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Urbanization Processes and Urban Morphology in the Periphery of Capitalism: São Paulo, Jakarta, Hanoi and Belo Horizonte

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ABSTRACT

The research is a comparative study of the economic development, planning processes and the resulting urban morphology of four different cities: São Paulo, Jakarta, Hanoi and Belo Horizonte, aiming to disclose the spatial outcomes of peripheral development. The cities are initially presented and compared two by two in each spatial scale, according to their resemblances in size and position, regarding economic dynamics.

São Paulo and Jakarta were chosen due to their importance and economic relevance on their specific contexts, Latin America and South East Asia, respectively. Their size and characteristics – mega cities or city-regions – offers a possibility of comparison aiming to find similarities.

Hanoi and Belo Horizonte have similar positions regarding their context – South Asia and Brazil, respectively. Both are administrative cities – Capital of Vietnam and Capital of Minas Gerais Province – with similar population sizes and currently under economic development and fast urbanization. Despite these similarities, the cities present distinct processes of growth and urbanization, which through this comparison should be highlighted.

Finally a diagonal comparison is proposed, understanding how do the cities and its fragments relate to each other and possibly with different southern cities. Therefore, the proposed study intends to investigate deeper São Paulo, Belo Horizonte, Jakarta and Hanoi's patterns of urban form, expose some of their tissues and typologies, reaching a better understanding of how these cities have historically coped with economic processes and how do they work today, opening the possibility of a broader discussion consisted on how do these four cities might learn from the experiences observed in the others and how do these lessons could be beneficial to other cities in general.

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Introduction

INTRODUCTION

The present research is an urban morphology comparative study between four southern cities: São Paulo, Jakarta, Hanoi and Belo Horizonte, aiming to disclose common spatial outcomes of similar development processes, guided by positionality. Urban morphology was the tool used to read the distinct territories and territorial scales, through direct observation enabled by a joint fieldwork between the three researchers involved in the study.

Comparative studies have long history in urban studies as WARD (2009) points out, arguing that is a common method omnipresent in most of the empirical social sciences studies. The author points out that since the 1970's and 1980's, with the politization of urban studies, traditional comparative studies were drawn by Sociologists, Geographers and Political Scientists, based on marxist, neo-marxist and intitutionalists foundations, mainly with quantitative data. This traditional comparative studies identified cities as "bounded and given, self-identifiable, with scale as given and non-contested". Since the 2000's, however, there has been a movement towards more relational comparative studies in urban studies, in which the city is seing as an open structure, understood and constituted by its relations, in a scheme where scale is "constructed and politized", with post-colonialist and neo-marxist foundations and based mainly on qualitative methods, such as ethnography, non structured and semi- structured interviews. According to the author, in within this new approach to which the current research is based on, there is a necessity not only to compare data and empirical observations, but also to relate them to its causes and return the assessment of collected data and first hand observation.

Therefore, despite the long line of previous comparative studies evolving cities and urban morphology in the south, among which can be pointed referencial studies as the ones from the 1960's and 1970's as *Urbanization in Newly Developed Countries* by G. Breese (1966), *Uncontrolled Urban Settlement* by J.F.C. Turner (1966), *Community Development and the Planning Process in Latin America* by F. Violich & J.B. As6 (1967), *Problems and Planning in Third World Cities*, Pacione (1982), to the more recent initiatives as the *Endless City* (2009) and *Living in the Endless City* (2010) organized by the London School of Economics, the present study intends, through positionality and relational comparative studies, move away from purely comparative data, stressing entangled territorial histories and economic trajetories, understanding how instead of purely "searching for similarities and differences between mutually exclusive contexts" (WARD, 2009), one could, through comparison, create a dialogue and define lessons from one city to the other.



1.1 São Paulo's Skyline. Source: Patricia Fernandes

URBAN MORPHOLOGY OF THE SOUTHERN CITY

How can we define the urban morphology of the southern city when the very own concept of southern city is in itself something yet to be explored?

The current experience of development, production and reproduction of the urban space observed in the contemporary cities – also itself an object to be defined, as can be seen through the proliferation of its conceptualization, from the colonial term Metropolis, to the 1990's term Global City, Megacity (FUCHS, 1994), Metapolis (ASCHER, 1995), City Region (SOJA, 1996), among others – is marked by diffusion and fragmentation.

As Bernardo Secchi (2012) explains, the lack of linearity, regularity and continuity is observed generally, both Northern and Southern cities, with all its spatial consequences, in a scenario in which the urban fragment is the minimal urban unit. Urbanism today, therefore, aims to address these questions through the fragment of city, its parts and projects; among a vision, an idea that relates and integrates the fragment to a broader notion of space and territory, in its disciplinary approach of space (SHANNON, LOECKS AND DEMEULDER, 2010 and SECCHI, 2012).

However, this contemporary process of acknowledging, developing, producing and reproducing the city through developments and redevelopments¹ (Ananya, 2009) of existing territories, as modernity itself and its consequences², was led in very distinct and particular ways in each city, and moreover each global hemisphere.

Engraved by discontinuities and their own “unfinished project of modernity” (Habermas, 1997), the cities of the Global South grasp the contemporary urban transformations in very a particular way – or ways -, distinct from the cities of the Northern/ Western countries ideology – central, developed, equipped or any other of the possible terms that better suits the occasion. The Western/ Northern modernity in its peak during the period between-wars was continuously copied and adapted to lower latitudes during the second part of the twentieth century. This copying process was carried away without introducing entirely the solutions for the problems originated by the changes on the means of production and the social organization, perceived in the northern countries since the end of the Seventieth Century, but only stretched to the southern hemisphere much more recently, over the twentieth century. As Diane Davis (2012) points out in her talk about Latin America, even the implementation of the modern plans and projects was done partially, selecting parts of the holistic modernist vision, most of the times ignoring what could have being solutions for the widening urban enclaves in the south³.

Thus, here, in the South, the contemporary experience of urbanism and the urban phenomena, in spite of being mimetic, is distinct, since it starts with diverse pre-existences, common to the Southern Cities, assembled by means of simultaneously faster transformations, different local traditions, cultural expressions and a range of diverse elements which ultimately affect space. Moving away from the urban theory, which discusses this as a simple mimetic process or late modernity, the diverse and distinct conditions in which they occur are here the argument.

The city, even being the motor of the industrial economy, cause and product of industrialization – the birth of any capitalist process⁴ – is also here considered as the physical space, the stage where all the economic processes and stakeholders act and frame their desired, intended, predicted, planned or induced outcomes.

According to the Positionality concept, whenever dealing with urban studies, it is essential to take into account the perspective from where each urban event is located and when did it hap-



1.2 Belo Horizonte. Source: Giorgio Ponzio



1.3 Jakarta. Source: Patricia Fernandes



1.4 Hanoi. Source: <http://culturedchaos.files.wordpress.com/>

pen (SHEPPARD, 2002; HESSE, 2010; MCFARLANE, 2010). Whenever dealing with economic growth, development and urbanization of Southern Countries and their fast-urbanized cities, it is necessary to look closer to the processes involved in their growth and reproduction, the economic growth's spatial impacts – i.e. urban morphology – demographic shifts such as migration and economic/ spatial deviances, as informality.

Regarding spatial impacts of urbanization in a broad sense, the Brazilian economist Celso Furtado (1971; 1998) discussed the matter over the seventies and in the eighties, while observing the recent fast urbanization processes in Brazil, explaining what he called the “dependency” of Southern countries and their center-periphery relations with the North, as partially the reason why the spatial outcomes of development – in other words, modernity – are different in the North and in the South. Dependency theory and Underdevelopment under his argument focused mainly in the environmental consequences of fast industrialization and urbanization in Latin American cities. According to the author, whenever dealing with development and economic growth policies, one has to consider center-periphery relations and the principle of underdevelopment economic growth as “the increase on productivity through a simple geographical shift of capital, to obtain advantages in the international commerce, without shifting the techniques of production” (Furtado, 1998). In a certain sense, this is generally observed in the southern cities.

For him, it consisted of a process of copying the industrial systems from the central countries, through high levels of accumulation and consumption of a privileged minority, at the expense of natural resources and cultural homogenization, argument consistent with the more contemporary Positionality theory authors, such as SHEPPARD (2002), when mentioning the super-exploitation of the work force in such conditions, or DAVIS (2012) when examining the production of Latin American Cities in which a national elite, influenced by global economic forces, controls urbanization processes.

Even before the “sustainable development” term was coined, FURTADO (1998) highlighted that these approaches of economic growth and development based on the “rich countries” model done in a generalized way – among “non-rich” ones – would eventually culminate in a global ecosystem breakdown, calling for “new political approaches of a new development conception for all, in order to preserve the ecological balance” respecting “cultural identity” (Furtado, 1998; apud Cavalcanti, 2000). Therefore, as SHEPPARD (2010) concludes, even in an economic global era, there cannot be a single path for development, meaning that “even if all places adopt the same approach, not all gain from it” and pre-existences have to be taken into account.

Informality is a concept engraved in Latin America’s urban theory (ANANYA, 2009), even though is generally perceived in the cities of the global south, as much as economic informality. It is an occurrence explained in the context of Southern Cities modernization and capitalist development, where informality happens within the scope of the state – since it allows it, when there is no offer of alternatives – , it is legitimized as a spatial mode of production since it is inscribed in the capitalist mode of spatial production and is not anymore related only to the urban poor, since it is now also commonly related to informal spatial privatization, subdivision and addition of space (ANANYA, 2009) even in considered formal areas. Therefore informality, in this sense, is a spatial modus operandi, related to broader issues such as democracy, governance and dualities (DAVIS, 2012) in the Global South.

According to the definitions of Maricato (2000) spatial informality and rural-urban migration, pointing out that the lack of sufficient affordable housing provision, by the state or by the private



1.5 Heliópolis: the densification of a typology. Source: E.B



1.6 Kebon Kacang: Informal settlement or Urban Village? Source: P.F.



1.7 Jardins and the typical typology mixture perceived in such areas of são paulo. Source: E.B.



1.8 Hanoi Social Housing KTT. Source: E.B.



1.9 Belo Horizonte. Housing Typology in Belvedere III / Nova Lima.



1.10 Jakarta Skyline. Source: E.B.

market, is the engine of the process of “illegal occupation” of urban land. As she notes, regarding Brazilian cities in general and São Paulo as an example, there is a strong dispute between public investments, traditionally oriented towards urban infrastructure that supports economic growth, rather than the promotion – or induction – of affordable housing, in consonance to what DAVIS (2012) called “prioritization” of modern urban planning.

The Dutch architect Winy Maas (2011) has a less pessimist point of view regarding such spaces, in the sense that she recognizes the special character of such organic and self-made territory. According to the author, these spaces are maybe the “resource of communities in the city”. The Urban Villages, as he refers, even though most of the times suffer from social issues, as Diane Davis pointed out, offer a variety of elements which today the “formal” areas of the city lack, calling the attention for the fact that these spaces in the southern city are slowly being transformed:

“urban village reserves highly interesting spatial characteristics: compactness, density, intermingled infrastructure, semi-public zones, and other qualities that a generic city does not have. On the other hand, an urban village may generally lack proper sanitation, lighting, energy, safety and structural stability. In the past decade, in response to the pressure caused by the growing population, many large buildings have emerged in numerous Asian cities, and they have gradually replaced those traditional, independent, and organic urban landscapes.”

