanity as a result of the image of the city relies in general and perhaps abstract values for the components of the public realm.

3.2 Urbanity as a result of a diverse and dense environment.

Awareness of the negative impacts of Modern urbanism and architecture in the public realm are initially raised by authors from other fields, the publication in 1961 of Death and Life of Great American Cities by Jane Jacobs, a journalist, is the main example of that. The author states at the start of her writings 'This book is an attack on current city planning and rebuilding ' and that she wanted to propose new principles to guide city planning based on ' common, ordinary things'.

Although Jacobs did not propose a definition for Urbanity most of her assumptions, based on a detailed observation of the city, can be identified with the discourse about Urbanity that relates it to a diverse and dense environment. She observed certain aspects that are now perceived as a direct cause of lack of Urbanity. The main points highlighted by Jacobs are: the extreme separation of functions in the city, the presence of residual spaces, the large segregated parks, the size of urban blocks and the conflicting flows of cars and pedestrians.

Her main contribution is however the perception of the importance of a constant and intense use of sidewalks and facades in order to have safe streets 'this is serious, because literal and continuous mingling of people...is the only device that keeps streets safe'. (Jacobs, 1961, p. 259)

Some authors and even Jacobs have made an exercise to define densities and figures to achieve Urbanity, what is common in most of these studies is that they rely on how private space is used in order to obtain Urbanity. According to Peponis (Peponis, 1989) these studies are mostly centred in the discussion about distribution of uses and densities, paying limited attention to the role of the morphological features of the city. (Canuto, 2010)

Therefore this notion of Urbanity resulting from dense and diverse environments is based on characteristics that are dependent almost exclusively on the private space.

3.3 Urbanity as a result of encounter mediated by space.

Urbanity so far has been described as a result of an abstract or imagetic quality of the city or of a dense and diverse environment. That represents studies where the centre point of discussion resided on the allocation of functions and the superposition of flows, mostly related to local in detriment to global arrangements.

However, starting in the decade of 1970´s , a series of studies with a variety of scope focuses on the morphologic properties of space and their relation with users. These studies have the common premise that the relation between users and urban space can be measured and described mathematically.

Some studies like 'The Grid as a Generator' from Leslie Martin (Martin, 1972) explore the impact of the urban form, notoriously the street grid in urban form and social life patterns. Martin contradicts the notion of Alexander (Alexander & al, 1977) that planned cities would fail to foster life; he places the problem of modern cities in the functionalist distribution of uses and in the relation between buildings and open spaces.

The studies carried on later by Hillier and Hanson (Hillier & Hanson, 1984) and Peponis (Peponis, 1989) advanced the notion that the spatial configuration of the city is determinant on the levels of Urbanity. Hillier observed that although high density and diversity of uses are important regarding Urbanity they are not primordial hence the spatial structure precedes it.

That conception that urban function follows certain patterns that are related not to local arrangements but to the configuration of the complete urban system is the centre of the theory named 'The Social Logic of Space' (Hillier & Hanson, 1984)

In this last dimension of Urbanity there is a shift in importance, in the public realm in order to obtain Urbanity. It relies no longer on the private space but completely in the specific quality of the public spaces, as the space that is able to promote encounter.

3.4 A first approach on the conditions for Urbanity

As noted in this short review and by Berghauser and Haupt (Pont & Haupt, 2010) the concept of Urbanity is broad and elastic therefore assuming one concept as correct or proposing a new one is not necessarily relevant.
Reinforcing what was has been stated in the introduction of this chapter, the review about the concept does not intend to formulate a model to be followed and in that sense is in accordance to what Andrew Sayer writes about the search for precise mathematical models to explain and predict human behaviour.

> *...the discovery that a model is free from mathematical errors says nothing about whether it is applicable in the real world... A further example of this kind of resonance is evident in the tendency of users of mathematical models of social phenomena to reify human practice by interpreting it as mechanical and regular, rather than always contingent and liable to transformation.* (Sayer, 1984, pp. 158,181) As quoted in Cuthbert (Cuthbert, 2007, p. 202)

In the same way that there is no intention to find a model to be directly applied in Recife, the concepts or dimensions of Urbanity that result from this review should not be understood detached from the places or specific situation they derive from. In the following parts of this research the dimensions or concepts around Urbanity will be confronted with the specific case of Recife in order to define a framework grounded in the local context.

Having specified these initial limitations, some aspects around Urbanity can be emphasized, not pretending to formulate a concept ,but, as stated before, to establish a reference to be used in the rest of the research. That said, here a first approach on the conditions for Urbanity:

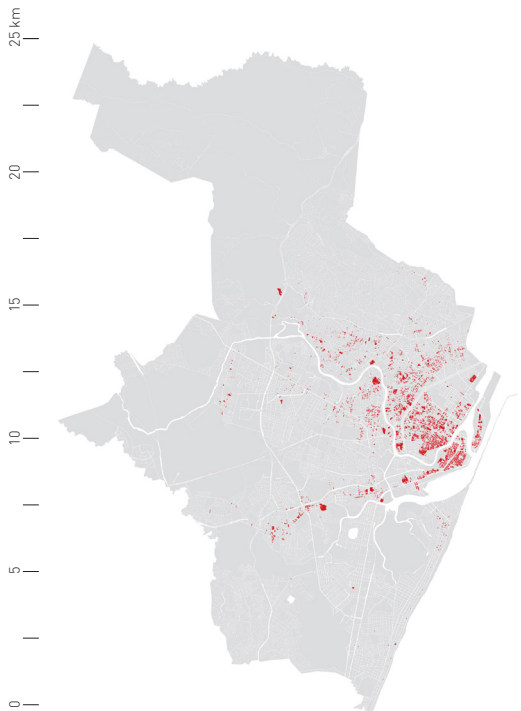
- Urbanity takes place in the public realm, therefore relies on the interaction of public and private spaces.
- Urbanity relies on the co-presence, interaction of different groups promoted by spaces in the city.
- Urbanity is conditioned by both space and users therefore these two components and their interaction can provide different levels, types, degrees of Urbanity.

4

RECIFE

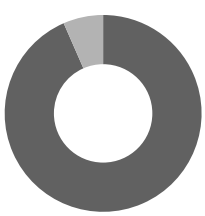
4.1 CITY EVOLUTION

1940

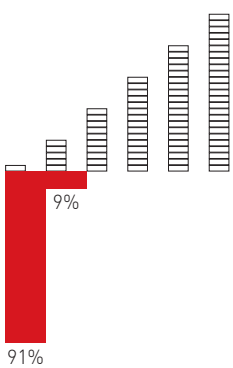


Population - 384,424

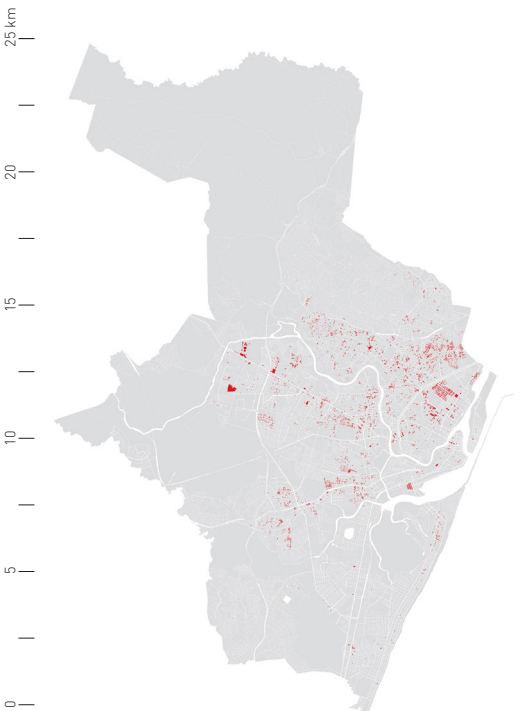
Total construction
2,399,87 m²



Total construction
(per building height)

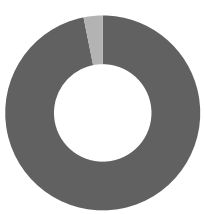


1950

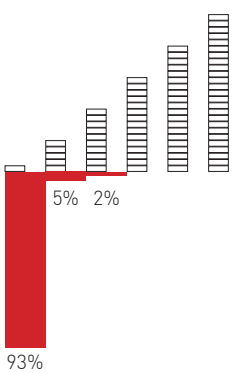


Population - 524,682

Total construction
1,113,94 m²



Total construction
(per building height)

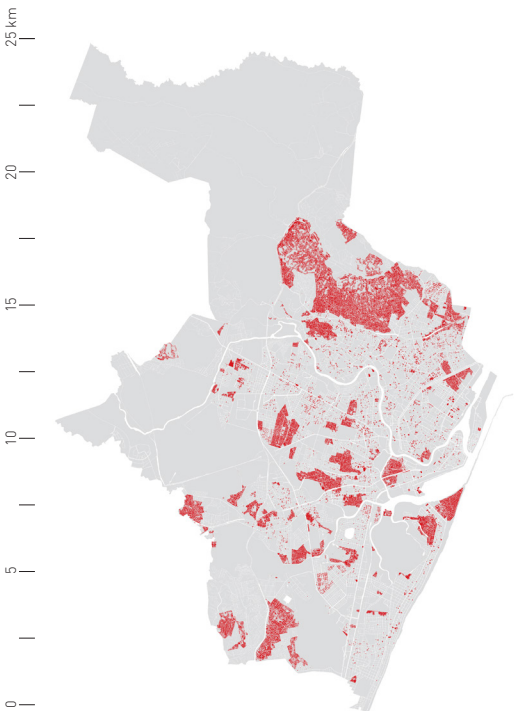


Building age and height

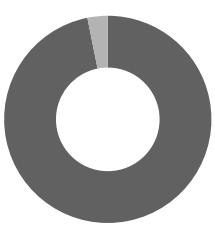
Source: PCR

1960

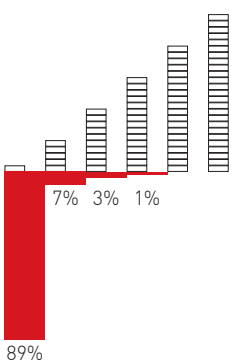
Population - 788,336



Total construction
1,411,48 m²

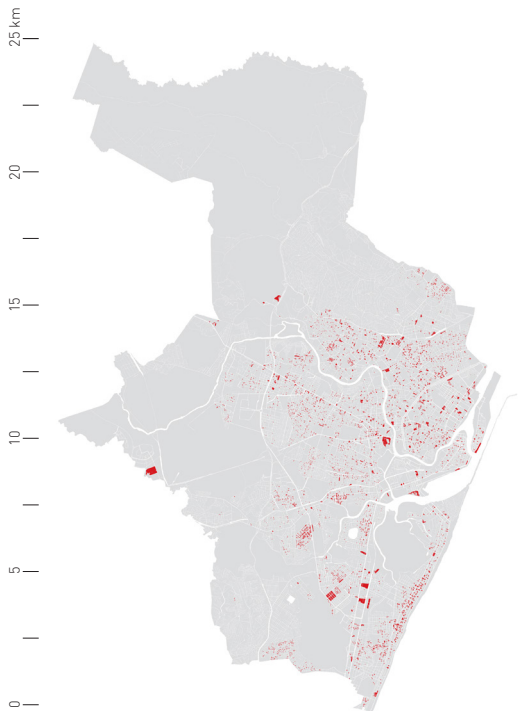


Total construction
(per building height)

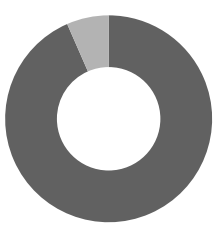


1970

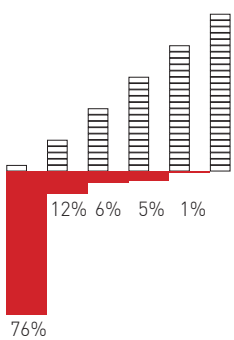
Population - 1,060,701



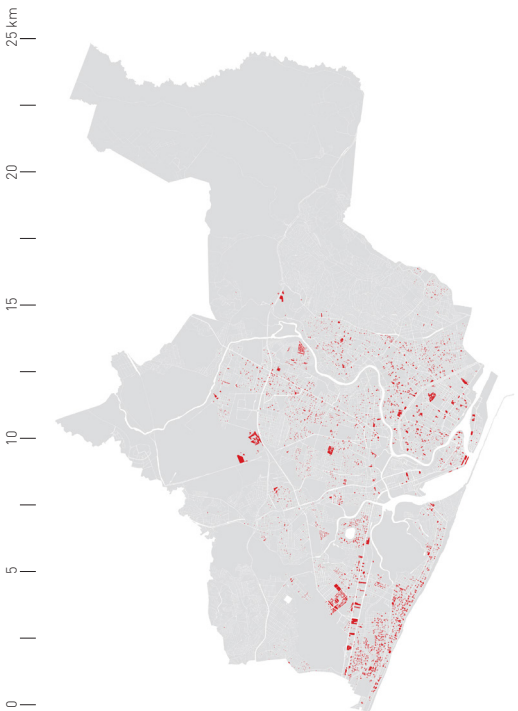
Total construction
2,403,487 m²



Total construction
(per building height)



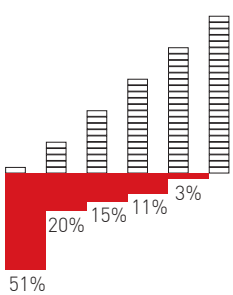
1980



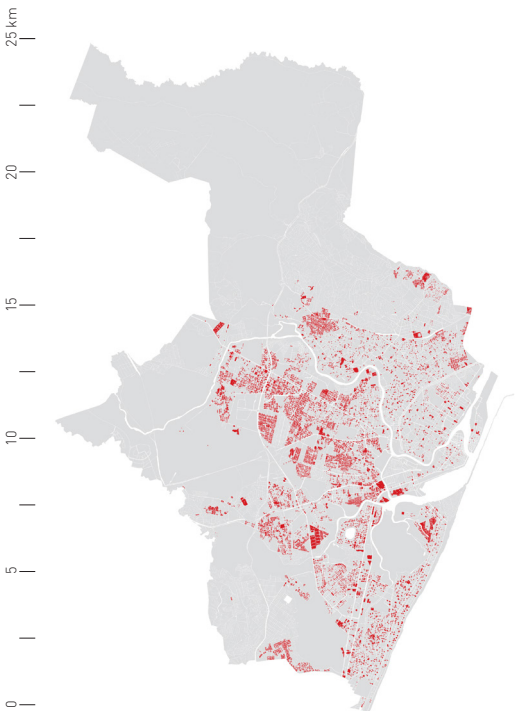
Population - 1,203,899

Total construction
4,053,820m²

Total construction
(per building height)

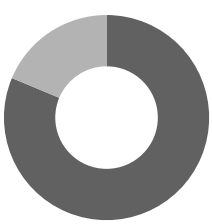


1990

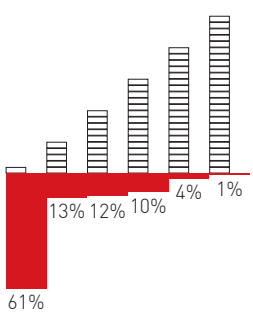


Population - 1,286,607

Total construction
7,855,735 m²



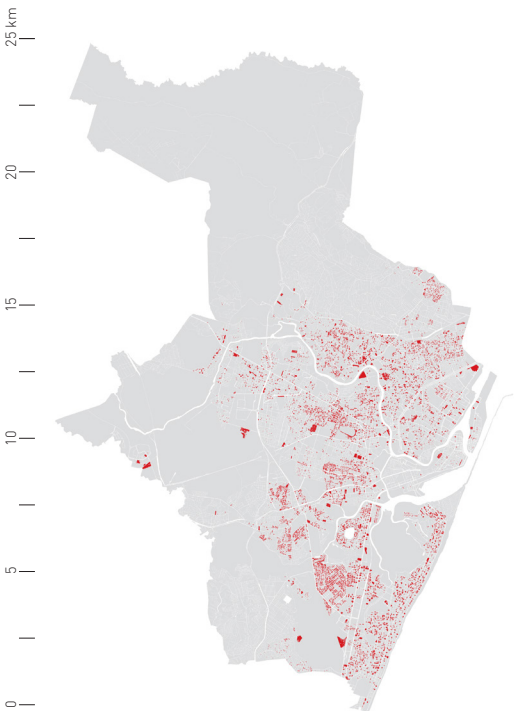
Total construction
(per building height)



Building age and height

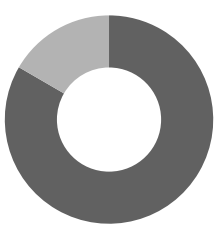
Source: PCR

2000

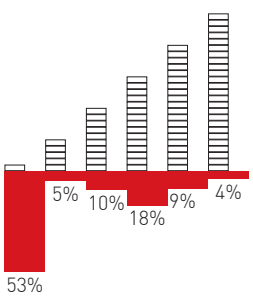


Population - 1,422,905

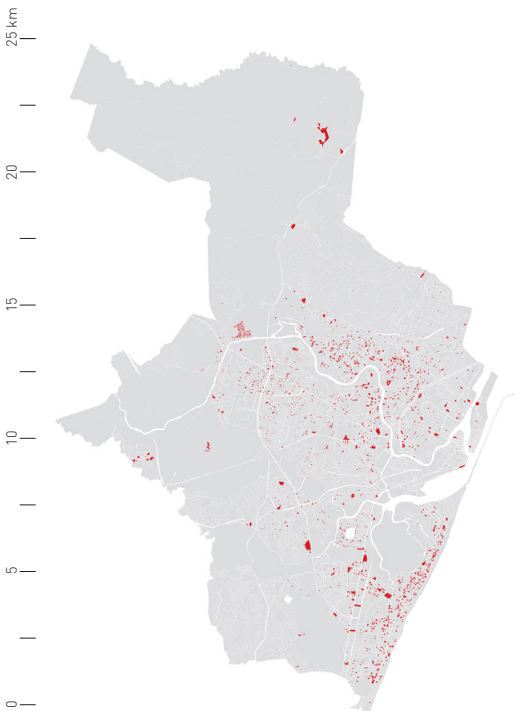
Total construction
6,812,724 m²



Total construction
(per building height)

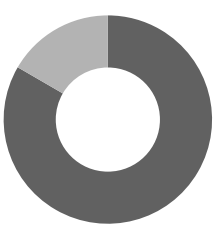


2010

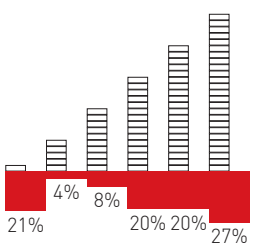


Population - 1,546,516

Total construction
6,977,493 m²



Total construction
(per building height)



4.2 CONDITIONS THAT SHAPED THE CITY

The preliminary set of conditions for Urbanity identified in the theory review poses a series of questions and assumptions to be verified and confronted in the context of Recife. These questions are also related to the three main groups identified in the theory. Assuming that Urbanity ultimately relies on the interaction between different groups promoted by space, the questions to be addressed while reading the context of Recife can be summarized as:

How are the different social groups distributed in the city and what influences it?

What are the forces and processes behind the design and construction of the city?

In order to address these questions Recife will be described analysing the role of society, natural landscape and open spaces, mobility, construction market and planning instruments regarding the dimensions for Urbanity. It will be presented two set of conclusions related to these questions combining the results of the analysis.

View of the expansion of the city to the south and the mangroove forest.

Source: PCR

4.2.1 The role of society

Portrait of Recife in the 19th century, some photographs and prints show public roads of Recife being used by men and slaves, whereas families social life taking part on the private spaces of the houses, happening in open spaces of the city only in very specific ceremonies...

So let's imagine that these collective experiences in the public space it starts happening at the time that this space is actually going to be collective and not just restrictive of subjects or classes.

Luiz Amorim
Architect and Urbanist

O retrato do Recife do século 19, algumas fotografias e gravuras mostram as vias publicas do Recife sendo usadas por homens e escravos, com a vivencia das famílias muito interiorizada nas casas e um convívio nos espaços livres e abertos da cidade apenas em cerimônias muito bem definidas...

Portanto vamos imaginar que essa vivência coletiva no espaço publico ela começa a acontecer no momento em que esse espaço passa de fato a ser coletivo e não apenas restritivo de sujeitos ou classes sociais.

Our history, our social formation has been created from separations too. The public space was seen as restricted to certain groups, it was never really public...

So what has been created in our culture, in our culture of the city was a compensation mechanism in order to invest in the private space.

Jan Bitoun
Geographer

A nossa história, a nossa formação social ela se criou a partir de separações também. O espaço público era visto como reservado a determinados grupos, nunca foi realmente publico.

Portanto o que se criou na nossa cultura, na nossa cultura de cidade foi um mecanismo de compensação no sentido de investir no espaço privado.

Excerpts from the video 'Velho Recife Novo' available at http://vimeo.com/40913933

Translation by the author

Next page:
Picture of the main square in the city centre, remaining of the market square of the Dutch plan for Recife.

Picture of Boa Vista bridge

Source: Fundaj


DIARIO DE PERNAMBUCO

The starting aspect to read the context of Recife is how certain cultural and social values influence Urbanity. There is a vast literature, especially in the domain of sociology that focus on Recife and in the relation between public and private domains and moreover on how cultural and social aspects influenced this relation. More than a broad review of such literature the objective here is to understand how certain aspects observed in the past are still valid and what limitations this behaviour poses to use of public spaces and therefore to the potential for Urbanity in Recife.

The opinion expressed in the quotes from the video `Velho Recife Novo` is shared with most of the studies carried out about how public and private spaces were used in the past. The work of Gilberto Freyre1 can be considered the main reference in that field. Most of his studies are based in reports and letters from foreign travellers visiting the region that normally paint a portrait of clear division between people that use public space or not.

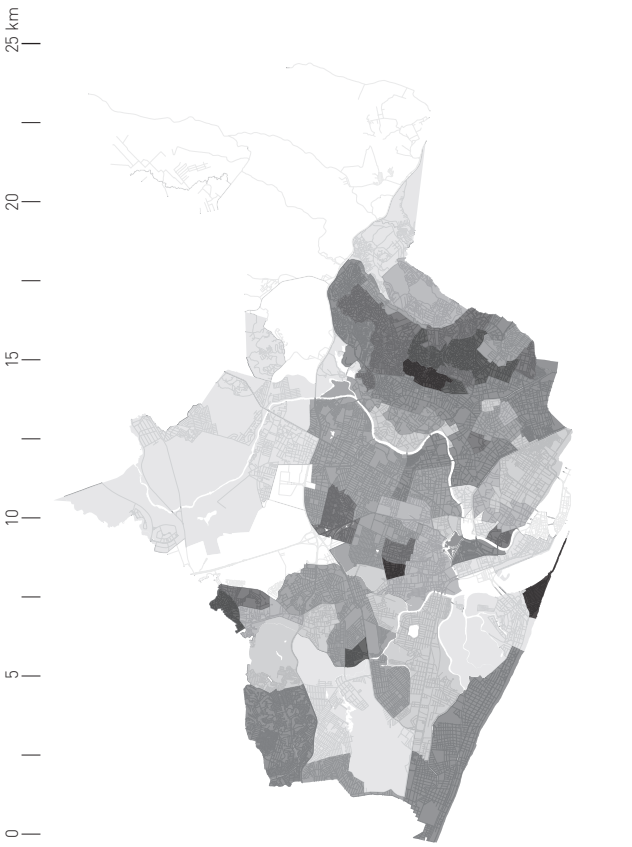
1 Freyre is the author of The Masters and the Slaves: a study in the development of Brazilian civilization and The Mansions and the Shanties: the making of modern Brazil two of the main references about how social relations impacted in Brazilian life and consequently in the use of space.

Such distinction is in general associated to the sharp divide that existed in the past in a society formed by masters and slaves. Observing the current abrupt differences in income that mark Recife one might say that a strong divide is still present. However it is not possible to read the current relation between society and the use of public space just by transferring old habits.

What is possible instead is to use the aspects presents in the formation of the society in Recife to put in perspective the current use of public spaces. In that sense is not absurd to say that the current secondary role of the public space in Recife, notoriously in the case of the streets, is an evolution or continuation of a model where spaces around streets were first the place for slaves, subsequently to the circulation of sewage and goods to arrive at the present time as the almost exclusive domain of the automobile. As seen, the denial of the street ... has remote roots and stems from deeply held convictions in Brazilian society. (Leitão, 2009)

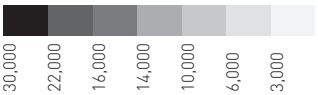
Another aspect that must be taken into account regarding the historical background on how society use the spaces of the city is that, as said before most of the studies on that topic are based on observations that perhaps are partial and biased. If a similar study is done in the next centuries to understand how public life in Recife was in the 21st century the results will certainly vary depending on the sources and spaces used to describe the city.

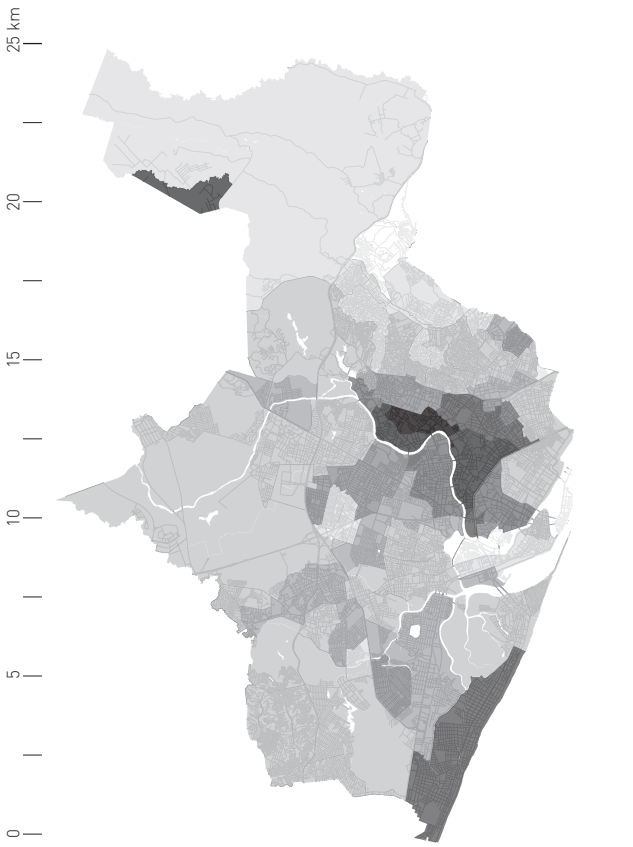
An observation on how contemporary society uses space in Recife will find arguments both to support and contest a continuity line between old and new habits. It is again a question of what portion of the society is observed and what exactly one means by the use of the space.



Density
(Inhabitants per km²)

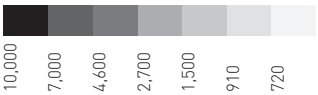
Source: IBGE 2010

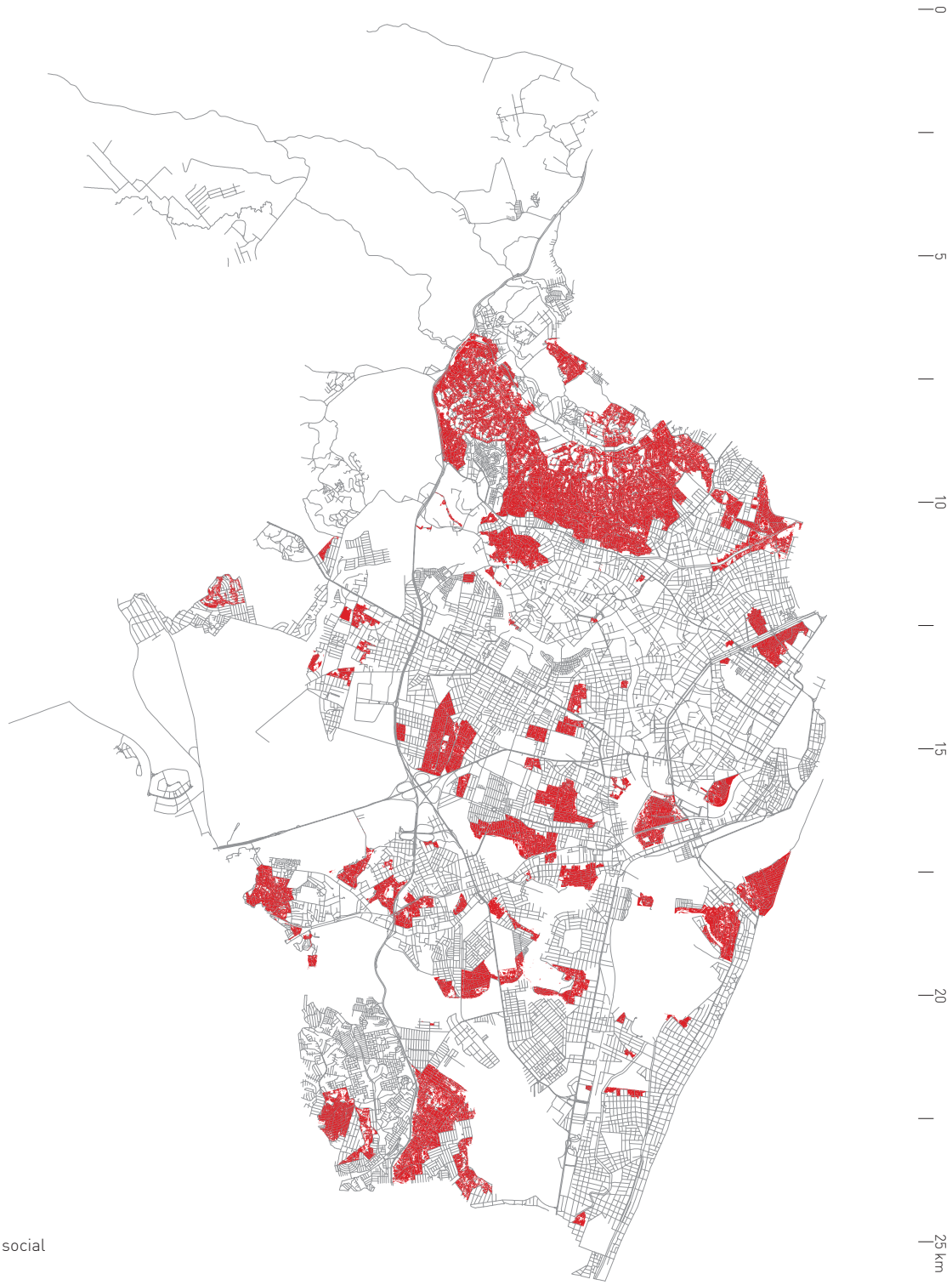




Income
(monthly per household Br R$)

Source: IBGE 2010





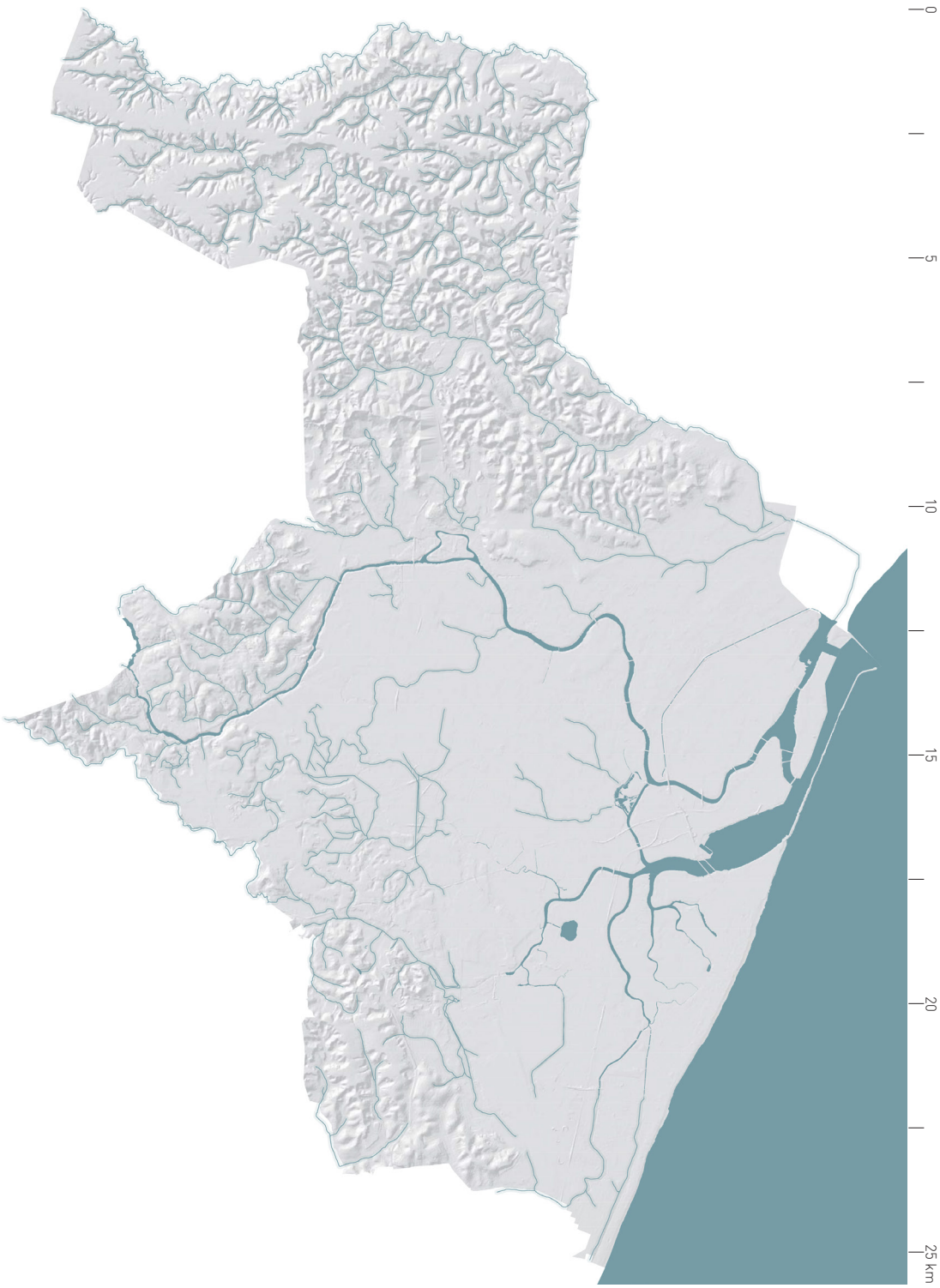
Map of the ZEIS, Special zones for social interest.

Source: PCR

4.2.2 The role of natural Landscape and open public spaces

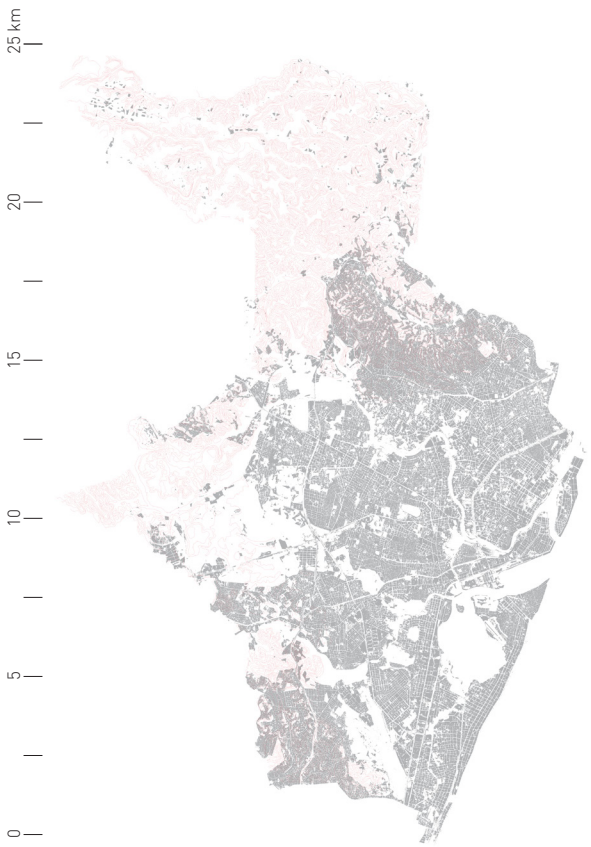
View of the city centre and the expansion of the city to the south and the mangroove forest.

Source: PCR



Topography and hydric system

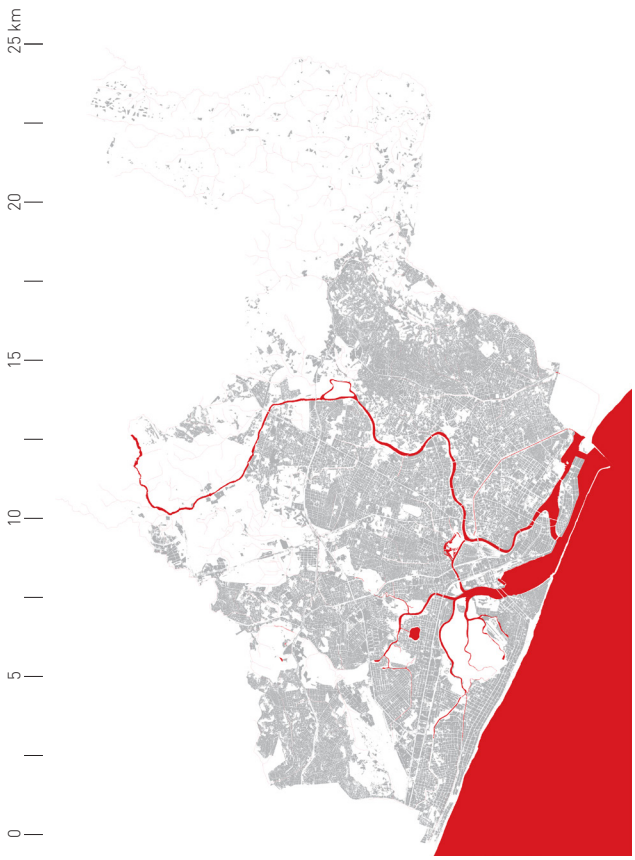
Source: PCR



Urban Fabric x Topography

Source: PCR

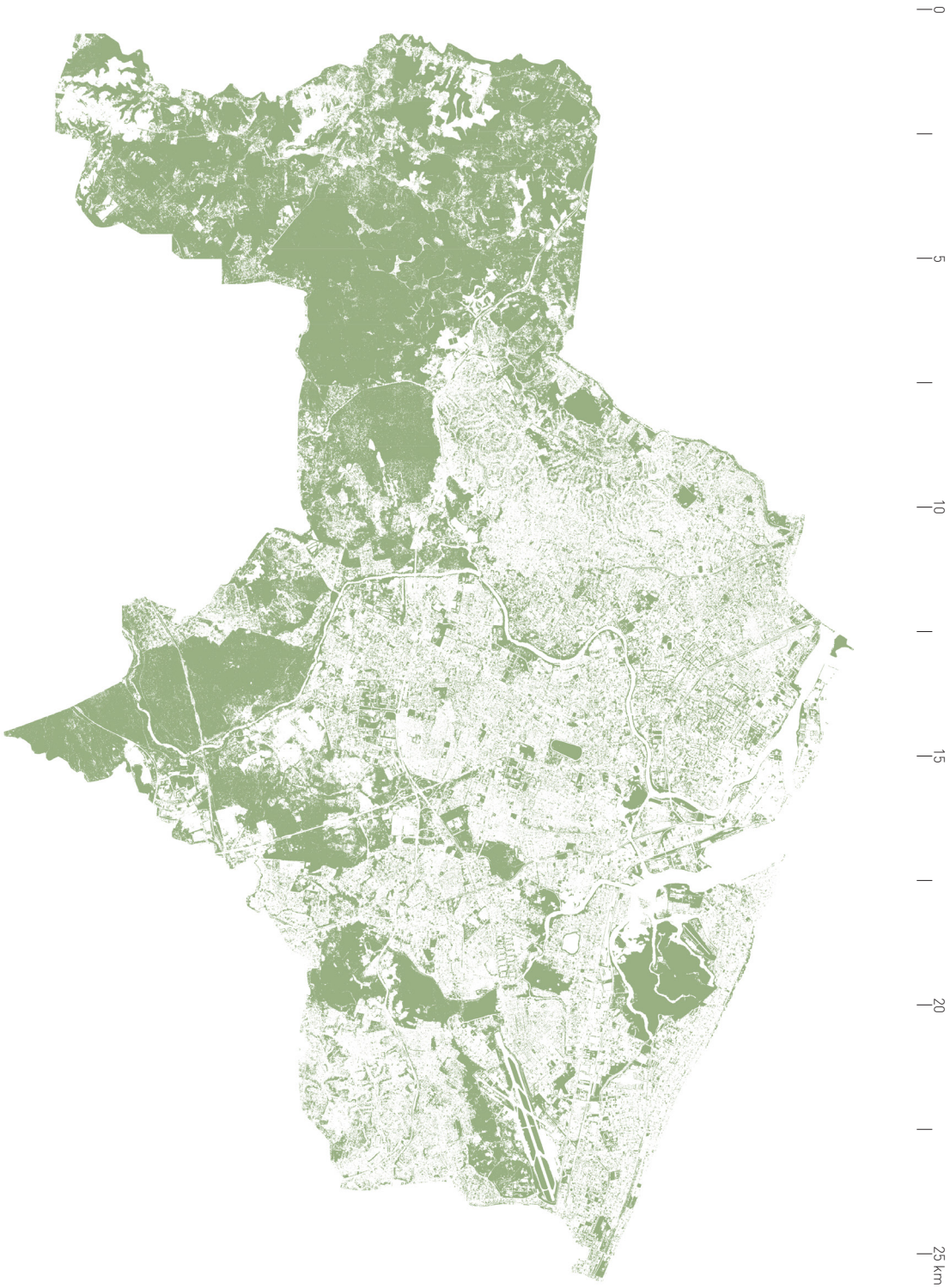
Most of the city occupies the flat plain formed by the sediments brought by the river system. The main exceptions are the poor areas that occupied the hills at the border of the city in the 1960´s.