Nevertheless, informal, illegal or spontaneous occupation of urban land is an intrinsic process of rural-urban migration, i.e. economic growth based on industrialization. In this sense the provision of affordable housing, directly or not by the public sphere, should be in the agenda of development policies, according Maricato (2001). Therefore, one can consider the illegal or informal settlements, common in most of Southern Cities, an important spatial impact of modernization and industrialization.

Many examples could be taken from a number of scholars specialized in each of these topics, such as violence and its effects on the urban environment (Caldeira, 2000), demographic shifts and its relation with the growth – specifically in Latin American Cities (Santos, 1982), economic dependency and the “myth” of the Global City (Ferreira, 2003 and Fix, 2007) among others, yet they are not the aim of the present research.

Here, the object of discussion is the space itself, its characteristics and its use, analyzed through its elements, under the lens of urban morphology, offered as the appropriate tool to read the city and the fragment, understood as the contemporary southern urbanism manifestations.

Therefore, the current research proposes a direct comparison of these elements, using fragments of four cities of extremely diverse socio – politic and cultural backgrounds, but with similar economic, industrialization and urbanization processes.

The proposed study objectives are to discuss the spatial outcomes of the main planning policies and economic dynamics, comparing its effects in the historic and contemporary production and reproduction of Sao Paulo, Jakarta, Hanoi and Belo Horizonte’s space, aiming to answer the following questions:

Which are the consequences of the process of urbanization and which are the similarities between each city and its development?

The economic development of the three countries has been historically dependent of the foreign economy dynamics. Therefore the hypothesis is that, over time, there have been similarities of these processes regarding their spatial development and transformations due to the increase of urbanization, migration and informality. The comparison of these spatial processes is of extreme importance concerning the exchange of knowledge “south to south”, propitiating synergy between countries and cities of similar economic dynamics, but with diverse cultural environments.

The logic concerning this context is that the production of the city is dependent of private investment and, whenever there is a lack of private investment in an specific sector, i.e. whenever spatial development is not induced – driven by public or private stakeholders –, urban citizens and rural migrants self-organize several city functions and build city fragments, constructing spaces based on informality, in a spontaneous – in opposition of induced – way. The relevance of such comparative research is to identify similarities on how these spontaneous territories were established and how each city has coped with them, aiming to start a discussion regarding which possible outcome could “southern” tools to better integrate all the fragments of the contemporary city.

The key features of what here is being called spatial consequences of a global economic process are: urban form, urban fabric, building typology and paradigms of urban planning as tools for inducing development in one hand, versus the spontaneous production of the city in other.

It started with an assumption, confirmed by empirical observation, that there are similarities in the cities of the South.

Being that the case, in what extend there can be a dialogue between these cities, so different culturally from each other and so similar in their positional and dependent circumstances?

Which are the common consequences of fast urbanization and which are the similarities between each city and its development?

How can one learn from the experiences observed in the other?

The relevance of the proposed comparative study is to propitiate the exchange of knowledge between cities that face similar conditions, regarding economic processes, industrialization and urbanization today and over the twentieth century. The cultural differences however counterpoints the similarities, when one realizes how each city has chosen to deal – or not – with the spatial consequences of development during the last decades and what is the final urban form today.

1. ANANYA (2009) offers an overview of this conceptualization through the marxist geography, based on Harvey’s work dealing with the production of space, redevelopments and gentrification in the Northern context. The author suggests in his argument that the consequences of capitalist production and reproduction of space are different in the other parts of the world from the ones found in EuroAmerican cities, something initially not taken into account by the authors and not always considered when generalizing these findings.

2. ANANYA (2009) refers to the consequences of modernity as “violence”, attempting to qualify the rupture it signified. This violence, according to the author, is found everywhere, not only in the non Euroamerican cities.

3. Diane Davis in her lecture calls the attention to the Latin American Modernity project and its spatial consequences, especially regarding duality, exclusion and violence with an argument which can be also widened to environmental liabilities (DAVIS, 2012).

4. MCCANN & ACS (2011) point out the four elements which characterized the capitalist development leading to the (economic) globalization as “increasing industrialization, urbanization, trade and economic growth” forming what is known as the “agglomeration effects”. Therefore urbanization is a direct consequence of industrialization and was, in the beginning of the process, directly related to the increase of flows and economic growth in the beginning of the capitalist development forming growing Metropolises from the seventieth to the nineteenth centuries and stable (Northern) global cities in the twentieth century. The process is however distinct in the (southern) megacities, where size still matters but urbanization – in a faster rhythm – is not necessarily related to economic growth and competitiveness.



1.11 Jakarta: tower sitting on shopping mall podium. Source: P.F.



1.12 São Paulo: Housing Typology of Higiropolis. Source: Eliana Barbosa

Methodology

“Form is the solution of the problem once put by context”
LAMAS, 1993.

To enable the reading of such different cities, urban morphology was the methodological instrument chosen to grasp these spatial outcomes and the understanding of the spatial experience. Defined the territories, it is time to grasp how the set of urban morphology elements were used to approach these areas.

As Lamas (1993: 26) states, physical form of space is a reality for which a number of non-spatial factors contribute, emphasizing the importance of socio-economic conditions, reflecting directly on urban form, resulting of voluntary space production, the creation of a humanly valid landscape, with diverse aesthetics, ideologies, culture, behaviour and sociability.

Consequently, the contemporary city holds consolidated fragments, each with their own specific morphology and materialization processes, subject of evaluation. As the author emphasizes, form is not only a pure spatial outcome of economic processes: “the city is not a simple determinist product of the economic, political and social context. The city is also the result of theories and aesthetic positions of its architects and urbanist” (1993), but also, especially in the South we must add, its inhabitants. That is why mapping scales, typologies and culture is important while dealing with urban morphology. Nevertheless, no matter what can be said, all the different readings of the city can only be possible due to their physical and material aspects: “All instruments of reading read the same object – the physical space, the urban form” (1997).

Urban morphology, therefore, studies the form itself and the phenomena from which the form emerges. To enable their reading, a set of elements can be used to hierarchize form, according to the different city fragments, revealing the multiple aspects of space. In order to do so, it involves the identification of parts – fragments – and its articulations – structure – and the scale of analysis determines each relevant element.

Finally, since “any form has to satisfy a set of criteria which specify (design) a context” (Lamas, 1993), a set of these scales and elements were defined to reveal the spatial outcome of the each chosen city’s particularities:

CITY SCALE: Defined by the urbanized area, a man-made space which counterpoints natural and built elements, the different fragments and their connections, or structure as the elements of analysis.

FRAGMENT SCALE: Defined by the different fragments of the city, considering the mesh, the empty spaces (public and green spaces) and the landmarks and urban references as the main elements of analysis.

SAMPLE SCALE: A sample of the fragments scale, delimited by a 400 by 400m window, which is defined mainly by Solids and Voids which embraces minor elements, activities and flows.

The solid space can be identified by the typologies key of correct and global interpretation of the city as spatial structure, which, even though being the minimal elements, is one of the most important, since it composes the other elements of urban form (the block and, as a consequence, the fragments), also giving character for the whole city composition.

However the voids – streets and open spaces – hold a wider variety of types, functions and elements – fixed or not – which alters significantly the experience of space, therefore its perceived form.

The urban activities, not fixed elements, are responsible for a complete transformation in the experience of space, therefore changing urban form, the variety of shape, use and flows of the voids consist of another aspect of the character territory.

This way, the city scale holds several city fragments, in which a set of diverse smaller elements appear. The identification of these elements depends on the location – local conditions and culture – as much as on the type of fragment. Using these elements, a relational comparative study (MCFARLANE, 2010) is proposed, considering the comparison of each city's elements, within itself and among each other.

In such way, considering the sequence of Blocks, Plots, Urban Equipment and Typology it is expected that the reading of a SuperBlock in Jakarta – understood as Block, Plot and Typology at the same time, is different from the reading of a Residential Tower in Sao Paulo, even if both are in an induced city fragment. At the same time, the urban equipment elements among the Spontaneous Fragment are much more related to the local economy, street life – as Prof. Jo Santoso defines as the fifth layer of Jakarta (SANTOSO, 2008) - and the fluidity of these spaces, rather than being simply fixed pieces of urban furniture.

There is no reading without a dialogue, a pre-concept, an implicit comparison between what's being read and the repertoire of the interpreter. The richness of the proposed methodology is the shared view and the combination of readings from such different background researchers, based on the same spatial material and ground experience, since, as Lamas stated:

“To exist the image (as a phenomena related to perception) is necessary a relation between the object and the observer (...) however, despite the dependence from the observer, it depends first of the characteristics of the form itself.” (Lamas, 1993: 61).

Therefore, it is proposed a comparative study of urban morphology, contemplating first the extensive reading of spatial scales and trajectories of each city through literature review and secondly a process of mapping, field work and primary data collection and finally the compilation of material and the comparison itself, through the assessment of the spatial scales mentioned above.

Initially the cities are compared two by two: Sao Paulo versus Jakarta and Hanoi versus Belo Horizonte. São Paulo and Jakarta were placed together due to their presumed similarities and its space comparison aiming to find the particularities of each case, whereas Hanoi and Belo Horizonte were put side by side due to their differences, aiming to find possible similarities in each studied spatial scale.

The combined comparative research offers such variety of conditions longing to propitiate a better south-to-south understanding regarding late industrialization and fast urbanization in peripheral conditions, making explicit some of its contemporary spatial outcomes.

According to McFarlane (2010), a new approach on urban studies can emerge from North-South comparative studies if the paradigmatic concepts of Northern Cities and Southern Cities are put behind for a moment while urbanism and the city, as simple concepts without previous prejudice, are discussed. According to the author, comparison can act both as a learning tool and a strategy for change, adapting identified concepts in a translation dialogue. Therefore, comparison, in this scenario, can lead to collaborative formation of (new) objects or concepts. Off course, the author, while dealing with North-to-South research comparison, debates the necessity of what he calls “more democratic” and diverse urban studies (2010: 728).

Yet this is not the main concern of the current research since

on a South-to-South exchange of thoughts and experiences there is no such process of subordination in which the ‘Developed’ teaches the ‘Underdeveloped’, as the author suggests. All to the contrary, the proposal here is to learn from one another, acknowledging that cities in the South are different, not worst, than the cities of the North and that a horizontal dialogue between these southern cities could guide urban studies in the twenty first century, in opposition to the North-South hierarchical relation that oriented urban knowledge since the nineteenth century.

This goal calls for some etymological debate and possible redefinitions since the notions First/ Third, Center/Periphery, Developed/ Developing, Equipped/ Non-Equipped and even North/ South can easily be the target of discussion.

Despite the urge for a better terminology to explicit the diverse range of urban conditions, here, the etymological discussion will be carried out regarding urban morphology and the contemporary Southern City fragment. To assist the dialogue between different cities and researchers the terms formal and informal were initially proposed to determine and classify the urban fragments and samples of the chosen cities.

Ground experience proved that these terms are out-dated and not anymore related to current dynamics of such contemporary cities. The terms Formal/ Informal, Legal/ Illegal, Planned/ Unplanned involve notions and prejudices that are not necessarily relevant when dealing with urban morphology. A formal territory, as Jardim Canadá in Belo Horizonte, can be considered of less spatial qualities than the “informal” Kebon Kacang in Jakarta.

The terms Formal/ Informal, Legal/ Illegal, Planned/ Unplanned are related to property rights and urban regulations, which do not qualify space and do not define its shaping process in the South. Even among the researchers involved in the present paper there was not an agreement among what exactly the terms meant considering the reality of each studied territory.

Is the Formal necessarily planned? Is the Unplanned necessarily Informal? Is there such a thing as a post-informal? Is the vernacular necessarily informal?

The shared fieldwork was decisive to show that the traditional formal/ informal classification was not adequate to deal with the spatial conditions we were facing, neither the processes we intended to tackle.

Therefore, for the purpose of this report, in the lack of more suitable terminology, Spontaneous Fragments and Induced Fragments were the terms defined to specify and distinguish the types of urban fragments we are dealing with, opening the possibility for further discussions. We believe that these terms, Spontaneous and Induced, are related better to processes of occupation and transformation of the territories, rather than their tenure, dialoguing adequately with cultural dynamics and landscape character.

SP|JK|HN|BH

The four chosen cities hold stories entangled by complex global economic processes, which specify the importance of investing on South to South exchange of experiences, regarding urban environment and the flow of events leading to the expansion of the southern cities.

Sao Paulo and Jakarta were chosen due to their importance and economic relevance on their specific contexts, Latin America and South East Asia, respectively. The expansion of Sao Paulo –both spatially and demographically – is closely related to its process of industrialization and its private-led model of urbanization. The historical development of the city is closely related to the promotion of regional scale mobility infrastructure, conceived as means of production and distribution of industrialized goods. Until de 1930 the city grew densely following the rail line initially created for the coffee transportation. Afterwards, once the industrialization of the metropolitan area increased, the state and national roads were the guidance of development, transforming the previous structure of the city, inducing the development of an inner city road system, with the national park as a northern edge and the two water reservoirs as a southern edge of the city's expansion, with no east-west limit so far.

As a consequence of the planning policies and economic trends of the post-colonial transition, Jakarta over the 1960's and 1970's encountered a real estate boom with the development of new towns in the suburban areas, as well as new Central Business districts around the central area. Historically, even before independence, the city grew from the northern port to the south, a direction emphasized by the road system. Over time a linear growth was perceived along the main transport axes and the urbanization east west was induced through the creation of suburban neighborhoods in the west and the establishment of industrial activities and working class neighborhoods towards east (SURYONO, 2012).

The *Kampung*s - as the favelas in Sao Paulo over the 1950's and 1960's - played an important role in the city, providing affordable housing for newcomers among the formal developments. The construction boom slowed down with the Asian economic crisis in the late nineties, when the country became extremely dependent of private foreign investments and its economy mainly based on the rising service sector. This growth increases the development and densification of new central business districts, commercial areas, luxury apartments and town-house compounds, collaborating to a new phenomenon, called the *Mall Clustering* (SURYONO, 2012) in which the new developments follow the location of existing *Malls*, causing sometimes the decadence of the older one. The housing market is highly dependent of the private sector, with the government playing a very small role in providing housing for the poor. The growth of *Kampung*s is therefore still significant in the fabric of the city and most of the times their privileged location is the reason why they are constant threatened of eviction, as targets of land speculation and spontaneous processes of gentrification.

Belo Horizonte, although being the first planned city of Brazil inaugurated in 1897, faced since its inauguration and most intensively in the last five decades a fast and disordered expansion process. The north and west part of the city suffered from the lack of public control of the land use, allowing – or inducing – the combination of industrial development with extreme demographic growth, configuring a poverty pole of attraction. In another hand, the south-edge neighborhoods suffered intensive promotion of high-class residential blocks, starting from 1996 on with an amendment of the legislation inducing development – having as a consequence the real estate boom of the 2000's. The northern part, historically occupied by working class neighborhood received recently a series of investments in infrastructure inducing its development, such as the new administrative city complex; nevertheless real estate market did not aimed at the area so far. The city, however, still shows strong connections with its natural features, reinforced by the steep topography; and its public spaces – mainly represented by its several squares and *Pampulha Park* – are still important gathering places for its inhabitants.

The model so far presented for Hanoi is mainly concerned with the expansion of urban infrastructure and services, necessary to assure growth, but not so focused on the environmental and cultural aspects of the city's landscape. As São Paulo in its economic growth period, an official road-based urbanism and an unofficial – or spontaneous – instant urbanism are imposing themselves against the natural landmarks. Urban development is strictly controlled by the state through the planning of new suburban neighborhoods, allied to private investment. However, despite the decade long period of intense spatial development, the city still shows strong cultural identity, natural features and agricultural landscapes.

Therefore, the proposed study intends to investigate deeper Sao Paulo, Belo Horizonte, Jakarta and Hanoi's patterns of urban form, expose some of their tissues and typologies, reaching a better understanding of how these cities have historically coped with economic processes and how do they work today, opening the possibility of a broader discussion consisted on how do these four cities might learn from the experiences observed in the others.

CITY FRAGMENTS

The fragments of the four analyzed cities represent the variety of urban conditions found in the global south. Each chosen fragment was depicted through its spatial structural elements, visited and analyzed revealing characteristics of also non-spatial layers, through the experience of space.

Similar fragments were chosen in Sao Paulo in Jakarta, both induced and spontaneous, to reveal the possible differences in each city's production and use of space. Jardins is an upper middle class neighborhood, constructed among the twentieth century, which went through a series of typological modifications and can exemplify the traditional formal development of the city, both in its process of occupation and most common typologies. Thamrin Boulevard and Hotel Indonesia area exemplify Jakarta's linear development, the recent process of Mall clustering and the important synergy between spontaneous and induced areas of the city. The induced fragments chosen represent the urban fabric formed in the 1960's and 1970's, evolving until today in both cities. Both areas exemplify how the economic trends and legislation shaped such areas in each city's context. Whereas, both Heliopolis and Kebon Kacang can be considered one of the most important Favela and Kampung, respectively, of each city, representing the spontaneous and indigenous urbanization, with similar processes, yet distinct results.

Yet in Hanoi and Belo Horizonte, different fragments were chosen, with one common characteristic: being developed or redeveloped recently - in the past fifteen years - and their peripheral location regarding the city center, so they exemplify recent growth and development of the two cities, located in the edges of the urbanized area, part of a process of recent urbanization, mostly due to recent economic expansion.

Linh Dam, in Hanoi, is a middle class area constructed based on a detailed neighborhood plan, a successful example, since it is fully occupied, of controlled urban expansion of the city, whereas Belvedere III is an upper middle class neighborhood constructed entirely through private initiative, enabled by a law amendment which allowed its development, disregarding the overall plan for the city, exemplifying a common occurrence, especially in South America, the "taylor made" urban regulations and the influence of real estate capital. While Van Quan is an ancient village in a process of densification, redevelopment and currently under demographic changes with the loss of its original population, Jardim Canada is a recent peripheral allotment in the metropolitan region of Belo Horizonte, which original shape, character and inhabitants are rapidly changing due to a spontaneous process of densifications and re-division of plots.

Sampling these eight fragments, offers the possibility to understand the different character of each fragment, exposing the cultural aspects of the use of the space in each given spatial condition. The sample of the fragments shows in detail the activities held in public or open spaces and the typologies which together gives a character to the place.

Therefore, the given scheme offers - in the hierarchical relation of city, fragment and sample - the comparison of each of these fragments, which enabled the spatial disclosure of the urbanization process of the four cities, representing routes which are general in the southern context.



1.14 São Paulo: location of chosen fragments



1.15 Jakarta: lo

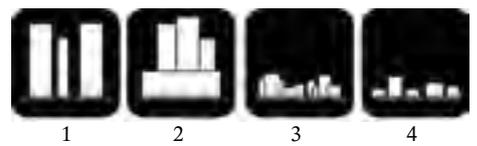


1.16 Hanoi: location of chosen fragments



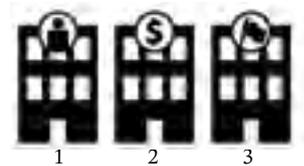
1.17 Belo Horizonte: location of chosen fragments

TYPOLOGY



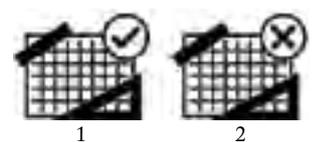
- 1.High rise isolated buildings
- 2.High rise grouped buildings over a common podium - SuperBlock
- 3.Low rise grouped houses
- 4.Low rise isolated houses

TYPE OF CONSTRUCTION



- 1.Constructed and funded by the community.
- 2.Developed and Constructed by Real Estate Sector.
- 3.Developed by the public sector, constructed by the Real Estate Market.

PLANNING



- 1.Designed / planned neighborhood
- 2.Not Designed / not planned neighborhood



2.1 São Paulo's historical urban insertion in the landscape. Source: The Berlage Institute Research Report N. 47. The Streets of São Paulo 2011



2.2 Sé, at the center of São Paulo in the beginning of the twentieth century. Source: FOLHA SP.

São Paulo

São Paulo is the biggest South American city and is responsible today for around 14% of Brazil's GDP (PMSP, 2012), summing up around 11 million inhabitants and the impressive amount of 22 million inhabitants in its metropolitan region. São Paulo went through waves of uncontrolled spatial and demographic growth along the 20th century¹, a very common phenomenon to southern cities, alternating years of expressive economic expansion and depression². Therefore, the city faces nowadays several challenges in order to improve its urban environment. It reveals, in its space—continuously under construction, the successive urban policies through which it has passed and their effectiveness – or not – to order and guide its form.

In order to understand the urban evolution of Sao Paulo and its form today, it is important to approach the historical process that shaped it, analyzing its economy, its relations to the real estate sector, the urban policies and demographic trends.

Founded by Jesuit priests on the 16th century, it rested as peripheral Jesuit village, not related to the main economic driving forces of the country until the end of the nineteenth century and beginning of twentieth century.

Driven by the coffee economy boosted by the creation of Sao Paulo Railway, constructed in the mid- nineteenth century, the city slowly started to transform itself; as the direct connection to the port became possible, it enabled a social economic transformation, the appearance of a small tertiary sector related to the coffee trade, a growing middle class and the beginning of the industrialization process.

However, it was only during the 1930 s that the city established itself as a metropolis in the Brazilian scenario, growing in a rate that called the attention of the authorities, a process related to the end of the coffee trade period.

The railway had an important role to the spatial development of Sao Paulo's state, since a great amount of its cities were founded in its surroundings and following its path, during the time that Santos Port was the main port of the country. However, it was in the city of Sao Paulo that the coffee capital found an ideal environment to accumulate and reproduce, having the axis of the railway as a guide, structuring the first urban expansion of the city. The electric tram was the main transport system and due to its logic, the center of the city grew continuously and densely along its East-West and North-South lines.

The coffee trade crisis – initiated with the 1929's economic crash and its global unfolding - enabled the city's economic and spatial transformation. The capital once invested on coffee was spread to other sectors of the economy. The city started to receive flows of rural migrants searching for better opportunities, since several coffee plantations went bankrupt. The equation of abundance of available labour force from the coffee fields and capital surplus created the perfect environment for the implementing the industrial sector for durable consumer goods (TOLEDO, 2001).