Urban Fabric x Water system

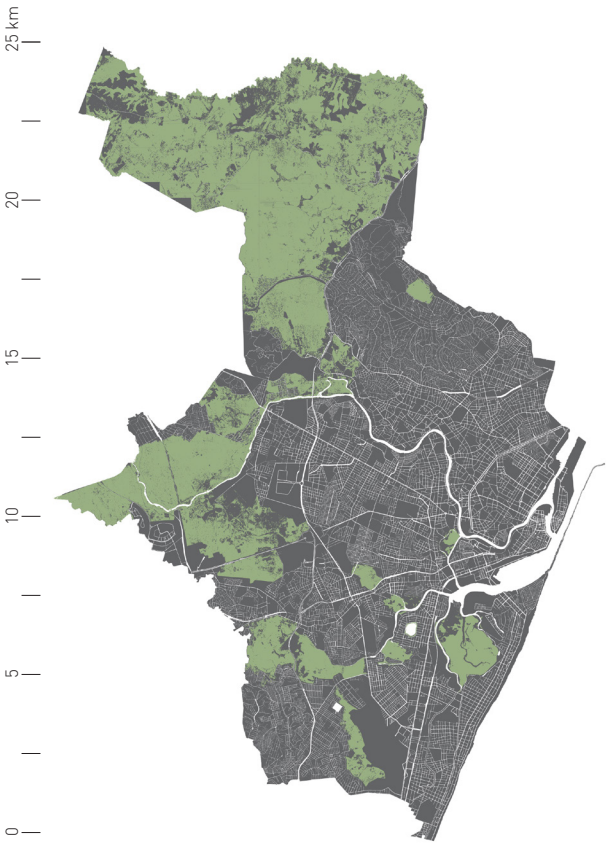
Source: PCR

The occupation on the flat plain is mostly the result of successive landfills and drainage of wetlands, that fact added to the low heights in this area put the city in serious risks regarding both rising sea level and increase on rain fall.



Green coverage
extracted from satellite imagery

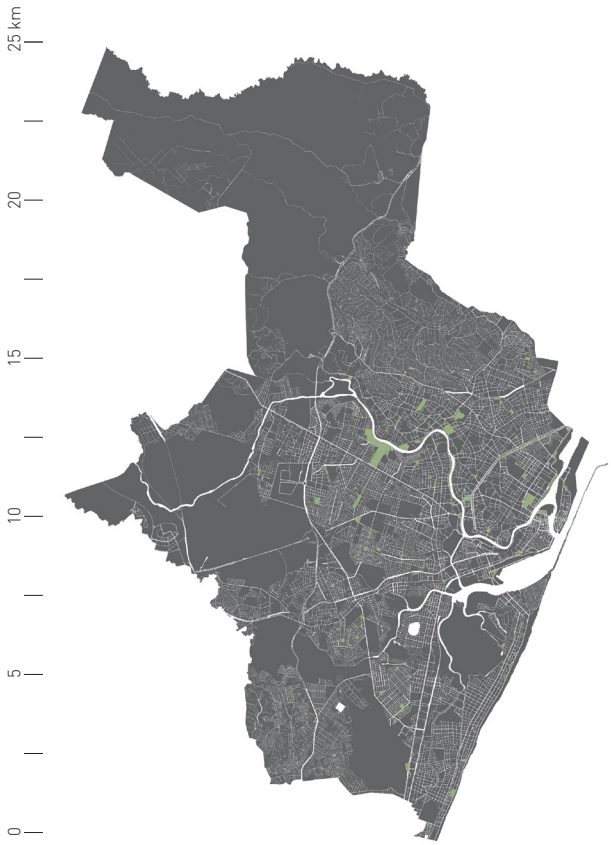
Source: PCR



Nature reserves

Source: PCR

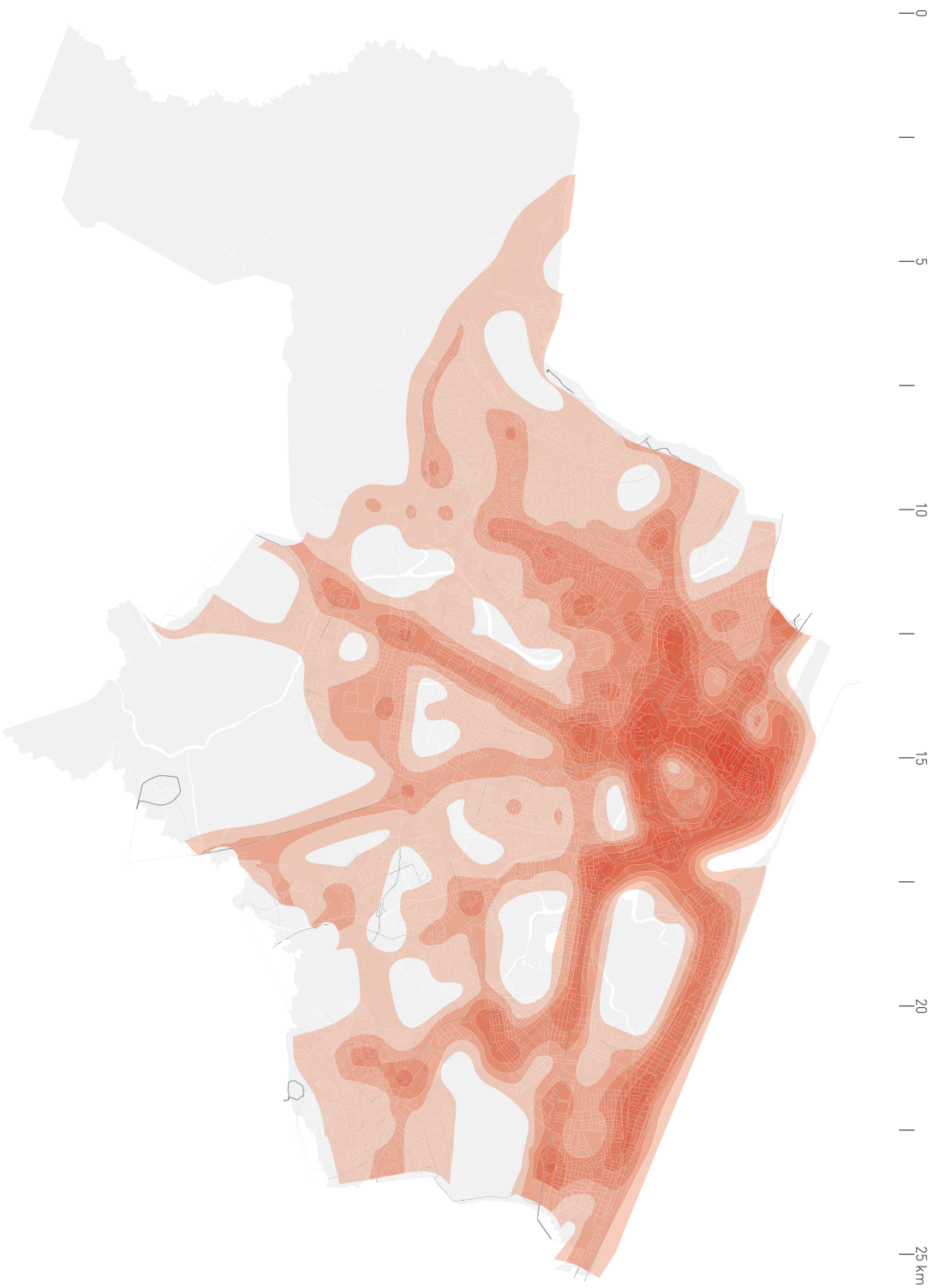
Most of the nature conservation areas in Recife are located at the west border of the city where the residual forests are. These areas account for 31.5 % of the surface of the city.



Parks and squares

Source: PCR

Recife has a very reduced number of parks and public squares, representing only 0.5 % of the total surface of the city.



Density of public transport
Bus and BRT

Source: PCR

4.2.3 The role of mobility infrastructure

Brazilian cities have been facing a crisis on urban mobility in recent years, resulting mainly from the choice for individual and private modes of transport instead of collective forms of travel and the lack of investments on public transport infrastructure. Between 2001 and 2011, the number of cars in 12 metropolitan areas in Brazil increased more than 75% and the number of motorcycles has increased from 4.5 million to 18.3 million in those same ten years. More than 890 thousand vehicles on average are added per year.

Considering the Brazilian scenario, this part of the context description consists of an analysis of the main networks of the city. The city of Recife also follows the national pattern of individual and private modes of transportation that results on a very congested traffic[1] and the extreme pressure and need of improvement of the collective modes of transportation.

1 In Recife the average number of new cars per month accounts for almost 1000 in the last years, reaching 1,800 in the year 2010

At the national and international level the metropolitan region of Recife counts with two international ports, one international airport and two other national airports. Recife as well as the whole metropolitan area does not have a railway network on the regional or either national scale for passengers' transportation.
To follow there will be a brief description of the following networks of the metropolitan region of Recife (RMR): Boat, Metro, Bus, Road and Bicycle

The diagram of levels of network bellow show the relation between the different levels of networks and their classification, either public or private. As it can be observed, the metro networks are concentrated in the local and metropolitan levels, while the bus lines compose the only public transport presents on all levels of network. The road networks, represented by the use of cars are present in all levels but care mainly at the local and metropolitan levels. The bicycle network is mostly use only in the local level, especially in the central areas and in the peripheral centres.

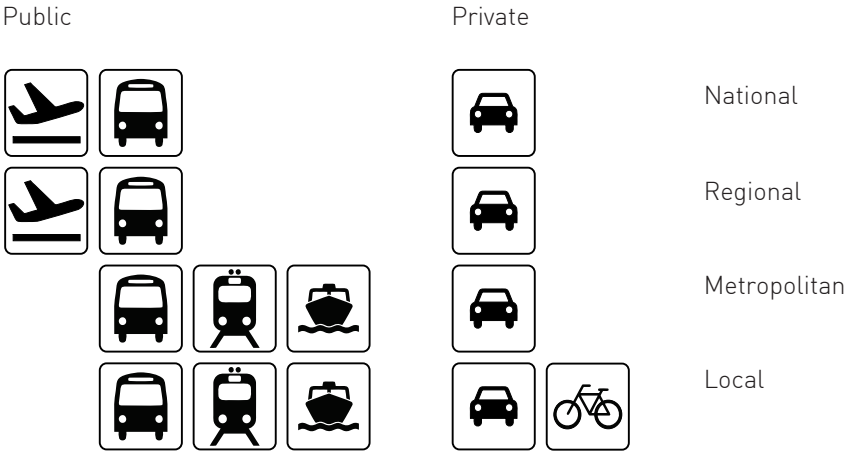
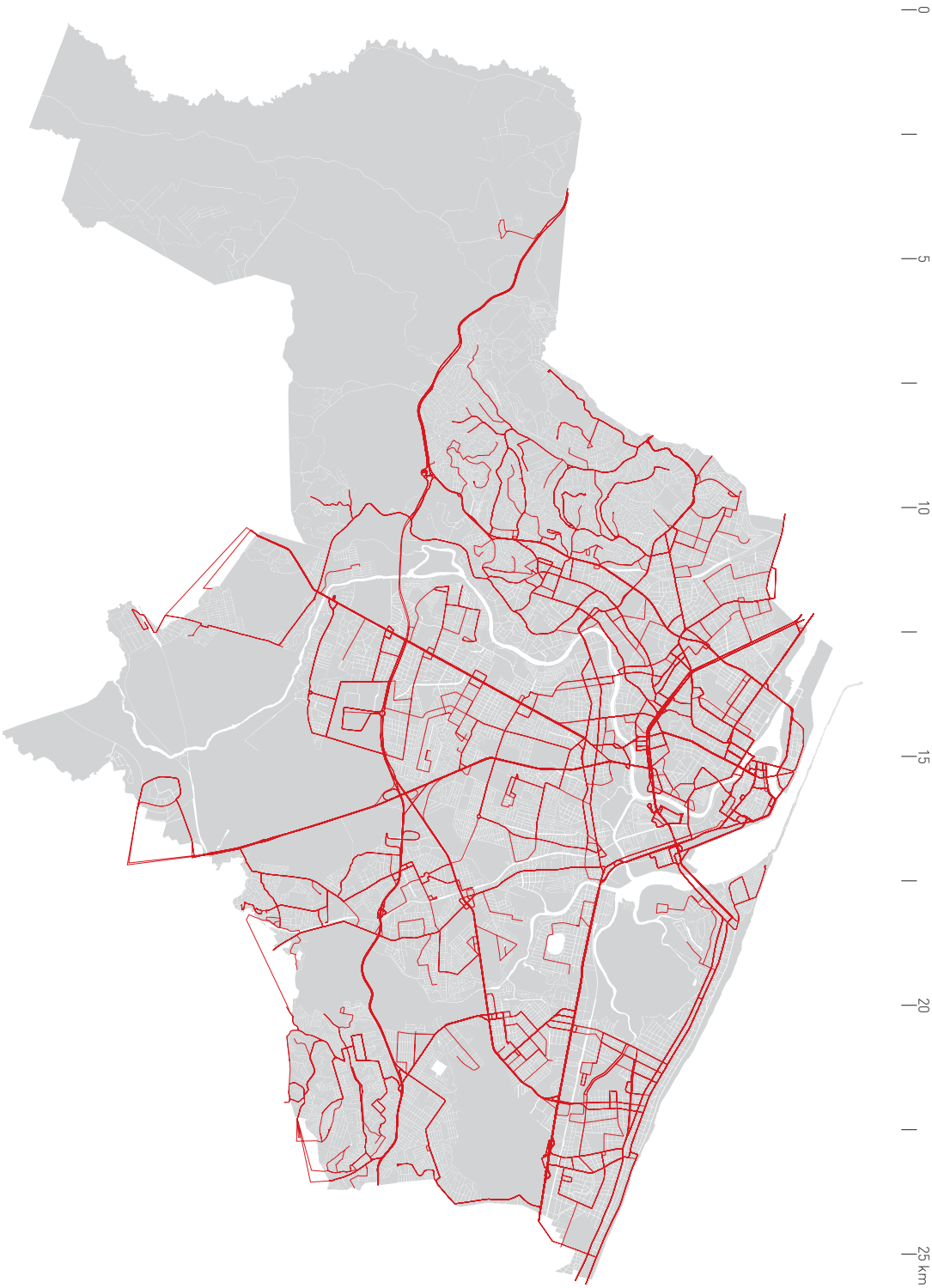


Diagram showing the different levels of the network and the modals used in each level



Map with bus lines

Source: CTTU

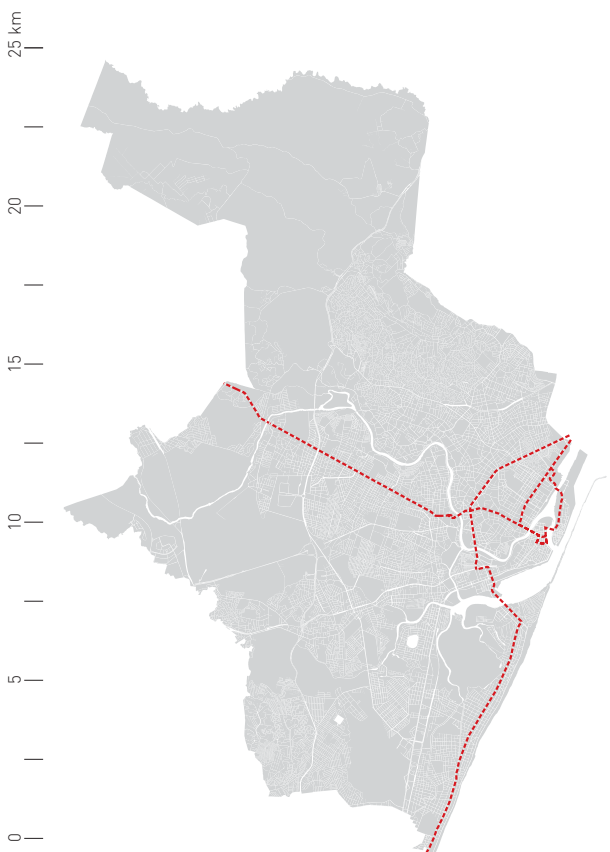
Bus Network

The public transport of passengers in Recife metropolitan region consists mainly of:

- Public passengers transport system – STTP, operated by the metropolitan region consortium and it covers the whole region.
- Complementary passengers transport system of Recife – STCP, the municipality of Recife operates it and it covers only the city limits.
- Metropolitan region rail system transport of passengers – STPST-RMR, operated by the Brazilian Urban Trains Company (CBTU) and it covers mainly the city of Recife but also part of other two municipalities of the RMR.

The existing bus routes both on the city and the regional scale consist of:

- 395 are the total number of lines / routes of the regional - urban bus system;
- 23 lines / routes are linked to the urban bus system;
- 377 lines / routes within the city of Recife (95.4% of total urban-regional system);
- 281 lines / routes access the centre of Recife (74.5% of total lines transiting in the city of Recife);
- 190 lines / routes transits through the avenue Conde da Boa Vista (67.6% of the routes to access the centre of Recife).



Brt (Bus rapid transportation)

In the last 5 years a series of corridors dedicated exclusively to buses have been implemented and a number of new ones are under construction or been planned. The model followed here is mostly derivate from the experience in Curitiba, Brazil and Bogotá, Colombia (Transmilenio).

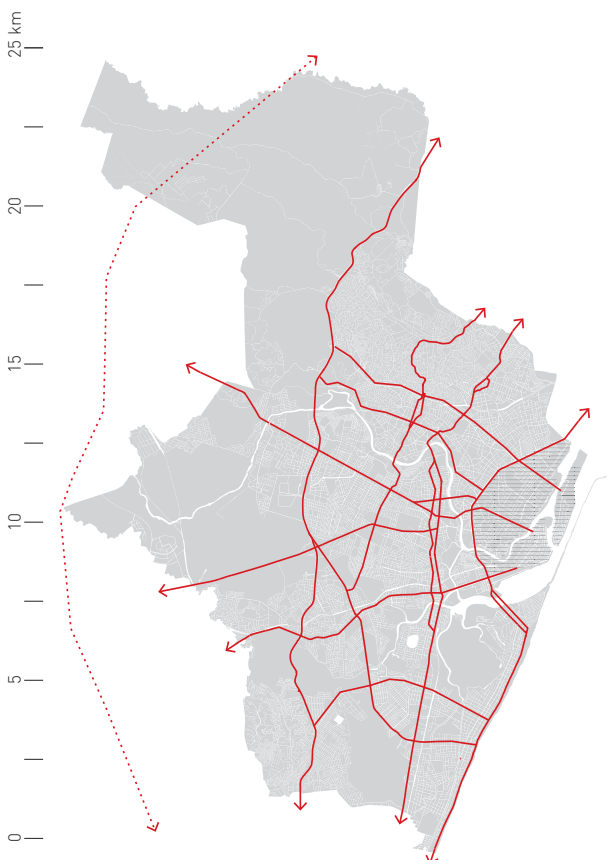
The main concept is to save travel time by providing exclusive lines for buses in the main arteries and creating new buses stops where boarding in and out is faster and controlled.

Road Network

Road structure in Recife reflects to a certain extent the way the city originated and expanded, from a focal point of interest on the coast, the port, most of the roads follow radial distribution towards inland. This path has been reinforced along time and a series of successive perimetric lines have been introduced to connect the main radial arteries. The historic urban fabric of most of the inner city has not allowed much expansion of the network, creating a series of bottle necks on the streets that connect the periphery and the city centre.

Recife´s geography is also a factor that adds pressure on the road system; the city is cut by rivers, and in various parts that are only a few points of access. The growing number of cars does not seem to stop as well the expansion of the suburbs that somehow are still related to the inner city for working and commerce.

So most of the work carried out in recent decades was restricted to mitigate some of the effects of city and fleet expansion, a very few new roads have been built, most of them are alternative routes to allow the implementation of exclusive corridors for buses.



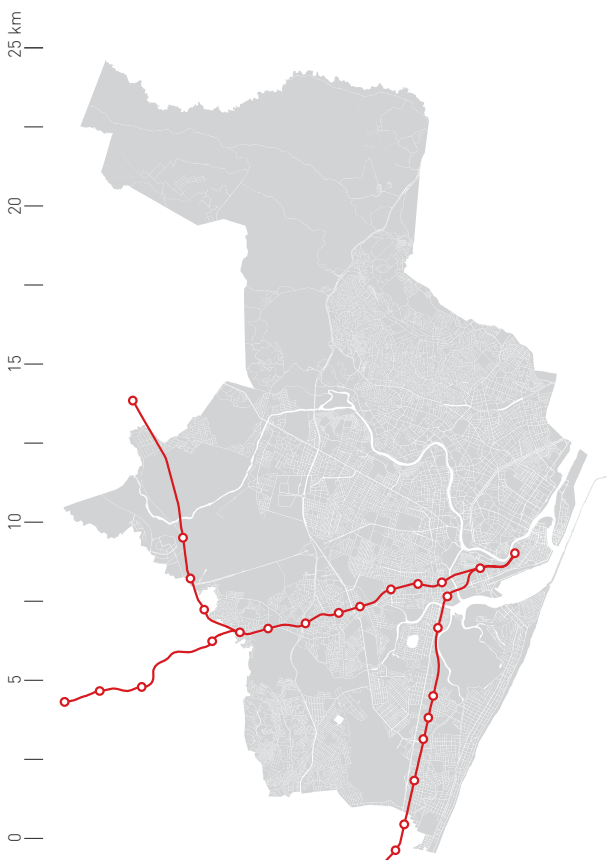
Metro

Recife has currently 30 metro stations distributed in two lines that cover an extension of 40 km. The system is used by an average of 280,000 passengers per day.

Annual figures, 76 million of users, rank Recife´s metro at 9th place in Latin America. Started in 1985, the metro lines have been implemented mostly following the tracks of old railroads, that characteristic somehow is responsible for the fact that the metro lines in the first years of activity used to cross areas that were not necessarily the most densely populated in the region.

Both lines converge to a central station in the inner city of Recife, that was built using part of the structure of the former train central station, there is also located a bus terminal, in fact the metro and buses network are highly integrated, in seven of the metro stations it is possible to commute from bus to metro or vice versa without paying an extra ticket.

Trains runs on a daily basis from 5:00 to 23:00, average distance between stations is 1.2 km in the case of centre line and 4 km in the south one, trains travel at 40 km per hour but the speed can double in some parts. Interval between trains is 4 and 15 minutes in centre and south line respectively, the average ticket costs 1 Euro.



Centre Line
205,000 passengers per day
18 stations – 25 km extension

South Line
5,000 to 20,000 passengers per day
12 stations – 14 km extension

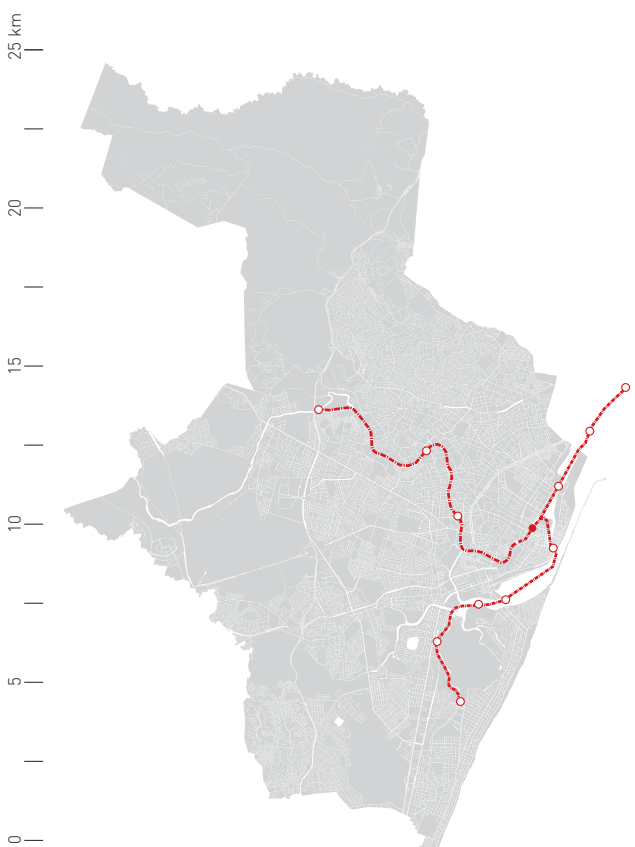
Boat Network

The water network is formed by the rivers Capibaribe, Beberibe, Tejipió, Jordão and Jiquá that share the same estuary and is complemented by over sixty channels that contribute to the estuarine system. That system covers most of the inner city and was intensively used in the past for people and goods transportation.

However the use of the vast river system as transport network was abandoned since the advent of cars and buses, only in the last decade studies where started to reuse the rivers as transportation.

Data presented here is from a project that aims to leverage navigability through the rivers and Capibaribe and Beberibe by implementing passengers and tourists transport system. Stations for embarking and disembarking will be built in strategic locations and some of them will be integrated to the existing urban transportation system.

The project was designed to act as a complementary system to bus transportation; the system has restrictions in terms of speed and capacity that prevent a direct competition for passengers. However most of the lines run parallel to major corridors for buses that are already saturated, and where there is little room for expansion, what reinforce the complementarities of the systems. The first line is expected to be completed by the middle of 2015



Line 1 City Centre – Apipucos (West)
45,000 passengers per day
26 boats
Time for implementation
18 months
Total costs R$ 245,000,000.00
(Euros 97.438.752,78)

Line 2 City Centre – Olinda (North)
8,000 passengers per day
4 boats
Time for implementation
24months
Total costs R$ 150,000,000.00
(Euros 59.656.379,26)

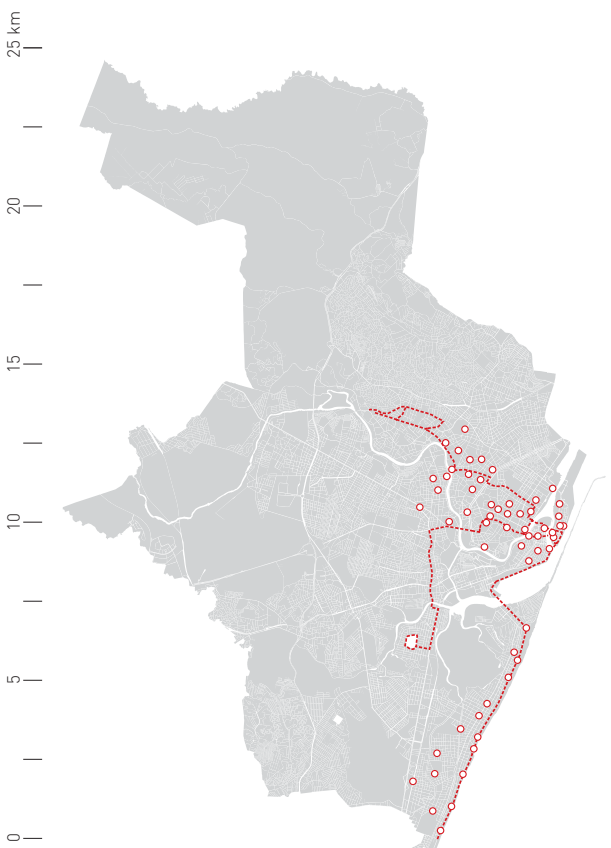
Line 3 City Centre – Boa Viagem (South)
10,000 passengers per day
6 boats
Time for implementation
24 months
Total costs R$ 115,000,000.00
(Euros 45.736.557,43)

Bicycle

According to data collected in 2000 by the Municipality of Recife, 21 per cent of all trips in the region are made by bicycle, which is an impressive number if one takes into account the network dedicated exclusively to bikes. Recife has currently only 20km of bike paths and they are mostly disconnected from each other.

In recent years there is been a call from users to have more infrastructure planned to bikes, some of the latest public plans related to mobility have considered the introduction of bike lanes. In the municipal Plan for Mobility (2011) there are planned 420 km of new routes divided in three different categories: Bike paths, lanes and cycle routes.

In pratical terms two actions are in course since last year. The first is a system of temporary bike lanes used on Sundays and holidays, the other are several stations of shared bikes implemented along the city. Both actions have attracted a growing number of users and raised the awareness about the use of bicycles as a main of transportation on a daily basis.



Example of the speed in which construction is expanding in Recife.
Pictures taken by the author in 2009 and 2014 respectively.

4.2.4 The role of construction market

Construction market activities like most of the economic production in Recife is still influenced by the origins of the land exploitation in the colonial times. That means that a small part of the population was and still is to some extent in control of the production and parcelling of the territory.

Land as a commercial good in the case of Recife is related to the provision of credit and starts to gain relevance in the decade of 1940 when the first public institution to fund housing was created. (Alves, 2009) In the next decades as more credit was made available the market goes towards the current model where the role of construction market is preponderant in defining the final product guided by the target buyers demand.

In recent years there was a shortage of public funding for housing and the market is basically self-funded, what reinforces the role of the promoters of the construction market to define the products and somehow steer the demand. That shift to private funding is also partially responsible for certain standardization in terms of typology and in the election of certain areas of the city as priority in order to minimize risks of the investments. (Alves, 2009)

It is not strange to say that the construction market in Recife takes advantage of the social aspects involving the use of public space. One can come to that conclusion observing how the market is so eager in creating products that aim to respond to the apparent lack of interest and disconnection of people in Recife with public spaces. In other words construction market tries to bring to the private domain some functions and activities that are normally provided by the city[1].

That raises the question of what comes first, does the market need to provide these public functions in the private domain, because the city fails to do so or is this failure enhanced or stimulated by the action of construction market? (Leal, et al., 2012)

Currently the model of living proposed by the construction market(ing) is so embedded that their values are incorporated by the majority of the population without further questioning. That phenomenon is visible in the reproduction in popular housing projects of certain features originated from projects targeted to high income people, especially in what concerns providing leisure and services facilities within private boundaries. It seems that consumers are buying something because they have been told that it is better or even worst that that is the only possible model of living in the city.

A shift to a life style based on the use of the car and focused on the predominant importance of the private space is seen as a natural step in the modernization of the city and as a sign of personal economic gain[2].

Another relevant aspect to put the construction market action in perspective comes from the analysis of the figures of units sold in recent years and their target public.

1 Most of the housing production in the last decade emphasizes the provision of leisure items as part of the product sold. It seems that buyers are willing to pay more or have their private area reduced as long as they can count with a larger program in the shared area of the development.

2 That refers to the analysis of some surveys carried out by construction companies that aim to understand what possible buyers want when selecting a new house.

A simple comparison of these figures with the levels of income of the inhabitants shows an expressive mismatch in the proportion of units built and sold aimed to high income and their representation of the population. That fact shows that the construction market in Recife is highly directed to speculative investments and therefore do not correspond to the real demand of local population.

That is of course not an isolated characteristic of Recife and is expected in a liberal economy, what is alarming in the case here is the way the logic of production, consumption and discard, normally related to consumer goods, has been transferred directly to real estate market. Pushed by a harsh competition the construction market has succeeded to reduce the perception of the life span of buildings, leaving behind a trace of vacant although fully functional buildings.

Competition in the market is also partially to blame for the up scaling of some recent constructions, reinforced by improvements in construction technology and raising land prices and permitted by planning regulations. Again the logic of production of consumer goods is transferred to the construction sector and notions like maximizing profit by building in larger scale and by repetition has contributed to a severe loss in terms of identity and character of the city landscape.

That last aspect is perhaps one of the most negative for the potential for Urbanity in Recife as it results in a massive repetition of formulas that do not focus on the relation of private with public spaces.

In fact this relation with public spaces is quite ambiguous in the case of the construction market in Recife, although there is hardly any effort in order to promote a major interface with existing public spaces the market relies mostly on certain qualities of that domain to qualify and differentiate their production. However what can be concluded from the advertisements for new property launch is that the references to the qualities of public spaces are normally used in order to demonstrate a sense of exclusiveness and singularity more than promotes the active use of the space[3].

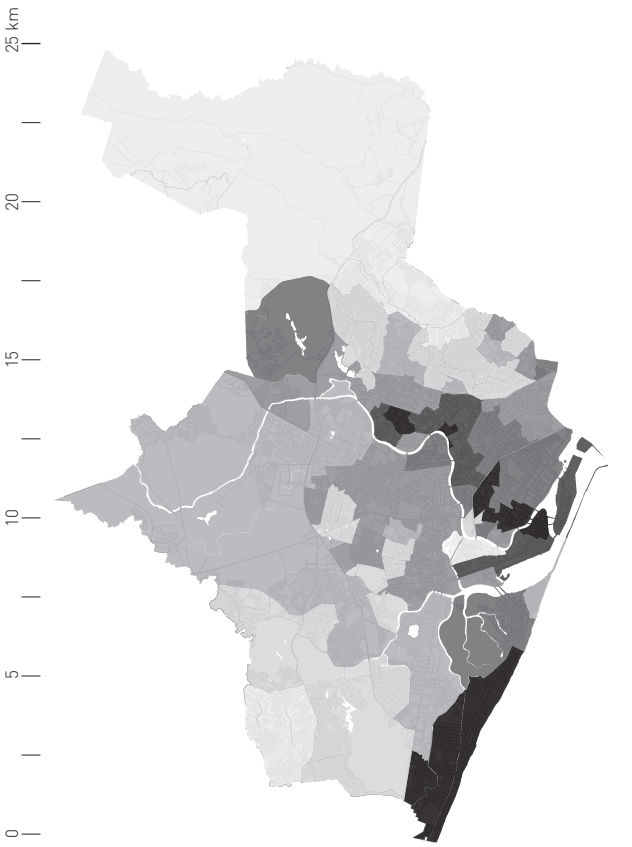
3 That refers to an overview of new development advertisement in newspapers, on line and at real state events consulted during this research.

The question in this case is that the qualities that are appealing to the market are finite; the prime spaces for the market like along the beach and the rivers cannot be extended or fabricated. That results in a search for other spaces with similar characteristics to reproduce the current model of living sold by the market.
Therefore in general terms the main conclusions regarding how construction market in Recife impacts on the questions related to Urbanity can be summarized in the following aspects:

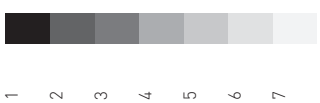
There is standardization of solutions and of the concept of what is the ideal way of living, where the role of private space is dominant.
There is an over simplified understanding of what are the values of the public space that should be incorporated in the design on new units.

The products designed by the market, with emphasis on the private spaces, reinforces the social divide in the city as those who can afford are provide with private space that replaces some functions of the public domain and those who cannot have to adapt.

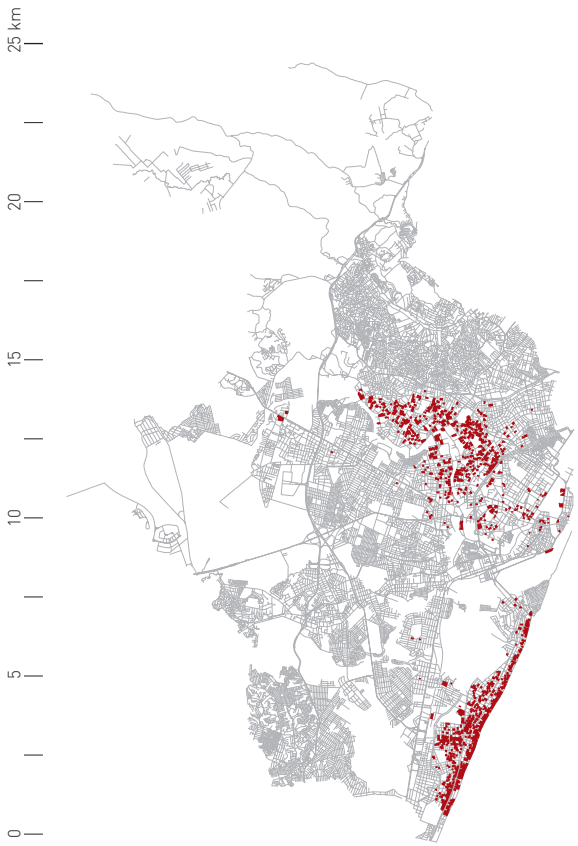
Finally there is the induction to a fast cycle of consumption discard that creates artificial obsolescence.



Land value
(scale of initial value V0)



Source: ALVES 2009



High rise
(buildings higher than 15 floors)

Source: PCR 2012

There is a clear the relation between land cost and the verticalization of the buildings. Another clear feature in these two maps is the relation between prices with the location of an area, with prices rising in areas close to the beach and the main river front.

The high value of land in some areas of the city centre represents the value related to commercial areas and retail, not part of the same dynamic that regulates the rest of the city.

4.2.5 Conclusion

The analysis of the different conditions that shaped the city helped understanding what type of restrains each one of these conditions represents to the potential for Urbanity in Recife. However, more effective conclusions can only be drawn when the outcome of the study of each of these conditions is used to frame each other. In this case, to answer the initial question posed at the start of this chapter: How different social groups are distributed in the city and what influences it, landscape and open spaces and mobility will be used to frame the other conditions.

In a city that has a name derived from a geographic feature[1] it is expected that natural conditions would be quite determinant in the construction of an image for the city. As observed in the analysis of the different conditions it was clear to what extent original landscape almost determined how the city started, expanded and to a certain extent influenced the distribution of different social groups and the action of construction market.

1 Recife means reef in Portuguese

Regarding how these natural features influences and restrains Urbanity, the results are twofold. On one hand it can be said that natural conditions posed no strong obstacle to the establishment of an urban environment and therefore to Urbanity in their most basic condition. On the other hand, when it comes to Urbanity understood as the result of encounter promoted by the space, the results are slightly different. The reduced amount of public open spaces and the concentration of green areas outside of the urban perimeter, as observed in the maps (pages 42- 43) showing the distribution of green and open spaces in the city are the main examples of that fact.

It can be easily described how different social groups are distributed in the city just by referring to where they live, on the hills or in the plain, south or north bank of the river. That social division is reinforced when looking at the spatial results of the action of the construction market. It is clear that there is a spatial segregation in Recife however the pattern formed by different social groups in the city does not follow the classical model of centre versus periphery.

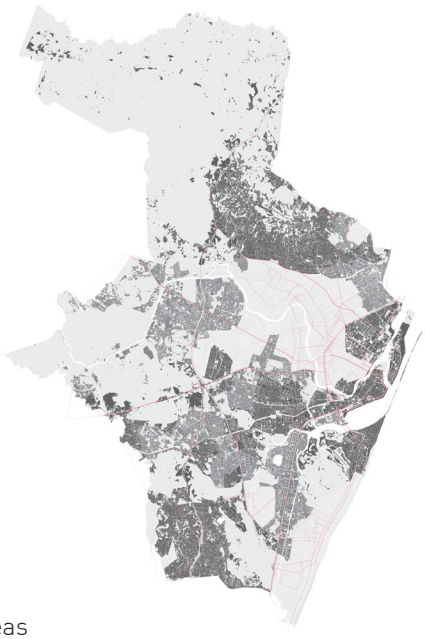
In Recife it can be argued that the logic of the segregation follows a different concept of periphery, what can be observed in the city is that vulnerable social groups are located at the periphery of city´s infrastructure. Although not geographically set apart from the formal city, these groups are normally located in the gaps between urbanized and infrastructure areas. The fact that some of the areas occupied by low income population are centrally and strategically located does not mean that they are integrated into the city life, at least not in the terms expected in a city with Urbanity.

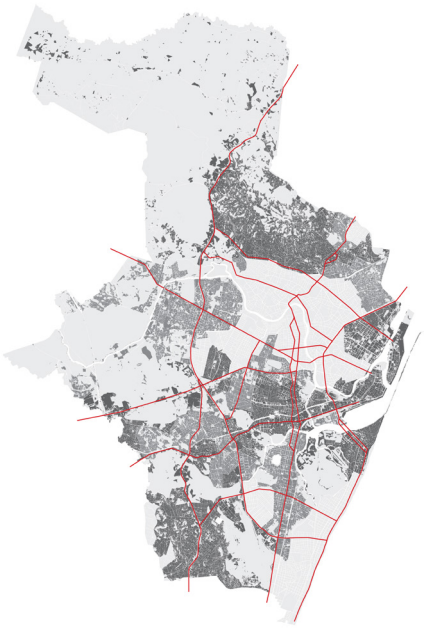
Spatial segregation and therefore a reduced potential for Urbanity is also represented when it comes to the role of mobility infrastructure. When relating the different networks to the distribution of social groups in the city, two cities emerge, one based on public transportation and other in the use of the car.

Assuming that Urbanity represents ultimately the possibility of encounter promoted by space in the city, the current conditions draw the starting point and set the restrains to be observed in the further steps of this research.