The Second World War affected the English company Cia. Light, responsible for the tram system, which gradually stopped maintaining the trains and tracks and soon enough the system was considered obsolete. In the mid 1940's , the automobile industry started to be implemented in Sao Paulo, therefore the maintenance of the tram system was not anymore in the political agenda of development. The horizontal expansion of the city, already then considered not sustainable, an “anomaly due to the immeasurable peripheral expansion of the so called urban area, with the inclusion of allotments entirely deprived of basic urban equipment” (SAGMACS Vol V- 3, APUD FONSECA. 2004), was never discouraged due to the pressure made by dominant groups and land owners, profiting with the city's sprawl over the 1940's and 1950's.

*“The most fecund period of plans and ideas for São Paulo was from the 1950 on. The Metropole, as we see today, is a product of this period, reason enough to elect this as the period when the city gained a new rhythm and its definitive spatial character”*³ (FONSECA, 2004).

Until the 1940’s the Real Estate businesses produced mainly high-rise buildings only for the tertiary sector in the old center of the city and housing developments on the surrounding central neighborhoods, focusing on the rental market. This production and its capital, still very attached to the coffee economy – as an investment of the surplus of coffee production – had the aesthetic paradigm of the European cities as the model to be replicated (SOMEKH, 1994). The rental production had a very interesting logic, intrinsic to the financial logic that produces it: had to be profitable, well located in areas with existing and consolidated urban infrastructure, therefore with high densities along the existing tram lines (SOMEKH, 1994-70), and, most important, durable, with high quality design and materials, to avoid current maintenance which could decrease the profit.

In 1942, the populist and development-oriented president Getúlio Vargas enacted the Tenure Laws (Lei do Inquilinato) and the renting investment became of great risk. Rent prices were frozen and the expansion of renters’ rights started a process of capital migration from rental production to the production of units at fixed price, excluding a great deal of the population – proletariat, lower middle class and the poor – enabled to purchase a housing unit in that system due to the high prices and inflexible payment conditions.

One of the main characteristics of the renting market is the immobilization of capital. It was necessary to the city’s economy that this immobilized capital was applied also in other sectors, mainly industry, instead of being constantly applied in real estate, in what Fonseca (2004) defines as the “necessity of modernization”.

According to the same author and Bonduki (1998), this transference of investments from rental housing to industry and finance was the real reason to enact the Tenure Laws⁴. It was vital for the “macroeconomic vision for the country” (FONSECA, 2004), that the immobilized rental capital would be transferred to the implementation of the industrial park and the consolidation of a national financial market, substituting importation.

Therefore, the informal occupation of peripheral areas emerged, as an opportunity for the less wealthy to purchase a plot and gradually construct single family houses, in a continuous process of opening new allotments, many irregular. This production also has its own consequences: extensive use of land, increase of density in under-privileged peripheral areas, worsening the constant need of incremental infrastructure.

From 1942 until 1957 the laying out of new roads and avenues guided the real estate development and a process of “verticalization” of the neighborhoods around the historic center occurred. The most common housing typology produced by real estate in this period were small studio apartments (kitchenette), less expensive and affordable for a wider range of population. These areas around the center became more and more expensive due to real estate development since they were areas with existing infrastructure.

With the stabilization of the production for sale, the Pension Funds started to invest on Real Estate, with a temporarily stable economy and the fixed price scheme.

Interesting to notice is the building typology of mixed-use small apartments, conceived with Modern Architecture concepts and methods, rationalizing the production and increasing produc-

1. Several authors have discussed São Paulo’s urban growth pattern, its reasons and consequences: Fonseca (2004) and Maricato (1997) discuss the capitalist production of the city and its consequences. Toledo (1994) focuses on how the changes of the modes of production have shaped the city over time. Bonduki (1998) approach is towards the evolution – or involution as he argues – of public housing policies and its effects on the city’s spatiality/ Rolnik, Kowarik and Somekh (1990) analyze the development of the city according to its plans and policies and Somekh (1997) elaborated an extensive study about the evolution of the high rise building pattern of the city and its role on the horizontal expansion of urbanization.

2. The Works of Otávio Ianni and Celso Furtado are very important, drawing parallelisms between western and southern development, especially relating city growth and peripheral capitalism.

3. Translated by the author. Original in portuguese: “O período mais fecundo de planos e ideias para a cidade de São Paulo é aquele que se inicia em 1950. A metrópole, tal como nós a vemos hoje, é um produto desse período, razão suficiente para que possamos delimitar o período como aquele que determinou um novo ritmo e uma configuração espacial definitiva para a cidade.”

4. Bonduki, in his work “Origens da Habitação social no Brasil” (1998), shows the complete list of laws and acts which restrained rental income growth, enacted between 1942 and 1963 (pg 213 -218). The author explains the reasons which originated the law: defense of lower classes, penalization to urban renters, instrument of economic policy and instrument to discourage real estate rental investment. (pg 221 – 245).



2.3 São Paulo's most commonly perceived urban form: an ocean of skyscrapers. Source: Eliana Barbosa, 2012.

tivity, making high-rise housing units affordable for the middle classes (ROSSETO, 2002).

In this period neighbourhoods (SOMEKH, 1987) in the south-west areas (Cerqueira Cesar, Bela Vista, Consolação, Perdizes, Jardim Paulista, Pinheiros, Paraíso, Cambuci, Aclimação), north (Bom Retiro, Santana) and east (Mooca) of the city started to be consolidated.

As the city grew through the constructions of new roads, new low-rise neighbourhoods were being established and the development ideology of the 1950's was decisive to shape the city's future. In 1953, the president Getulio Vargas created BNDE – the National Bank for Economic Development – enabling the construction of wide infrastructure – roads and sanitation with funds and technical support from the federal government (FICO, 2000), considered the first seed of holistic planning in the country.

Later, with Juscelino Kubistchek's Targets/Aims Plan (Plano de Metas), federal investments were oriented to “germination points”, in which cities or regions that were considered poles of attraction, for economic growth, received subsidies to accelerate industrialization, with severe consequences on the spatial development of the metropolis, including Sao Paulo.

According to Maricato (2003), the development of durable goods industry was the basis of the national capitalist accumulation, with the car industry leading the process in Sao Paulo, producing the main motivator of the horizontal expansion of the city.

From the 1950's on, all urban infrastructures aimed to adequate the city environment to the automobile flows. The development of industry and the federal investment in the metropolitan area of Sao Paulo had as a consequence an exponential migration flow and the a population increase of 72% from 1950 to 1960 (IBGE – Census). The federal investments did not aim only the city itself, but the entire metropolitan region and mainly its industrial park on the Southeast edge of the urbanized area.

Therefore it was in the fifties that the metropolis began to acquire the shape it has today, a time when planning was first used to order the city and the plans focused mainly on zoning and the arrangement of the road system.

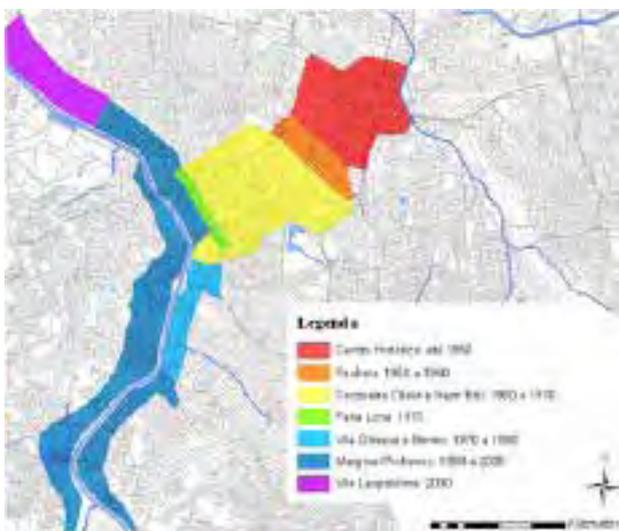
An explosive growth of the city – “boosted by many, managed by few” (ZMITROWICZ and BORGHETTI, 2009) - was perceived and, even though several plans were drawn from this point, the municipality could no longer cope with the provision of infrastructure. Two main reasons can be pointed out to justify this process: the lack of political continuity on the municipal administration and the character of the urbanization itself, promoted by the private initiative.

One of the first plans which considered most of the urbanized area was enacted in 1957, reducing the floor area ratio standards in the entire city as a tool to prevent higher densities, had severe consequences in the already dense center, aiming to establish a multi-centered city. The limitation led the developers to search for wider and less expensive plots to maintain their profit, looking for neighbourhoods farther from the center. Along the reduction of floor ratio area, a minimum quota of 35m² of plot area per unit was also determined, increasing drastically the apartments' area to a minimum of 140m², changing the most common typology from small Kitchenettes to big single family apartments. The high rise apartment buildings from this period on would focus on middle class as a main target, pushing again the lower middle class to the peripheral areas of the city.

The consolidation of the private automobile as the individual means of transport and the bus as the collective transport system made possible the sprawl of these “verticalization” processes.



2.4 Heliópolis skyline, an intricate labyrinth of houses, as the urban form of the informal city. Source: PMSP, 2010, available at: <http://favelization.com>



2.5 Labour Market historical Geography in Sao Paulo. Source: Nadalin, Iglioni (2010)

Previously concentrated around the historic center, urbanization was then possible in new areas and the real estate market starts to explore new locations with the opportunities offered by the constant increase of the road system.

The typology shift – from small apartments to bigger apartments – increased the operational risk of developers, since the fixed price funding scheme did not predicted inflation and bigger apartments were more expensive.

With the end of economic stability and the constant increase of inflation in the 1960's, the real estate market slowed its rhythm and a housing crisis, no longer exclusive for the less wealthy sector of society –, started in the city, as a result of the lack of real estate funding opportunities and the increase of land value.

As the economic and housing crisis became more serious, a military coup d'etat brought new logics to this process. The military government had a modernization and development agenda which needed the consolidation of the financial market in the country, enabled by the creation of the Financial Housing System (Sistema Financeiro da Habitação) and the Housing Bank (Banco Nacional da Habitação) in 1964, the nationalization of pension funds (Fundo de Garantia por Tempo de Serviço) allied to the National Development Plans (Planos Nacionais de Desenvolvimento – PNDs). The implementation of state based industry and the opening of the economy to foreign investments, propitiated an enormous economic growth in the 1960 and 1970, enabled the construction of infrastructure never before conceived, at the expense of the increase of external debt, clogged only with the second oil crisis of the 1970's.

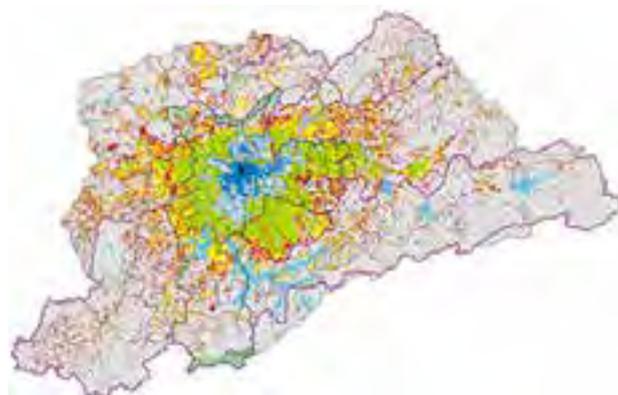
Initially conceived to mitigate the housing crisis, the housing policy of the military dictatorship changed forever the way Brazilian cities were produced and had serious impacts on the development and expansion of Sao Paulo. Allying public and private initiatives, the system was responsible for the creation of an impressive amount of funds applied to real estate, which, in a scenario of successive suppressed demand, spread developments beyond the consolidated urban area, aiming very diverse targets of population, from the very poor in huge social housing complexes in the outskirts as Cidade Tiradentes district in the far east, to the creation of new middle class gated communities beyond the river Pinheiros – up to that point the southern edge of urbanization – as Morumbi neighborhood.

The sophisticated financial system – used until today – used the recent nationalized pension funds to promote urbanization and for a while was responsible for much of the formal urban development in the city in a scale never before foreseen.

Meanwhile, nominated mayors were conducting major urban infrastructure led by a series of plans enacted by each administration aiming to leave their trace in the city's history. It is from this period the first subway line, the canalization of rivers and construction of the express avenues Marginais Tietê and Pinheiros, along the two main rivers of the city and a series of other express avenues, constructed to mitigate the heavy traffic and connect the different zones of the city, inducing and stretching development.

In 1971 one of the most important plans was enacted, the PDDI (Plano Diretor de Desenvolvimento Integrado) which predicted a reorganization of the city and a control of density through the severe restriction of floor area ratio was determinant to consolidate the spread of high rise building throughout most of the city, giving it its “concrete jungle” character perceived nowadays.

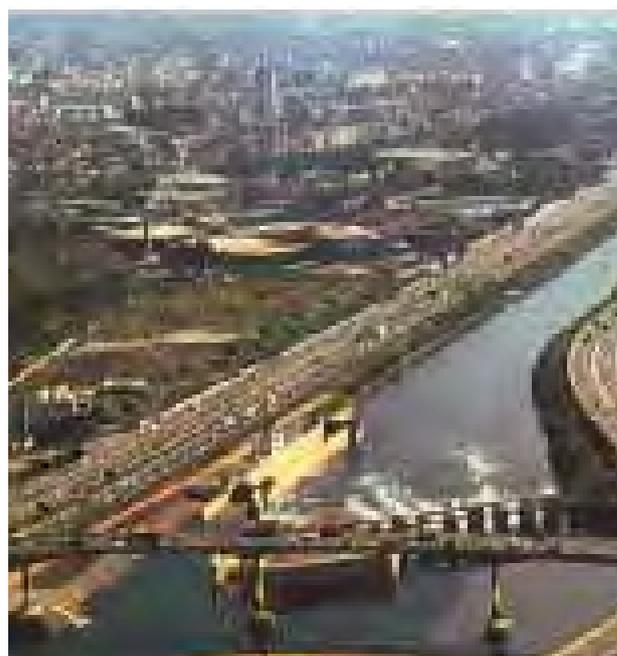
The economic expansion however did not survive the international oil crisis, slowing down its growth rhythm in 1973, over the late 1970's and 1980's the country entered in a profound stage of economic depression, which affected drastically the



2.6 São Paulo's urbanized area evolution. Source: SEMPLA, Sao Paulo. Brazil. 2007. São Paulo's urbanized area expansion – The scale of the automobile. Available at: <http://sempla.prefeitura.sp.gov.br/mm/panorama/pdf/pag03.pdf> -10/10/2010. Accessed 17.06.08 at 11pm
The urban expansion map of São Paulo shows that the major horizontal growth of the city was over the 1950's and 1960's (green area), when the automobile industry was established. The private automobile has great influence in its shape and from this period on the city was planned and conceived to adjust itself to the scale enabled by the use of the car. The latest expansion (yellow and red) consolidates the sprawl and diffusion, started in that period.



2.7 ROMISETTA ADD. Source: Barbosa, 2009. Add from a the Tribuna da Imprensa newspaper of 1961 of one of the first automobile entirely assembled in Brasil, called ROMI-SETTA, produced between 1956 to 1961.



2.8 Construction of the marginal express roads along Tietê River. Source: PMSP Archive. The construction os express roads along river characterizes the main urban intervention of the 1970's and 1980's, when sanitation funds were used to improve and increase the road system.



2.9 São Paulo's center expansion_ 1881



2.10 São Paulo's center expansion_1897



2.11 São Paulo's center expansion_1930

real estate market, the provision of urban infrastructure and the shape of the city. With boundaries of urbanization set in the 1960, the city passed through a process of densification, slowly filling the voids left behind by periods of vertiginous economic growth, mainly through small scale private initiative and “mutirões”: cooperative community built social housing developments. Another housing crisis occurred, the densification process of the peripheral consolidated areas, both formal and informal, simultaneously to a process of emptying the expanded center. By this time the southern environmental protected areas around the city’s water reservoir started to be illegally occupied, with serious environmental liabilities.

The crisis, a severe economic depression with inflation rates that could reach 200% a month were triggered also riots calling for elections and democracy, which eventually happened in 1988.

The democratization process in the late 1980’s and the economic stabilization brought new contours and rhythms to construction in Sao Paulo. Slowly through the 1990’s Real Estate and civil construction credit started to appear again and a new wave of development had hit the city-region in the 2000’s, period in which not only Sao Paulo’s municipality received an impressive amount of developments but also all the cities around it, mostly occupied by gated communities with diverse typologies – mixed use, malls, offices and apartments for all sorts of economic target.

After a nearly 15 years gap (after the 1971 plan a new plan was enacted in 1988, without being properly revised by the city council), a new master plan was enacted in 2002, elaborated based on the City Statute (Estatuto da Cidade, Federal Law 10.257/ 2001) with a range of urban instruments to control occupation and expansion, stimulate the recovery of decadent areas of the city and protect the inhabitants of several informally occupied areas. The floor area ratio of 2 established in 1972 was preserved as a base ratio, but a maximum coefficient of 4 was defined used upon request and payment from the developers, as a tool for urban funding, in a model copied from the USA urban policies and now exported throughout all Latin America.

Therefore, the Sao Paulo’s urbanization as we see today had spread in time over 30 kilometers from west-east, grew and keeps growing into the rainforest in the Northern edge and rapidly swallowed the reservoirs’ borders in the South.

Left: São Paulo’s center expansion process. Source: Pedro Sales, *Sem-pla*, Sao Paulo. Brazil. 2007. São Paulo’s urbanized area expansion. 1886/ 1930/ 1950. Available at http://www.ekosbrasil.org/anexos/operacao_diagonal_pedros1.pdf. Accessed 17.06.08 at 11pm.

Right: São Paulo’s Neighborhood evolution.

Source: Source: The Berlage Institute Research Report N. 47. *The Streets of São Paulo* 2011

The group of maps explain the formation of Sao Paulo’s current form on different scales. The expansion of the center process shows how do the tissue of the city was historically formed, whereas the neighborhood maps elucidates how do the combination of this different fabrics create the metropolis we experience nowadays.

This pattern was led by a process of continuous density limitations through the constant restraining of floor area ratio, successive housing crisis, in which not enough affordable housing units were produced facing the growing demand and the alternation of economic growth and depression.

Plans existed, but were never entirely implemented and followed for several reasons, including lack of political will. Over time major infrastructure projects were first depicted and afterwards disregarded and the result was the constant expansion of infrastructure due to the continuous urban sprawl and a road-based urbanism.

Over the last 10 years, Sao Paulo demography's remained stable but the city-region grew in its peripheral areas with the increase of population in other municipalities, continuing the historical sprawling process, consolidating the city's current urban form.



2.12 São Paulo in 1913



2.13 São Paulo in 1951



2.14 São Paulo in 2011

Source: The Berlage Institute Research Report N. 47. The Streets of São Paulo 2011

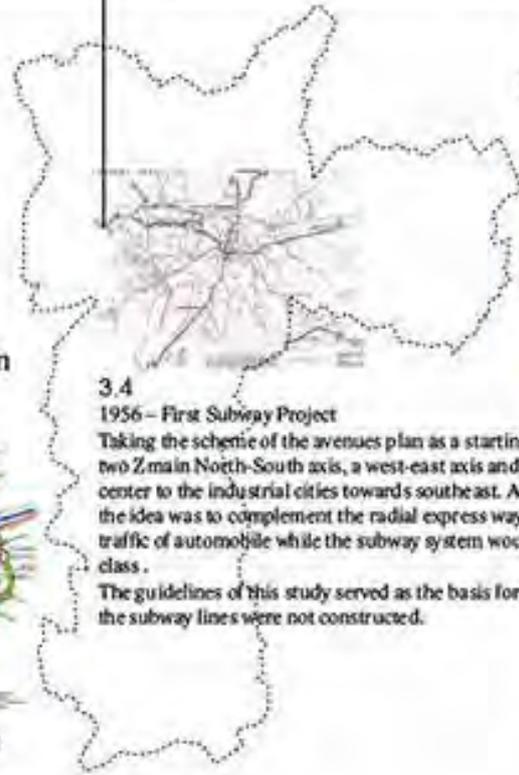
São Paulo over time

3.1
1927 - Road Map



Map Source: Zimbric and Borguetti, 2008.

3.4
1956 - First Subway Project



3.5
1957 - Master



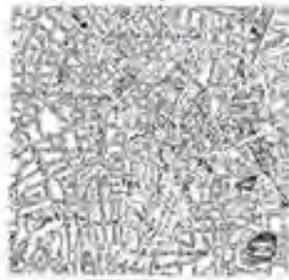
3.2 1930 - Avenues Plan Scheme



3.1
1930 - The Avenues Plan (Plano de Avenidas)
Diagrammatic scheme which became the paradigm for most of the future plans. It consisted on the establishment of concentric ring roads and radial avenues from the center onwards, considering existing paths and already predicting the subway as a complementary system. The subway scheme was not considered in the following plans until the 1960's.

3.4
1956 - First Subway Project
Taking the scheme of the avenues plan as a starting point the plan suggests two Z main North-South axis, a west-east axis and an axis connecting the center to the industrial cities towards southeast. According to its guidelines, the idea was to complement the radial express ways, designed to the luxury traffic of automobile while the subway system would benefits the working class.
The guidelines of this study served as the basis for the 1957 plan, although the subway lines were not constructed.