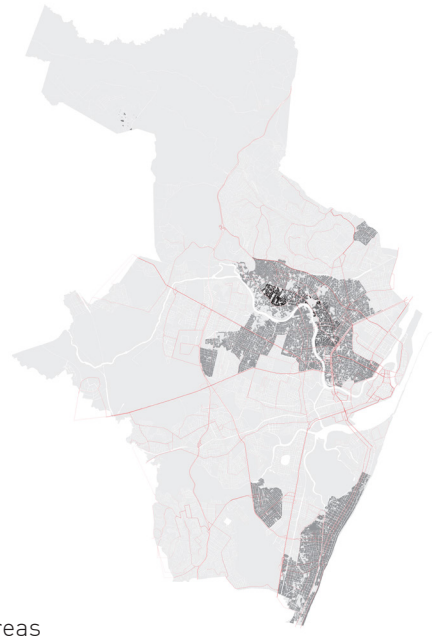
Bus network

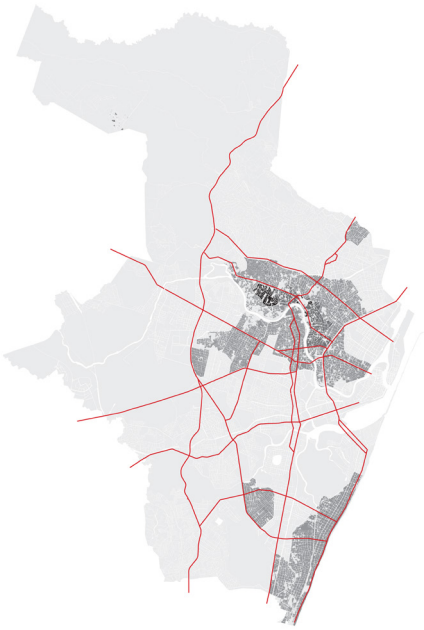
Road network





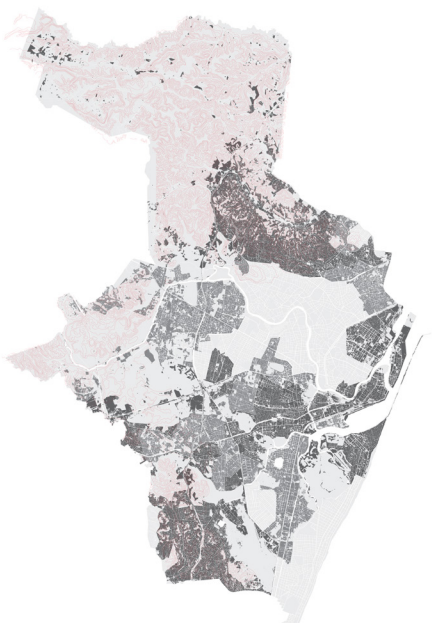
Low income areas



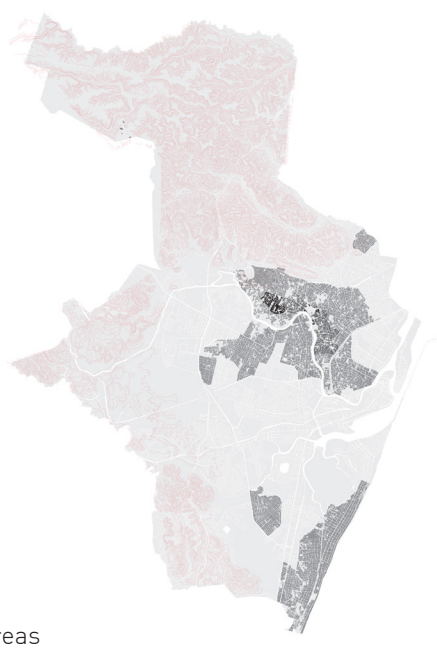


High income areas

Topography

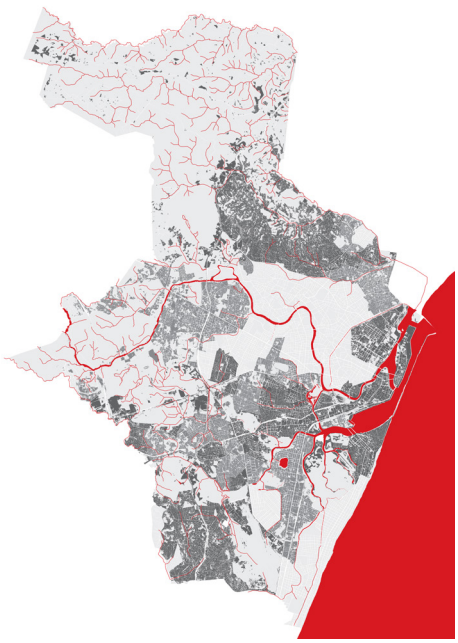


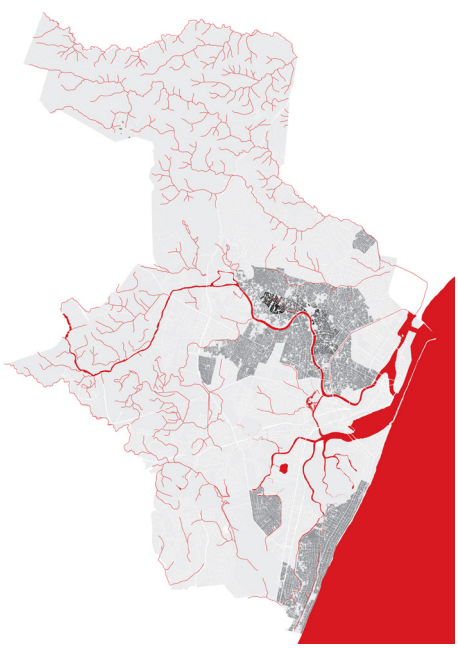
Low income areas



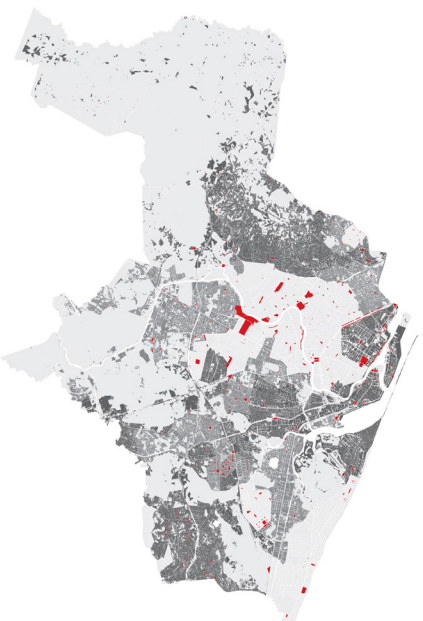
High income areas

Water courses

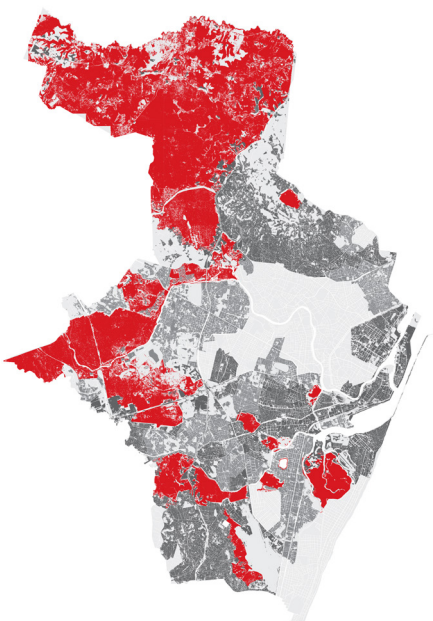




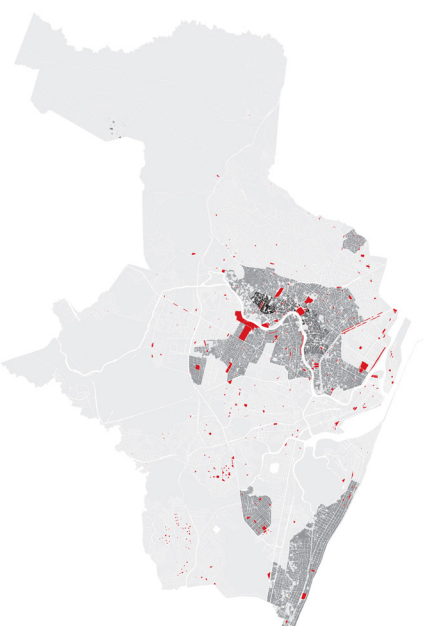
Parks - Squares



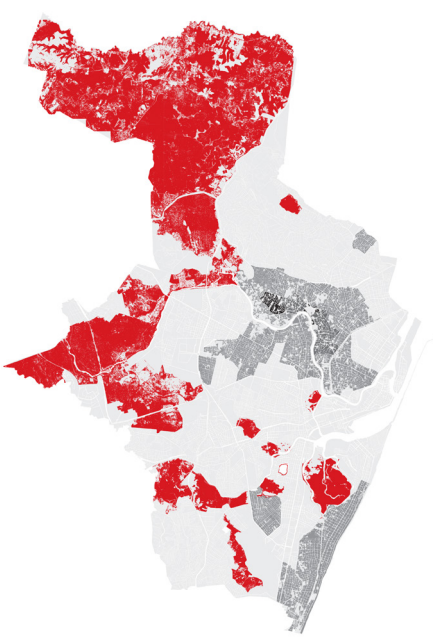
Nature reserves



Low income areas



High income areas




RIO DOS AFOGADOS
RIO CAPIBARIBY
DE STADT MAURITIUS
RECIFFO
DE ZEE
DE HAVEN
Reciff
Steene
Clippen

4.3 PLANNING INSTRUMENTS

The objective here is to analyze how some of the planning instruments that were applied in Recife in the last 100 years influenced the dimensions of Urbanity and point out some limitations of the current set of regulations.

Introduction

Recife has to a certain extent experienced pioneer interventions in planning such as the partially implemented plan for the expansion of the city, commissioned in 1637 by Nassau during the Dutch domination of the region (1630-1654), which can be considered one of the first urban propositions based on physical interventions in the Americas. (Medina, 1997)

Additionally Recife has a long history of planning that is exemplary of how planning instruments evolved along Brazilian history. In general terms planning in Recife can be organized in three main periods that somehow correspond to three main planning doctrines pointed by Sarah Feldman when studying the evolution of planning practices in Brazil (Feldman, 2001).

In the period proceeding the first two decades of the 20th century there was a dominant European tradition in the formulation of laws and postures that governed construction in the city. These regulations were mainly focused in hygienist and aesthetics aspects.

The decades of 1920 – 1930 according to Feldman can be considered as a period of transition where there was a shift from the European tradition to the adoption of certain postures that referred more to American planning practices, such as zoning plans and parkways for example.

The last period proposed by Feldman, post 30´s is the one under the influence of Modernism. The main shift in this period was towards a higher level of flexibility in the planning instruments, a higher involvement of architects and planners in the decision process and a consequent change in the urban fabric by the transformation of the parcels and land use.

In this research there will be a focus on the analysis of the planning instruments in Recife from the last period, the objective here is not to make an extensive historical and conceptual review but to identify how certain aspects that influence Urbanity have evolved. The dimensions of Urbanity identified in chapter 3 will be used here as a framework to place each phase or specific planning instrument in context.

The analysis will use three different patterns to read the planning instruments in Recife, continuity lines or steadily slightly changes, cyclical transformations and major turning points. (Feldman, 2001, p. 44)

Previous page

Detail of the plan of 1637 for Recife expansion

'Caerte van de haven van Pharnambocque met de stadt Mouritius en het dorp Reciffe met bijleggende forten en alle gelegentheden van dien'

Kleinschalige plattegrond van Pharnambocque - Reciffe

Source: Nationaal Archief, Public Domain

The period before 1920

As stated before, the regulations of that period are mainly addressing hygienist and aesthetics aspects of the construction of the city. That is evident in the importance given to the control of street alignments, in the location of different activities in the city and in the regulation of built environment regarding open space.

From that period are the Municipal Law 4 from 1893 and the Law 1051 from 1919. The first one is a Municipal Code of Postures, instrument established in the country by federal law where planning instruments were still part of the main body of the city regulations. The language and scope of the laws from that period do not address specifically those involved in the design and construction of the city. It was a broader instrument to assess how the city should perform in general addressing many aspects, not only those related to land use or typomorphology.

Although there was no general plan designed for the city there was a restriction for building heights, limited to 14m or 3 floors and a graduation of built density from the centre to the borders. It also included a hierarchy of the street network that responded to concerns about goods transportation from and to the port.

The second one, law 1051, shows already a certain level of specialization regarding the first, there was an overall conception of city based in a basic zoning plan that determined four perimeters in the city, main, urban, suburban and rural. In this first division of the city in zones there was, as observed by Alves (Alves, 2009, p. 123) a prejudiced division of the city by income and social level as a consequence of defining what type of construction was permitted in each zone, not allowing in the main centre of the city the construction of the type of buildings inhabited by low income population.

Regarding urban form there was a clear connection and hierarchy between building and public space related to the zoning. The spatial result of this zoning was a radio concentric configuration where density of occupation was higher in the centre and incrementally lower towards the limits of the urban area following the indications of the previous law.

The maximum height of the buildings was different in the zones and proportional to the width of the streets, ranging from 2 times the street width in the main zone, 1 ½ and 1 in the urban and suburban zones respectively. The minimum setback from the buildings also varied according to the zones, from 0 in the centre to 3 to 5 in the successive zones. In the main zone all constructions should be built observing the main alignment of the streets, there was also a minimum height limit and some artifices to allow taller buildings such as the construction of arcades along the streets.
These artifices are an important aspect of this law as they introduce elements to allow a higher use of the space as long as certain improvements in the public space were provided; therefore it established parameters for further negotiation between public and private sectors.

That emphasis on the relation with public space of the streets resulted in a higher control of the urban form in the city centre and paved the way for the urban renewal plans in the next decades, the most emblematic example is the construction of Guararapes Avenue in 1940.

Another important contribution from this law was regarding the regulation of the development of new areas in the city as pointed by Medina (Medina, 1997, p. 549). Developers, in order to approve their projects, had to incorporate, in their documentation, specific parameters of building height, street width and public space area previously negotiated with the municipality. In other words any new development area was approved already with some sort of master plan agreed with the municipality and that had to be followed by future tenants.

Guararapes Avenue with the arcades on the ground floor and progressive setback on the higher levels, artifices originated from the 1919 law that allowed higher buildings in the centre.

Source: Fundaj

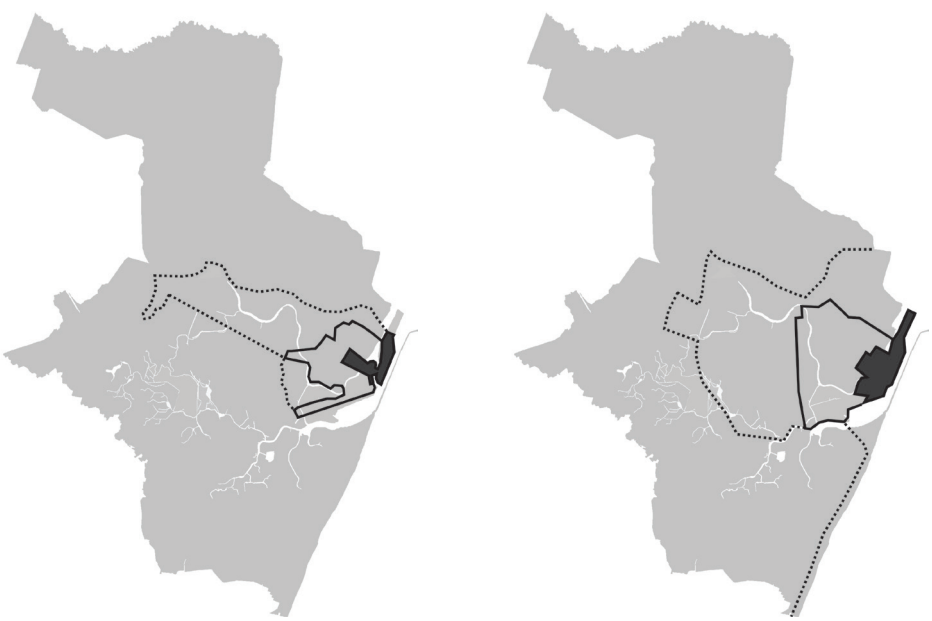
1930 – 1960´s

That period represents in the Brazilian context of planning doctrine a shift from the European hygienist and aesthetics perspective to a transition to an American inspired setting and finally to a Modernist context based on the Athens Charter and the CIAM´s. (Feldman, 2001)

In Recife that period is initially characterized by a revision of the law of 1919 in 1936 that introduces new sub zones into the existing zoning plan. Functional sub zones are created inside each of the original zones, defining different parameters for buildings according to their function. Other point introduced by this review was the figure of Coverage or percentage of the plot that could be occupied. Once again there were different values according to function and zone.

Following years will see a series of plans proposed for the modernization of the centre and expansion of the city that were related to an institutional process mainly guided by the central government that aspired the modernization of the country and their impact in the city image.

The main plans representing that period are the ones from Domingos Ferreira (1927) Fernando de Almeida (1932) Nestor de Figueiredo (1932) Attílio Correia Lima (1936) and Ulhôa Cintra (1943). In this plans it is clear the period of transition observed in planning at that time, some projects are still following a European tradition and image basically inspired by Haussmann interventions in Paris, at the same time that others already introduced some modern elements. (Moreira, 1996)



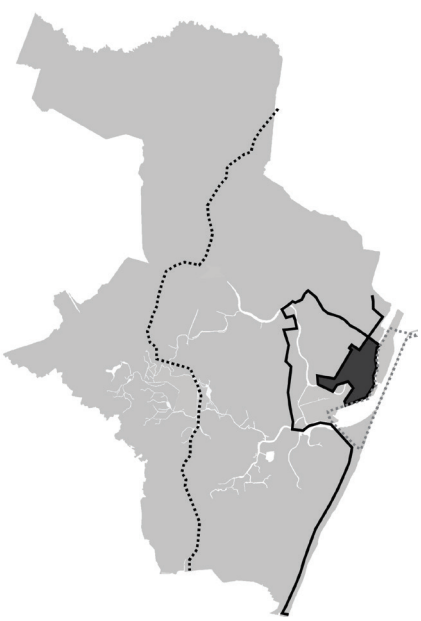
Plans of 1919, 1936 and 1961 showing the evolution of the city and the urban. suburban and rural boundaries have changed in time

Source: PCR

Perhaps more than the contribution of a specific project, the main outcome of those plans was that at planning the modernization of the city centre they started to address the urge for a general plan for the city. In that matter the creation of a commission to observe and control the elaboration of the plan for the city was a fact that influenced the laws proposed in the next period. That commission based on American models was composed by representatives from diverse fields such as engineers and lawyers and was responsible for the analysis and adjustments of the planning regulations.

In the last years of this transition period two new laws or decrees adjusted some of the parameters imposed by the law of 1936, the Decree 27 of 1946 and the Law 2590 of 1953. The first one basically changed the height limit in the city centre, aligned to the image of modern city. The 1953 law changed the borders of the urban area, expanding it to the south following the expansion of the city observed along the beach front. It also increased the coverage in that area maximizing the construction potential.

In 1961 the law 7247 review the building regulation of the city that dated from 1936. This law represents an expansion of the urban area towards west and the creation of specific zones regarding the port, commerce, industry, universities and nature reserves. Segregation of low income residents of the urban area is still part of the law as it states specific conditions for the location of new developments targeted to that part of society. Those housing complexes could not be located close to public spaces or main streets.



Plans of 1932 (Nestor de Figueiredo) for the modernization of the city centre that although not realized was influential in the works carried in the area in the 1940´s

Source: (Moreira, 1996)

1980-1990´s

The law 14511 from 1983 represents a major shift in the course of planning regulations in Recife. Such shift is represented by the disconnection introduced in this law between the relation of the public and private spaces in the formulation of the parameters to regulate construction. As pointed by Medina (Medina, 1997) the introduction of specific and detailed parameters to regulate the use of plots, according to a system of zones, represents the total inversion in the symbolic value of public – private domains, transferring to the individual plot and housing units the central role in the city regulations.

That shift in importance to the housing sector and plot scale is perceived in the zoning as higher allowed densities are now found in the city expansion to the south, no longer at the city centre. The detailed and specific parameters introduced in this law are not only related, like in previous instruments, to different zones but now they are dependent on the function the proposed building will house. That relation between parameters and function promoted an occupation of the city in a generic way; buildings are planned detached from the specific local conditions. Such aspect resulted in a reaction from inhabitants from certain historic districts that resulted in the establishment of more restrictive parameters, normally building height, in some of these zones.

Another relevant aspect of this instrument is the creation of the ZEIS, special zones of social interest that aimed to safeguard the right to the land and provide the means to infrastructure low income informal settlements. That is a turning point regarding segregation in planning instruments in Recife, as it allowed some sort of legal protection to settlements that were already been targeted by construction market.

In 1996 the law 16176 replaces the previous instruments and promotes a drastic revision in the zoning patterns and in the construction parameters. It is almost eliminated the relation between parameters and function and there is a simplification in the city structure. This law intends to refer to the real morphology of the city, starting from the fact that most of the city was, to a certain extent, been built outside the control of previous regulations.

The major differences between construction parameters in the zoning are related to coverage, initial setbacks and green ratio. In the areas where construction was expected to be less intense green ration reached 50% of the plot and maximum coverage was of three times the plot area. Repeating a pattern described previously, the regulations in this law had unforeseen results that generated public reaction and had to be fixed in a specific set of new regulations.

The law 16719 from 2001 will address the excessive construction observed in certain districts of Recife, mainly following the river. This law introduced maximum height for buildings in this area according to a classification of streets. Height was restricted from eight to twenty floors and normally followed the location of the streets in relation to the river or to historical areas.

Current planning instruments

In 1988 the Brazilian Constitution established the Plano Diretor as the basic tool for development and city planning. Every city with more than 20 thousand inhabitants is obliged since then to have a Plano Diretor and to review it every ten years. After the federal law now as Estatuto das Cidades (2000) this obligation has been extended to cities that are part of metropolitan regions, conurbations and inserted in special zones such as environmental or historical. In the same federal law it was also stated that Plano Diretor should be participative.

Recife latest planning rules are represented in the Plano Diretor of 2008. This instrument, following the directives of the Estatuto da Cidade, is based on four principles: the social function of the city, the social function of urban properties, sustainability and democratic management. It introduces a more detailed zoning system than the existing in the previous instruments but remains attached to the urban plot as the basic unit for planning. The figures regarding the potential for construction and maximum densities are in a general way reduced in the city. However there is a change in the way the area of construction is calculated that reduces the impact of lower building parameters.

In previous regulations when it was stated the coverage for a plot it meant that the maximum construction in a plot included private and common areas. In the current instrument coverage parameters applies only to private areas. That fact combined with the number of parking units demanded by the law contributes to the creation of large plinth just to house cars.

Another change regarding this instrument is the regulation of the frontage of buildings, it is stated now that 70% of the front of a plot must be transparent, not allowing anymore the long blind walls that characterize large part of the city. It is also defined that the requested green area of a plot should also be located in the front setback. That represents a change in the visual aspect of the border between private and public spaces. However this law hardly advances in providing the means to have a more active frontage in terms of functions.

In the city scale the current instrument presents, apart from the traditional zoning, the figure of development axis that aims to reinforce the role of certain spaces along main roads. It is also indicated that some strategic areas in the city should be further studied through specific plans. Furthermore there are several complementary laws and specific plans indicated in the Plano Diretor that should have been elaborated before 2010. These complementary laws would provide further details and implementation rules to some instruments that are part of Plano Diretor but demand further regulation to be put in use.

Conclusion

Instruments analyzed here cover a relatively short time span regarding the history of the city but vary tremendously in scope and complexity. Some conclusions however, are still possible, always trying to relate these plans or laws to their effect on Urbanity and restricting the conclusions to the main aspects observed.

There can be identified a cycle of plans and laws that go from a more generalist to more detailed approach. That can be the result of the fact that more detailed and elaborated laws like the one of 1961 that had a very fixed setting of typologies and parameters somehow constrained the action of real estate market. That excessive constrain was normally reduced in the successive plan by a more generic zoning of the city and in a higher dependency on spatial parameters to regulate the construction in the city.

What can be understood especially from the analysis of law 16176 of 1996 and the instruments that followed it is that these instruments are generalizing the different spatial features of the city and relying in parameters that are insufficient to deal with the city complexity. Even the more complex zoning plans like the recent Plano Diretor of 2008 still lacks some instruments to allow a better negotiation between public and private sector.

In that sense, previous instruments like the 1919 law were more effective as they provided clear elements to the negotiation to mitigate the impact of constructions above the limits stated in the law. Spatial solutions to deal with higher construction levels were embedded in the law; one example was the creation of public arcades to allow higher buildings. It is evident that the contemporary city and their scale of constructions involves much more questions than in the past, but current instruments hand to individual negotiations, and normally monetary compensations, the mitigation of projects with higher use than the parameters established in the law.

In general terms, in the instruments reviewed here, there was until the law of 1961 a clear differentiation in the level of control of the urban form and spatial characteristics between the city centre and the rest of the city. The fact that the city centre was recognized as the core of the activities in the region corresponded to a major level of detail in the definition of parameters that aimed a specific formal result. In the more recent instruments analyzed here this dual aspect has disappeared, as a result of the fact that city centre has lost most of the importance as a reference for the region in terms of diversity of activities.

That is a clear result of what happened in a given moment where can be observed a dissociation between the instruments that regulate zoning and land use from those that deal with typomorphology. Moreover it is the result of the move from plans that envisioned a spatial configuration for the city, or at least to certain zones, to those that deal with the city based on the control of constructions in almost exclusively in a plot scale.

Planning should not rely on forecast, no matter how deeply based on surveys and research plans will always deal with uncertainty and externalities. It is also expected that planning instruments should be reviewed and fine tuned within time; Brazilian law even demands a periodical revision of cities planning instruments.

However what can be observed in Recife is that, in general terms, planning is reactive. The reading of planning instruments presented here shows that, in most cases, the instruments could not cope with the pace that market operates and that the time necessary to adjust urban regulations leaves space for certain problems to persist even after their impact has been realized.

The intense process of verticalization in certain areas of the city is one of those examples of unexpected effects of certain regulations. The recent introduction of high rise buildings in the immediate vicinity of the historical city centre gave rise to a heated debate in the city and the realization that current instruments present hardly any means to prevent it.

Observing how planning instruments influenced the use of the city and trying to make a parallel with the dimensions of Urbanity identified in previous chapter it is possible to come up with certain conclusions.

It is clear that the first plans and instruments at the beginning of the century until 1930´s were more identified with the importance of having a highly urban city centre as sign of modernity. These instruments were based on an image of the city that was clear and incorporated in the instruments. Therefore the instruments from this initial period are more suitable for a concept of Urbanity as a result of a high urban setting.

Most of the instruments reviewed here deal with the allocation of different densities and functions in the city territory. However the zoning of functions was and still is to a certain extent more focussed in the restriction of certain functions than concerned in providing diversity in the city use. So it is difficult to perceive in the instruments an effective support for Urbanity as a result of density and diversity in the use of the city.

That applies also to the social use of the city. As observed by Alves (Alves, 2009) some instruments, especially the laws in the period of 1930 to 1960 have promoted a severe segregation of the population by defining what typology would be suitable to be built in the urban and suburban boundaries. That, among other factors, shows that in what regards the last dimension of Urbanity, the result of encounter promoted by spaces in the city it is harder to find any relation with the objectives of the planning instruments in Recife.

4.4 A critique on the fast, ubiquitous and yet legal way to build a city without Urbanity

The action of construction market in Recife in the laast decades has been so intense and at the same time mechanic and repetitive that certain operational modes can be easily identified and explained. The observation that construction market tends to follow few variables in terms of building typologies can also be extended to methods used to make developments feasible.

One can see that in Recife, most of the new developments follow certain rules or steps that deal mainly with three aspects: to gain access to land, to achieve economic feasibility and to overcome restrictions or regulations given by the city planning instruments. Here to follow an exercise to put the processes described in the analysis of planning instruments and the role of the market in perspective. A critique on how Recife has been built that explains how insufficient regulations and fierce action of construction sector currently undermines Urbanity in Recife.

This reflection starts from the thesis proposed by Lucas Figueiredo (Figueiredo, 2010) in his article 'Desurbanismo: Um manual rápido de destruição de cidades[1]'.

> *'The growth and development of several Brazilian cities during the past two decades was not just random or disorganised. It produced, predominantly, architectural typologies, spaces and transportation systems that favour a few ways of life over all others. This disurbanism has feedback loops that create physical structures that hinder other ways of life while resulting in cumulative advantages for the favoured ways, a spiral that continually produces new disurban trends'.*

In his writing Figueiredo explores five processes that are, according to him, responsible for the destruction of urbanity in Brazilian cities: growing use of cars, lack of quality in public transportation, high walls and gated communities, loss of diversity and adaptability of buildings and segregation of people and ideas.

Here some of these processes will be further explained in the context of Recife, by describing in a step by step way, how the construction market works within the gaps of planning instruments. The rules exposed here represent a critique of the modus operandi present in most of the recent production of new developments in Recife. The focus is to show how parcels and buildings are steadily transformed, what are the impacts for Urbanity and moreover how planning instruments deal with that.

1 The title of the article can be translated as: 'Disurbanism: a fast manual for cities destruction'

Previous page: Image of a development proposed and approved to the construction of new 40 floors towers at the waterfront right at the border of the historical city centre of Recife.

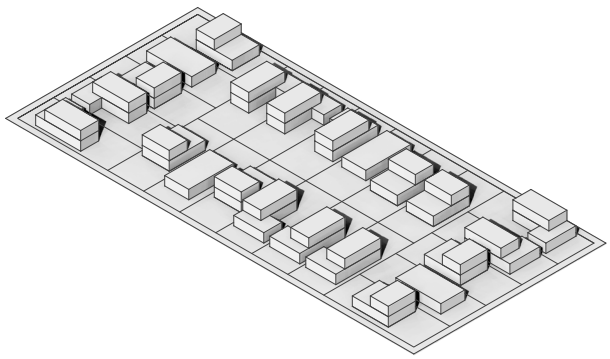
Source: skyscrapercity.com

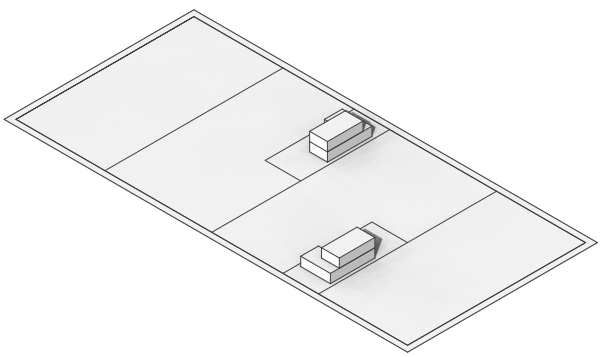
01 Up scale plots

How does it work?

Recife´s urban fabric is still mainly composed by small plots and built with detached houses. In the last decades there has been a sharp growth in the replacement of single houses by larger buildings. The rule here is straight forward; small plots are merged in order to allow the construction of taller buildings. In the past construction companies would buy small plots and implement their development. Recently a more sophisticated method replaced this mere financial operation.

Currently what happens is that house owners are invited to be part of new developments instead of getting only money for their properties. What makes this change so appealing to house owners is the fact that they can receive from 15 to 50% of the number of units of the new development, depending on the district where the house is located. Suddenly owners of a single house can have 5, 10, 15 apartments.

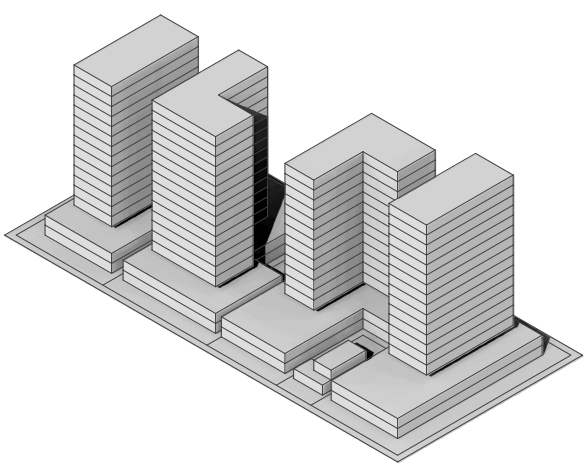




How does it affect Urbanity?

One might expect that higher density in construction and population would be beneficial for Urbanity; however that is not the case in Recife. The result for Urbanity is evident; up scaling properties, in the way it is done here, contributes to reduce the interaction at ground level, as several front doors are replaced by one gate, and normally no public function is provided at the base of these new buildings.

What is at stake here is the loss in terms of adaptability and in the potential for Urbanity that resides in a more fine grained urban fabric. It is not that small plots built with houses have already a diversity of functions, but they are far more adaptable then a single building where the plinth is normally occupied with parking space.



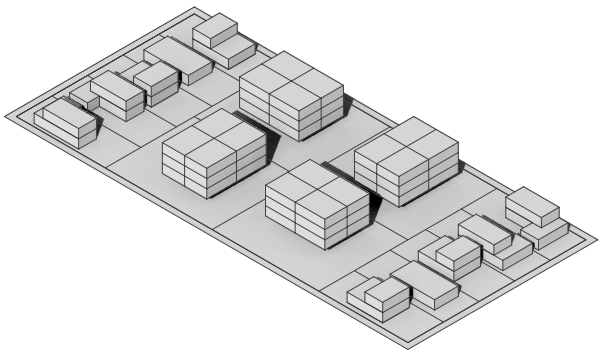
How planning instruments deal with that?

Planning instruments normally, with very few exceptions in specific zones related to nature reserves or historical areas, do not pose any restriction to merging of smaller plots. In fact merging and up scaling of plots is indirectly stimulated by regulations that make difficult to build in smaller plots. In the construction regulations initial setbacks and demands for parking are rather constant regardless the dimensions of the plot, what restricts the densification in small parcels.

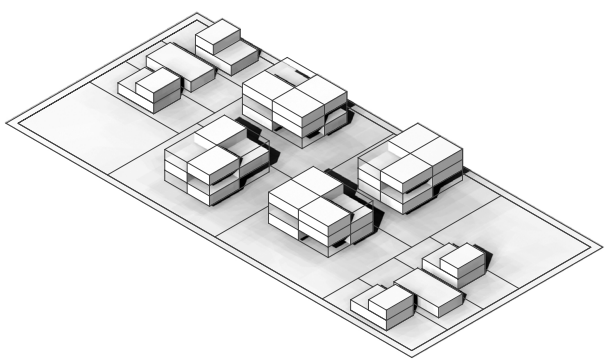
02 Speed up obsolescence

How does it work?

The previous rule is easily implemented, but what happens when it comes to medium size plots and buildings with multiple owners? And what if some of these owners are not seduced by the possibility of multiplying their assets? The procedure in these cases is more elaborated; it consists in buying units in buildings without necessarily revealing the intentions of replacing them by a new development. Gradually construction companies will gain control of the properties and start the replacement. The process is long and involves persuasion strategies that are at the limits of legality. Normally it is forged a process of fast decay in the buildings by negligence of construction companies in the maintenance of their units, forcing the remaining owners to finally sell their properties or join the proposed development.



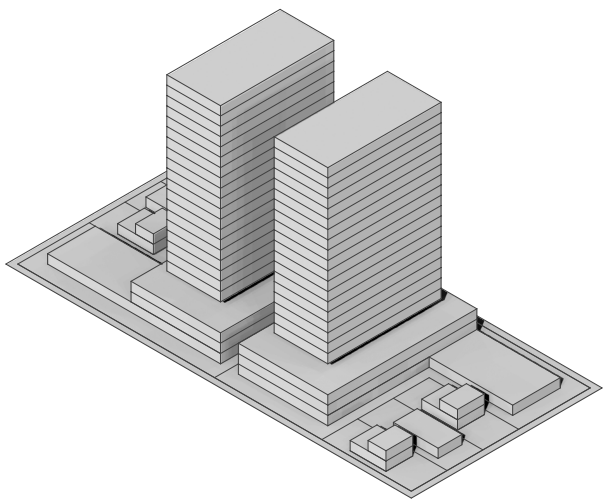
A more subtle but extremely effective version of this rule is to forge obsolescence by defining a model or standard for living that does not fit in constructions of a certain age. Marketing of new developments and their standards of living is so well designed that fully functional buildings will lose their value in the market for failing to provide the same number of leisure activities present in the new developments for example.



How does it affect Urbanity?

Again it is a question of replacing smaller units by single developments, what normally reduces the possibilities of interaction and mixed use at street level. The impacts of higher population densities are minimized by the loss of diversity in building age and construction types.

Several of these existing medium size buildings house different functions on the ground floor what is not observed in the developments that replace them.



How planning instruments deal with that?

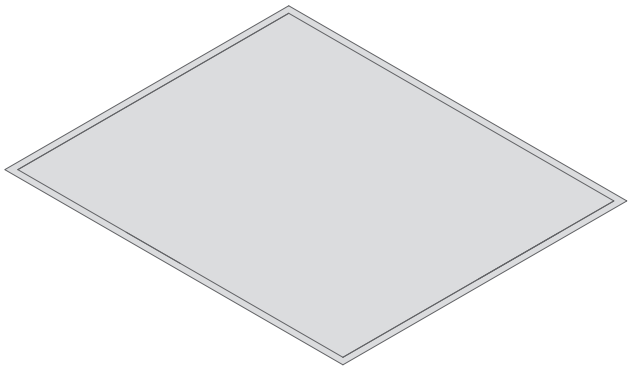
In a market economy hardly anything can be done to prevent construction companies to buy units in buildings. What has been done in the last laws was to classify certain medium size buildings, that were not protected as heritage or national monument, with a certain degree of protection, in order to avoid their replacement by new constructions. But this instrument is limited as the number of buildings that can justify some level of protection is reduced when compared to the quantity of buildings aimed by construction market.

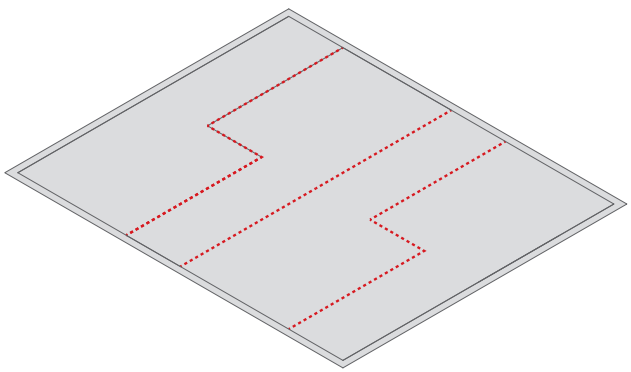
03 Hide the impact

How does it work?

In the law 16.176 from 1996 it was established that any new construction starting from a certain built surface or plot size (20,000m² of construction and 3ha of plot area) should be considered as an 'impact development'. That classification demands, that in order to have a construction permit, projects should be analyzed in a broader way, assessing their impacts on traffic, environment and on the immediate neighbourhood.

That involves consultation to local population and diverse studies resulting in extra time and cost before having clearance to start a development, it also involves normally that the developer should cover the cost of the mitigation of these impacts. To avoid that, what happens, in most of these cases, is that a project that would be classified as impact is fragmented in smaller projects. After the completion of the construction the limits between each project are erased and the development assumes its initial characteristics of a single unit.

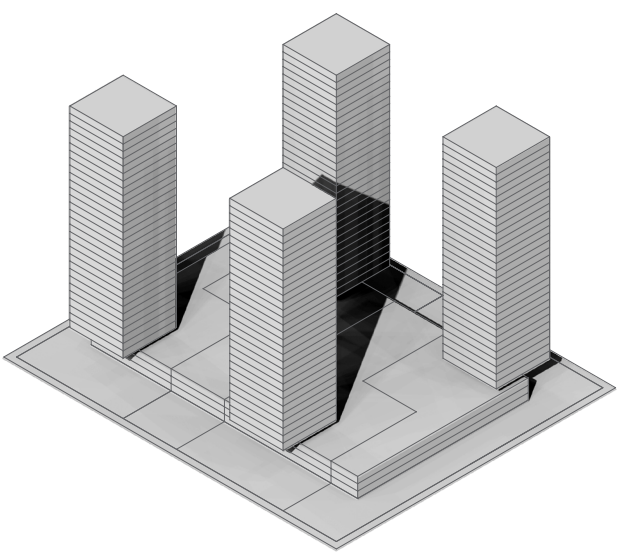




How does it affect Urbanity?

Constructions that normally result from this rule are inserted in large plots that are not so permeable and constitute barriers in the city. This characteristic of being a barrier will remain even if the project has been fragmented in smaller plots.

They are also normally represented by vast complexes of residential buildings provided with extensive leisure facilities; therefore even if they will contain large numbers of people, the contribution to life in the streets will be very limited. In general terms the impact of this rule is more related to loss of potential for Urbanity then replacing an existing situation where there was a higher level of Urbanity.



How planning instruments deal with that?

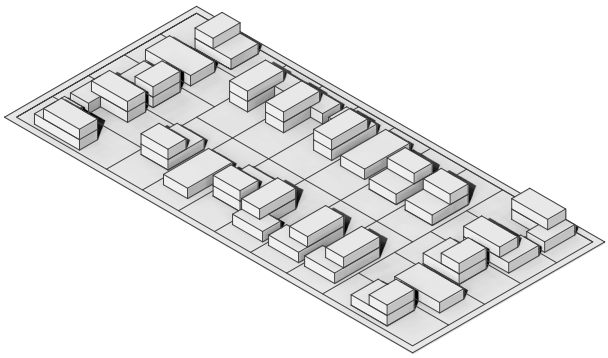
Although it can be evident to those at public institutions involved in the analysis and approval of new developments that a series of projects in contiguous plots are in fact a single project, there are several limitations in the laws to prevent it to go further. Most of the planning parameters are based on the plot; there is hardly any instrument that relates construction parameters to the scale of the block or district

04 Safeguard potential

How does it work?

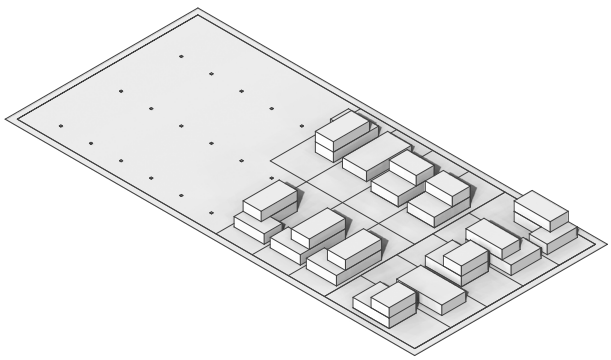
It is determined in Brazil, by federal law, that municipal planning instruments should be reviewed periodically, every ten years for zoning for example. That fact normally raises expectations that in these review processes new construction parameters will be more restrictive than the current ones. In order to deal with that, projects are approved and licensed even if there is not intention to implement them soon. Construction sector builds in this way a stock of projects with more favourable parameters and can decide when to start a development without the restrains of the current planning instruments.

According to the laws of Recife, once a project is approved, construction should start in no more than two years, what is not stated in these laws is how long a construction should take to be completed. That rule is basically to safeguard more favourable construction parameters by approving projects just before changes in the instruments and sometimes by realizing just the foundations of the buildings.



How does it affect Urbanity?

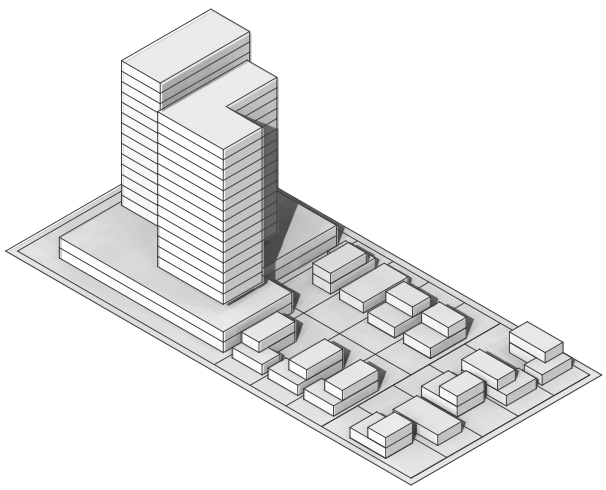
The impact of this rule has two sides, in one hand plots will be left unoccupied for some time, depriving parts of the district or neighbourhood of life; on the other hand there is the negative effect on planning instruments, once this rule allows constructions with former legal parameters to be build in a time where they should no longer be permitted. The role and efficacy of planning instruments is questioned by this example, as in fact the city addressed in these instruments is not necessarily real.



How planning instruments deal with that?

This rule is the classic example of the opportunity given to the action of construction market by the limitations and inaccuracy of the planning instruments in Recife. In a recent review of planning instruments, it was given a period that precedes changes in regulations, where no new project could be approved, but this strategy only pushed back the deadlines for the production of new projects.

Attempts to curb this situation through additional regulation failed in the past. The pressure from the private sector, have prevented measures, such as progressive taxation for vacant land, to be incorporated in the planning regulations.

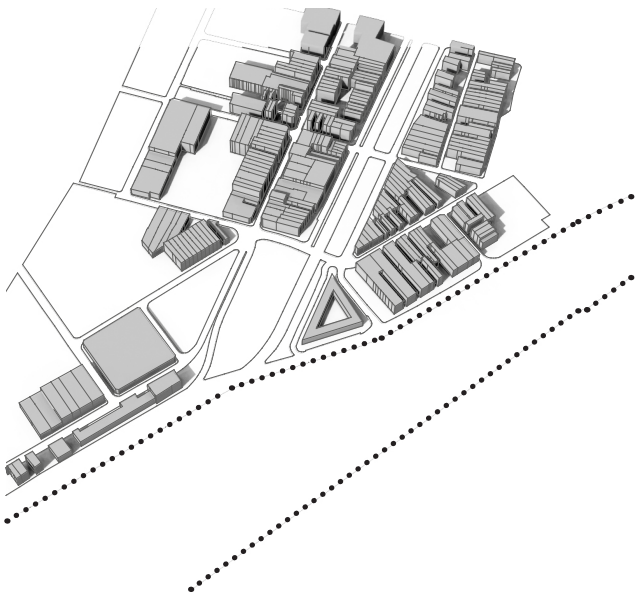


05 Privatize public space

How does it work?

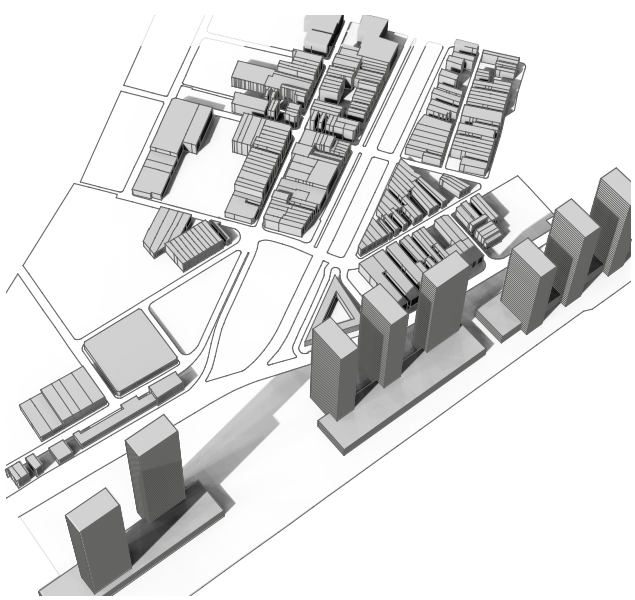
Recife´s territory is composed mainly of private properties; however there is still a considerable amount of public land, concentrated around port area and former railroads that has attracted the attention of private investors. Changes in the economy have resulted in the fact that vast areas in the inner city of Recife are made redundant and consequently vacant. In recent years state and federal government, following the interest from the private sector, have started to consider new uses for these areas. In order to do so what has been observed in recent cases is that governments directly sells land or make long term concession agreements with the private sector. In some cases the public sector establishes specific parameters for the use of these areas, but it is not in the format of a comprehensive plan or any other instrument that defines design guidelines or land use.

In the end this rule represents the transfer of public areas to the private sector without much consideration about the potential of these spaces as public domain; the supposed benefits arriving from improving economic activities overcome the need for a broader discussion about the strategic role these spaces could play in the quality of life in the city.



How does it affect Urbanity?

Although that type of action is not so frequent given the reduced availability of areas, its effects in the city are remarkable hence the large scale and dimension and strategic position of most of these areas. Spaces with a vast potential to reinforce some values related to Urbanity are merely regarded as a generic plot in the city, where construction market will reproduce their methods and products. The potential in these areas will not be translated in different typologies and spaces; it is considered mostly as an opportunity to upscale construction and maximize results.



How planning instruments deal with that?

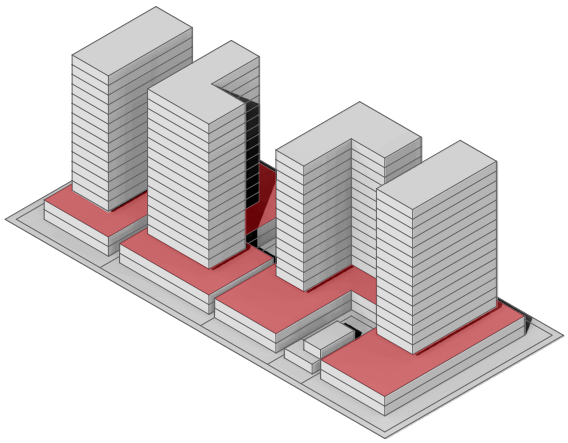
Most of the areas included in this rule are considered special zones in the current planning instruments and are subject to special conditions. Normally it is required a specific plan for the area in order to determine the construction parameters. What has happened in the last cases of projects in areas of that type is that these specific plans are very vague or even not realized. What has been observed in these cases is that the approach from public institutions is to delegate the project to the private sector and act just mediating the effects of the project and demanding some mitigation measures.

06 Inflate private domain

How does it work?

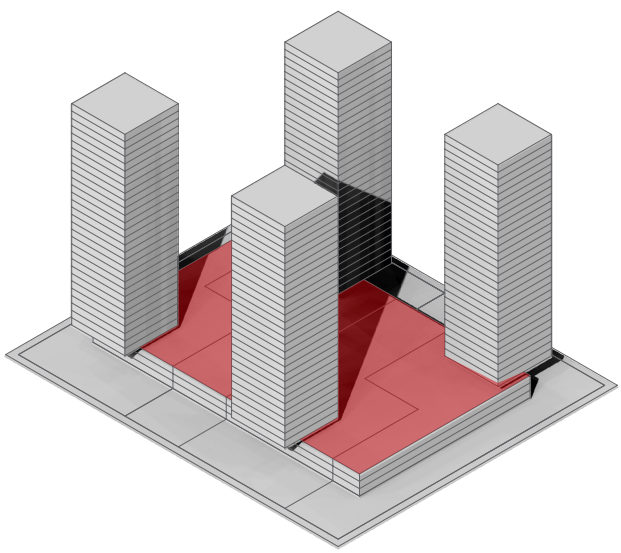
That is a general rule or procedure from the market that is largely used regardless of the scale of constructions. It consists in bringing to the private domain the larger possible number of functions that would be normally related to public spaces. This type of action takes advantage of certain characteristics of society in Recife like the fear of violence, the search for personal status coming from exclusiveness and car dependency culture.

Buyers seem to be willing to pay more or to have their private areas reduced as long as they can count with the full program of leisure that their neighbours have. The question is much more related to the number of leisure items one can have inside their boundaries than the actual quality of spaces.



How does it affect Urbanity?

The question for urbanity in this case is that this type of approach, bringing the focus to the private domain, reinforces the secondary character of public spaces in Recife and indirectly undermines their use. Currently this phenomenon that started in high income buildings has been reproduced, with the necessary adjustments on scale, in developments targeted to medium and even low income buyers.



How planning instruments deal with that?

Planning instruments in Recife do not regulate, at a higher level of detail, the uses one can house inside their buildings. As explained before, most of the instruments are designed to control certain parameters such as building intensity or green ratio but they do not address the distribution of functions on the block or plot level.

5

URBANITY IN RECIFE

Samples of city fabric

Source: PCR

5 URBANITY IN RECIFE

Overview

The review of the theory around the concept of Urbanity has provided a framework to contain the concept. This framework was used in the discussion about the evolution and current scenario of Recife. This part of the research by its turn will propose an approach to read and evaluate Urbanity in Recife that starts from the premises identified in the previous chapters.

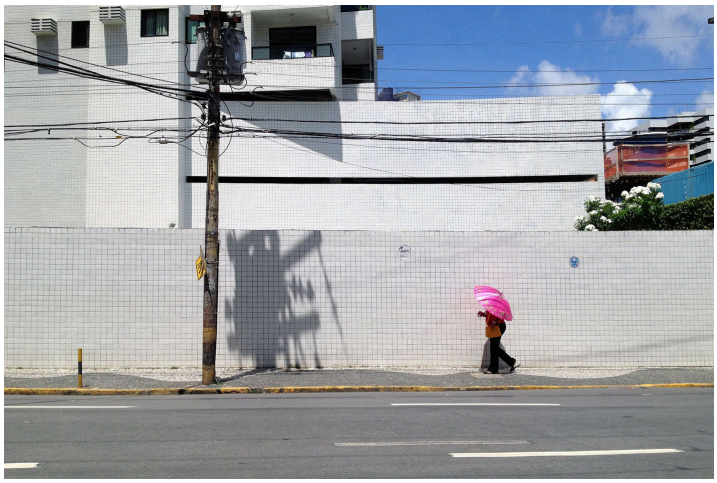
Introduction

Three important conclusions of the review of the concept of Urbanity are essential in the analysis that will follow, firstly the fact that the concept is broad and as is it involves relational conditions it is not possible to formulate one definition of Urbanity that covers all situations. The definition of Urbanity is embedded in the social spatial structure it describes. Secondly is the point raised by Pont & Haupt (Pont & Haupt, 2010, p. 228) that when approaching Urbanity and trying to evaluate it one should do it by 'focusing on physical-spatial properties of the built environment'. Lastly is the reference to public realm (Glaser, 2012) as the place in the city where Urbanity occurs.

Having that last point into account the analysis of the potential for Urbanity in Recife will be done in two parts, addressing the private and the public lives of Recife. The objective is to evaluate distinct physical spatial characteristics in both sides of public realm in order to identify the various dimensions for Urbanity in Recife.

One of the main challenges of this research is how to describe and evaluate something that deals with a social – spatial relation with the restrains of time and data available. The other question is how to include the perspective of users in the analysis. The first obstacle is tackled restraining the analysis to the areas where sufficient information is made available, which luckily covers most of the formal city. Regarding the second topic, 'users' perspective the following points raised by Pont & Haupt are pertinent: The split between residential and non residential users must be taken into account; potential user intensity relies on internal and external factors, accounting the first for FSI (Floor space Index) and the second for modes of transportation and accessibility. (Pont & Haupt, 2010, p. 229)

The last part of the analysis will compare the results in each domain in terms of built intensity and potential of the public spaces. In order to establish the dimensions of Urbanity to be addressed in the next phase these results will be further compared with population density.



5.1 Qualities of the border

Urbanity as it has been described so far in this thesis is dependent, in the local scale, on the capacity of the space in between private and public spaces to allow co-presence and in the best cases interaction. (Hillier & Hanson, 1984)

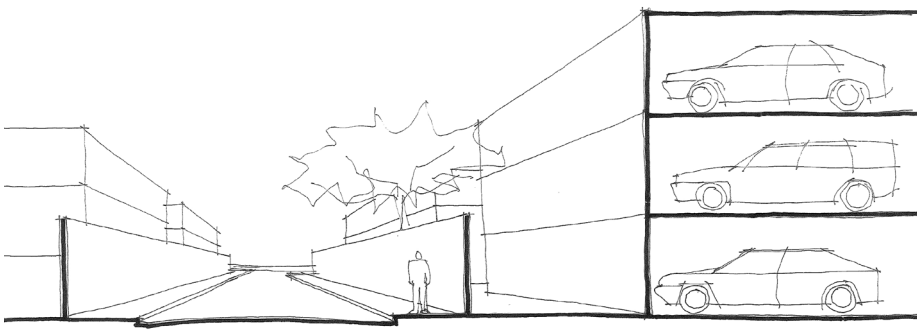
As understood in the study of the context, there are several restrictions in order to achieve Urbanity in Recife. This chapter will present a reading of the potential for Urbanity that is inherent to private and public structures in the city.

Before entering each domain individually, this reading starts with a photographic review of some of the different borders between private and public spaces that can be found along the city. Without any intention to be a comprehensive analysis, the images that follow will describe spaces, typologies and their influence in the use of space. The approach in the use of photos here follows what has been explored during EMU course in Venice in the 'Intensified Visions' work with Italian photographer Guido Guidi.

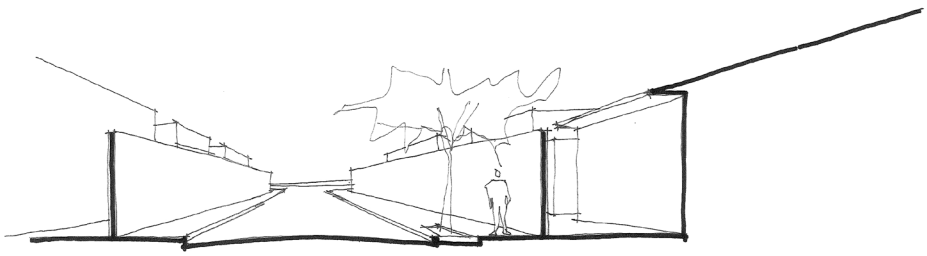
These images must be seen as the first approach towards what are some of the aspects to be taken into account when looking for a potential for Urbanity in Recife.

The selection of images shown here covers areas where population density and income vary considerably, however the objective is not to establish a direct and measur able connection between the types of border and the intensity of use of the spaces.

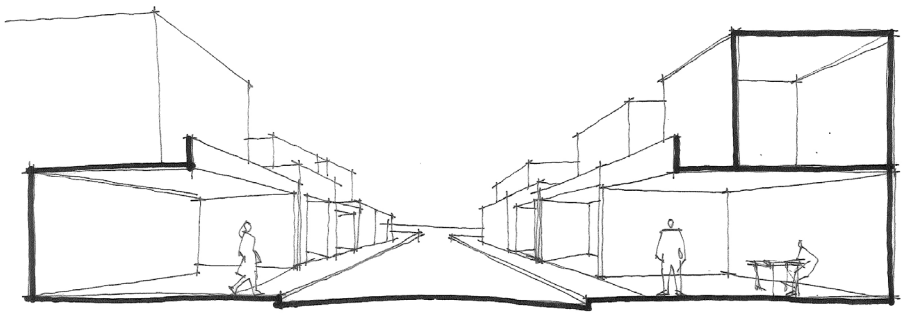
Another point to be clarified is that, although the sequence of images will contrast formal and informal areas in the city, it doesn't intend to praise or romanticize life in informal settlements, but the ingenious use of space characteristic of these areas.



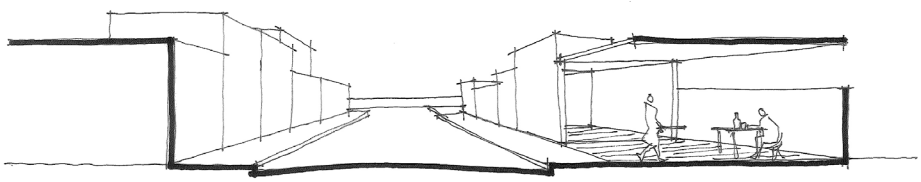
High rise residential buildings in high income areas, where there are in average four parking spaces per unit. It is common to have the first two or three floors just occupied with parking. Even when the buildings are located in large plots, the use of the ground floor by active functions is compromised by the vast amount of cars.



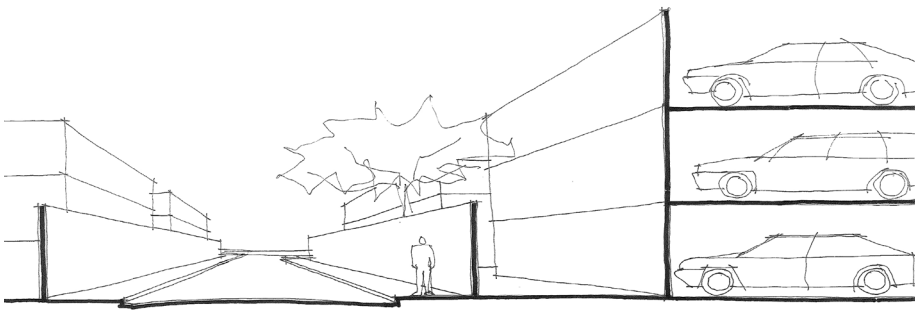
Low rise detached houses in gated communities, normally located in leafy districts. This type of houses is to a certain extent a continuation of a tradition started by foreigners living in Recife in the XIX century. There is still a visual connection with the street but further interaction is restricted by walls.



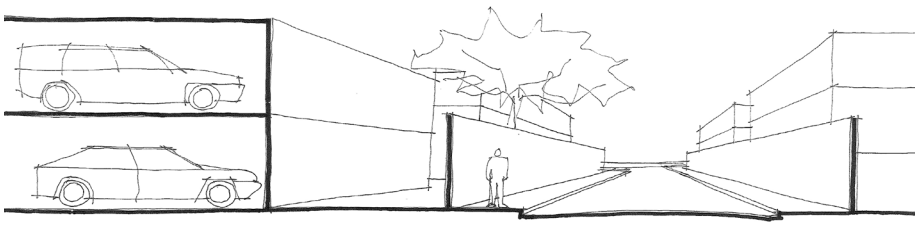
Single family houses situated in former informal settlements or popular neighbourhoods. Normally there is commerce or small services on the ground floor and the houses are built at the limit of the property. Due to the reduced size of the plots the program is distributed vertically.



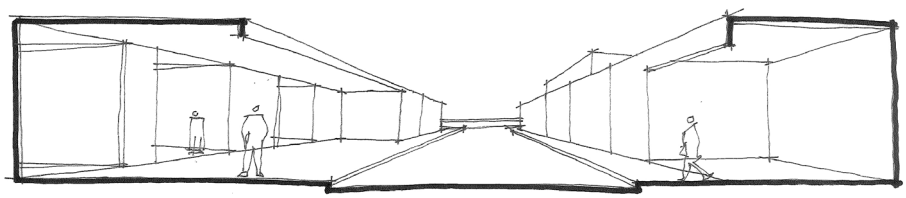
Example of the use of residual space in low income areas, the location of these spaces follows the logic of the flow of people in the area. Filling gaps left in the informal urbanization these spaces also act as reference points in a community, in a similar way to what Jane Jacobs describes about the corner shops in New York.



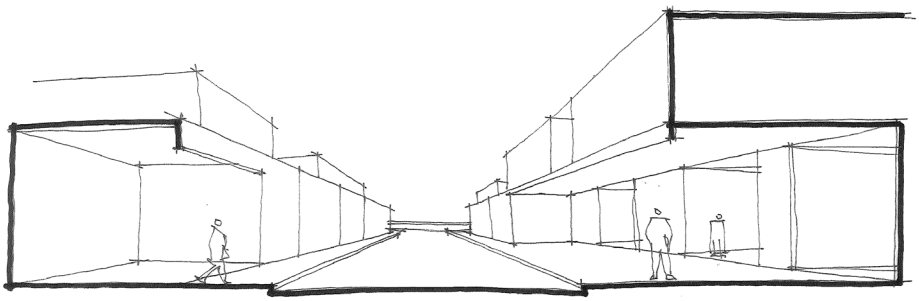
Residential middle rise buildings where the plinth is basically a blind wall facing the street. Here it is also the case of large number of parking spaces occupying the first floors of the building. Another factor for these massive blind plinths is the extensive leisure program that nowadays is expected to be part of these developments.



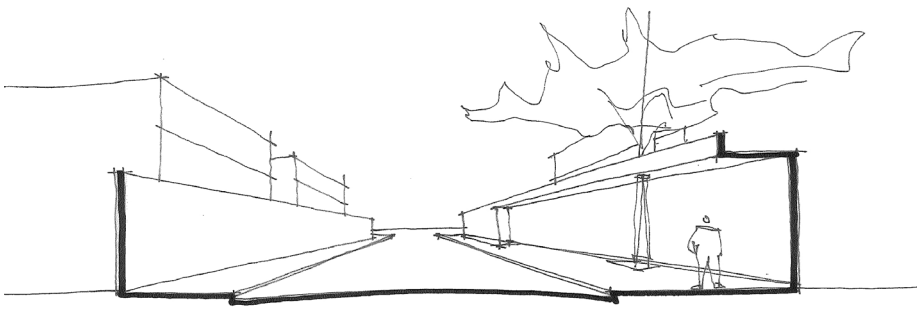
According to the latest building regulations 70 per cent of a plot frontage must be transparent. That improves the visual relation between inside outside. However the use of the spaces in the ground floor remain similar to those in buildings with blind walls, parking and seclude common areas for leisure.



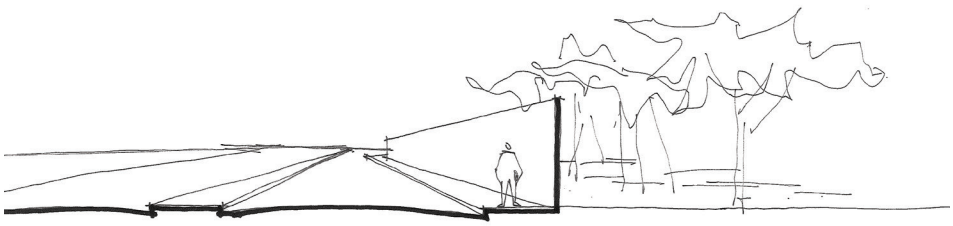
Low rise commercial buildings, example of the constructions derived from the planning instruments of the decade of 1930 – 1950, where it was established the use of arcade and covered sidewalks. Specially in the low income areas this space houses several functions other then the initial planned.



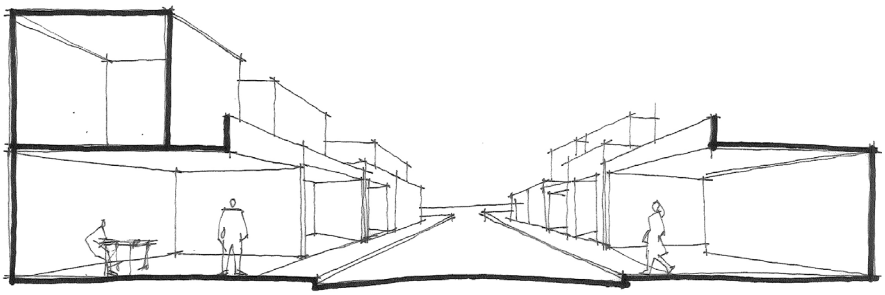
Informal activities in the transition zone between public and private spaces are common in these types of buildings when located in low income areas or at the city centre. Although the chaotic look these informal activities seems to be beneficial for the formal shops, as more people is attracted to the area.



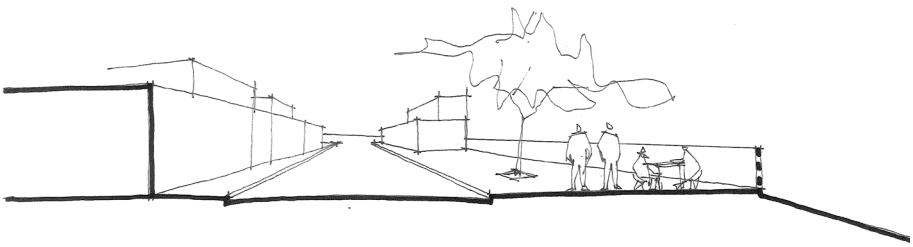
Residential areas where can be observed a sheer contrast between the leafy private space, inside the walls, and the arid sidewalks.



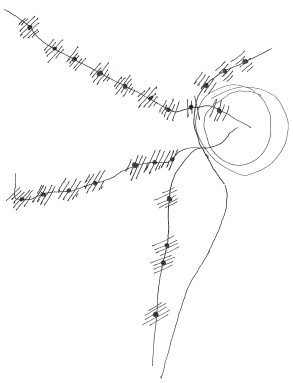
The same contrast between green and arid spaces applies to the border of bigger complexes where the interaction inside outside is limited.

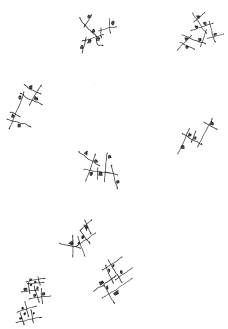


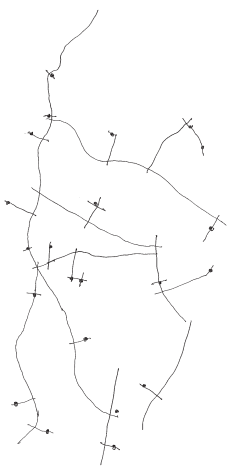
Examples of spaces in low income and informal settlements that shows that a higher interaction between private and public domains do not relies necessarily in larger spaces.

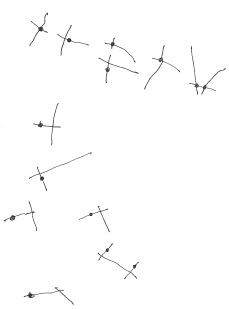


In this case the interaction between inside outside spaces is also reflected in the relation of the space with the location and the potential that comes from the landscape and the panorama.









5.2 Potential for Urbanity in the public domain

> Public space is the institutional and material common world, the in-between space that facilitates co-presence and regulates interpersonal relationships. Public space is a place for simultaneity, a site for display and performance, a test of reality, and exploration of difference and identity, an arena for recognition, in which representation of difference can lead to an awareness of the self and others, and to an examination of the relationship between particular and general, personal and impersonal. (Madanipour, 2003, p. 23)

The analysis here investigates the potential for Urbanity that can be found in the public domain of Recife. The evaluation will deal with various aspects of the public domain and will be grouped in three dimensions, one relates to open spaces, the next to program and centralities and the last one to mobility and accessibility.

The criteria behind the selection of the elements that can provide potential for Urbanity and their respective area of influence will be explained in detail along the sequence of maps; however, they follow some general principles that will be specified here.

Although named potential in the public domain, the areas studied here are not necessarily public; the logic is to identify spaces that exert influence in Urbanity regardless their status.

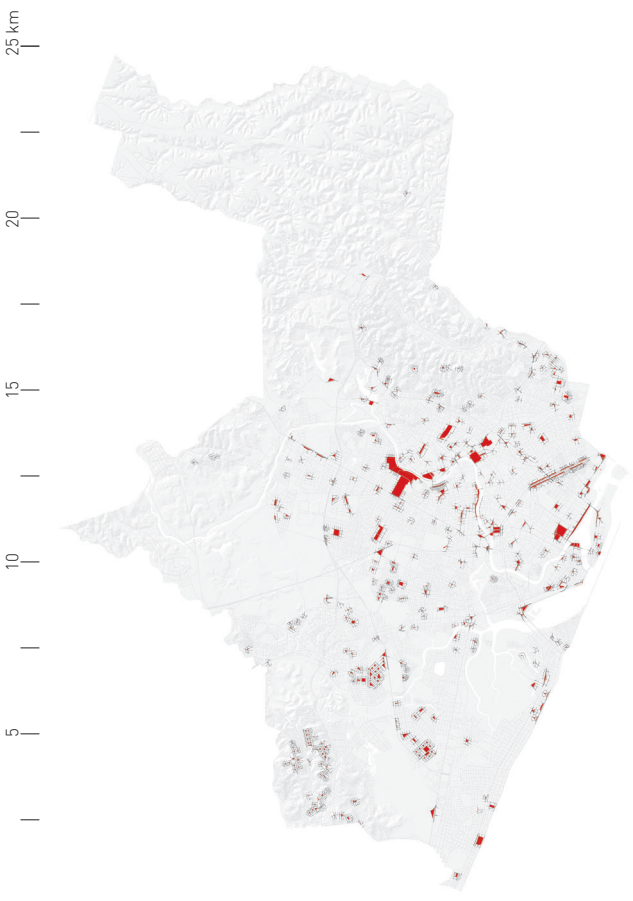
The evaluation here is not a question of attribution of value related to quality; spaces will be marked as a result of the potential they have to promote Urbanity and not because of their present spatial quality.

Spaces identified here must affect not only their immediate vicinity. As Urbanity relies ultimately in interaction between different groups, the spaces pointed here with potential to promote Urbanity must play some role in a larger scale. That criteria aims to promote Urbanity as encounter and at the same time preserve some places that although quite dynamic are completely attached to the community they are inserted in.

Potential for Urbanity

Green - Open Spaces

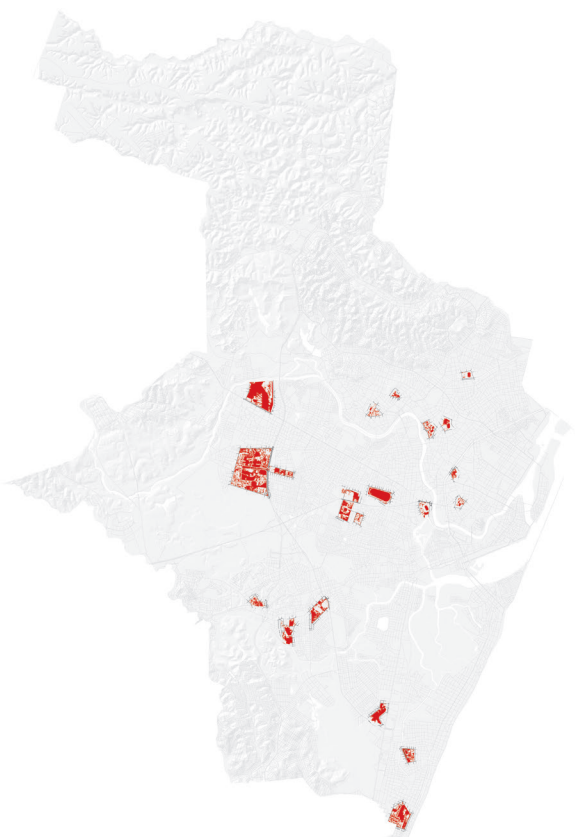
Parks and squares



Source: PCR

Public spaces of the city like parks and public squares have been marked here. This selection also includes some greenery along main roads that are not necessarily used as squares but have dimensions and location compatible for assuming that use in the future. Beyond the parks itself it was considered the first block around it as the potential zone.

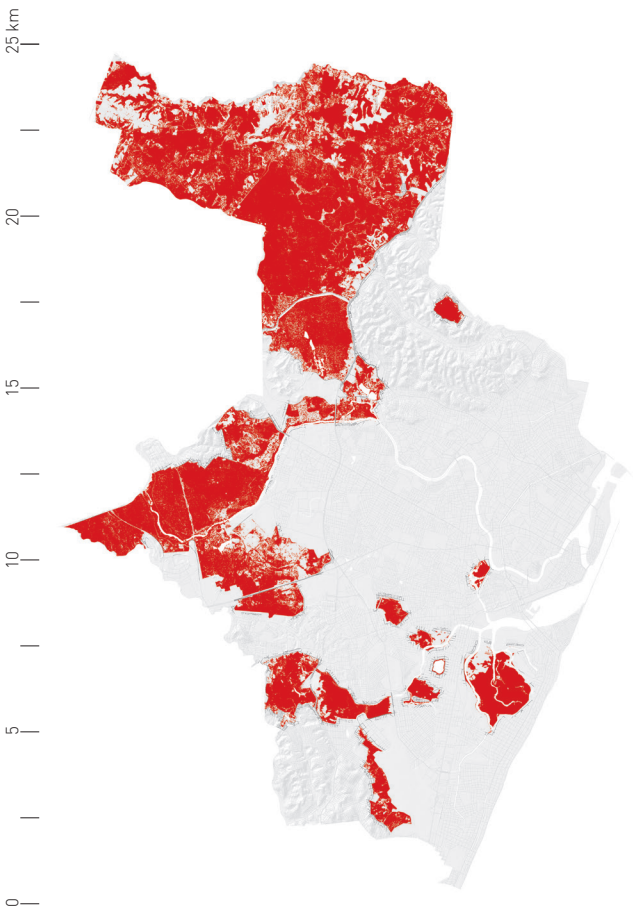
Greenfields



Source: PCR

Here are represented larger plots and terrains in the city that although not completely public have a vast green surface. Most of the parcels selected here have already been considered as special zones for preservation in the planning instruments. The zone of influence of these plots represents the first block around them.

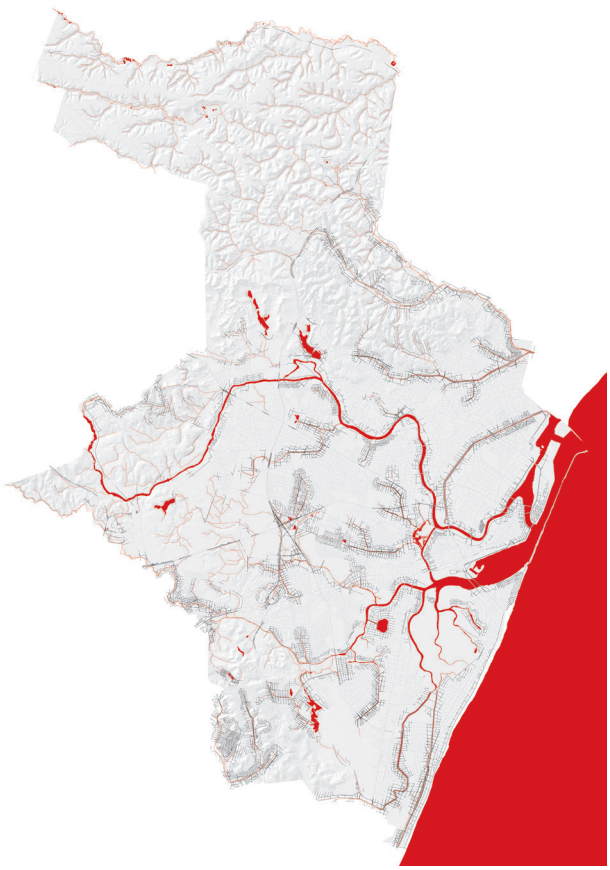
Nature reserves



Source: PCR

The selection here is the based on the spaces around nature reserves, but not their own space due to the conservationist character of these areas. Although most of these areas are not centrally located urbanization has reached their limits and therefore there is both a potential and a threat in this contact zone.

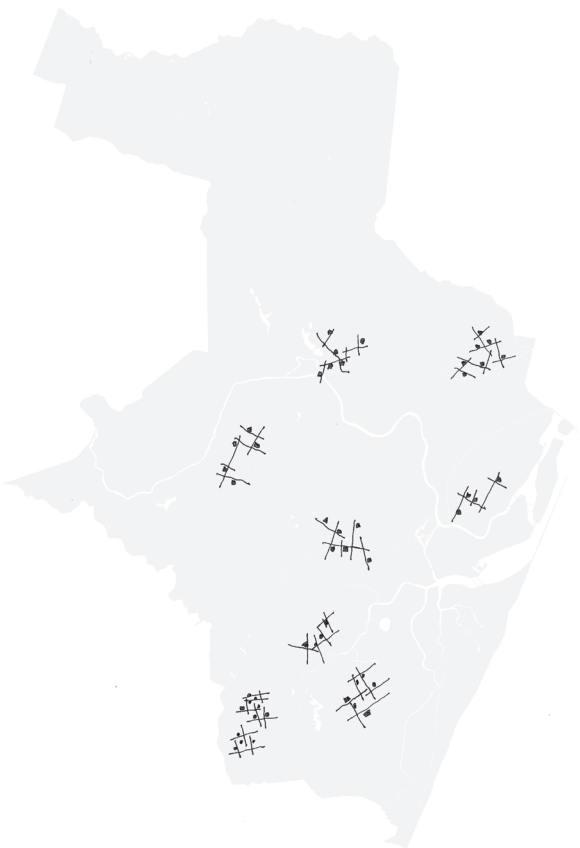
Waterfronts



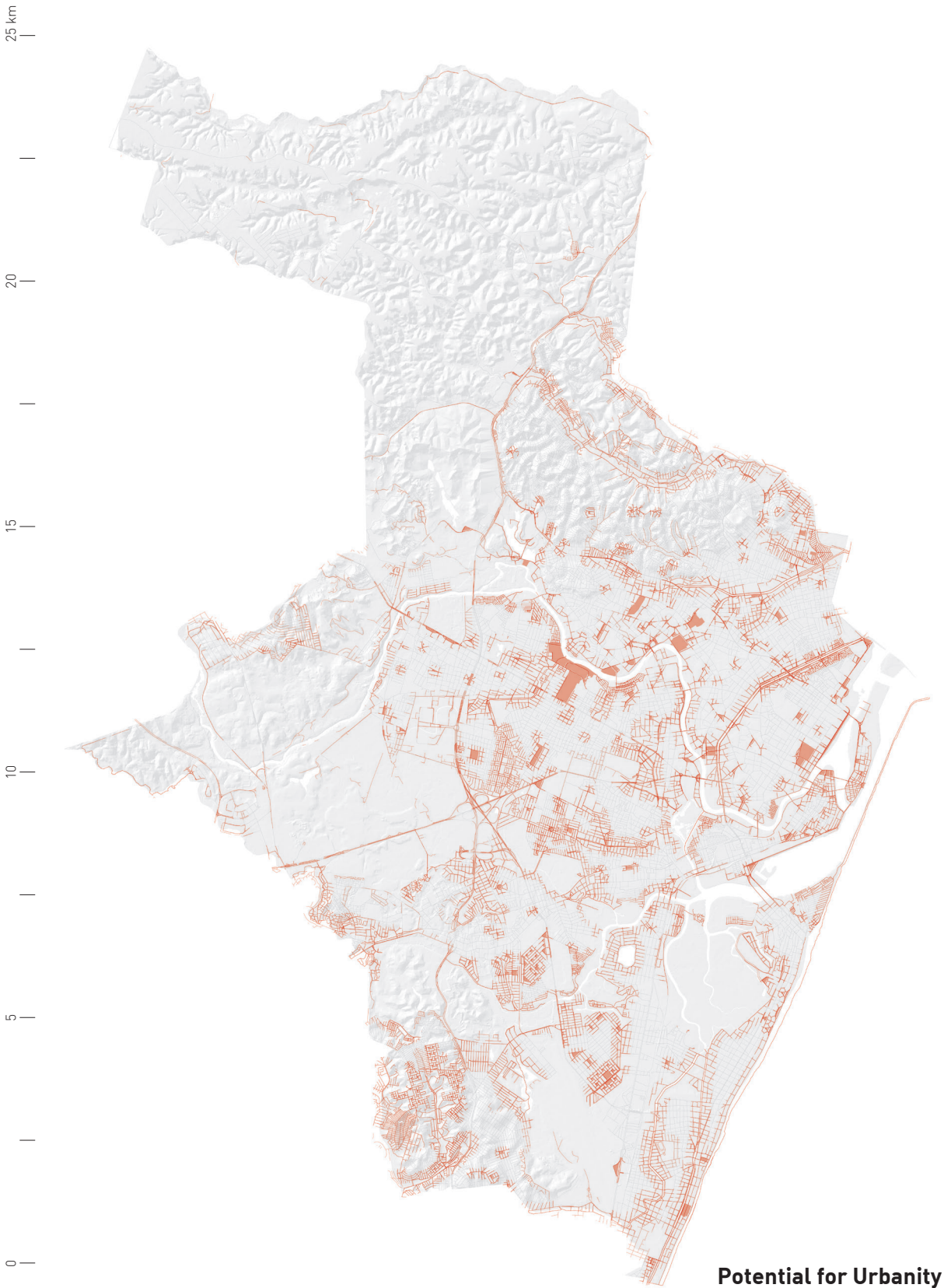
Source: PCR

Spaces defined by rivers, canals, beach and lakes. Former streams that have been modified and canalized have also been considered. The zone highlighted here varies from 20 to 100 meters according to the type of water body and follows the indications of the Federal and municipal regulations regarding environment protection.

Map showing the potential in areas around open spaces that are somehow associated with larger spatial features, like the main rivers.



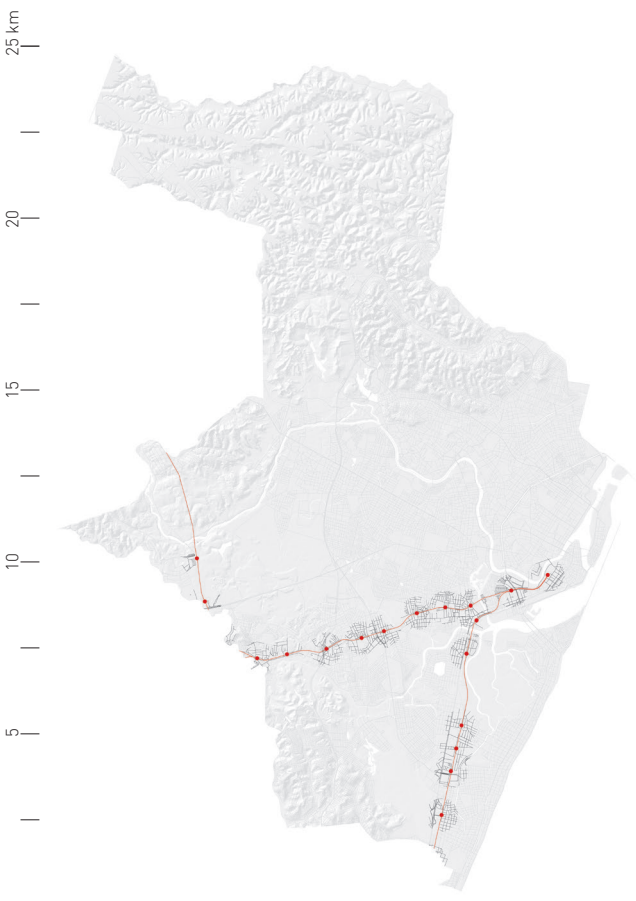
Map showing the potential related to a network of smaller spaces that are still relevant, especially in the periphery of the city.