3.3 1940 - Sao Paulo's Center Map

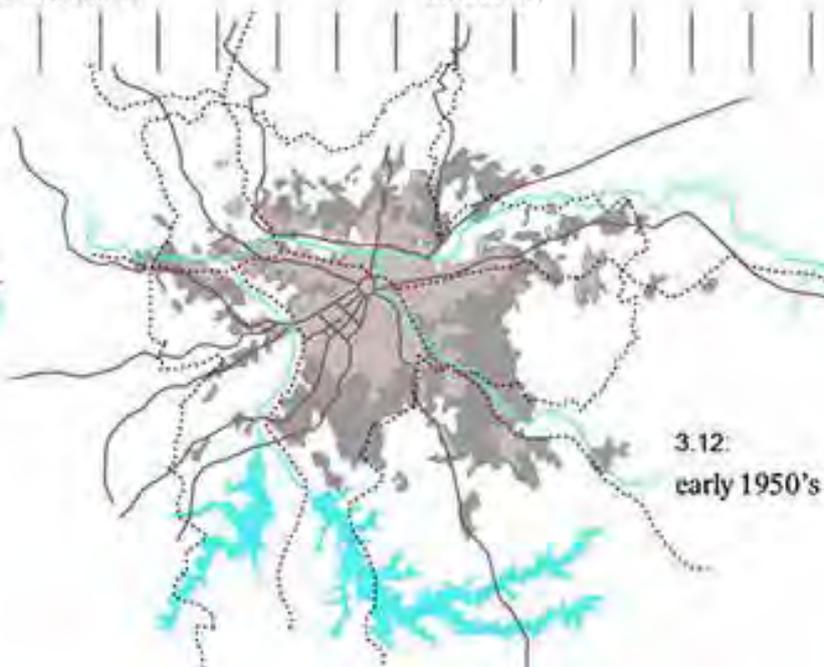


Population

Source: PMSR 2013

1940_ Sao Paulo: 1.326.260
Metropolis: 1.568.045

1950: 2.198.096
2.622.786



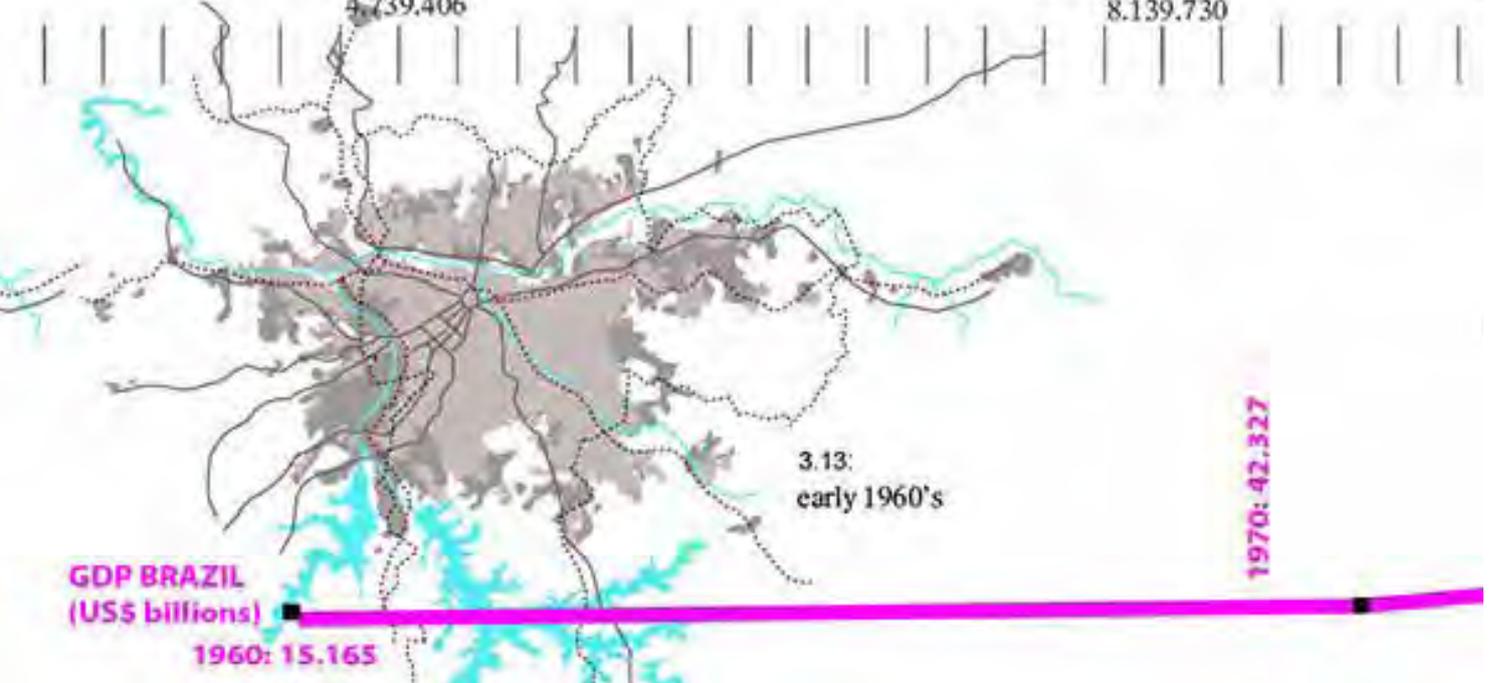
plan	3.6 1961 - Masterplan	3.7 1968 - PUB
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3.6
1961 – Masterplan of São Paulo Plano diretor da cidade de São Paulo.
Its main goals were:
•Planning the mobility, based on the road system and the suburban railines.
•Zoning
•Reorganization and de-concentration of public services and urban equipment.
•The road scheme was still a continuity to the Avenues plan, with the “Y” shaped north-south connection and the first ring road.
An economic crisis led to the lack of resources to fully implement the plan and in 1964 the military dictatorship started. In 1965, the nominated mayor Faria Lima initiated a new set project, the Basic Urbanism Plan (PUB – Plano Urbanístico Básico).

3.7
1968 – Plano Urbanístico Básico.
Abandon of the previous studies already under construction – Subway lines and proposes the first metro lines actually implemented, changing the previous path of North-South line, inaugurated in 1974.

The plan proposed a grid of express roads, in between low density neighborhoods and the subway lines would be corridors of high density, harmonizing the two systems, reinforced by the first zoning law.
The problem was that the state government was already involved in the construction of road infrastructure based on the concentric ring road system (based on PMDI, a plan for the Metropolis), incompatible with PUB, therefore PUB was left behind, since the municipality was subordinate to the state government.



Urban Development 3.8



1971 – The mayor Figueiredo Ferraz is nominated and creates the GOGEP - the general secretary of planning – and implements the PDDI (Plano Diretor de Desenvolvimento Integrado), Masterplan for Integrated Development.

Trace guidelines were made for: The road system, Metro system, Hierarchical organization of social and administrative equipment and urban infrastructure and basic principles of zoning.

The city was organized in Territorial Units of three levels:

- Areas between 100 and 2000ha, in a radius of 500 to 700m were delimited by arterial roads and would have a daycare, Childrens Park, Basic and Secondary School and a Neighborhood Park.
- Two areas of level 1 would have a Civic Square and a Sports field.
- Two or more of the level 2 would be areas delimited by express ways and would have regional council.

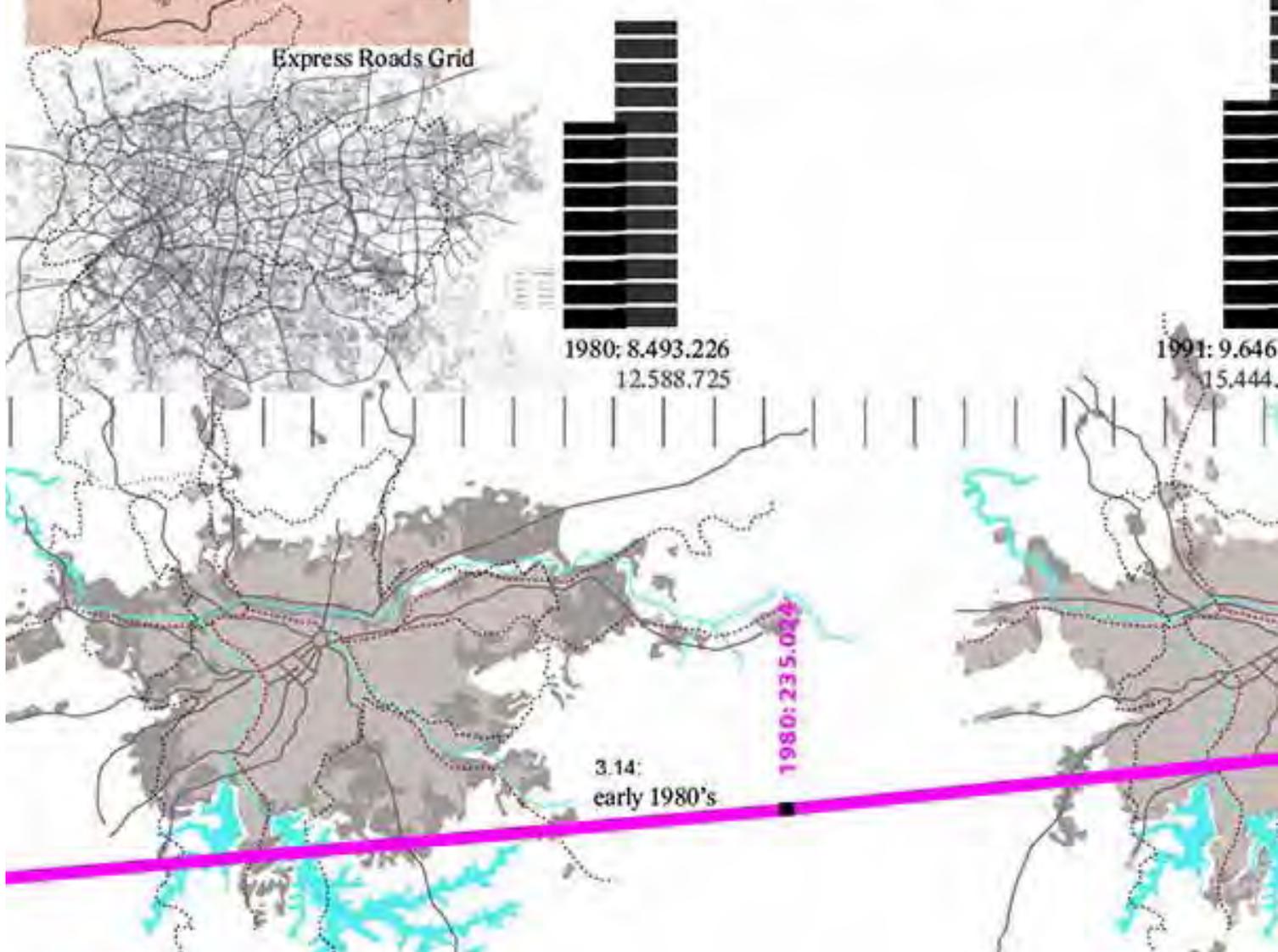
The plan was explicitly concerned with density, pollution sanitation and an efficient distribution of public services and equipment of the Territorial Units and was the basis of the zoning law nº Lei 7805 1/11/1972, which orientated the process of land use control and occupation.

The lower densities were placed in the peripheral areas, predicting less activities in these territories and higher densities in the expanded center, already served with public transport, efficient road system, subway, social and urban equipment.

The general floor area ratio for established for the city was two, exceeding medium floor area ratio of most of the occupied territory apart from the expanded center and proposed general mixed use, with the exception of already existing Strictly Residential Areas, Special Zones and Industrial Zones.

Late 1970's and 1980's: With the crisis, a new mayor was nominated, cancelling the guidelines for express avenues construction due to lack of funding. The only avenues constructed were the ones which coincided with existing rivers due to the fact that these areas had lower real estate prices and the possibility of capturing funds from Sanitation and Creek canalization, allying the construction of drainage, water supply

Express Roads Grid



Urban Development



Mobility



3.9

Urb

and sewage system to the construction of marginal roads.
 1988 – Masterplan
 Schematic trace, focusing the development of the city on structural corridors for cars and buses, as the north-south corridor .
 1991 – Masterplan (not approved) and the 1994 masterplan also had schematic traces, marked by the governmental decentralization of services.
 The economic stabilization brought back the opportunity of the construction of a new wave of road based infrastructure, as tunnels and bridges, financed by the Urban Operations, which also intended to finance social housing.
 The 2002-2012 Masterplan, enacted after the City Statute of 2001, brought a new approach to planning in the city. Proposed as an holistic interventions, through the decentralization of governance, participation and integrated proposals, with a new range of Urban Operations to be enacted.
 Even though the plan was holistically conceived, the long term tradition of decentralized planning, with the secretaries working with their own projects separately, only some of its guidelines was followed. Most of the green areas and soft modal infrastructure were not constructed. The Urban Projects of the new urban Operations were not enacted but a lot of progress on Social Housing has happened, with the Housing Plan and design competitions that assured quality to the new social housing developments.
 A new plan, called SP2040 if under approval on the city council, in which new approaches on planning and sustainability are being tested, where a vision for the city was constructed based on public participation and with a wider horizon of construction.