Potential for Urbanity
Designed by green and open spaces

Potential for Urbanity
Mobility

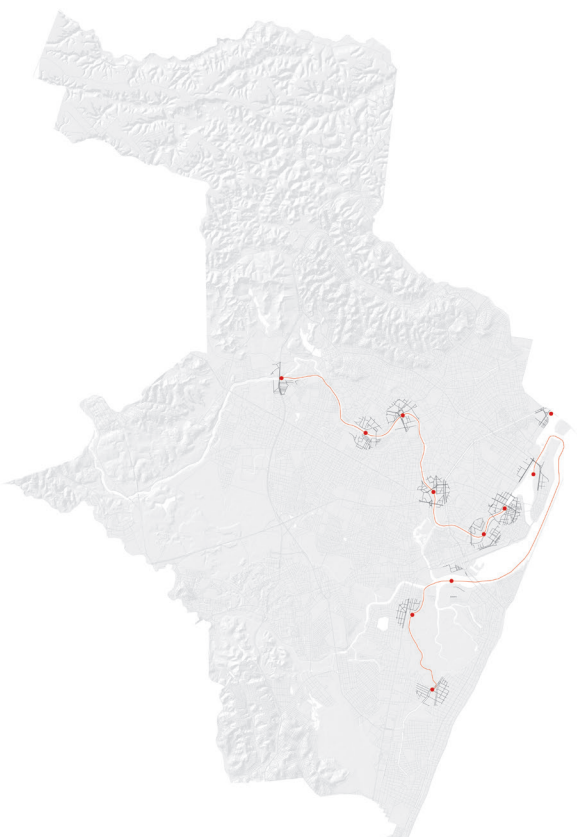
Metro



Source: PCR

Map showing the location of the metro stations and an area of influence of 250 meters around it.

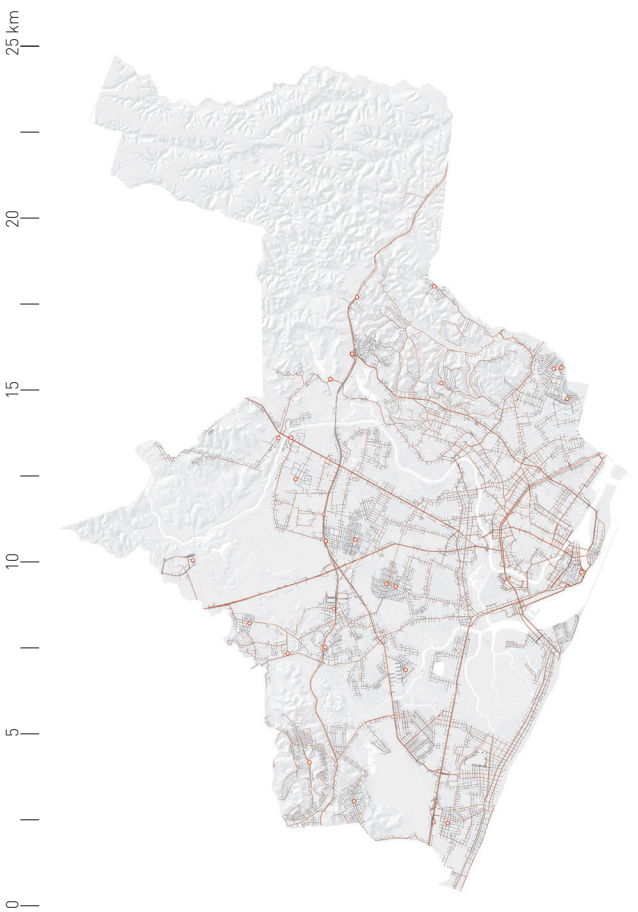
Boat



Source: PCR

Network of the public transportation system by boat and the stops along the river. The area on influence is 250 meters radius from each station.

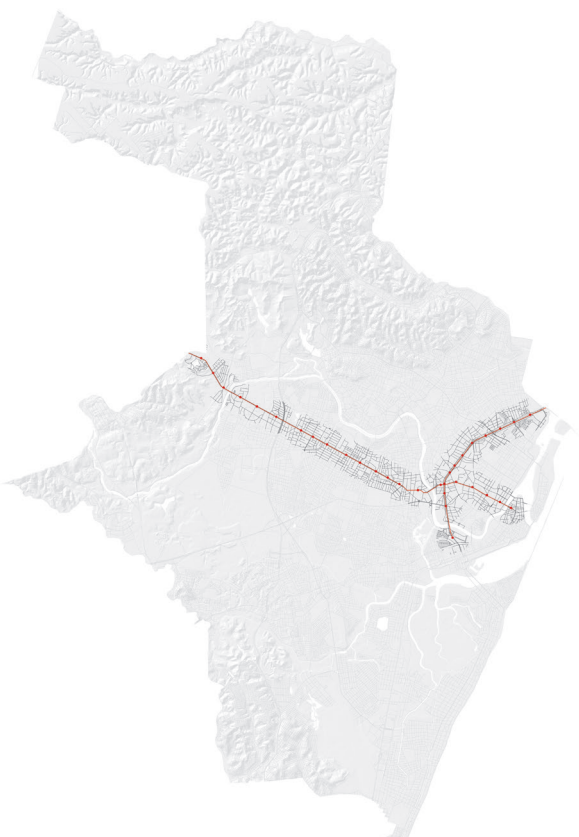
Bus



Source: PCR

The map shows the bus network and the main lines. The area of influence is of 250 meters around the main terminals and of 50 meters (average block size) along the regular lines.

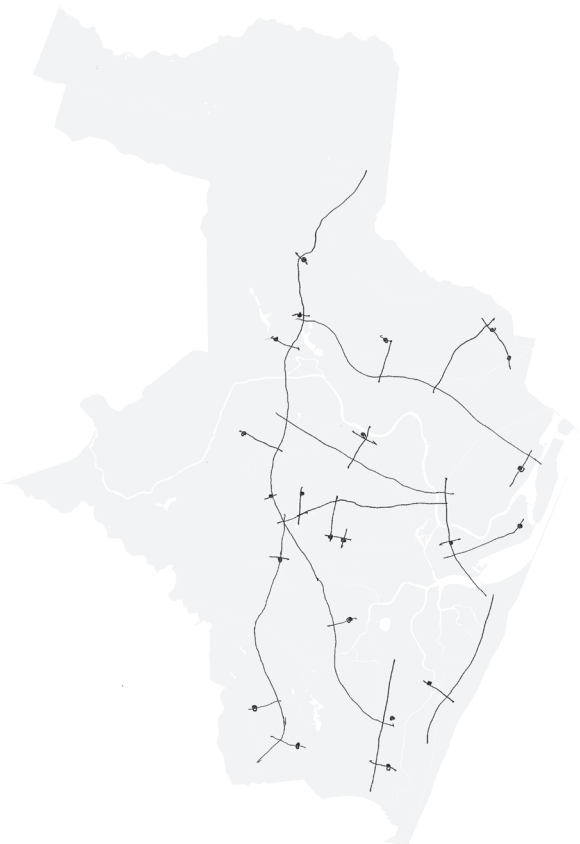
Bus - Brt



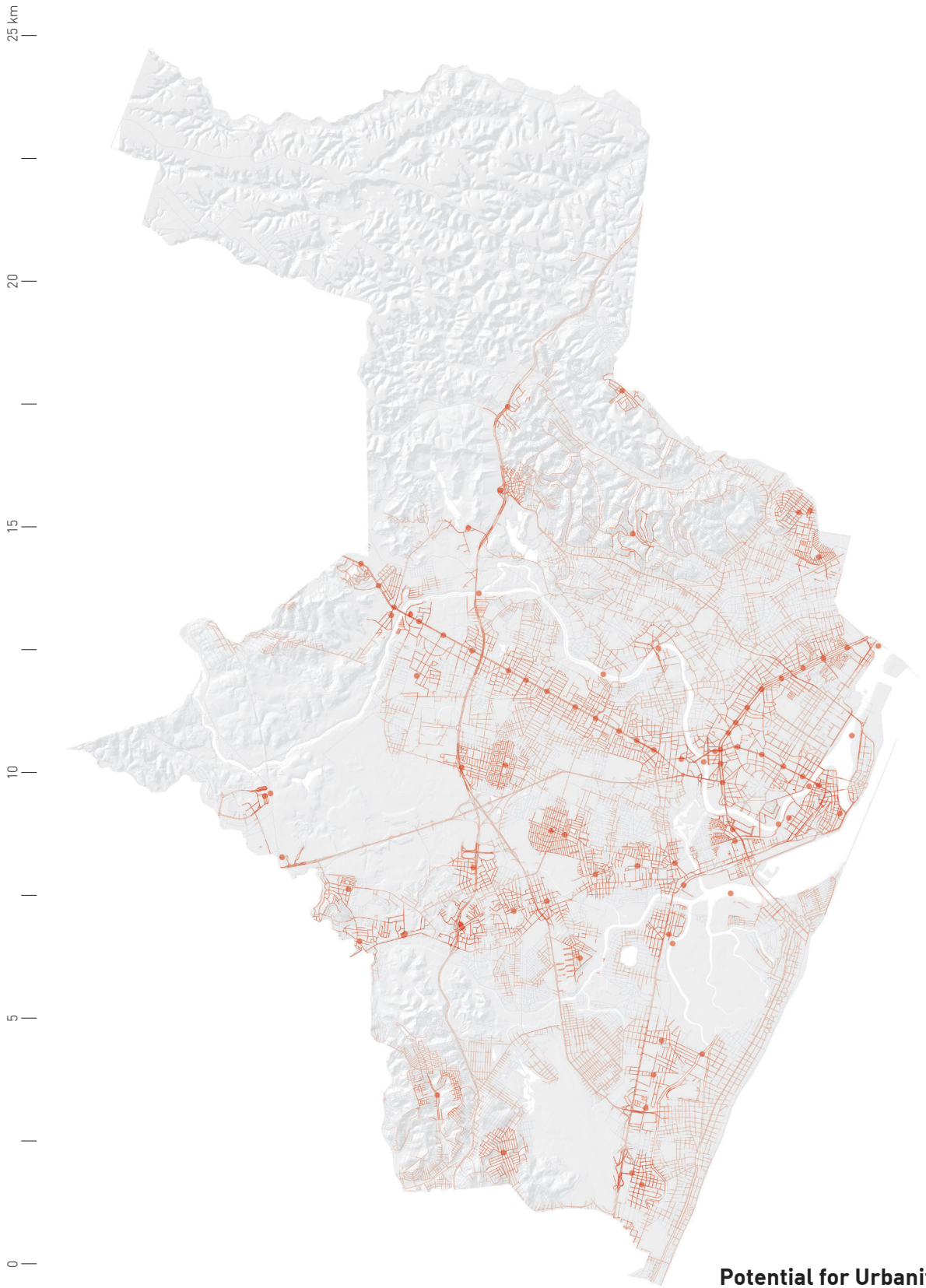
Source: PCR

The lines of the Bus rapid transit (BRT) have been partially inaugurated recently. This map represents an area of influence of 250 meters radius from each station

Map highlighting the potential areas reached by the major lines of public transport, metro and brt.



Representation of the potential in areas associated with local terminals of public transport.

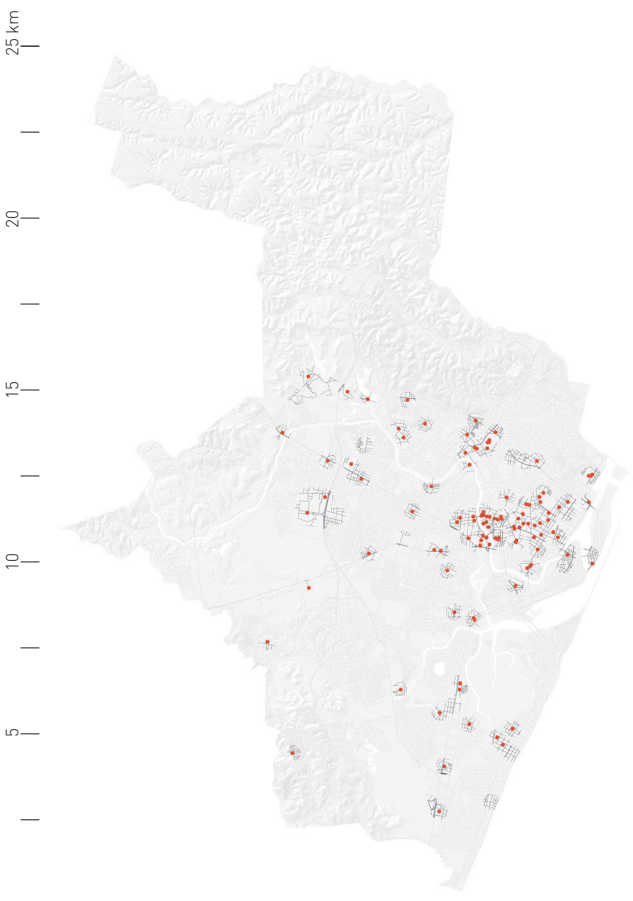


Potential for Urbanity
Designed by mobility infrastructure

Potential for Urbanity

Centralities – Program

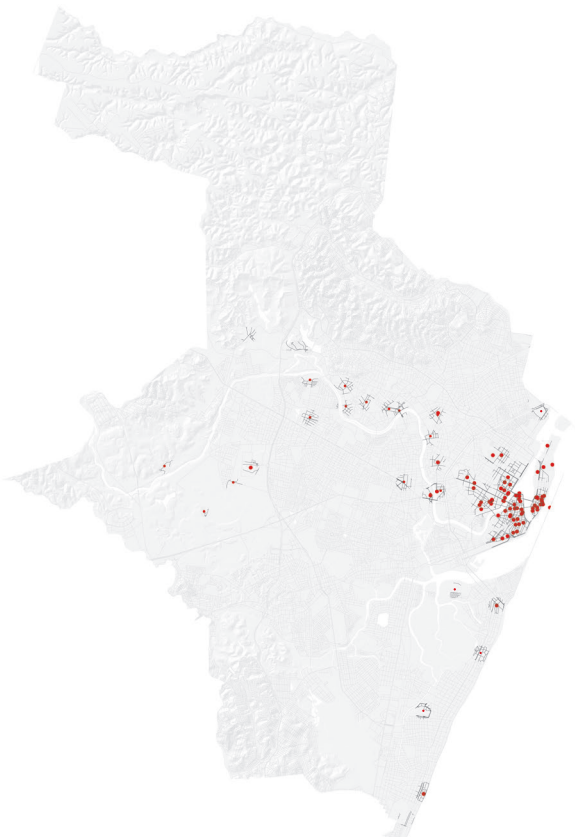
Public services



Source: PCR

Main public services such as hospitals, universities and other public institutions with high demand by the public have been marked in this map. The area of influence of these services represents walking distances around them and is also related to the block grid size in the area.

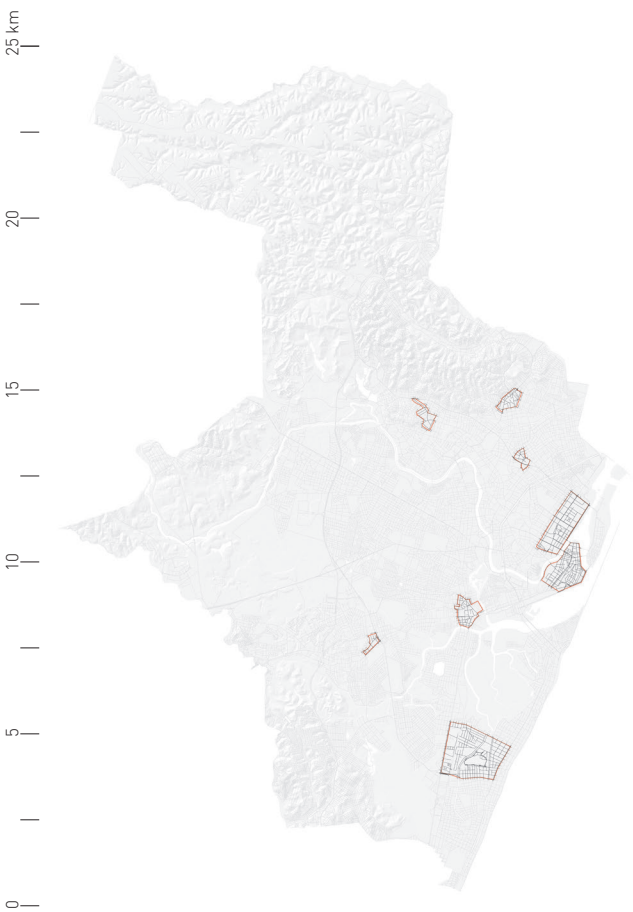
Leisure



Source: PCR

In this map are represented public and private institutions related to culture, leisure as well the main touristic attractions. It includes cinemas, theatres and museums. It has been highlighted an area of two blocks around these facilities, that is equivalent to a comfortable walking distance in the climate of Recife.

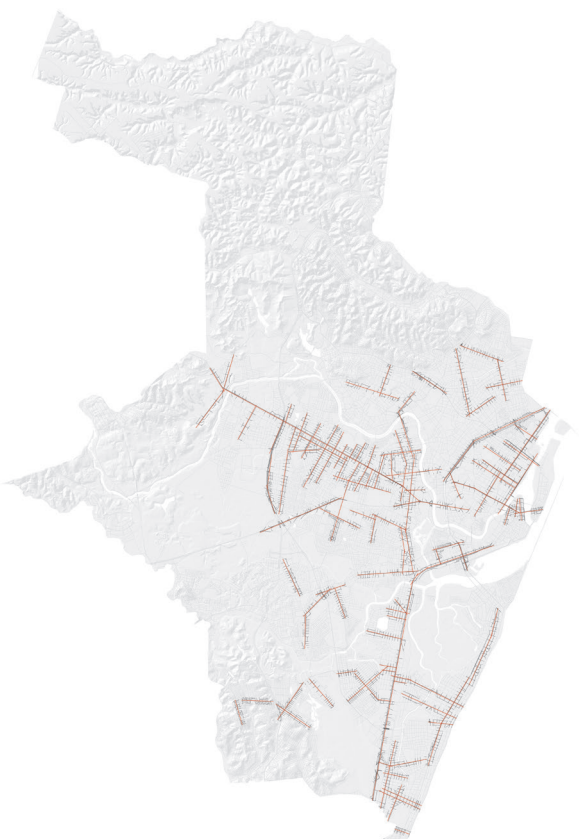
Centralities



Source: PCR

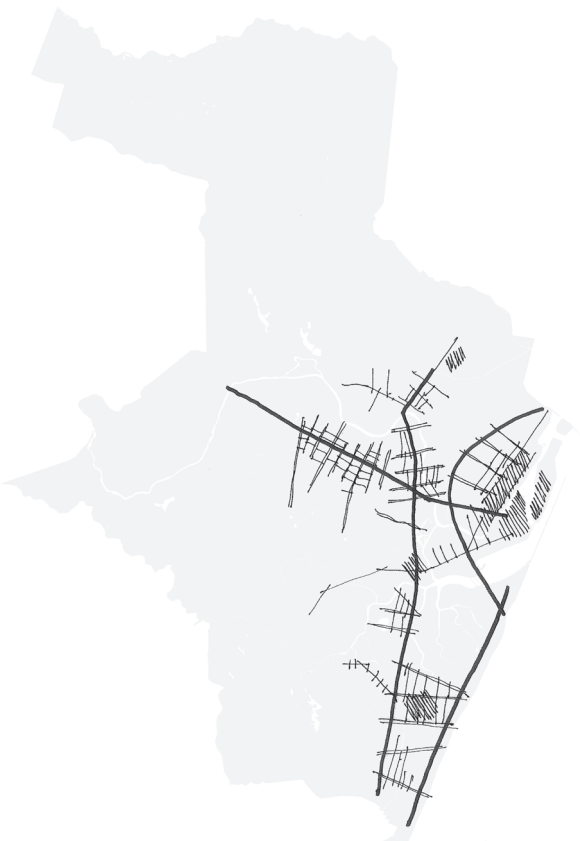
The areas marked here are those that current planning instruments define as main and secondary centres. These areas have a higher concentration of commerce and services in the city. They are normally specialized in certain sectors of commerce and attract people from the entire city and region.

Integration

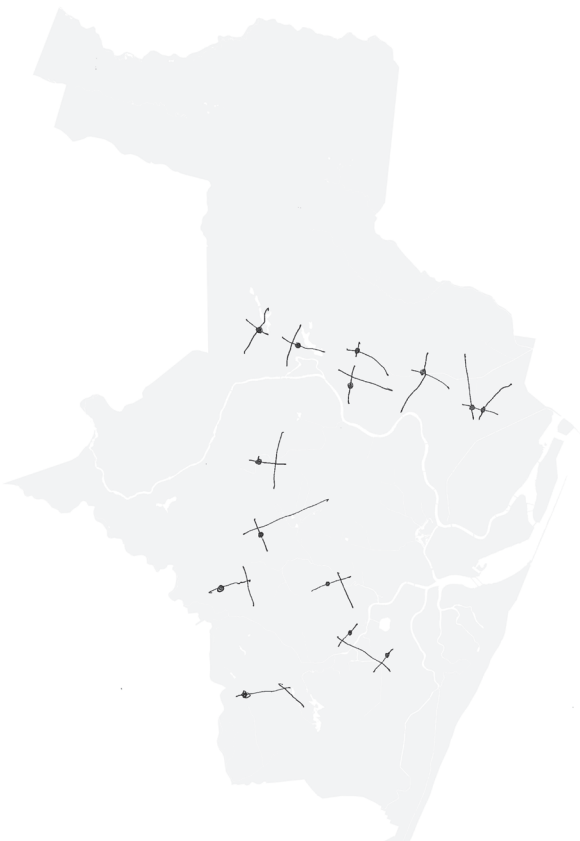


Source: PCR

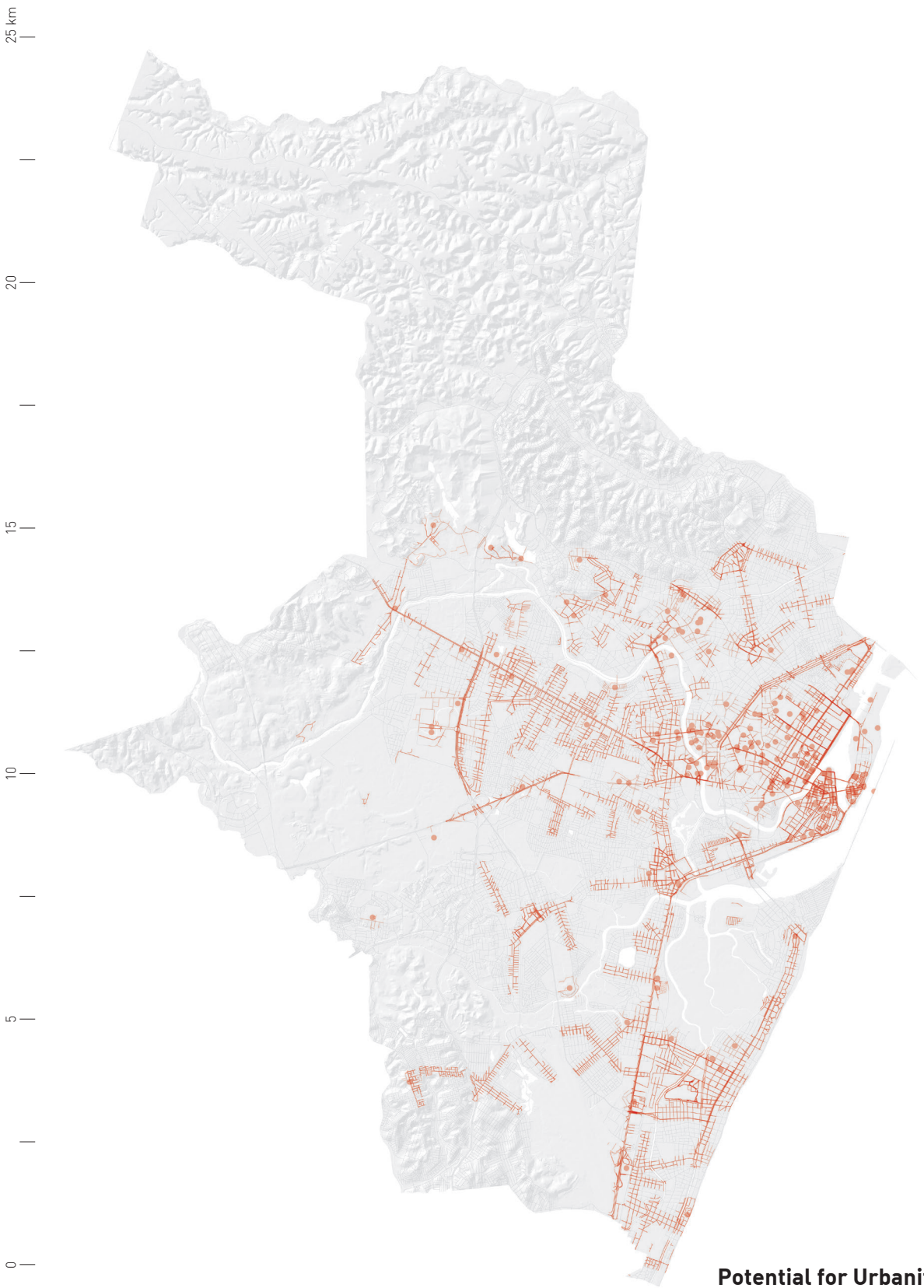
This map represents the area around streets in Recife that have the higher level of integration (radius 3) in the analysis using space syntax. (See map in the appendix) These streets are normally those with a considerable concentration of commerce and services and mixed use.



Map showing the potential in parts of the city connected to major centralities and along the most integrated streets.



Map showing the potential in areas that are under the influence of smaller centralities or specific program and that are more dispersed in the city´s territory.



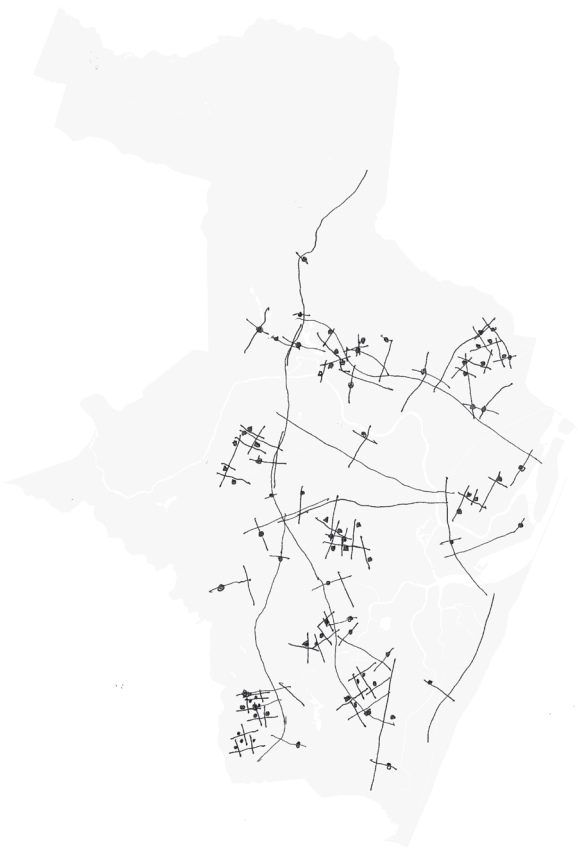
Potential for Urbanity
Designed by program and centralities

Potential in the public domain

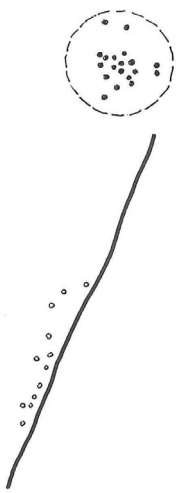
The approach used to build a view of the potential for Urbanity in the public domain in Recife was never intend to result in a map where clear borders can be draw and separate areas in precise terms. What results from these analyses instead is an understanding of the relation between certain elements of the city, their potential to promote Urbanity and a rough idea of their area of influence.

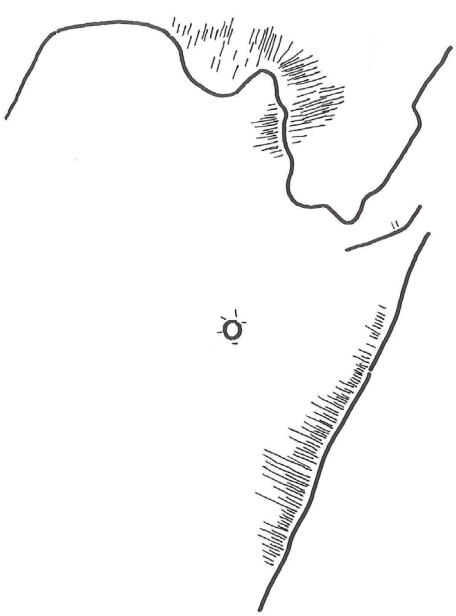
Defining boundaries or areas of influence of each of the elements studied here represents an approximation to reality and intends to build a matrix to be used in combination with the analysis of the private domain. It is clear that the area of influence of certain spaces and centralities in Recife are not resumed to their immediate vicinity but the approach here was to identify the potential for Urbanity in its basic definition, to allow co-presence.

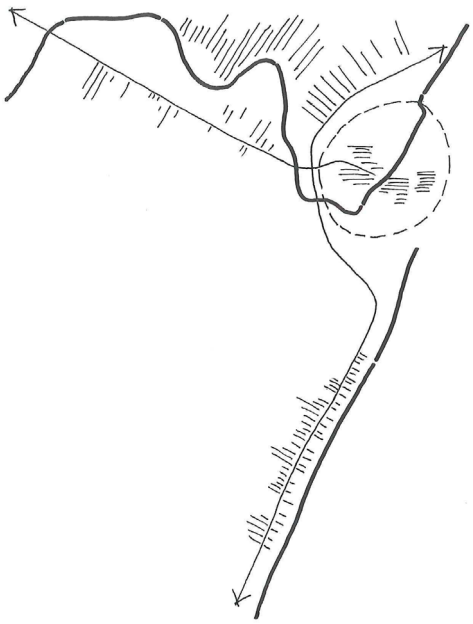
Potential for Urbanity associated with larger structures and main lines in terms of mobility and program. Potential for Urbanity in a city scale level.



Potential for Urbanity present in spaces that are representative to the city but in a lower scale and more dependent to a local level network of spaces and centralities.







5.3 Potential for Urbanity in the private domain

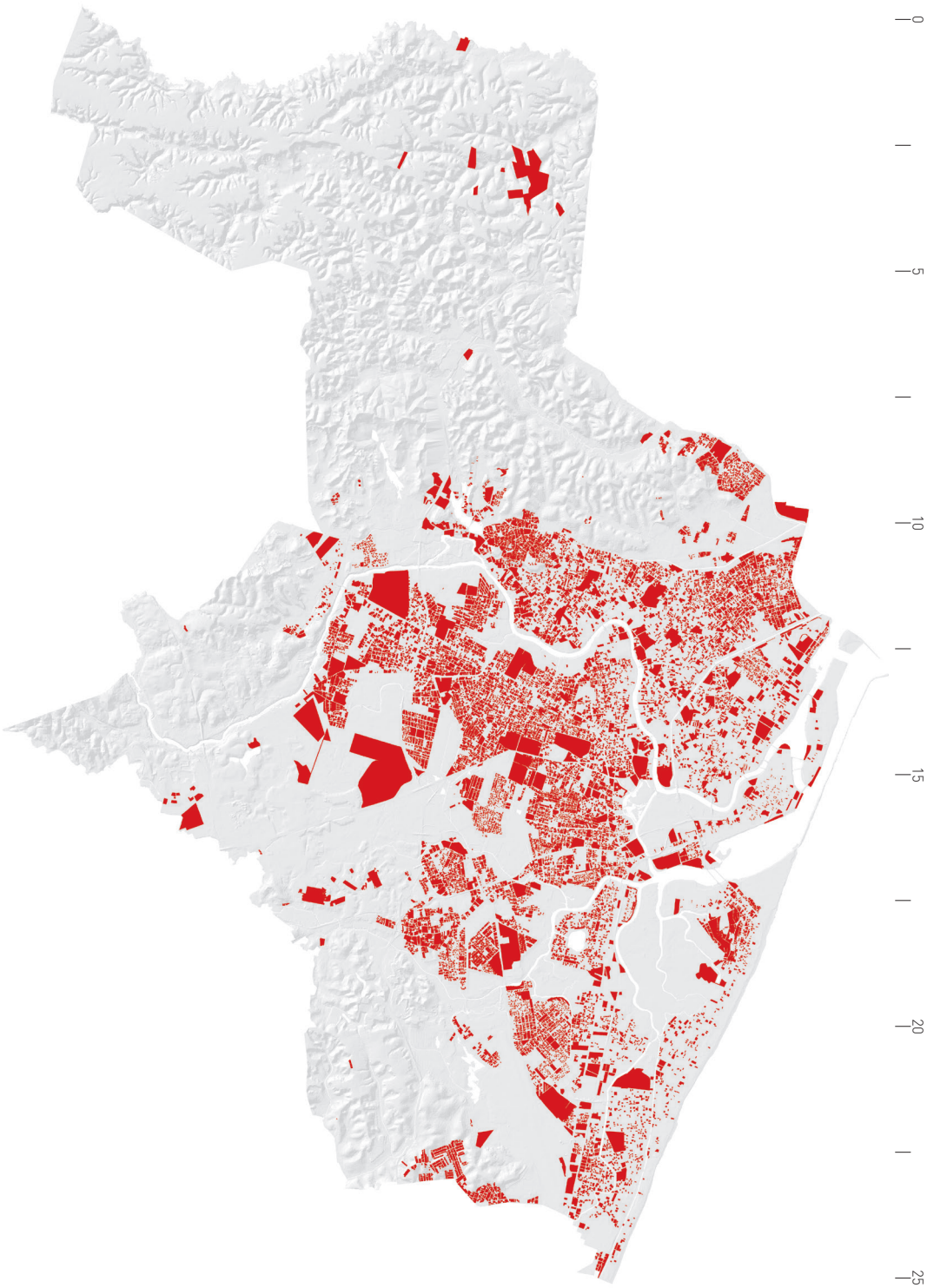
> Private sphere is a part of the life that is under the control of the individual in a personal capacity, outside public observation and knowledge or state and official control. It is a sphere of freedom of choice for individuals, protected from the external gaze.... Private space, therefore, is part of space that belongs to, or is controlled by, an individual. (Madanipour, 2003, p. 230)

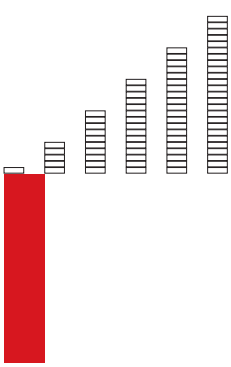
This part of the research describes certain typomorphologic characteristics of the private built environment in Recife. The analysis tries to relate the performance of the private domain regarding built intensity (FSI), coverage (GSI) and their potential for Urbanity. It will be done initially by sorting the built landscape of Recife according to the principles defined in the Space calculator (Berghauser Pont & Haupt, 2010) and comparing the different types of interface with the public spaces. The questions here is twofold, does areas with similar parameters share the same type of interface with public spaces, and are there some thresholds in the Space matrix (Berghauser Pont & Haupt, 2010) that are related to a higher interface?

The analysis starts from the data made available by the municipality of Recife and therefore is limited to buildings that have been legalized. That excludes almost completely the informal settlements and poor areas. To overcome this limitation these areas have been included in the analysis using estimative values collected in the general plan of the city and through field work in some areas.

Other point that will guide this analysis is the fact that, by choosing FSI and GSI as the basic parameters for potential for Urbanity, it is stated that the potential relies in the capacity of the built environment to accommodate higher density of inhabitants and diversity of functions. Therefore the potential measured here do not relate, at the start, with the current use of the buildings.

The results will be classified in two groups, representing respectively areas where there is a high and low level of building intensity. In terms of potential for Urbanity, this division represents, when compared to the potential in the public domain and population density, areas with a potential to be consolidated and areas with a potential to be further explored.





100%

Building height

Average plot size
500.00 m²

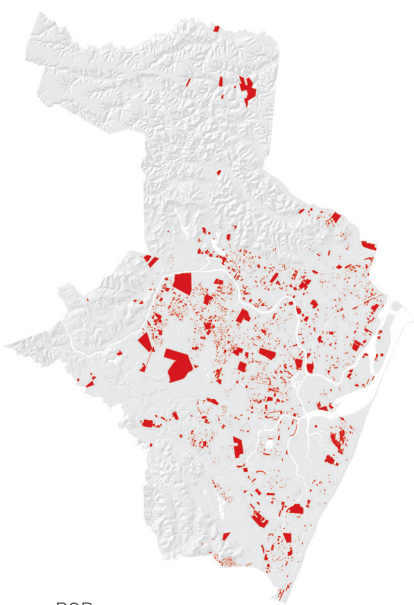
Total Construction
5,770,622.5 16.90%

Number of units
42,093 48.60%

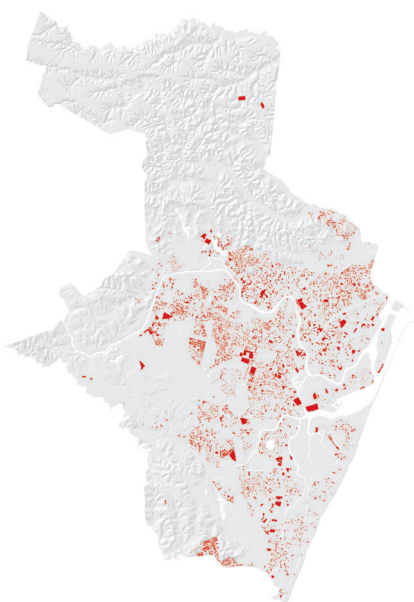
FSI ↓0.5

Source: PCR

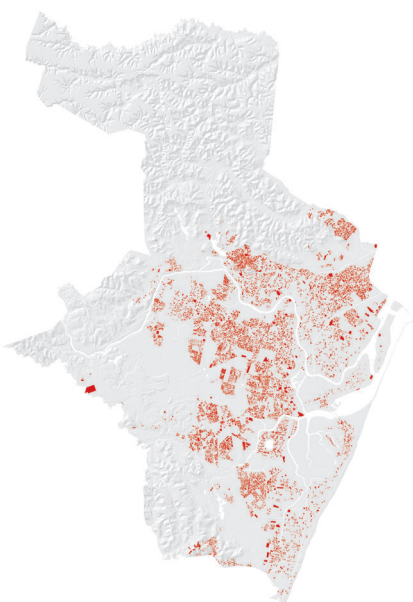
GSI ←=.125



GSI →.125 ←=.25



GSI →.25 ←=.50



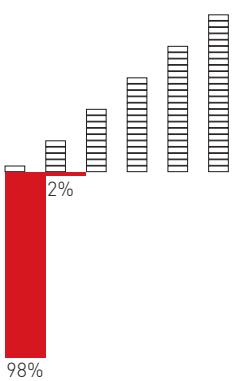
Source: PCR

Samples of the city fabric
source: Google Earth

Source: PCR

Samples of the city fabric
source: Google Earth

Source: PCR



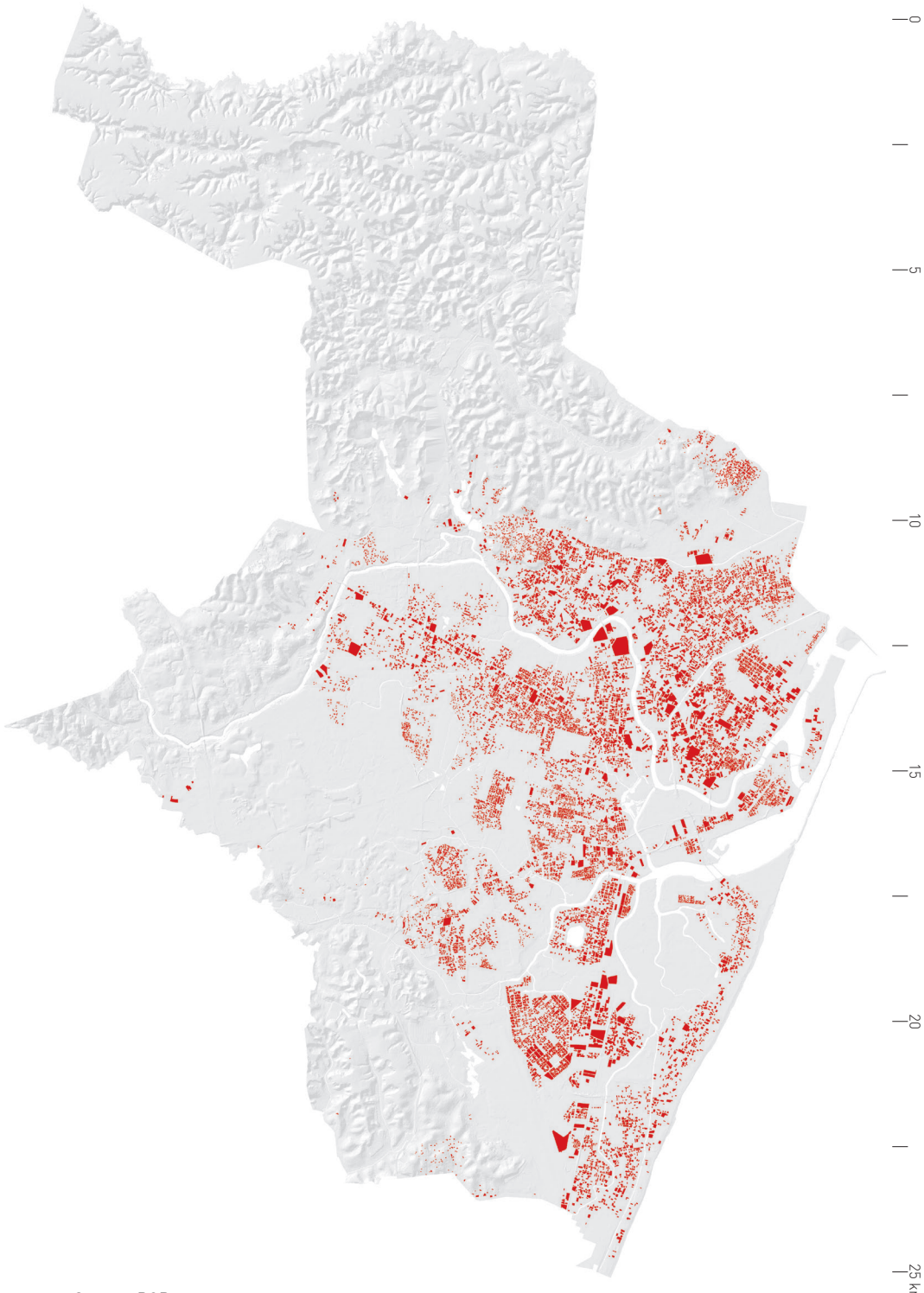
Building height

Average plot size
120.00 m²

Total Construction
7,248,707.73 21.23%

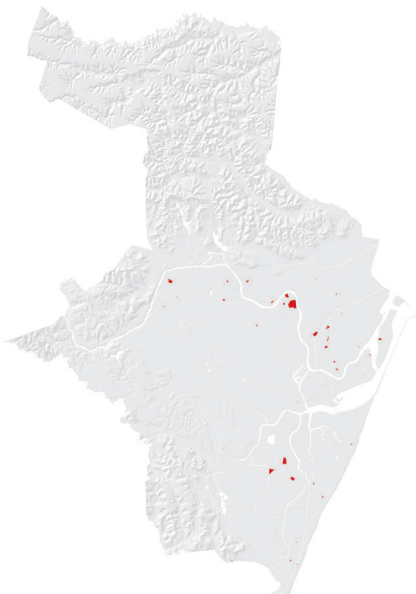
Number of units
31,378 36.23%

FSI ↑0.5↓1

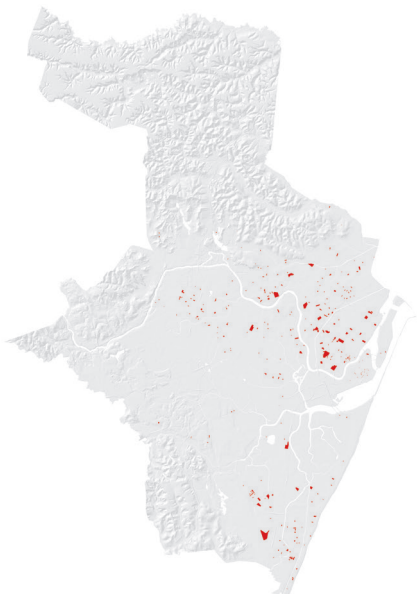


Source: PCR

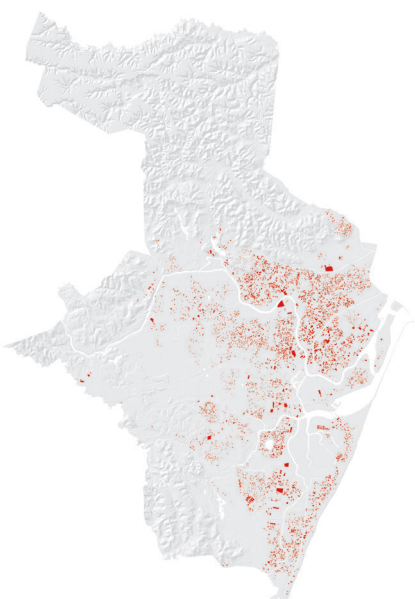
GSI ←=.125



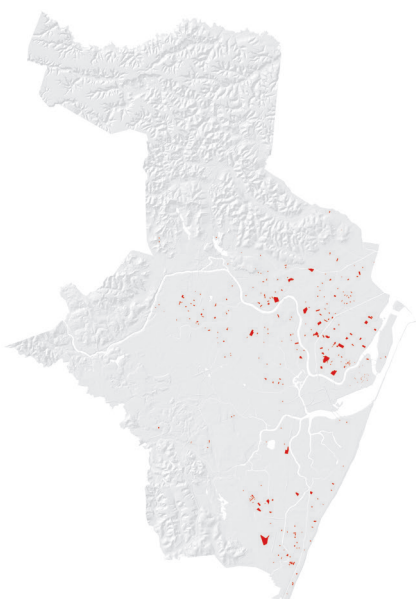
GSI →.125 ←=.25



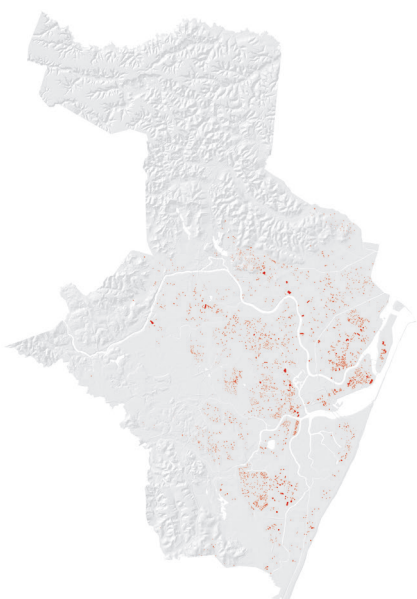
GSI →.25 ←=.50



GSI →.50 ←=.75



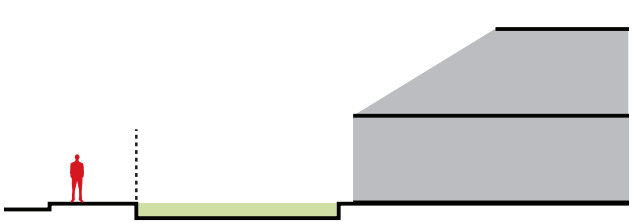
GSI →.75 ←=1



Source: PCR

Samples of the city fabric
source: Google Earth

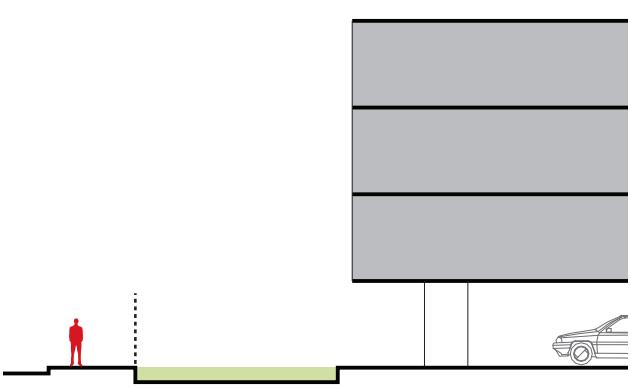
Relation between public x private
spaces and the use of ground floor



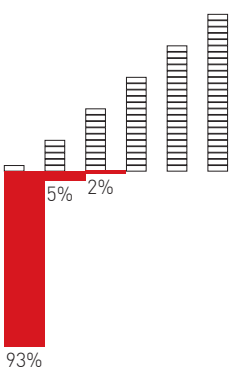
Source: PCR

Samples of the city fabric
source: Google Earth

Relation between public x private
spaces and the use of ground floor



Source: PCR



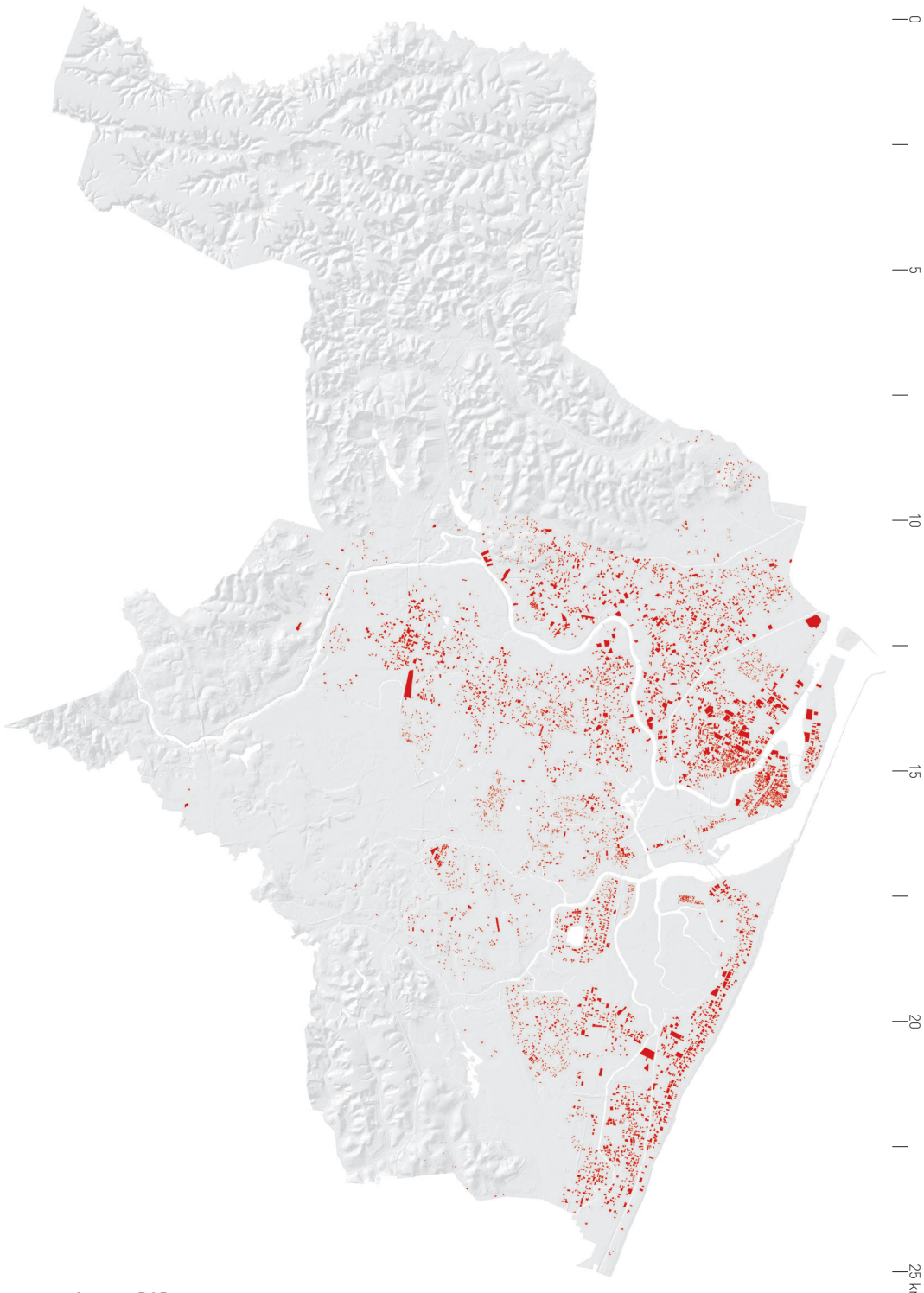
Building height

Average plot size
200.00 m²

Total Construction
7,174,416.09 21.01%

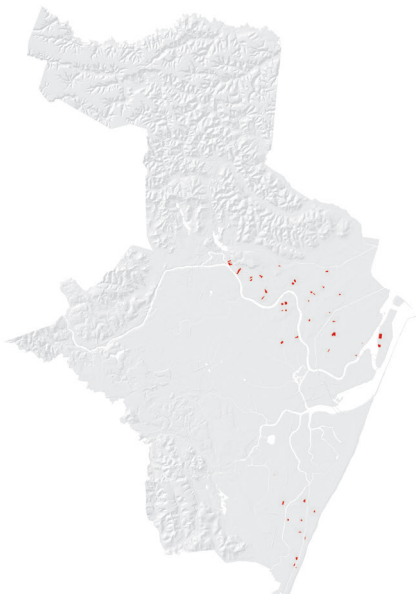
Number of units
10,547 12.18%

FSI ↑1↓3

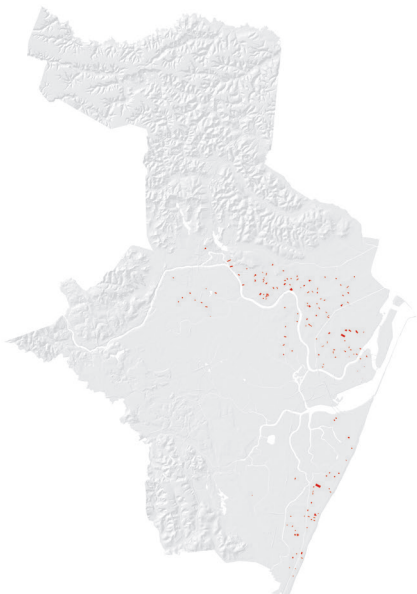


Source: PCR

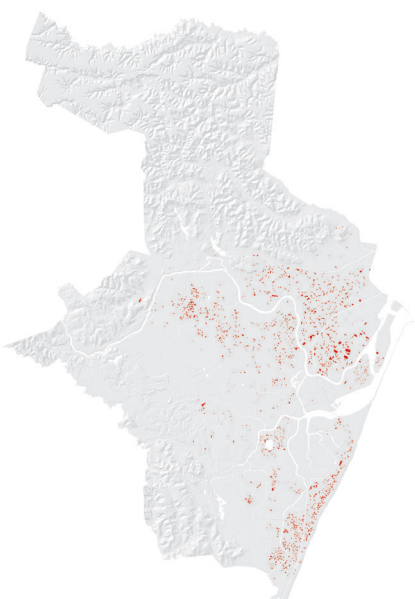
GSI ←=.125



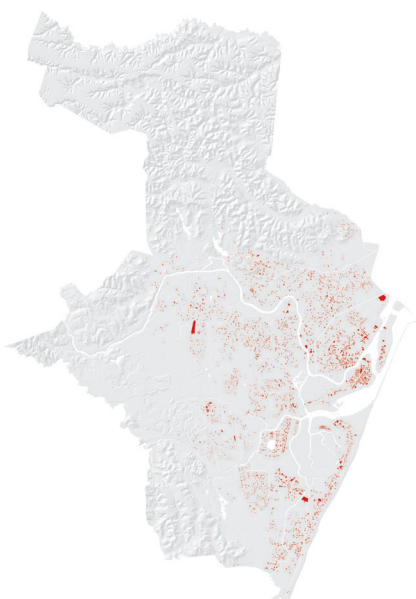
GSI →.125 ←=.25



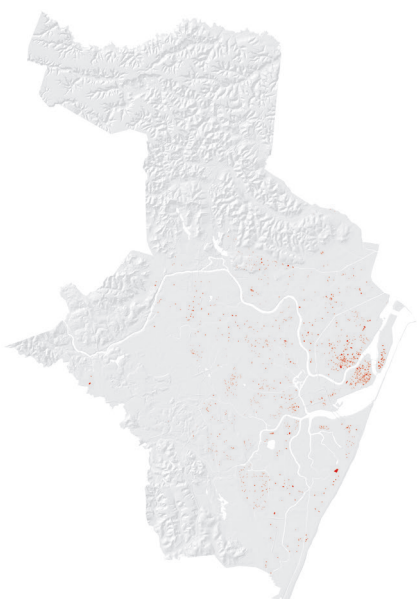
GSI →.25 ←=.50



GSI →.50 ←=.75



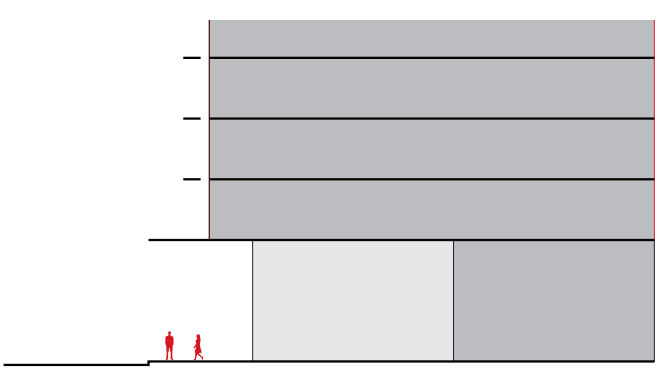
GSI →.75 ←=1



Source: PCR

Samples of the city fabric
source: Google Earth

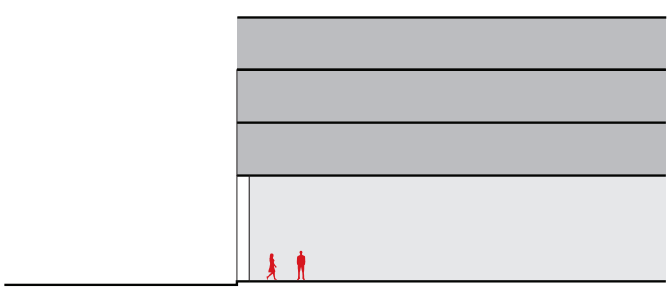
Relation between public x private
spaces and the use of ground floor



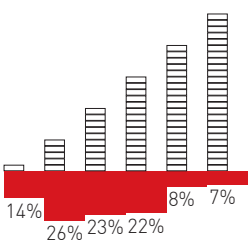
Source: PCR

Samples of the city fabric
source: Google Earth

Relation between public x private
spaces and the use of ground floor



Source: PCR



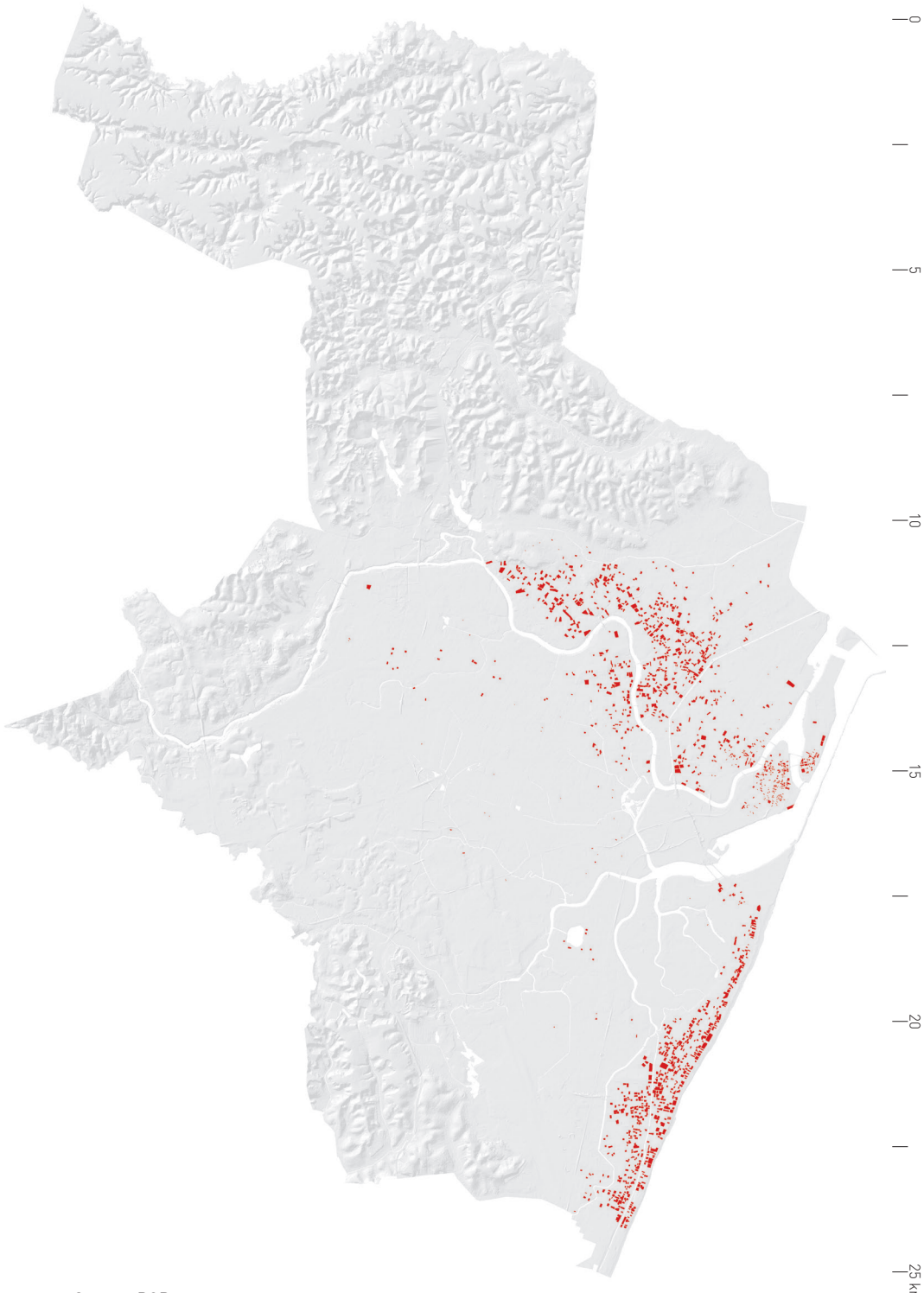
Building height

Average plot size
1000.00 m²

Total Construction
9,312,24.57 27.27%

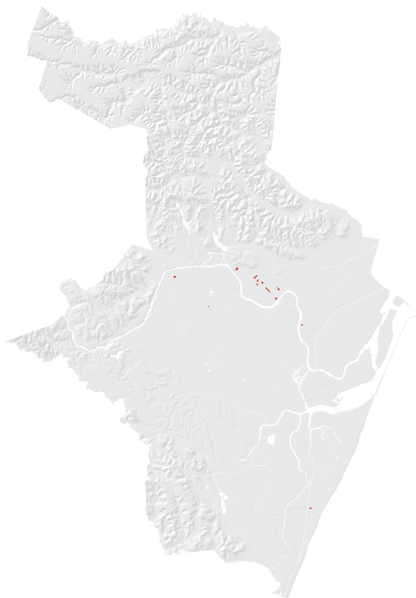
Number of units
1994 2.30%

FSI ↑3↓6

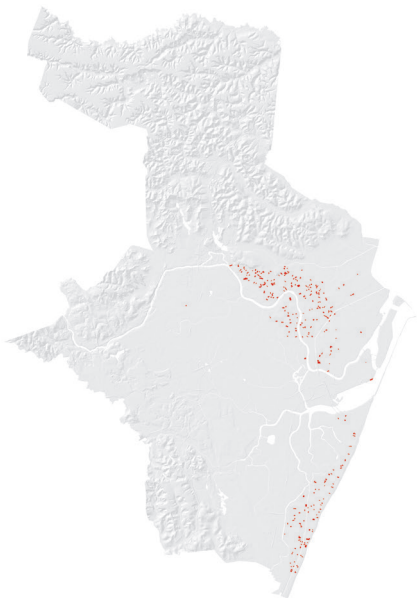


Source: PCR

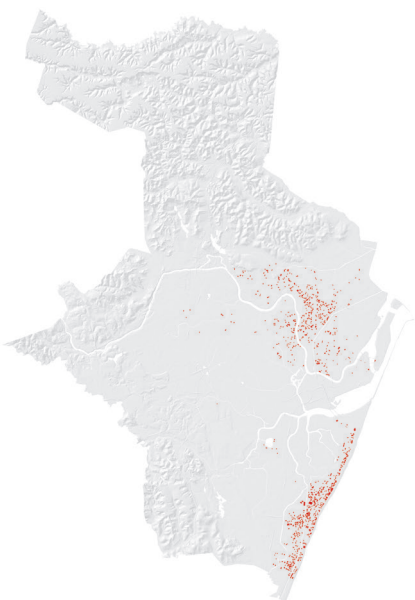
GSI ←=.125



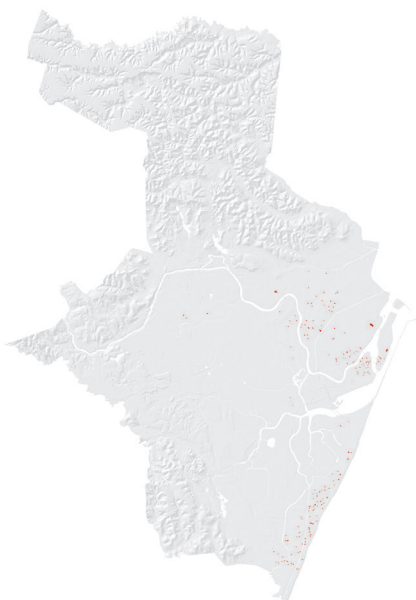
GSI →.125 ←=.25



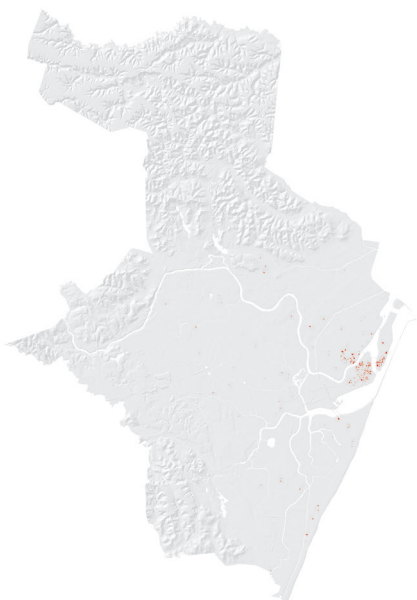
GSI →.25 ←=.50



GSI →.50 ←=.75



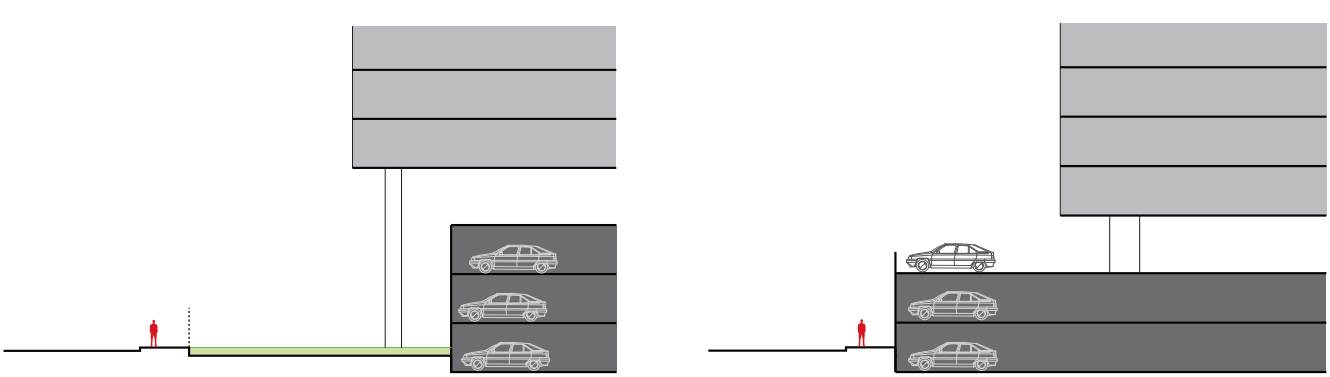
GSI →.75 ←=1



Source: PCR

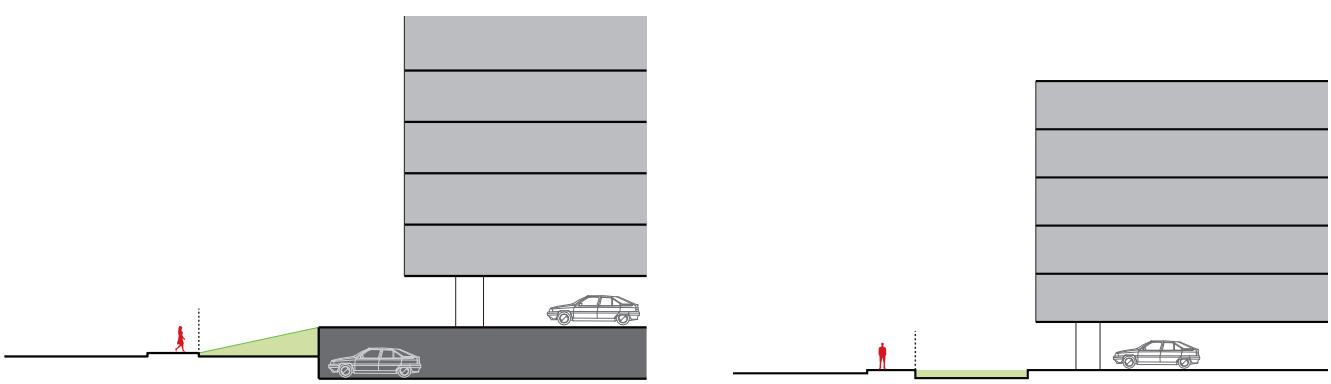
Samples of the city fabric
source: Google Earth

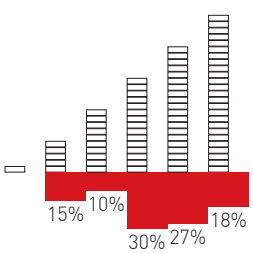
Relation between public x private
spaces and the use of ground floor



Samples of the city fabric
source: Google Earth

Relation between public x private
spaces and the use of ground floor





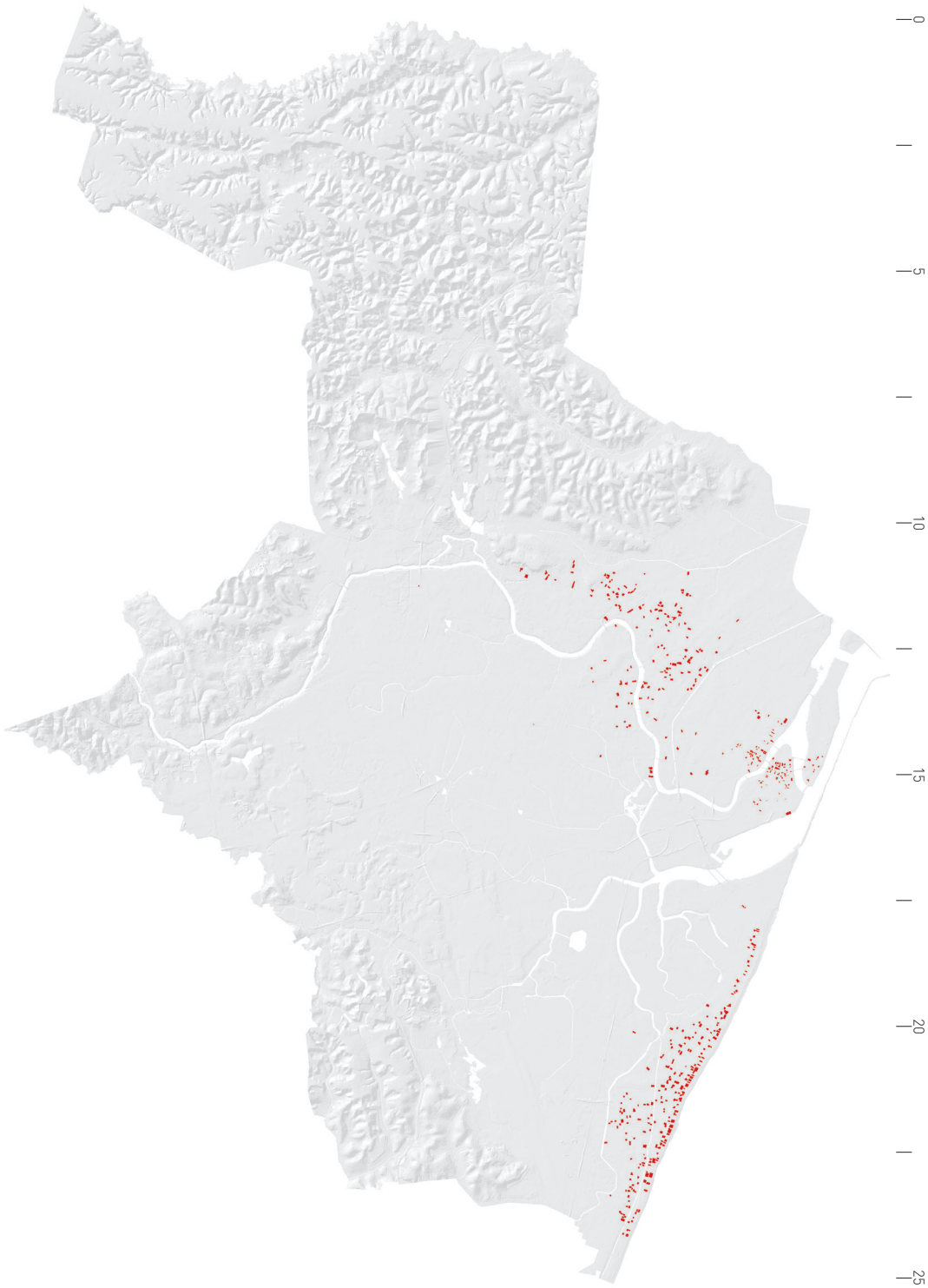
Building height

Average plot size
1200.00 m²

Total Construction
4,271,444.31 12.51%

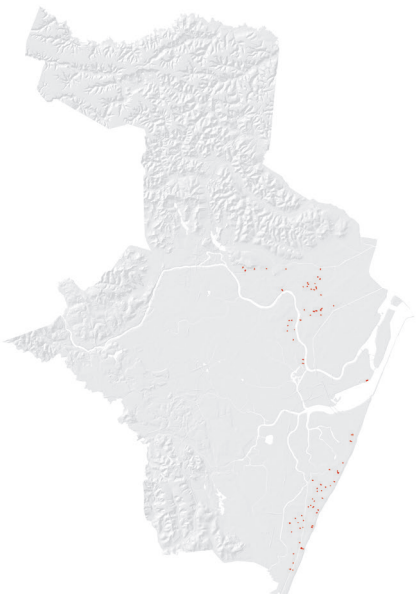
Number of units
532 0.61%

FSI ↑6

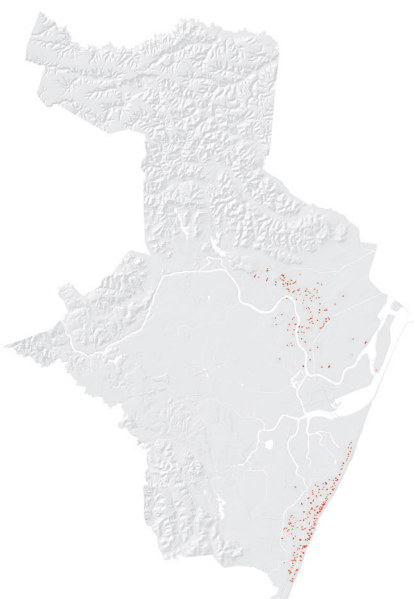


Source: PCR

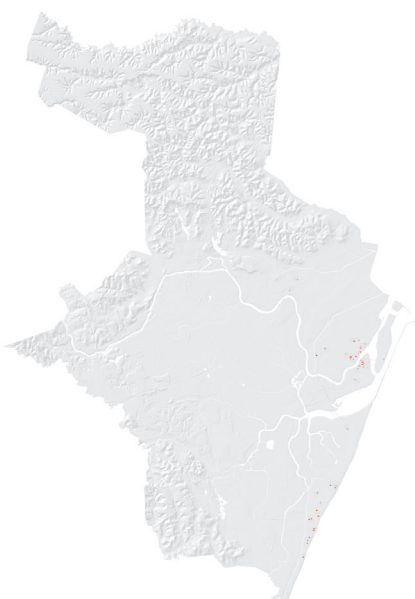
GSI →.125 ←=.25



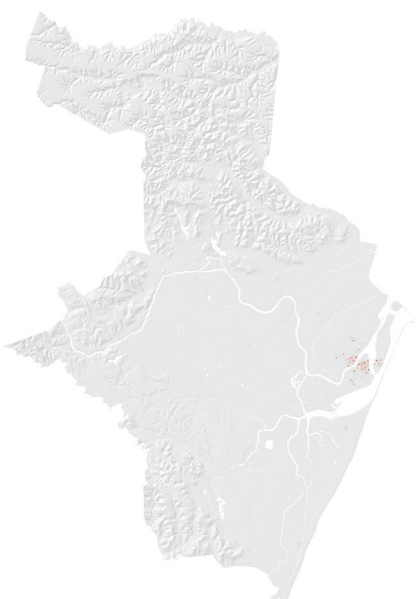
GSI →.25 ←=.50



GSI →.50 ←=.75



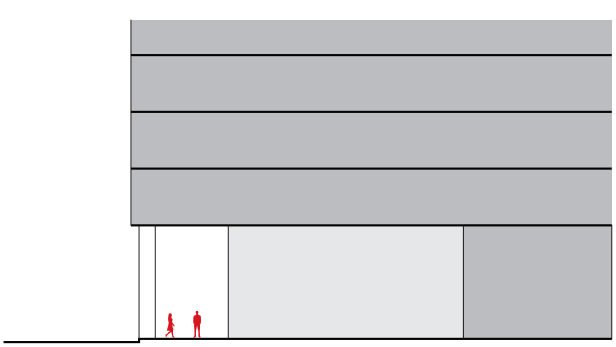
GSI →.75 ←=1



Source: PCR

Samples of the city fabric
source: Google Earth

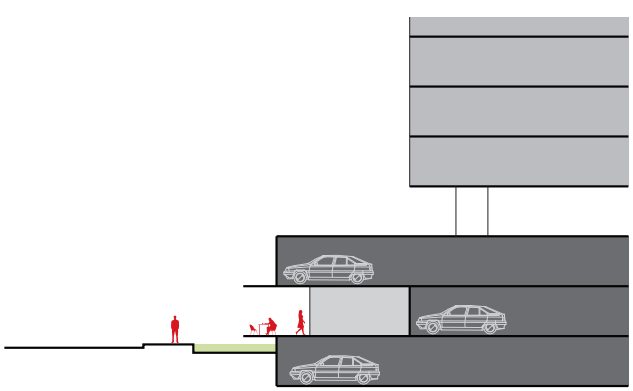
Relation between public x private
spaces and the use of ground floor



Source: PCR

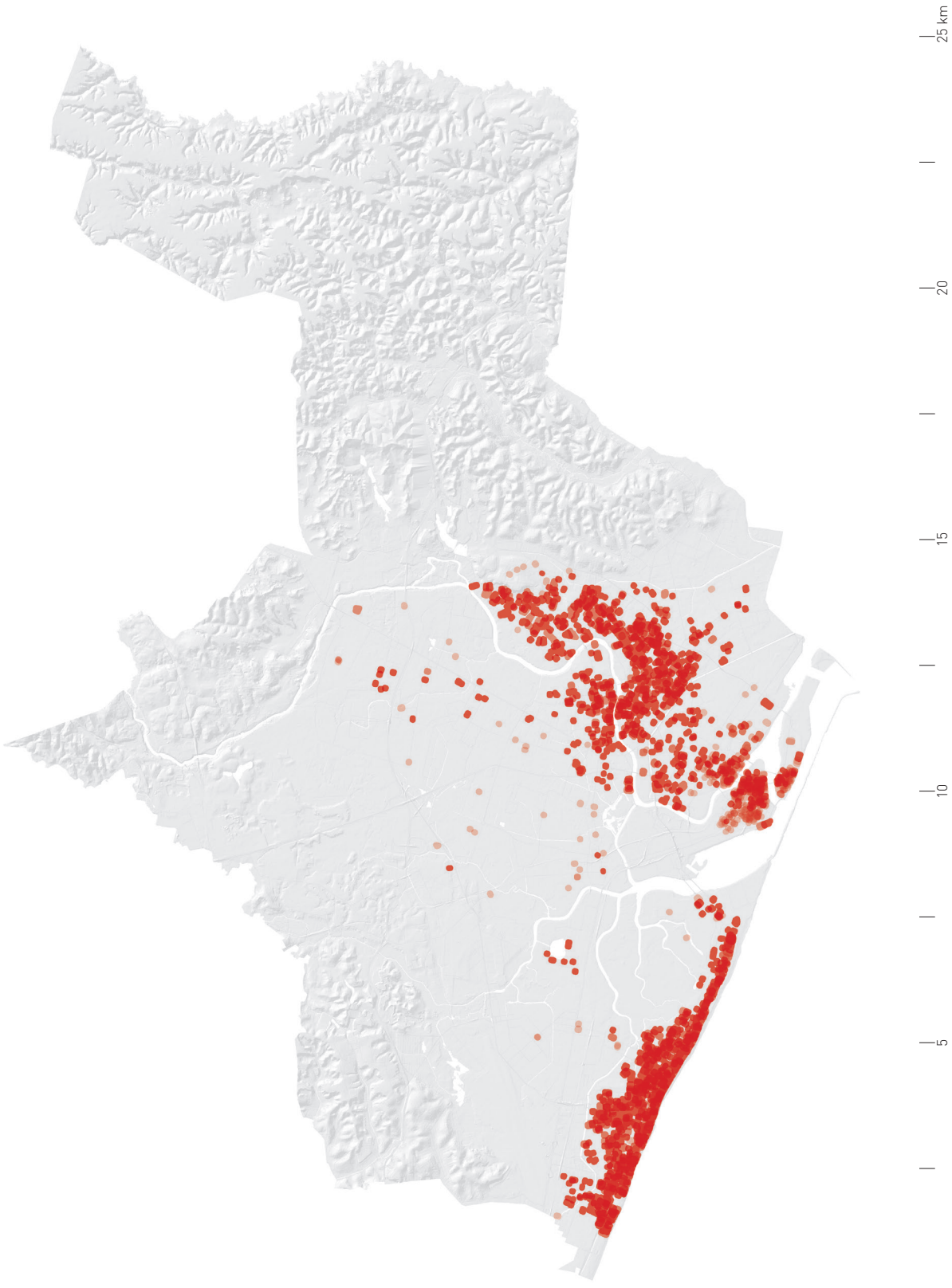
Samples of the city fabric
source: Google Earth