185
941

2000: 10.434.252
17.878.703

0 5 10 20km

1990: 461.951

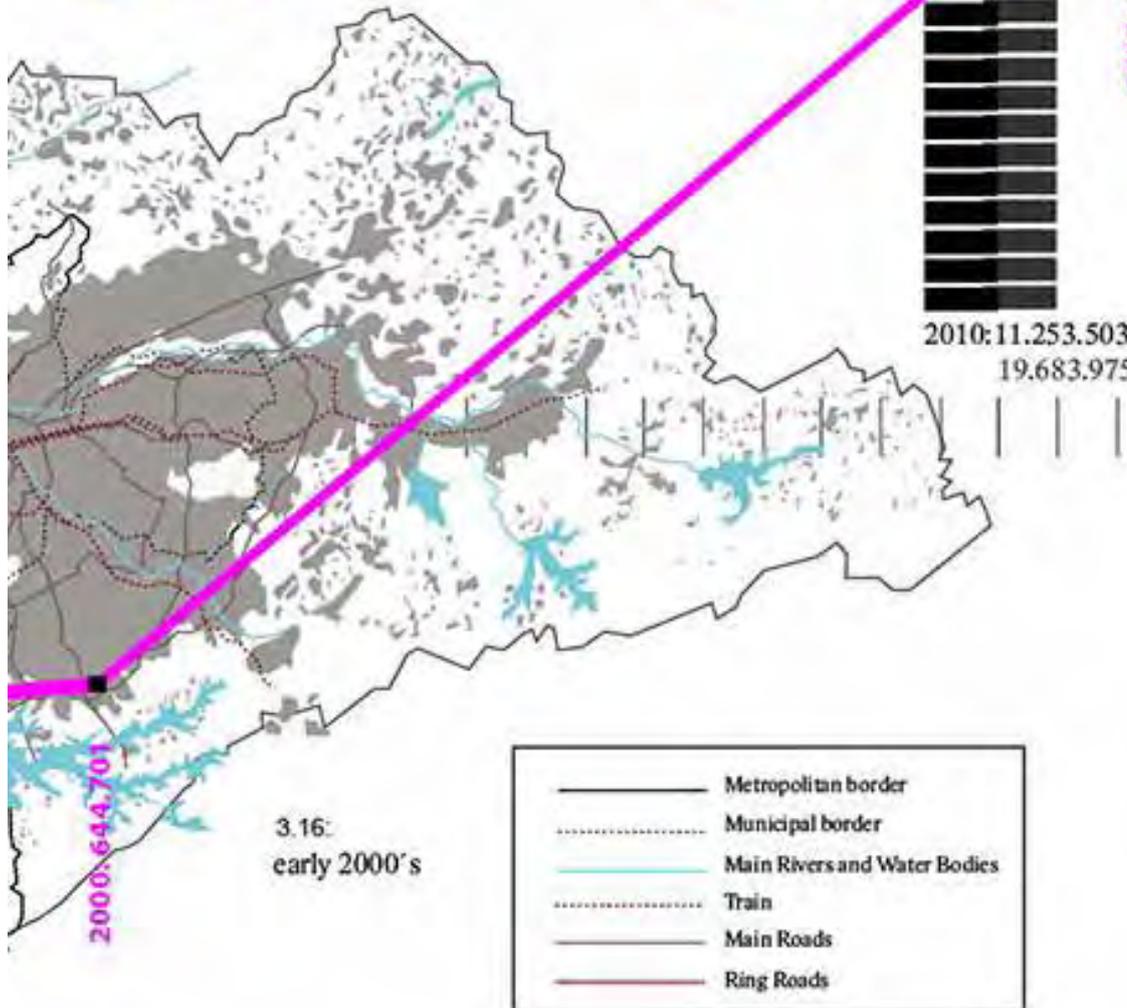
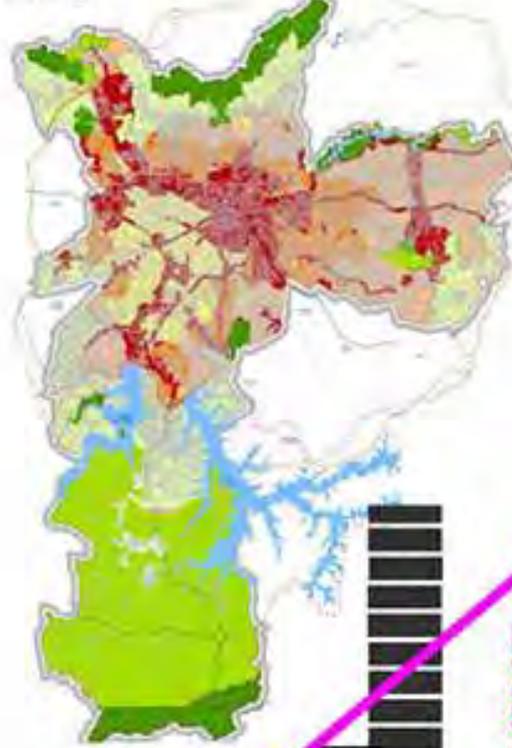
3,15
mid1990's

3.10
2002 - Masterplan

Urban Development



Zoning





4.1 Menteng: The image of Suharto's Modern Jakarta. Source: P.F.



4.2 Sarinah, the first department store of Jakarta. Source: P.F.

Jakarta

Jakarta, the capital city of Indonesia, is a very dynamic city-region in which most of the country's economic activities – trade, advanced tertiary conglomerates and industries – take place. Founded with the name of Batavia in the seventeenth century and important port since the early days of Dutch colonization, it is today the biggest city in Southeast Asia with around eleven million inhabitants and a total of eighteen million inhabitants in the metropolitan area. Such as in São Paulo, its spatial development was historically shaped by its economic and political shifts, as follows.

One of the city's most important and striking characteristics, the spatial dichotomy and ethnic diversity, comes ever since the early days of colonization, when most of the developments were happening beyond the city walls. Once the native Javanese population was not allowed in the inner-city, Batavia's outskirts were composed by a patch of rice-fields and kampungs - which literally means 'village' in bahasa Indonesian- of different many ethnic groups. The diversity was not only among Europeans and natives from the whole archipelago, but there was also an important presence of Chinese, Indians, Arabs and others, especially after the Dutch colonial government started importing slavery forces.

The colonial plantation exploitation was the main economic activity of the country, with controlled development and expansion of the city, enabling a continuous relocation of the colonial bourgeois to southern areas. After the crisis of 1929, many plantations went to bankruptcy, increasing drastically rural-urban migration. After 1940, the population of Jakarta was already over half a million, with the inclusion of the southern appendage of Meester Cornelis into the municipal boundaries. (Abeyasakere, 1989: 88). The city expanded drastically with the development of new European neighborhoods such as the Menteng and Gondangdia. The traditional kampungs, both the inner-city and the outskirts, were getting denser. As the city grew, the housing shortage became more and more dramatic and some attempts were made by the Council to mitigate it, never entirely successfully.

By then, roads were being asphalted in the formal developments, with the explosion of new modes of transport: numerous cars and buses; bicycles and the newly emerged becak, the Indonesian version of a pedicab.

During the Japanese Occupation years (1942-1945) - with the lost battles of WWII, the Dutch lost control over the colony - urban development went into a void with not much happening except for the destruction of almost all the Dutch related monuments (Tunas, 2008: 70). Due to the great famine that affected the country, the Japanese encouraged the occupation and cultivation of empty lands within the city, without ownership or proper authorization. This process led to a confuse tenure status, which remains until today.

After the declaration of independence in 1945, Indonesia gained recognized sovereignty in 1949, under the leadership of president Soekarno. Having architecture as part of his education, Soekarno shared many views with Le Corbusier, as he strongly believed that one could change a country and make an ideal society by the means of architecture. He had a view of a modern Jakarta, which should represent the new free spirit after independence. It was under his "Nation Building" program that many monuments were constructed under the framework of nationalism and freedom, through which the image of a modern Indonesia, with Jakarta as its capital city, was successfully constructed.

The early days of independency were marked by an immense rural-urban migration. Many immigrants were employed by the government as civil servants, but most of them came in the search of better economic opportunities. By the 1950's the popu-

lation had almost doubled its size, which has much to do with the fact that the municipality borders grew three times, since at that time the urban sprawl was already going beyond the administrative borders. In 1953 a survey showed that 75% of the population was born outside Jakarta .

This large influx of people brought an enormous burden to Jakarta, since the city could not provide enough housing for all in such a short period, not even for those who could pay for it, nor for the civil servants.

In this scenario The Outline Plan was made under the supervision of Kenneth Watts and approved in 1958. Jakarta was elevated from municipality to Province and divided into three municipalities: Jakarta Utara (north), Jakarta Tental (central) and Jakarta Selatan (south). Later, in 1966, with further expansions of the city, it gained two other cities: Jakarta Timor (east) and Jakarta Barat (west), each divided further into sub-districts called RT, down until the neighborhood scale, RW.

This plan was later further developed by the British urban planner George Franklin and later became the Master Plan 1965-1985, finished in 1960, with the financial support of the United Nations and other foreign investors.

In order to achieve the new urban structure, it was necessary a combination of street improvements (including drainage), improved sanitation, urban services, redevelopment of old buildings and the creation of new market areas. A highway connecting the port Tanjung Priok to the southern edge of Jakarta, would open up the area for several community developments around the east and south edges of the City. It was almost immediately considered a failure by critics as the plan completely avoided the issue of kampungs and many of them were likely to be cleared out, since the land envisioned for the new plans was already occupied by scattered settlements.

The masterplan was never officially adopted by the government, and often considered as only guidelines for development. Nevertheless, many of its suggested highway development, new residential settlements and kampung infrastructure improvement were later implemented. The plan coincided with Soekarno's issuing of the 'Guided Democracy Policy', which for the administration of Jakarta, meant that the autonomy of the governor became extremely limited. Decision making was shared between the Council and the Ministry of Interior Affairs, and all of them were under the authority of the Guided Democracy, or the president himself.

It was especially through the Guided Democracy, that Soekarno was able to implement his own visions of Jakarta, in spite of the masterplan. Therefore, from this period on, the president started to change the spatial structure of the city through the construction of boulevards and monuments; a visionary approach, however, with little connection to the real life and real needs of Jakarta's population. While highways and monuments were being spread around the city, transportation and housing were still a major problem.

With the continuous flow of immigrants flooding the city every year, and lack of land for houses and prices out of their range, new comers had no option but to squat illegally or being homeless. The situation aggravated as thousands of people had to be evicted for the construction of the new development projects.