Relation between public x private
spaces and the use of ground floor

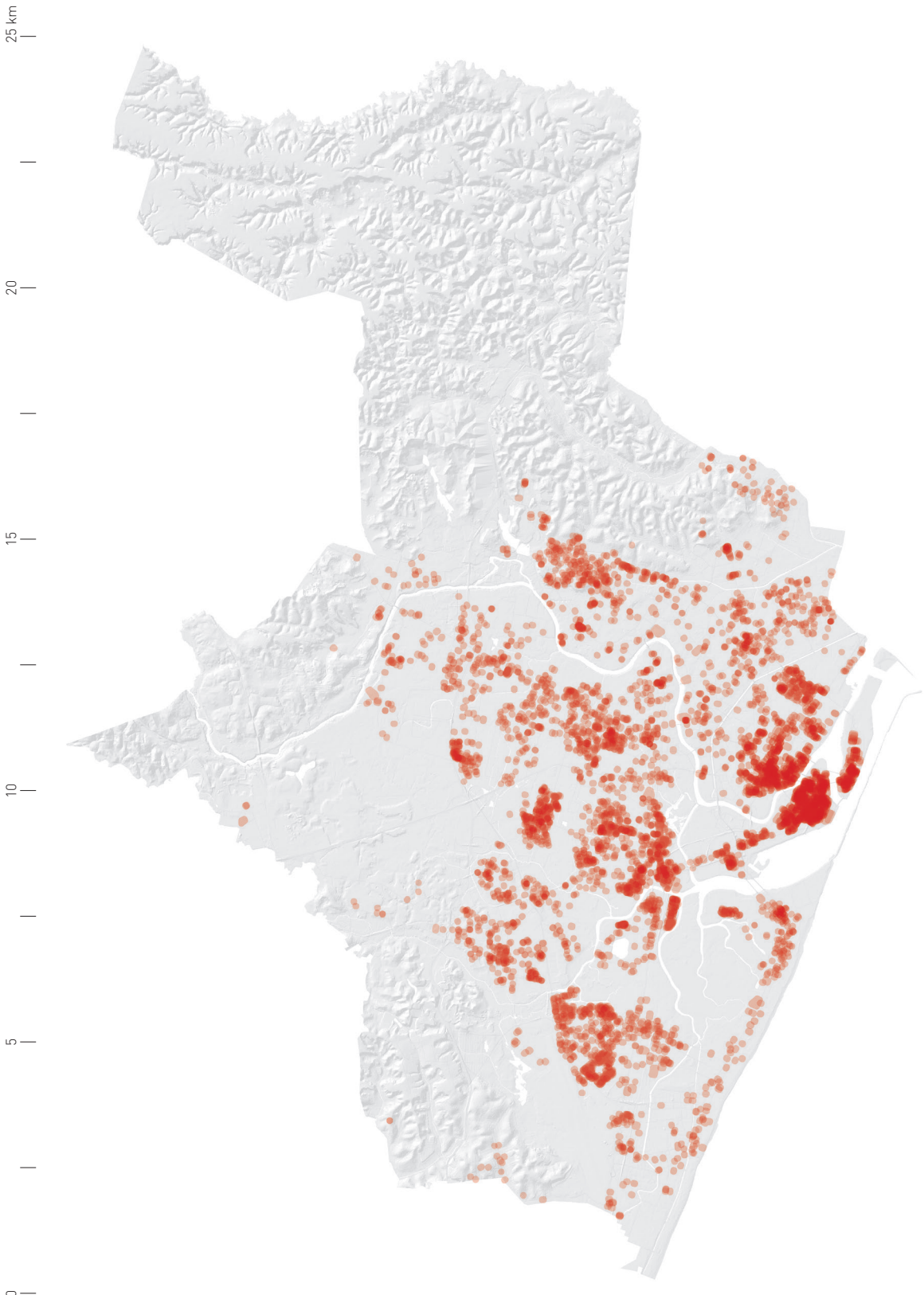


Urbanity in Recife

Source: PCR



Potential for Urbanity
Designed by building intensity (FSI)



Potential for Urbanity
Designed by building coverage (GSI)

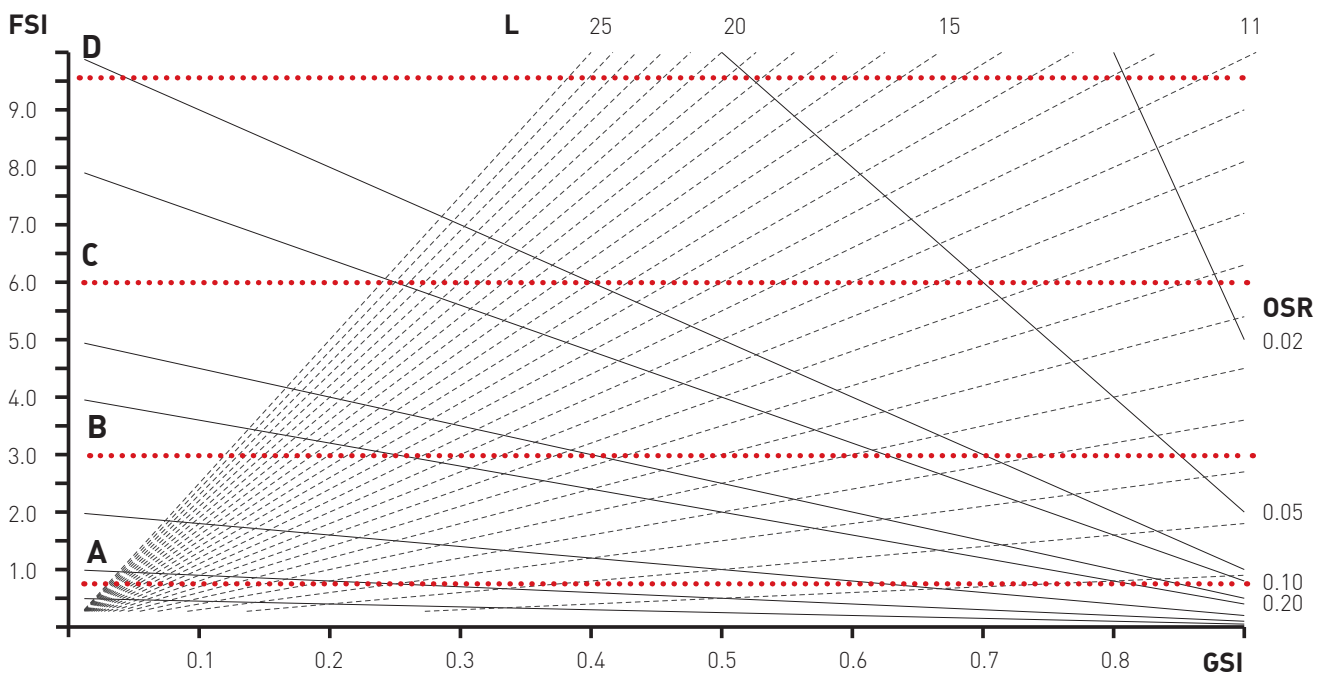
Potential in the private domain

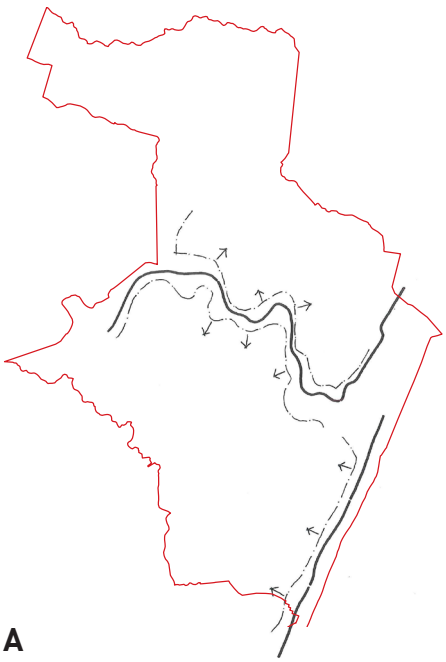
The analyses here show, partially, the diversity that can be observed in the buildings of Recife. Using basic parameters, FSI and GSI, it was also possible to demonstrate a considerable variety in terms of how these buildings relate to public spaces.

That answers the first question stated at the beginning of this section, do areas with same parameters share the same type of interface with public spaces? The variety of solutions in terms of how is the border between public and private in the examples with same figures, even with the restricted number of samples analyzed here, concludes that FSI or GSI isolated do not specify what type of interaction a building will have.

That reinforces some of the criticisms about the current planning instruments that place most of the effort to control buildings in the city basically by regulating FSI.

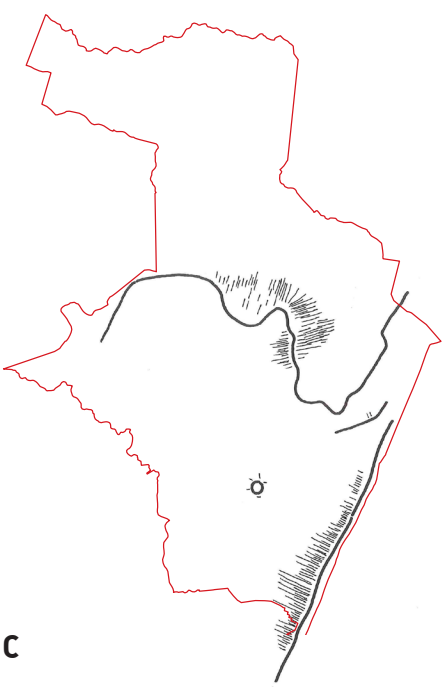
Finding an answer to the second part of the question, are there some thresholds in building parameters that are related to a higher interface, formulated earlier in this chapter have proven to be more difficult. Within the limitations of the samples discussed here it is possible to identify some relations between FSI, GSI, the type of plinth of the building and the ratio of parking spaces per construction surface that can point some indications relating building intensity and interaction with public spaces.



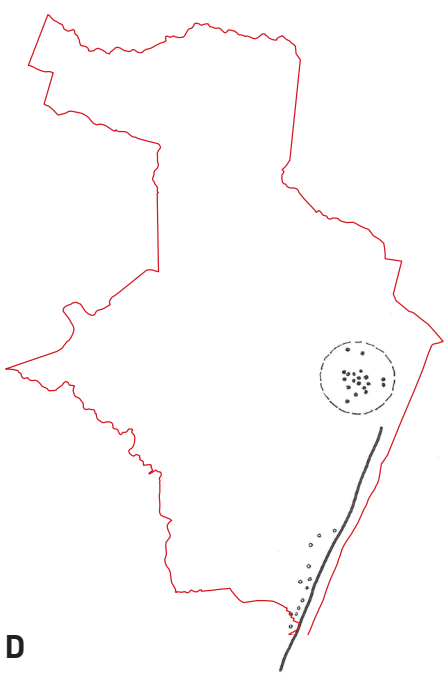


A

B



C



D

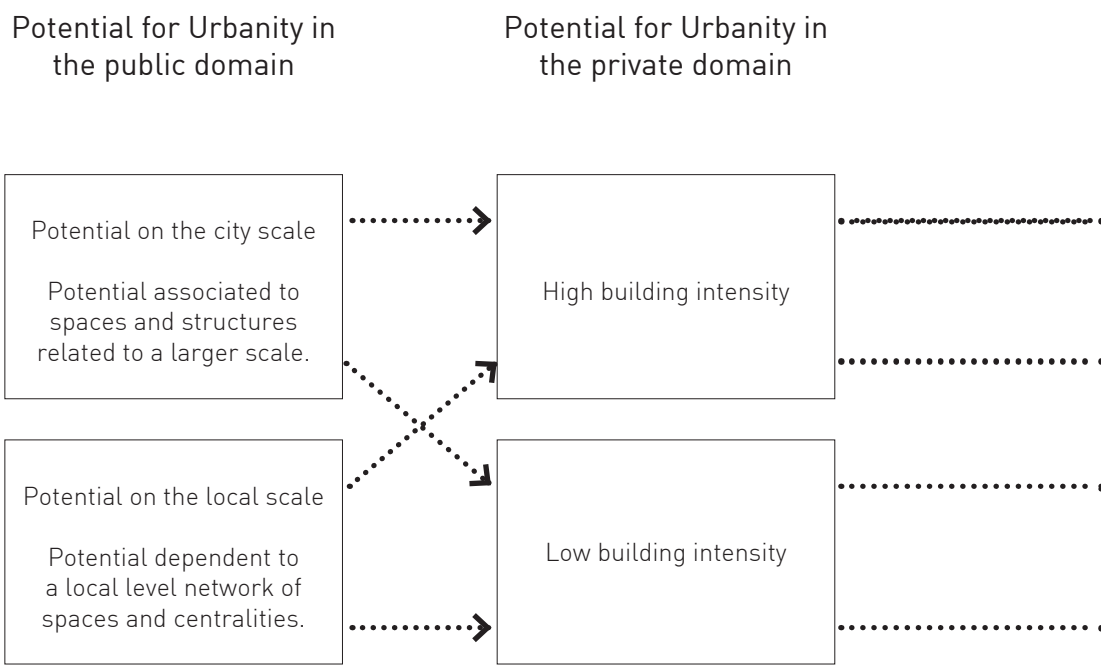
5.4 Dimensions of Urbanity

The results of the analysis about the potential for Urbanity in the public and private domains in Recife presents some aspects that need to be confronted with each other in order to establish the framework necessary in the rest of this research.

A direct comparison between different levels of potential for Urbanity in both domains could come to a combination of larger number of variables, which can get even more complex when other parameters, such as population density are introduced.

To proceed in the research is necessary to find a way to combine the results in both domains. A way that does not set an amount of variables and conditions that cannot be addressed given the scope of this thesis and that will be probably irrelevant, as the vast number of samples will be too specific to determine some patterns or conclusions that can be used to inform planning instruments that are the main aim of this work.

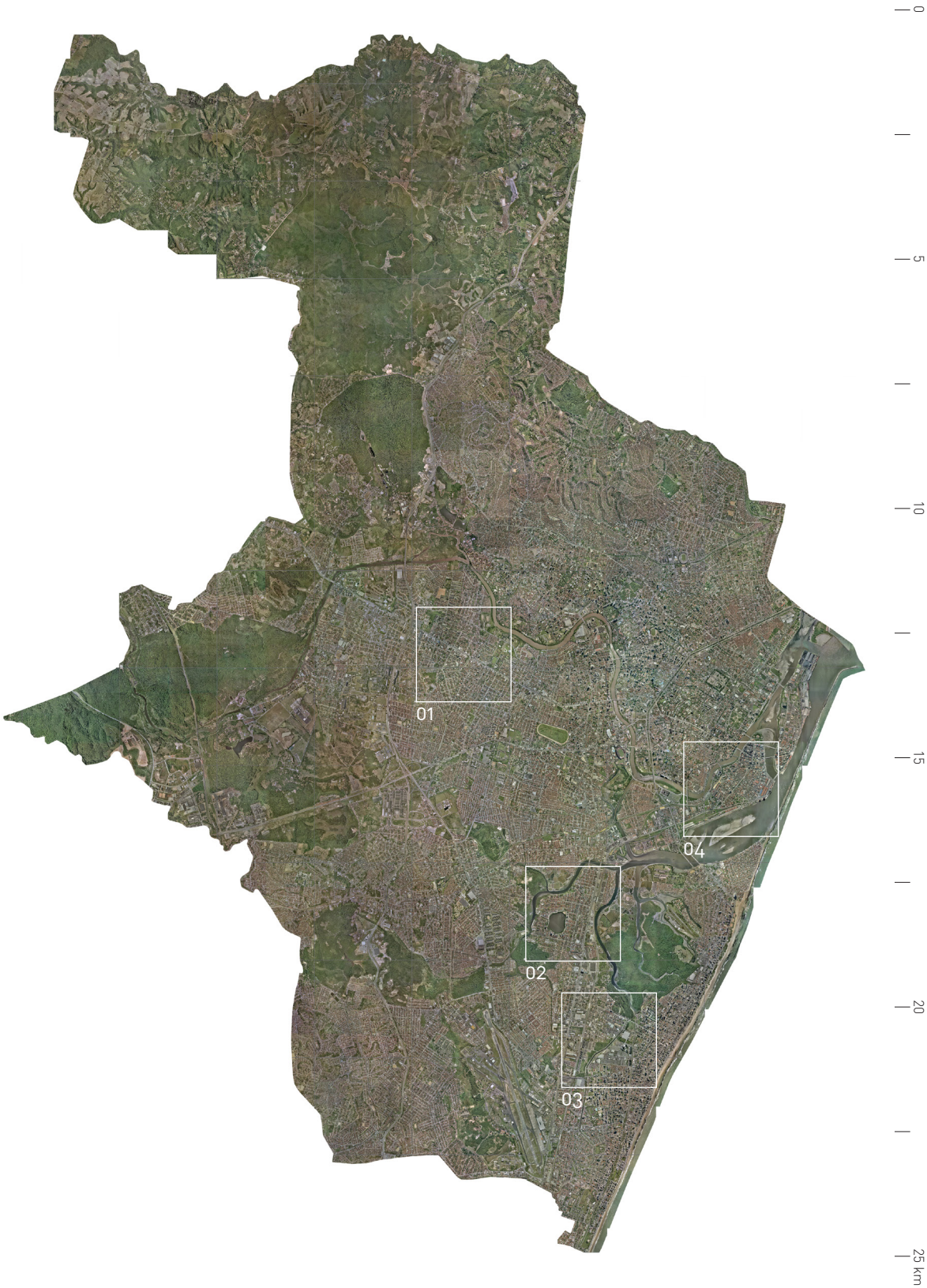
The approach here is to use the potential in the public domain, divided in potential associated to larger and local structures as the base parameter and compare with the potential in the private sector, to be further compared with population density, that results in the following groups:



Population density	What are these areas?	What must be adressed in order to foster Urbanity?
high	City expansion, high rise buildings close to water bodies and main network.	Mono functional areas, low interface with public spaces.
low	City Centre, compact and dense block.	Mainly commercial areas with a very active frontage but hardly any use after working hours.
high	Low income settlements on the hills, low rise compact houses.	Areas with a particular dynamic where residential and commercial use follows a pattern that differs from the rest of the city.
low	Sparse occupation in the remaining rural area, detached houses in large properties.	Perhaps this group is not relevant for the objective of this study.
high	Borders of the city expansion, medium rise buildings	Mono functional areas, low interface with public spaces.
low	Few examples of commercial buildings at the periphery of the city, medium rise compact buildings.	Limited number of cases that makes it not relevant for this study.
high	Informal settlements close to water courses, compact houses.	Areas at risk because of interest of real estate market. Areas with a particular dynamic where residential and commercial use follows a pattern that differs from the rest of the city.
low	Suburbs close to green spaces, low rise detached houses.	Risk of creation of gated communities.
	Vacant industries close to main network, warehouses	Potential for intensification.

6

FOSTERING URBANITY



Location of the test areas

Source: PCR

6 FOSTERING URBANITY

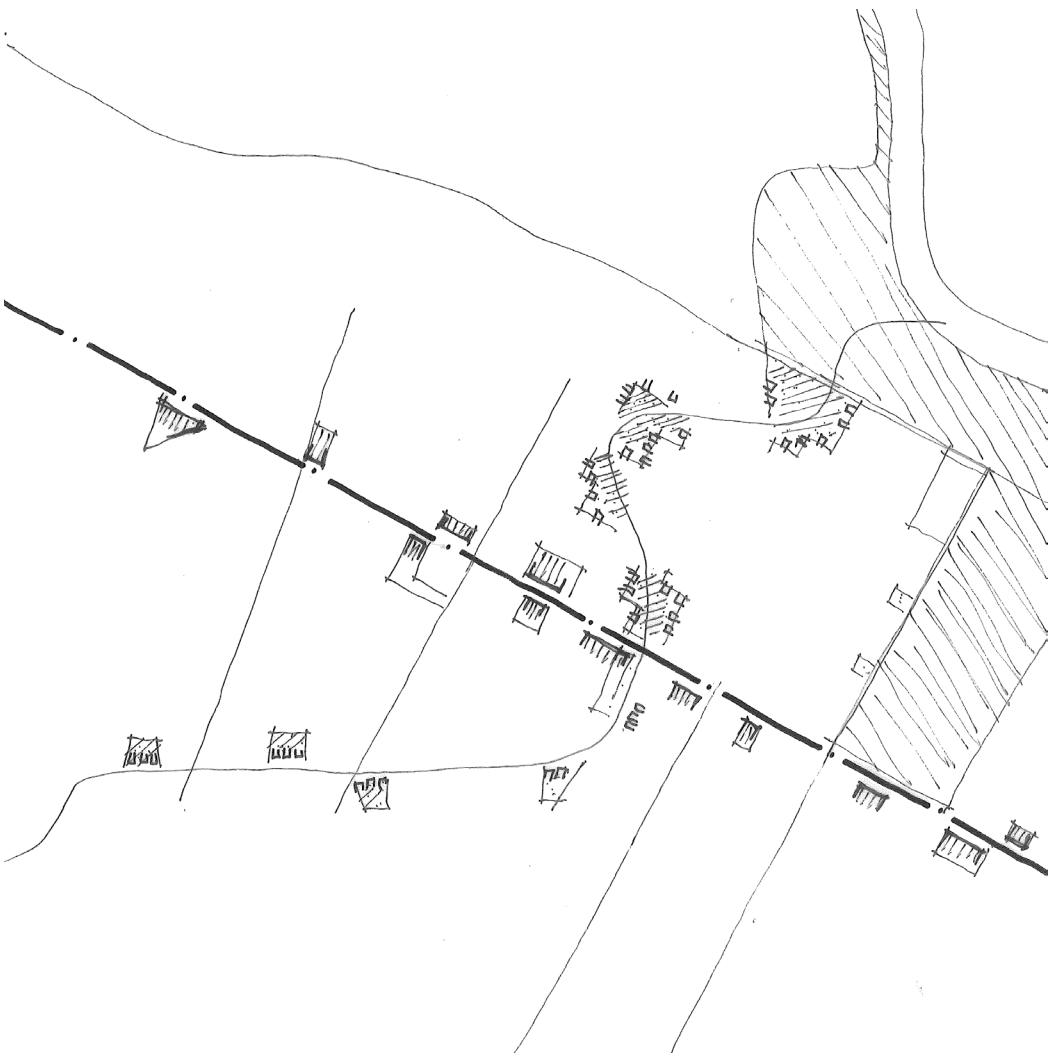
This part of the study will use the conclusions pointed by the analysis of the potential in the public and private domains in Recife as a starting point to assess the limitations presented by the current planning instruments.

The approach here is to use the potential highlighted in the public domain related to mobility, program and open spaces as a base framework to identify specific places for intervention. The areas showed here have been selected in order to have diversity in terms of potential in both public and private domains.

The objective is not to come up with a proposal for a specific case or program, but to use design as an instrument to test possibilities and observe mainly two aspects, firstly what are the restrains that come from the planning instruments and secondly how the combination of the potential identified in the city structure can be translated into different spaces.

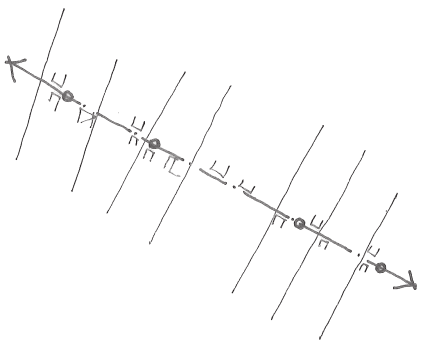
01
Caxangá

Area initially developed along the main connection between the city centre and the west of the region. This part of the city is predominantly occupied by commerce and medium density residence. Here there are located some of the biggest public parks in the city and the area is also close to the main river waterfront.



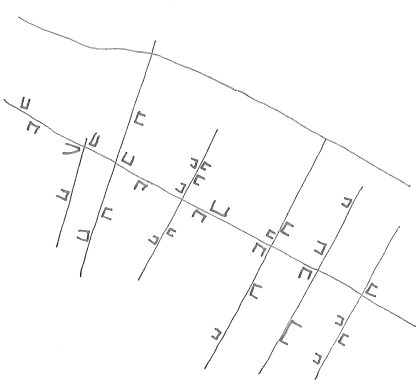
Source: PCR

Potential - Mobility



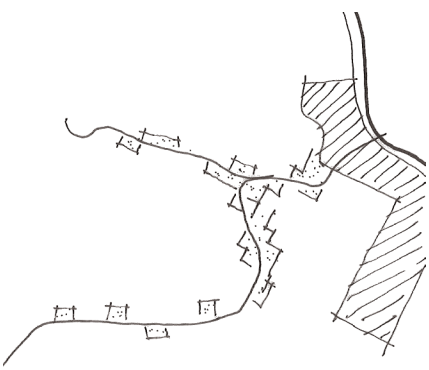
Brt line and main bus stations.

Potential - Program



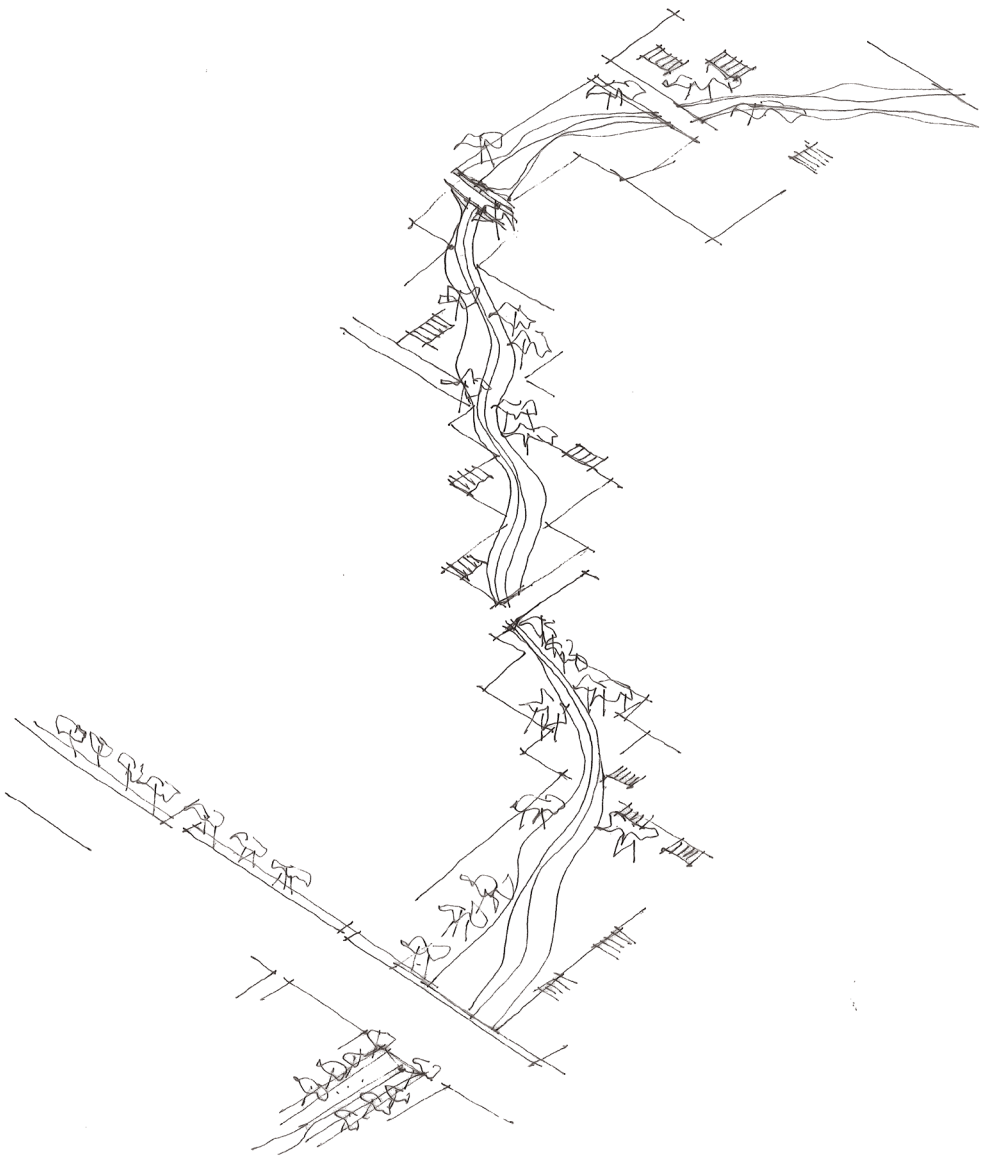
Most integrated streets.

Potential - Open Spaces



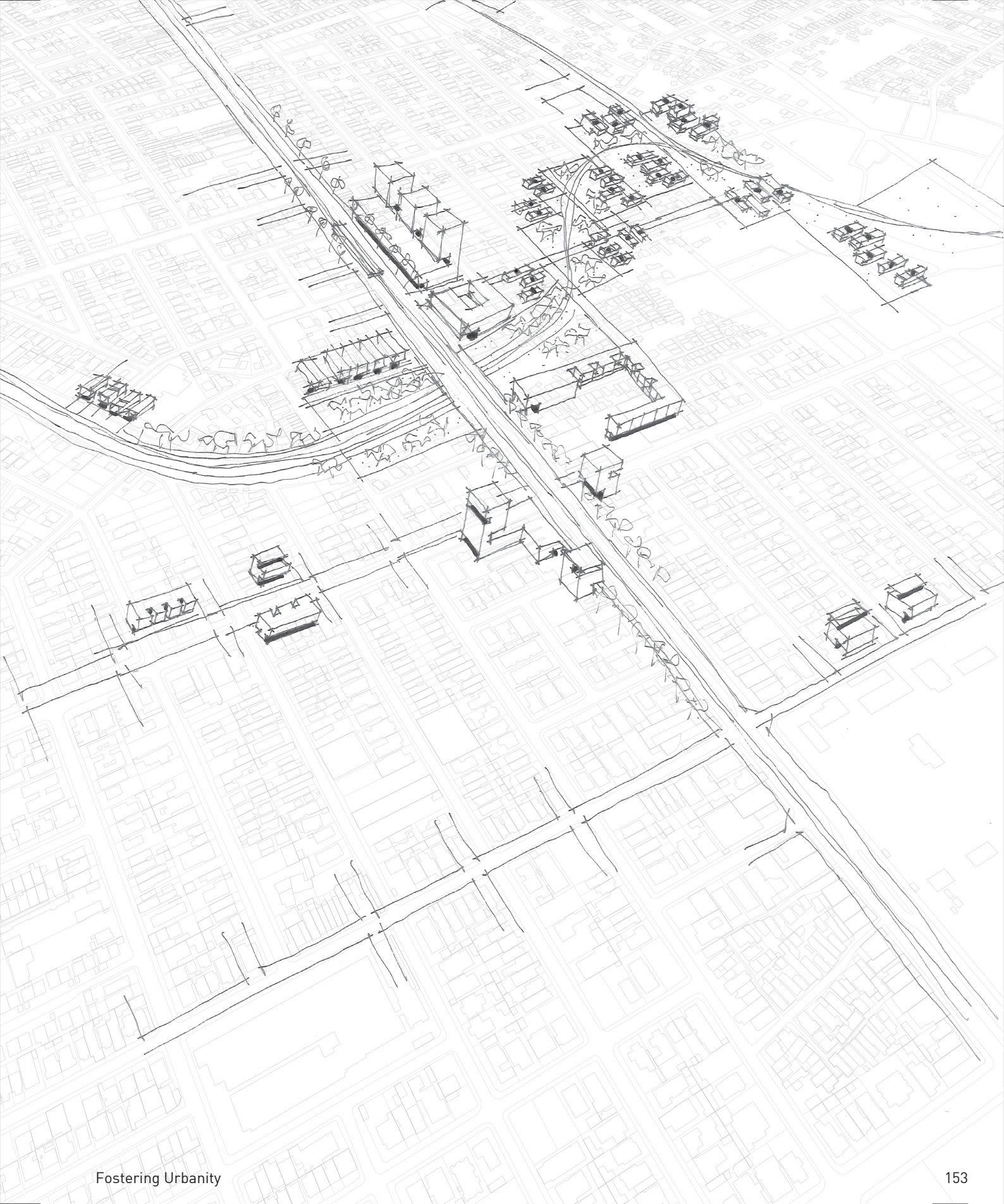
Parks and residual spaces along water courses.


2 km
1.5
1.0
0.5
0



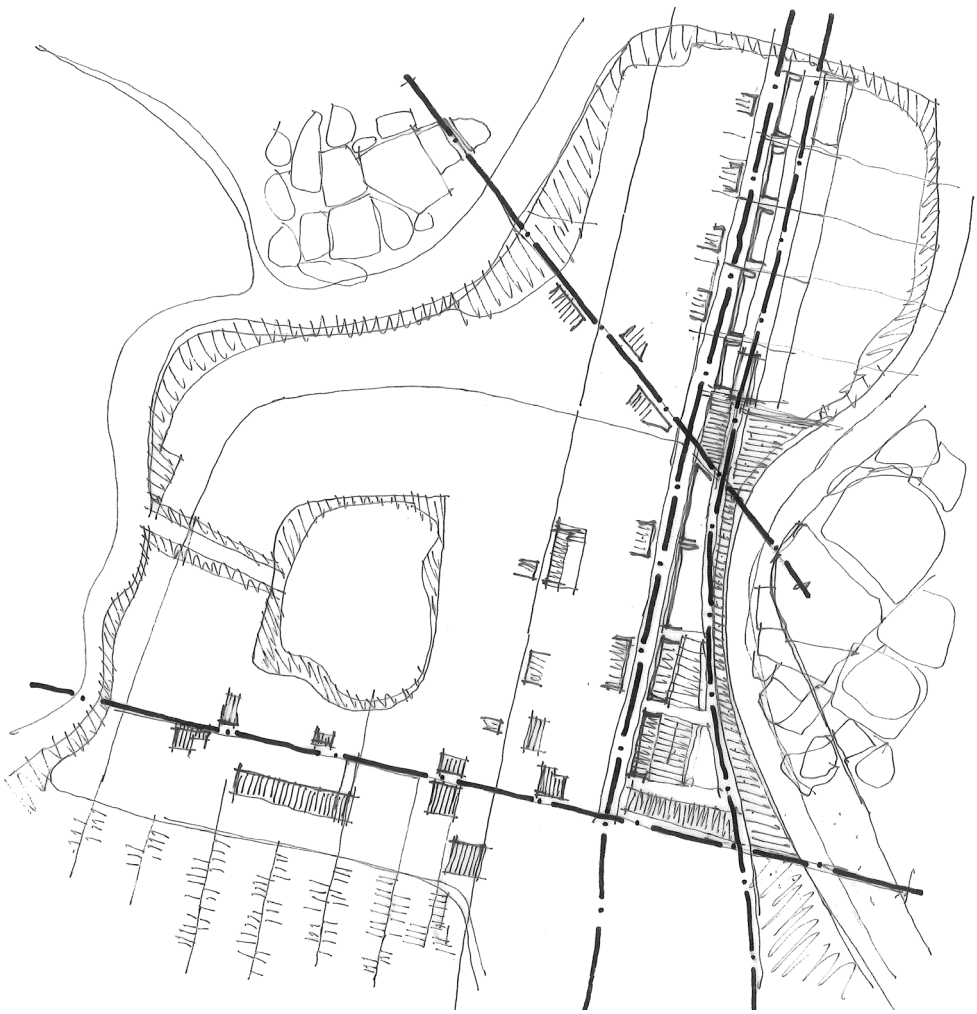
The exercise here was to understand how plots along the main transportation corridor can be occupied improving the relation with public spaces.

Other important point that was tested here what other types of buildings can be introduced in the plots close to parks and located in the residual spaces connected to water courses.



02
Imbiribeira

Area in the southwest of the city that developed along the former rail line and main road connecting the city centre to the south. The area is not so densely occupied and has several informal settlements in the spaces left between water and rail line. Although the area is surrounded by water and mangrove forest these spaces are hardly accessible or visible to those who live or pass by here.

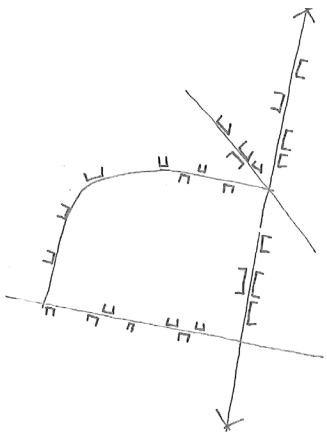


Source: PCR

Potential - Mobility

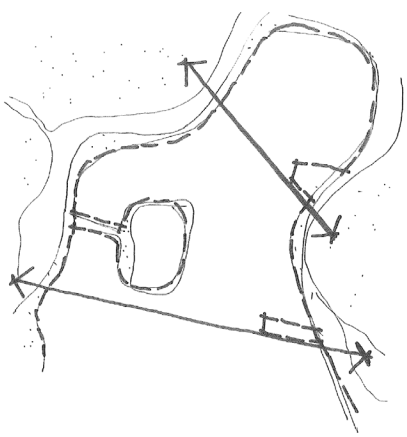
Opportunities along metro and boat lines.

Potential - Program



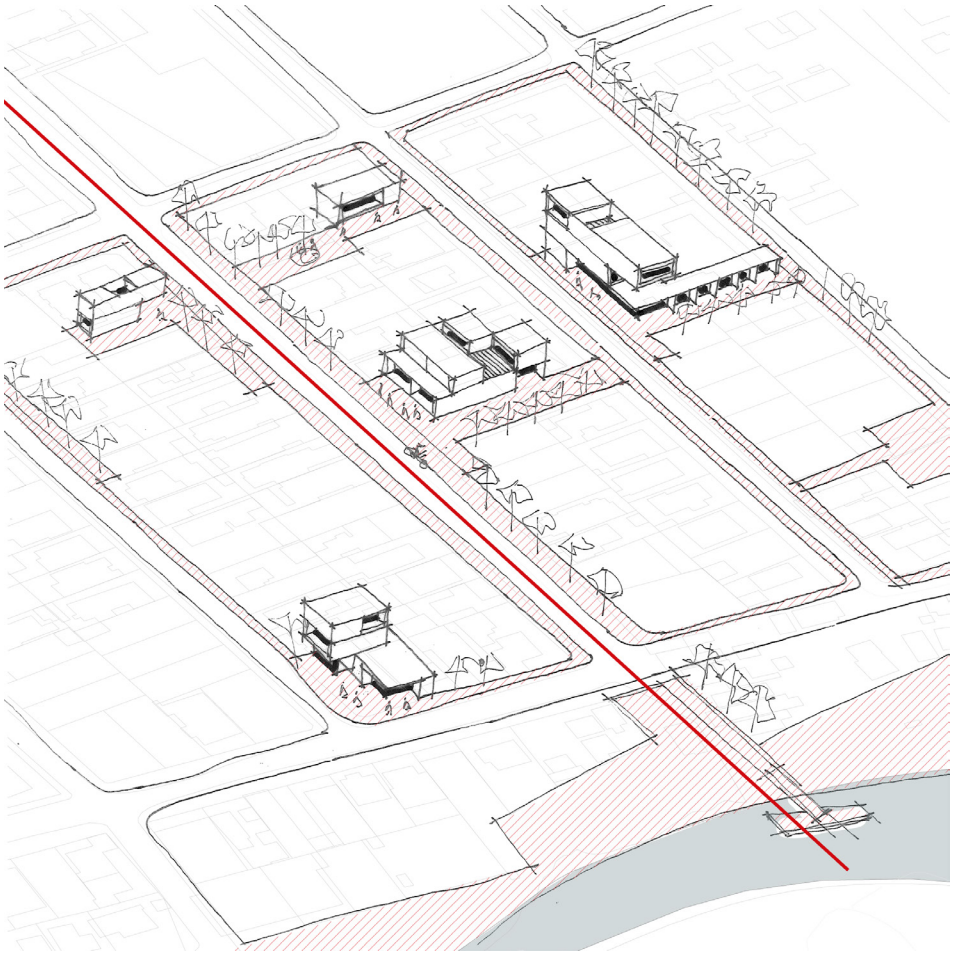
Most integrated streets.

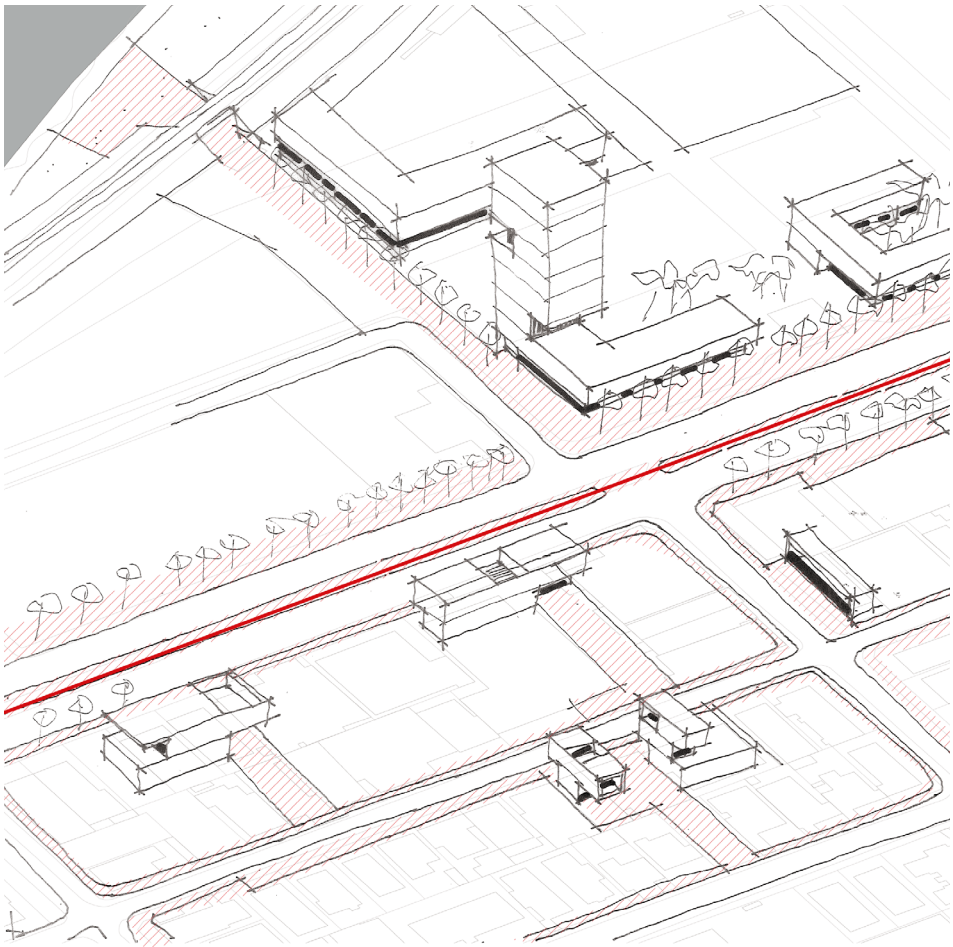
Potential - Open Spaces

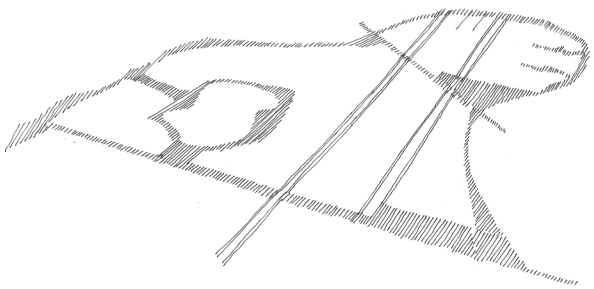


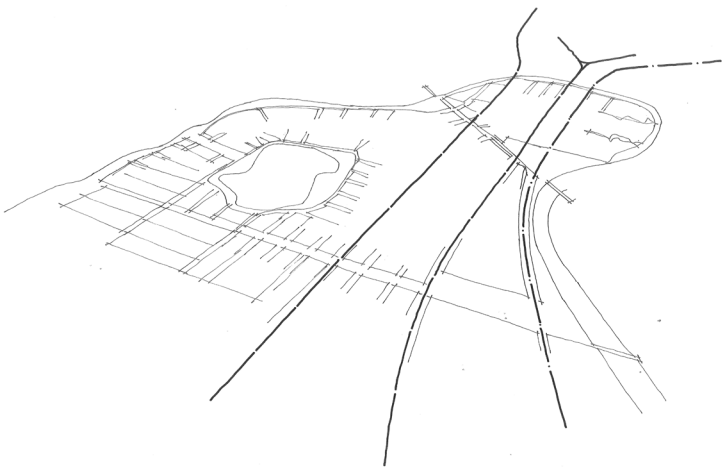
Possibility to connect open and natural spaces to the city.

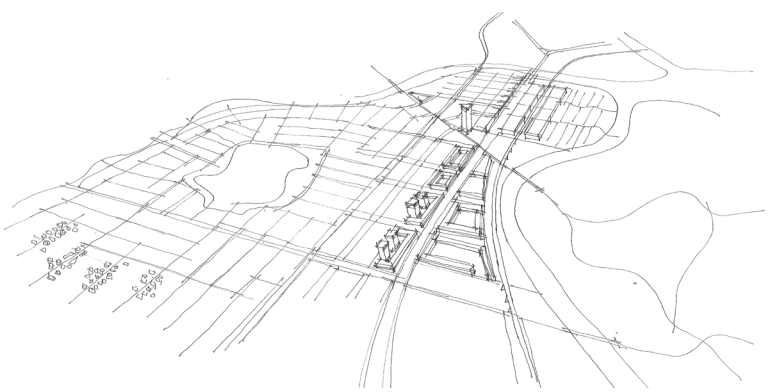

2 km
1,5
1,0
0,5
0





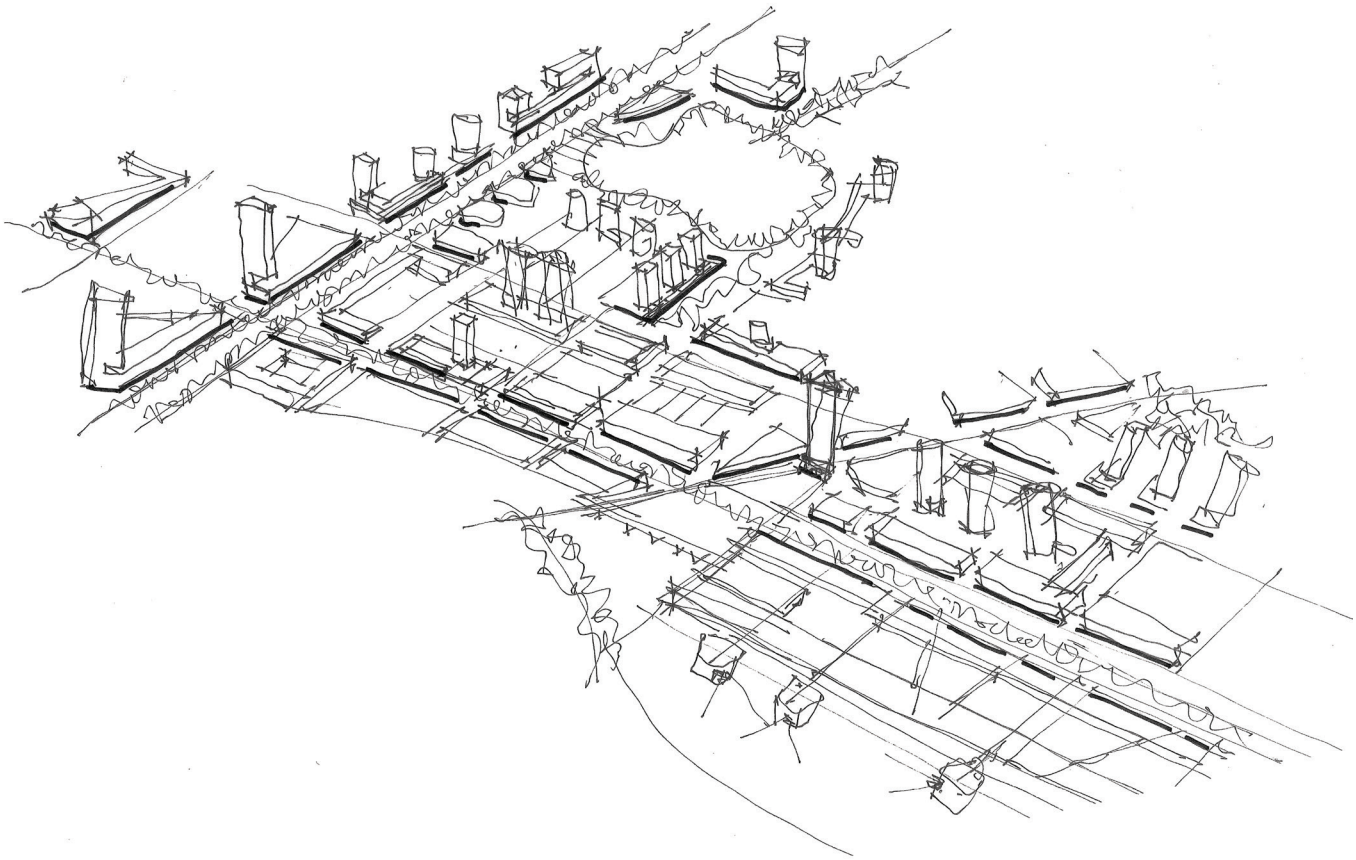


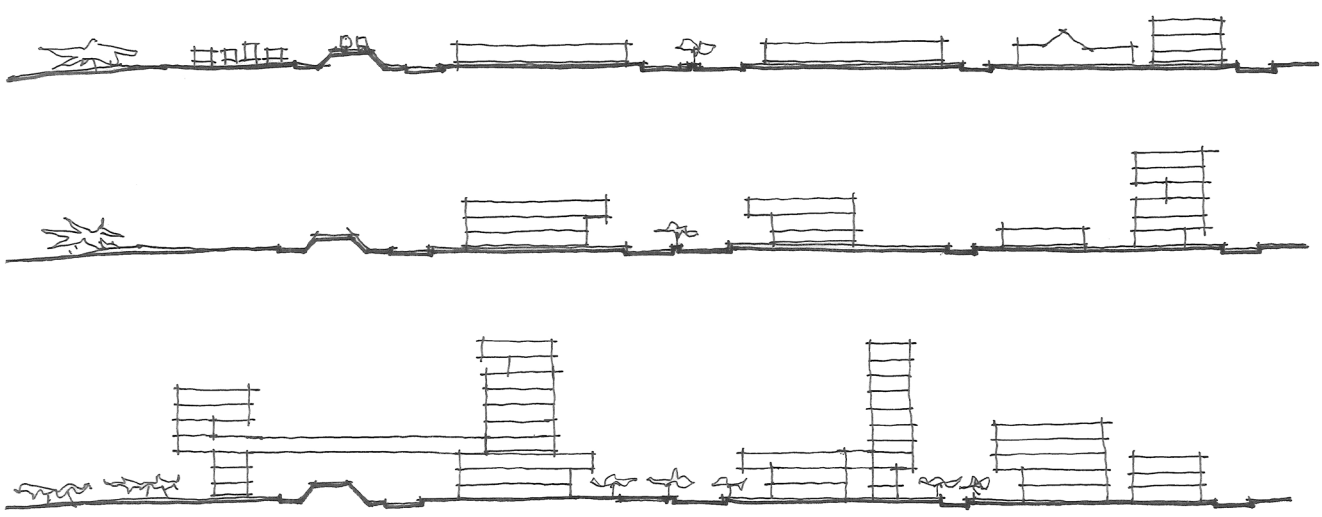




Two main aspects have been tested here, the use of small plots and residual spaces to improve building types diversity and the permeability in the blocks.

In other parts it was tested how to promote intensification of the building structures along main axis and at the same time to improve the connection with the waterfronts.



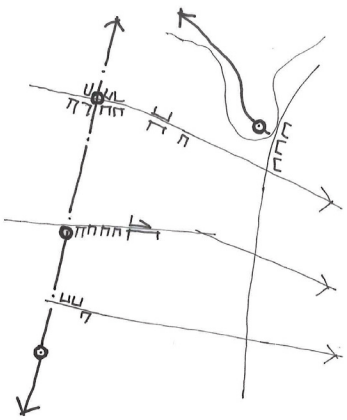


03
Boa Viagem

This part of Recife has been extremely transformed in less than a century. From beach holiday houses to one of the most densely built and occupied areas of the city. The area around a major shopping mall is one notorious example of such a rapid and drastic transformation. Spaces that used to be water and at the periphery of the city are now surrounded by constructions.

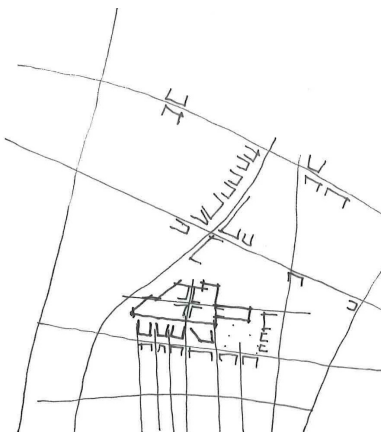
Source: PCR

Potential - Mobility



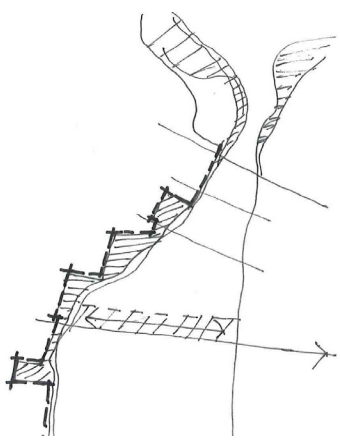
Possible links between metro stations and the densely occupied area close to the beach.

Potential - Program



Boundaries of the secondary city centre.

Potential - Open Spaces



Water courses and remaining vegetation.

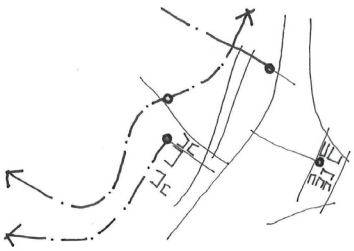

2 km
1.5
1.0
0.5
0

04
São José

In this area, where the first expansion of the city took place, two parallel and contrasting processes can be observed, in one hand the decay and obsolescence of the historical city and on the other hand the growing interest of real estate market in the large parcels at the waterfront.

Source: PCR

Potential - Mobility

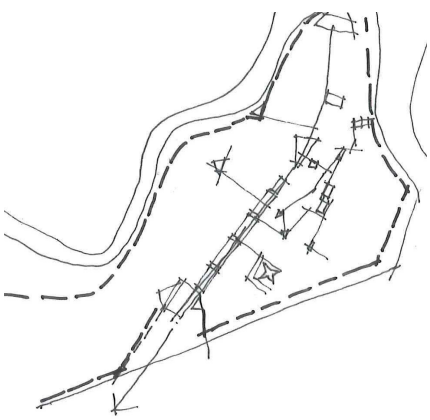


Metro, bus and boat networks.

Potential - Program

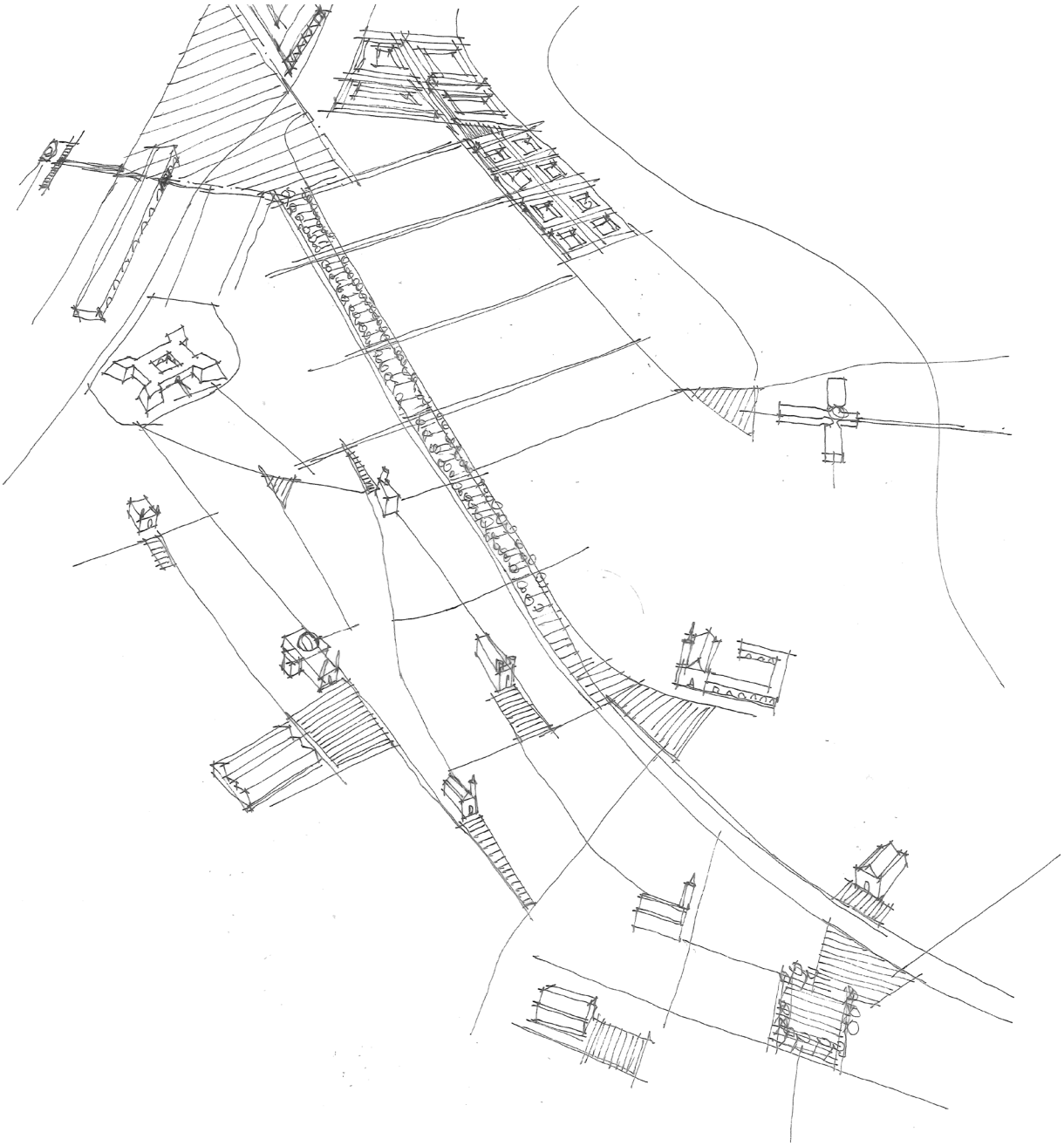
Public services, cultural facilities and main touristic attractions.

Potential - Open Spaces



Potential to create a network of public spaces.


2 km
1,5
1,0
0,5
0



6.3 Operationalize Urbanity

The research questions raised at the beginning of this thesis about what is Urbanity and how the dimensions related to Urbanity can be incorporated in planning instruments, have guided the analysis of the city in terms of current conditions and potentialities to be explored. During this process of study, and specially when comparing the action from construction market with the mechanisms to steer the evolution of the city provided by planning instruments, the limitations of the planning codes was reinforced.

To what extent planning instruments can deal with the issues discussed here? Moreover, are planning instruments relevant in the current construction of the city that can be described as the city designed by the market?

From what has been observed here, the construction of the city do not occurs completely outside the domain of planning instruments, what happens in fact is that the city is been built using the gaps in the instruments. These gaps are mainly the result of the detachment observed in the planning codes between the instruments that regulate zoning and land use from those that deal with typomorphology. As stated before, it is the result of the move from plans that envisioned a spatial configuration for the city, or at least to certain zones, to those that deal with the city based on the control of constructions almost exclusively in the plot scale.

The conclusion is that planning instruments are still relevant, although they may not be sufficiently elaborated to deal with the dimensions of Urbanity. To contribute to this theme, a set of topics will be discussed here that suggests how to address some of the limitations observed in the regulations and with the specific aim to incorporate the dimensions of Urbanity into the planning system.

01 Addressing the car dilemma

Car industry in Brazil accounts for almost 18% of the country´s GDP; it is part of the national policies since the 1960´s the stimulus for cars production and consumption. The number of new cars per month in Recife reaches more than one thousand. The analysis of the planning instruments show increasing figures regarding the ratio private area and demand for parking. All that points out a probable scenario where the use of private and individual mode of transportation will continue to prevail.

However, as land prices and building costs continues to grow, construction costs related to the area necessary to park and manoeuvre will start to raise concerns. It is clear that the impact of construction costs in the use of car will be limited, but there is potential from new buyers that may opt for reduced costs at the expenses of parking spaces.

This possibility of reduction in the number of parking place does not find support in the current planning instruments. The demands are stated at city level with some variations according to classification of the road and use of the building, with the ratio private area to parking places reaching one parking place for every 40 square meters.

Another aspect that appears contradictory is that, according to current building codes, new constructions located along the main roads, that are normally provided with public transport should have a larger number of parking per private area.

The reflections provided by this study, point out to the major role the demand for parking space plays in the spatial quality of the plinth of the buildings.

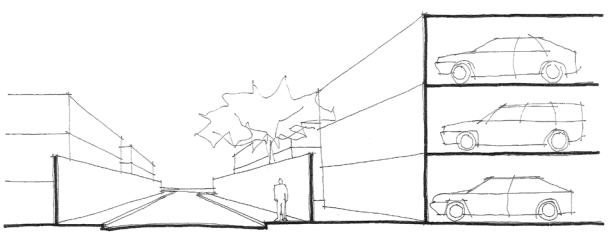
How planning instruments can adjust?

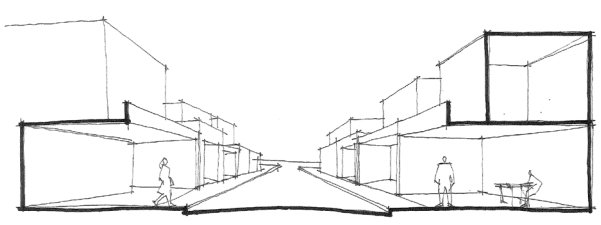
The changes in planning codes could start from the definition of parameters for the demanded number of parking that takes into account not only a classification of the roads but the mobility system. One example could be to define boundaries, around metro and BRT stations, where parking could be reduced.

Such change demands a counter measure to avoid that the extra cars end up being parked along streets in the public space. Other factor that can be introduced is the limitation of the space in the ground floor of buildings that can be used for parking, in a similar way to what is included in the current instruments and determines a limit for the length of blind walls along sidewalks.

What is the impact for Urbanity?

A reduction in the number of parking spaces would allow that the plinth of buildings to have different functions, not necessarily public like commerce or services, but at least as spaces used by people. The other point is that this reduction would also improve the use of smaller plots that is today limited by the space necessary for cars. That contributes to keep diversity in terms of plot dimensions and to the active use of some areas close to the main transportation nodes that are currently neglected due to the difficulties to match car demand and program in smaller parcels.





02 Adjusting the scale

As described before, the regulation of the city by planning instruments occurs in a way that, to a certain extent, detaches the guidelines for construction from the overall vision for the city.

When reading current planning instruments one realizes that there is a major gap between intentions stated as the vision for the city in terms of social justice, and quality of urban life and the way and the way these instruments are made operational.

The analysis done here points to one aspect that may be at the core of this problem, which is the concentration of the regulations in the plot scale. It seems logic in an open market economy to allow autonomy for individual owners to construct in their properties. However, that is not what is questioned here; the point of discussion proposed now is that is necessary to relate the parameters for individual plots to a major framework that is based in the city structure.

How planning instruments can adjust?

That could be in the form of a specific parameter defined per block or even district to be used as a reference in the parameters of the plot. That means that the autonomy of individual owners is preserved but at the same time it guarantees that certain levels of built density or green ratio are preserved for example.

Such a change in scale could contribute to improve certain spatial qualities and to prevent the transformation of individual plots as described in the critique on the market. It could also help to foster a closer collaboration between neighbours to come up with collective decisions regarding the use of their properties.

Current instruments of Recife already have the bases for this type of change once they already contain mechanisms such as transfer of construction rights, that could steer the collaboration within the parts involved.

What is the impact for Urbanity?

The impact of this adjustment in planning instruments in the dimensions of Urbanity is not a direct one, like in the previous case related to cars. However, this change in terms of the scale used to guide the evolution of the city would prevent or at least reduce the fast transformation observed in the building structures of the city and as result would contribute to keep a certain diversity in terms of building age and typology.

03 Designing the impact

Since the previous Plano Diretor, it has been introduced the figure of impact developments in the city regulations, intending to increase the control and mitigate the impacts of larger constructions in the city. However, as described earlier in the critique on the market, this instrument is easily overcome by some strategies used by the construction market.

But that is not the main question, even in a normal process as stated in the law where impact projects are fully analyzed and their impact assed, the ways to mitigate it are normally reduced to punctual interventions and to monetary compensations. There is hardly any way to make sure that these financial compensations are used in the area directly affected by the impact of new developments.

The analysis of previous regulations in the city showed that there are other ways to mitigate the impact of constructions that extrapolate some of the predefined parameters. Some of these regulations had, as part of their legal framework, already included some design guidelines to regulate these exceptional cases.

How planning instruments can adjust?

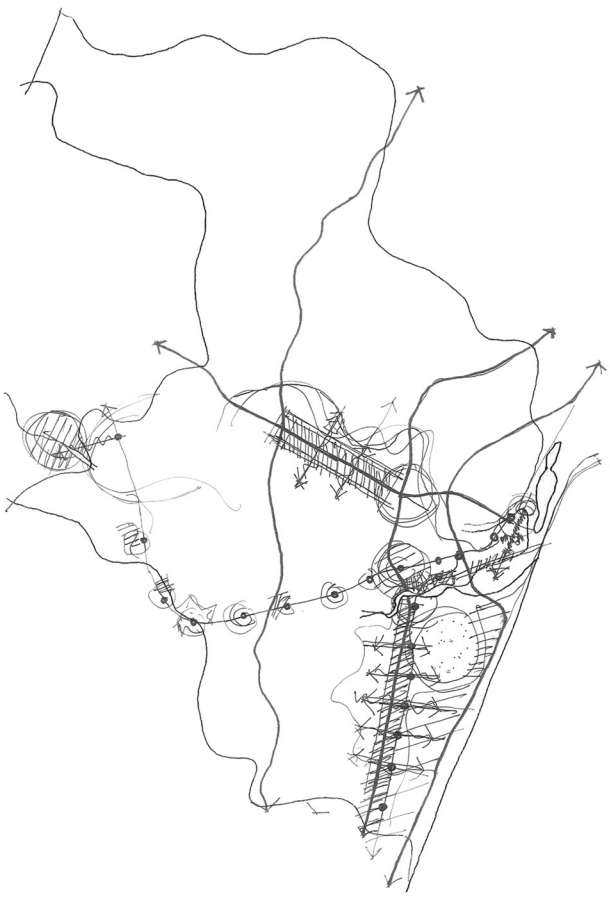
Although it is clear that the complexity of the impacts addressed in the current scenario is beyond that addressed in the earlier planning instruments, there are certainly some aspects of these projects that can be predicted and incorporated in the regulations. That can be for example to establish certain principles regarding a ratio of public spaces to prevent larger complexes with reduced permeability in the city.

The proposal is to move from instruments that try to mitigate impact, or in other words, to work with the effects to those that can stimulate a higher use of the land and at the same time contribute to a greater interaction from buildings to public spaces.

However a greater role of the public institutions as design proposers always will conflict with the reduced capabilities most of these institutions face in Brazil. That can be overcome by the adoption of public competitions for design guidelines and specific plans for certain areas of the city. More than blueprint plans these projects could serve as a design guidebook to propose alternative ways to increase construction volume and at the same time provide a greater interaction with the spaces of the city.

What is the impact for Urbanity?

The gain here is related to a larger control and predictability of new developments in order to achieve a good balance in the relation between public and private domains. The other aspect is to bind the mitigation of impact with the spaces directly affected by it; this change brings to the design level the discussion that normally stays inside the political and economic domains.



7 REFLECTION

This study searched for tangible and applicable dimensions of Urbanity. The research was based in the context of the city of Recife and the results are directly related to the conditions, restrictions and potentialities identified in the analysis of the city.

Despite the specific character of this study, the questions and urgencies addressed here are shared with multiple cities. Cities in expansion, under some sort of economical growth, where public institutions have their role steadily restricted by the action of private market, present similar challenges as the ones identified in Recife.

In that sense the points raised here in this study sums to the debate about the role of planning and planning codes in the context of developing countries, where economic growth and expansion of the cities are, in general terms, reinforcing existing divides in the cities. The case of Recife is emblematic in what concerns the lack Urbanity, specifically in relation to the boundaries between public and private domains.

The city described here, is ultimately a city designed by the action of the construction market with the connivance of public institutions. It appears that Recife is in fact a territory shared by two cities that coexist in the space but do not relate to each other. The first city can be named the walled city; it is the place where the qualities normally provided by public spaces have been transferred to the private domain. That is the city for those who can afford. The second city is located between the gaps of the walled city, it is the territory for those with less resources.

Although questions regarding social inequalities are not the centre of this study, the approach proposed, by referring to Urbanity as co-presence, allows that the minimum expected by the city spaces, to allow that different groups at least recognize each other. That can be considered as a framework that can guide the resolution of other issues that are present in the city. The approach used in this study to unveil potential, in the public and private domains in the city, is a contribution in study of the relation between space and interaction between different social groups.

The reflection about the topics discussed in this thesis hopefully presents a path to reconnect the city inside and outside the walls.

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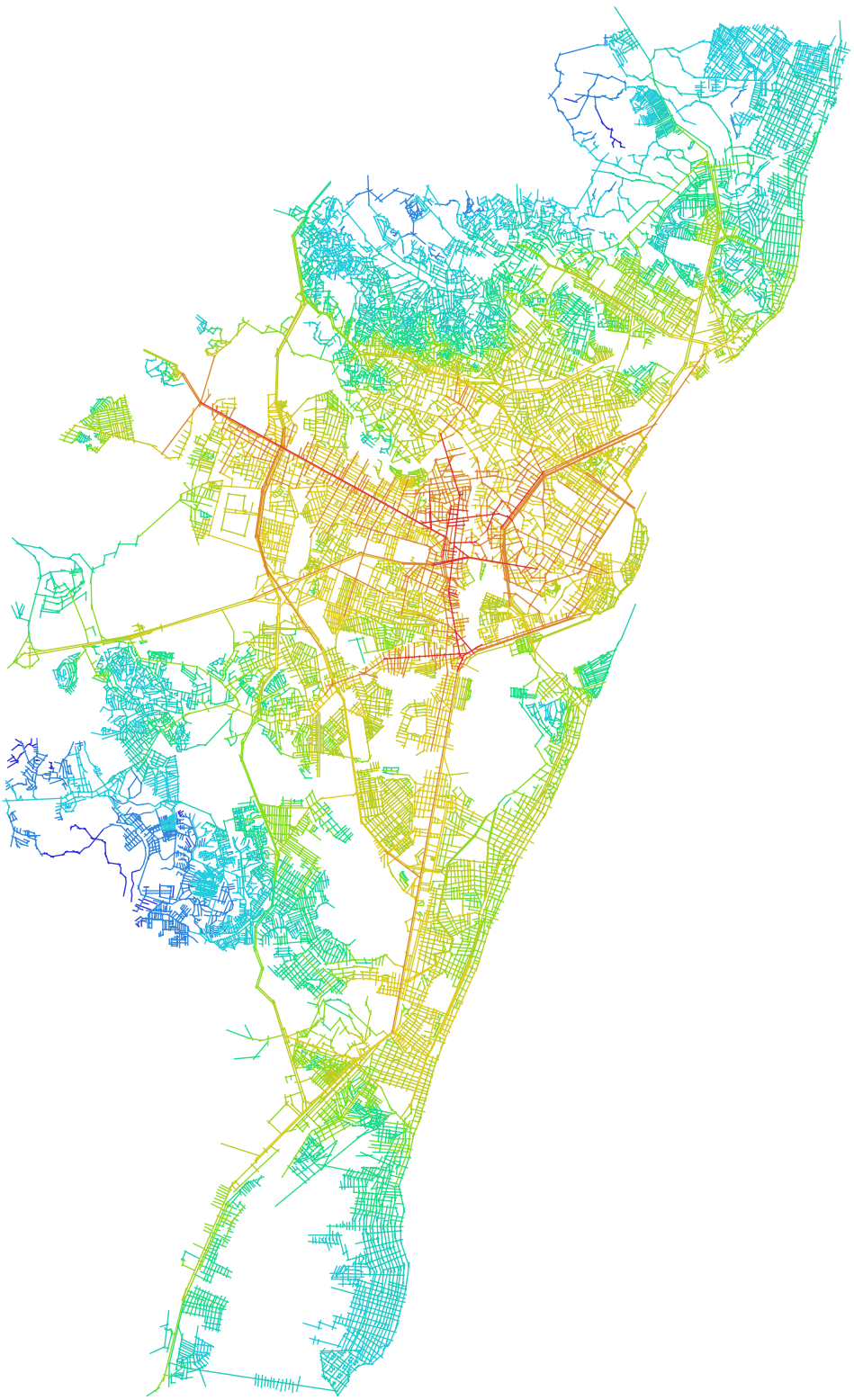
Data Sources

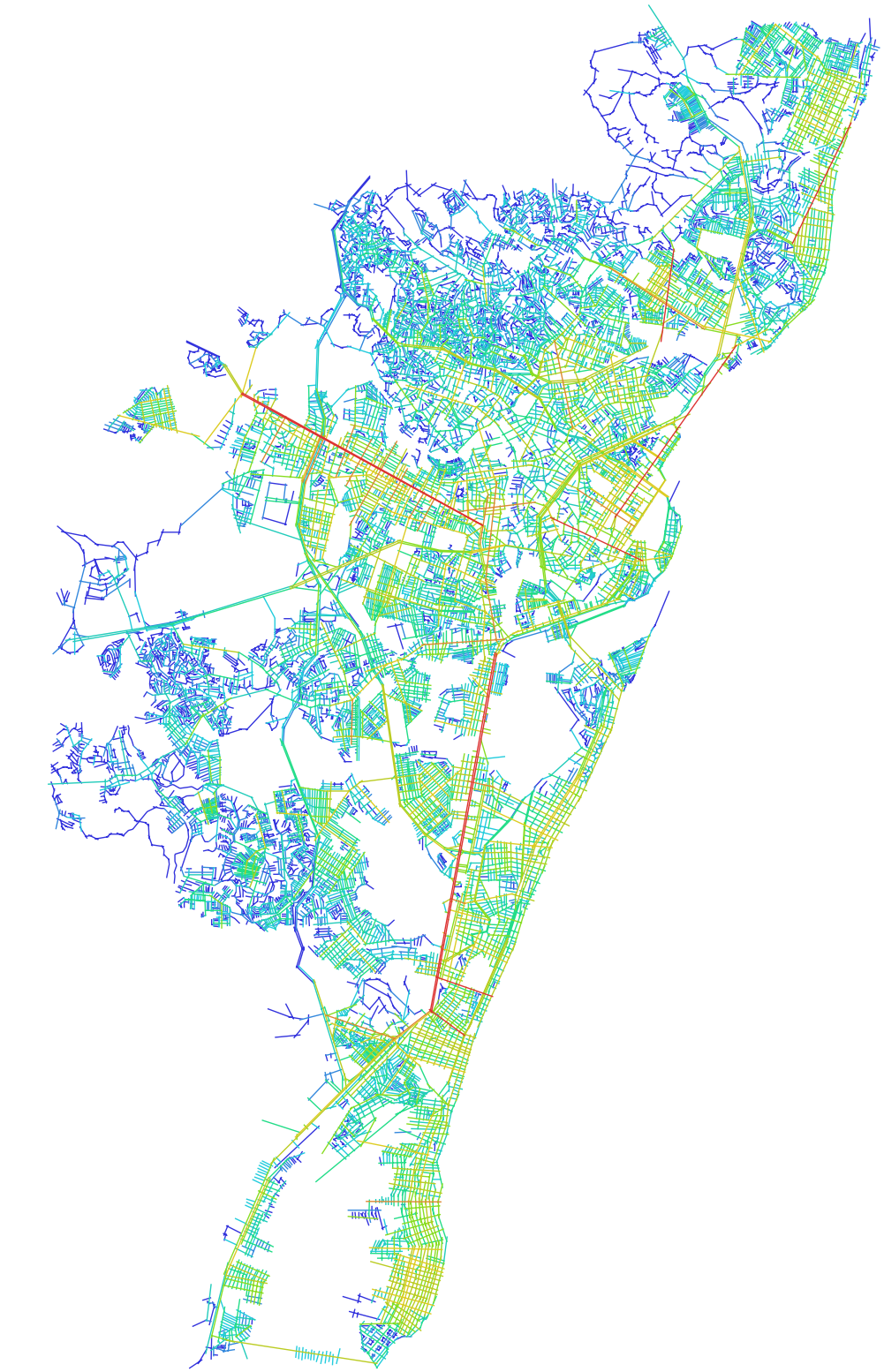
CBTU	Brazilian company for urban trains
FIDEM	State Agency of Planning and Research (Agência de Planejamento e pesquisa de Pernambuco)
FUNDAJ	Joaquim Nabuco Foundation
IBGE	Brazilian Institute for Geography and Statistics (Instituto Brasileiro de Geografia e Estatística)
PCR	Municipality of Recife (Prefeitura da Cidade do Recife)
RMR	Metropolitan Region of Recife (Região Metropolitana do Recife)

All the maps and diagrams have been elaborated and edited by the author using information provided by the identified sources.

Appendix A
Space Syntax



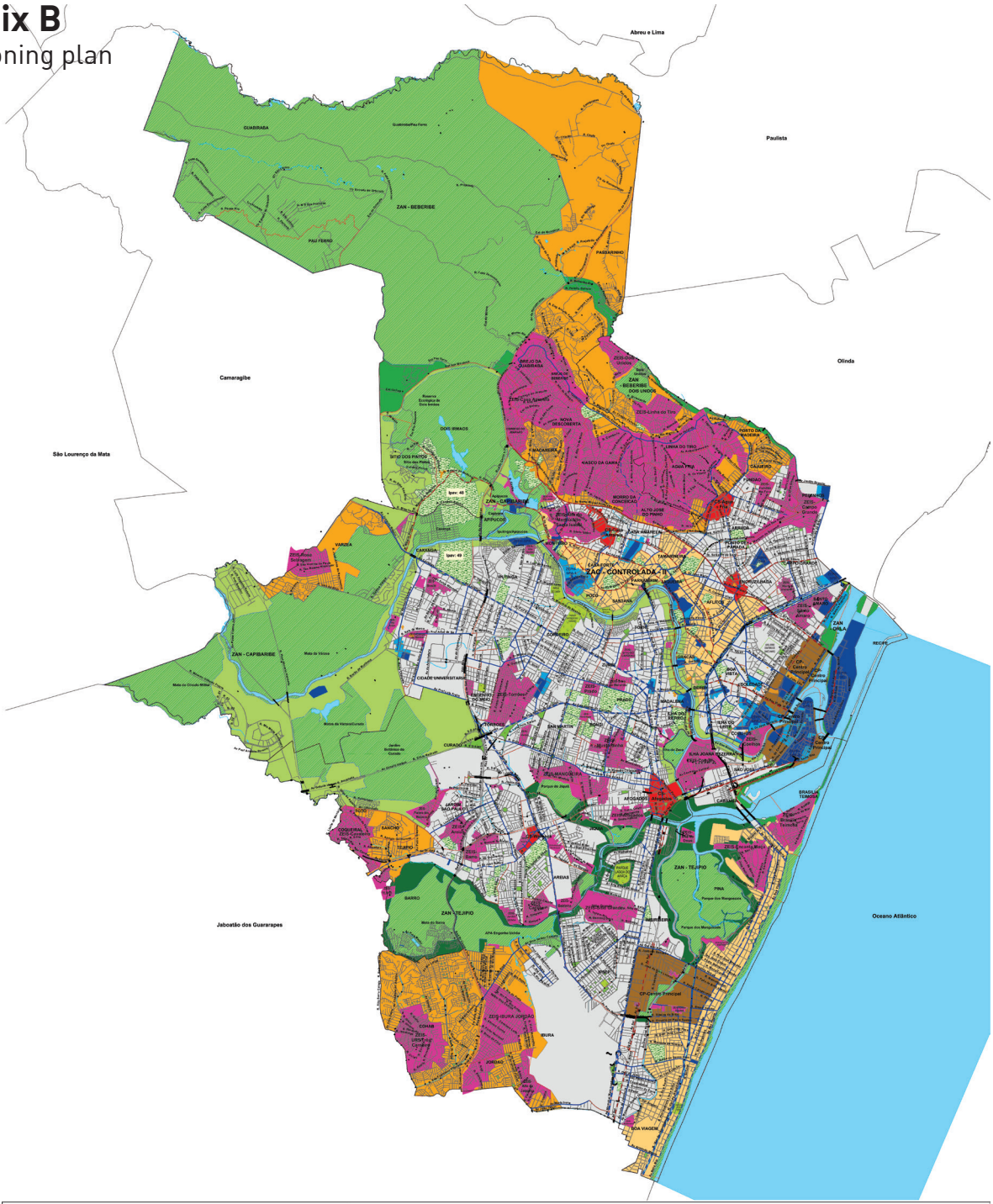
Space syntax map
Global Integration - N



Space syntax map
Local Integration - 3

Appendix B

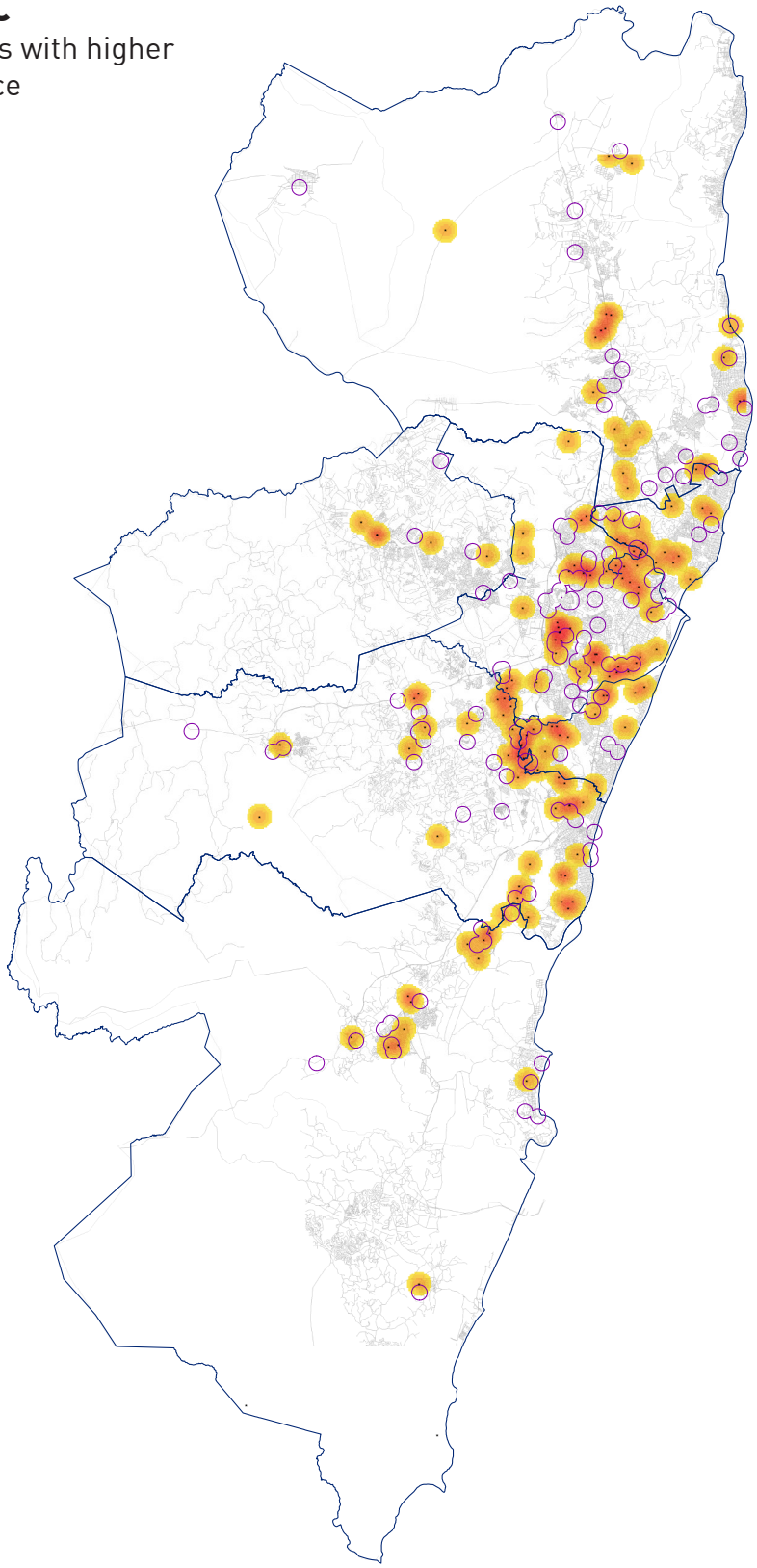
Current zoning plan



Source: PCR

Appendix C

Map with areas with higher crime incidence



Crimes registered in the metropolitan area in February 2011

Source: Governo de Pernambuco