As part of the nationalist mentality post-independency, the government started to invest massively in the nationalization strategy, purchasing extensive areas of private estates, mainly from the Chinese, also as an attempt to abolish any sort of reminiscent from the "feudalism" of the colonial period and to eliminate foreigners . Later most of the urban services were nationalized such as gas and electricity supply, tram and buses services. Ulti-

mately, in 1958, all land rights were abolished. The Basic Agrarian Law (4/1960) gave the central government the authority to regulate over the land use for development purposes, also making possible for non-public entities to expropriate land for development, as the need to exploit natural resources, including land, supporting the development projects initiated by the public or private sector. For Soekarno, nation development should be made possible by the use of Indonesia's rich national resources (MOELINO, 2011).

After an attempted coup d'état, in 1965, the military general Soeharto gradually took over power as Indonesia entered a 'New Order' period. The new era of 'National Economic Development' had enormous spatial consequences of the urban landscape of Jakarta, as under the 'New Order' town planning explicitly under the authority of the central government, in an extreme centralized top-down approach. In 1967 a new economic policy was issued, ending an era of self-reliance and independency, opening the doors to foreign capital and promoting the privatization of economy.

In 1966 Sadikin was appointed governor, inheriting and implementing many projects already envisioned by Soekarno, but not yet constructed due to financial reasons. Under the new economic policies, the governor was able to find funding for these projects, such as the Istiqlal Mosque, and Ancol Complex, the parliament buildings at Senayan and several shopping centers. Jakarta should be developed not only for the national pride, but to be the center of foreign investment, decision supported by the provision, by the government, of the entire infrastructure necessary.

In the same year a Masterplan was approved appointing five major problems that needed urgent attention: Flooding, Waste and Sanitation, Traffic Congestions, Housing, Land Use Control.

While some land had to be cleared out for the implementing of special development programs such industrial estates, others were to never be built on, and parks would be laid out in an attempt to implement the green belt predicted in the masterplan. In order to avoid land speculation, these plans were never made public, which also meant that developers with privileged insights were able to purchase land prior to its future disclosure and therefore profit largely. Despite Soeharto's 'development' rhetoric, promising a distributed growth for the entire population, development was unbalanced. The real estate business was flourishing and became an important drive for the economic growth (Santoso, 2011).

Over the sixties, the new economic opportunities increased drastically the rural-urban migration in the period, with a population growth from 3.6 million in 1966 to 5.7 million in only ten years. Some of Sadikin desperate attempts to control this demographic explosion were: family control, by cutting birth rate, and transmigration programs, until finally declaring Jakarta a closed city in 1970, which ultimately also failed. Another strategy was discouraging the new comers, ending with the infinity of self-employed jobs by banning the becak (pedicab), hawkers and street vendors. These policies lasted only for a very short time, during which the income of kampung dwellers was reduced, but such informal activities were inevitable.

In face of the government incapacity of providing enough housing for its population, proven by the failed attempts in the Soekarno's era, a new set of policies were introduced, under the new economic dynamics, in order to enable the private sector to take formally governmental functions, guided by a framework of regulations and incentives to achieve the needs of the population, which was called Mixed Settlements Program. Starting in 1974, the Mixed Settlements Program attempted at mixing houses of different sizes, according to income stratification at



4.3 Thamrin Boulevard roundabout. Source: P.F.



4.4 Hotel Indonesia. Source: P.F.



4.5 The recently implemented BRT system in Thamrin Boulevard. Source: P.F.



4.6 The river alongside Jalan Tomang in Jakarta. Source: E.Q.

the time, in the same development in order to encourage social integration. The ratio of 1:3:6 between luxury houses, small houses (22 to 70 square meters) and very small houses (less than 22 square meters) was imposed on developments larger than 200 ha. The implementation of this regulation failed for many reasons, but mainly due to the flexibility in which private sector developments were regulated.

Another important tool of the New Order, was the Location Permit (Ijin Lokasi). It was intended so that the government could control the land use in accordance to environmental protection, economic planning and infrastructure protection. However, it was almost never used for the enforcement of land use regulations since the land plan was almost never consulted or referred to, and often ignored. Instead, it enabled developers to hold land for future development, without a time limit for the actual construction (permits were renewed almost automatically), protecting them from land price rising, at the same time as it served as a speculative investment. Housing development projects had a low rate of completion, while developers held the land for future developments. Once a private company held the permit for one area, inhabitants were only allowed, and eventually forced, to sell their land to the permit holder, leaving them in a limited bargain situation .

But time has shown that despite all regulations, it was the road construction that had the most impact on urban development patterns.

By this time also, Jakarta's borders were broadened again, incorporating other provinces and creating what is still called Jabotabek, in an attempt to guide development and plan de-concentration in a radio-concentric scheme of multi-centered city region. To solve the dramatic housing shortage two programs were established: social housing offer in what was called "model kampong" and the famous KIP – Kampung Improvement Programme.

The program however was considered a success by the World Bank and a reference for third world countries and was repeated in many 5 years programs thereafter.

During the 1970s and throughout the 1990s, Jakarta went through an intensive 'peripherization', with the government embracement of the 'bundled decentralization' envisioned in the Jabotabek plans. Although the Dutch planners had envisioned mass-transport systems to connect the new towns to the center of Jakarta, toll roads added to the existing highway provided an opportunity for generating revenue as well as to attract private investment. In addition, the development of suburban centers by the real estate community didn't have to wait for such expensive transport system as the rail mode. Silver (2008) notes that 'as quickly as the pavement was laid out, new residential, commercial and industrial developments crowded along the edges of this highway corridors' .

The raise of oil prices and therefore the increase of Jakarta's revenue, opened up the way to a number of expensive infrastructure and highway construction namely the ring roads Jagorawi (1978), connecting the center of Jakarta to Bogor and Tangerang to the west (1984) to the new airport Cengkareng that was being constructed in replacement of the Kemayoran airport (built in the 1940s).

While the suburban population was growing immensely, as a confirmation of the 'bundled decentralization' plans, so were the number of vehicles in Jakarta, that reached the count of a million by 1995. In addition, as a result of a protectionism policy that prohibited automobile imports, new assembly manufactures were established in collaboration with Japanese enterprises (Tunas, 2008), contributing to increase this number each year.

The Masterplan was revised and released in 1984 as the Jakarta Structure Plan 1985-2005, which had as one of the aims, reducing the population growth rate and improving the management of land to accommodate the growth that was going to happen. It proposed a series of environmental initiatives to improve water quality of rivers, to encourage urban development towards east and west rather than south, where the occupation of former agricultural areas should be terminated. Besides, public transport should be improved to limit the use of private automobiles. However, except for The Bus Rapid system implementation and the improvement of the already existing train lines Jakarta-Borgor (center-south) and Jakarta-Tanggerang (center-west) , all the other listed projects were extensively for roads construction and improvement.

Several mass transit schemes were discussed extensively and apart from increasing the number of circulating buses and the addition of other smaller motorized modes, no solution was presented for unclogging the roads from the increasing number of private vehicles. In 2003, inspired by the successful project of Curitiba, a segregated bus lane was implemented for a continuous flow of buses on major roadways, the Trans-Jakarta, connecting the train stations in Kota to Blok M, a commercialized center in the south, following the exact route that was initially proposed for a subway.

After decades of illegal occupation and decadence, with the successive economic and elite's relocation towards south, it was not until 1990 that effective attention was drawn to preservation and conservation of the old area of Kota and the seashore. Preservation projects directed to tourism were implemented, with the establishment of several museums and restoration of old Dutch buildings as well as land reclamation from the sea, in 1995, accommodating housing in high rises, markets and commercial and industry zones.

In the early 1990s Indonesia was an emerging economic power, having privatization of its infrastructure as a key factor for the economic success, still at the peak of Suharto's' New Order regime. On the expectation of becoming a 'world city' the landscape of Jakarta changed tremendously, with a great number of high rises popping up like mushrooms around the Jalan Thamrin and Jalan Surdiman, from Merdeka Square to the Blok M market area. The roundabout of Hotel Indonesia, with the construction of the first shopping mall Plaza Indonesia, and later the Grand-Indonesia, and several five stars international hotels projected Jakarta as global and connected city.

Between 1995 and 1997 there were several projects proposed for the mass rapid transit system in Jakarta, two of them been embraced by the government. The discussions were brought to a halt with the crisis of 1997 and the drop of the rupiah.

The end of the 1990s were market by the crisis, revolutions and riots against the economy chaos, blaming the prosperous Chinese community, the presidents nepotism and corruption, finally calling for a more democratic politics. The events culminated in the resignation of the president Suharto, the end of the New Order regime and the start of a new democratic era. The political transformations reflected also the planning, from a highly centralized and top down system, to a more open, participatory system of local governance and planning, although the powerful development community still had the lead on urban development.

Despite the political revolution, the governor appointed in 1997, Sutowo survived and was in power for two terms, being re-elected in 2003. Despite the crises, he managed to implement projects for the beautification of the city, such as the re qualification of the Merdeka Square and the Hotel Indonesia round-about (making sure that they were protected from mass riots, by fencing them) and also for public transport. The separate bus lane



4.7 Example of Superblock: The Grand Indonesia mall. Source: P.F.



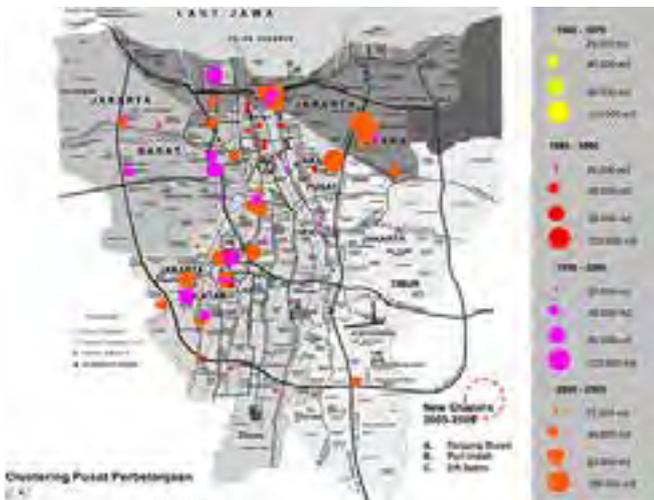
4.8 The Grand Indonesia mall: artificial of public spaces. Source: E.B.



4.9 Recent real estate developments. Source: E.B.



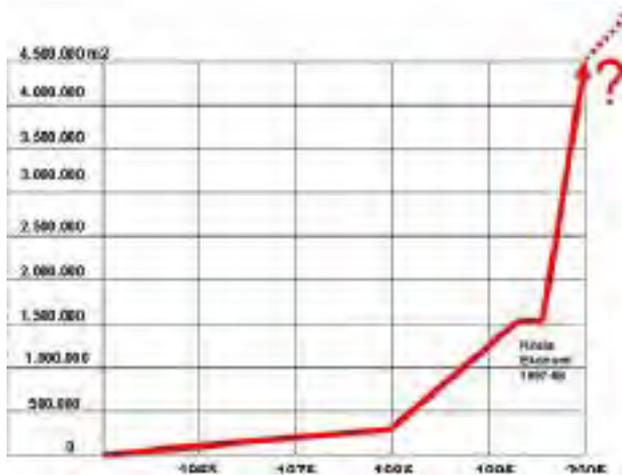
4.10 Social Housing and public spaces: the antenna garden. Source: P.F.



4.11 Shopping Mall Development and Clustering in Jakarta.
Source: HERLAMBANG, 2012.



4.12 Improved areas on the Kampung Improvement Program
Source: SANTOSO, 2008.



4.13 Variation of surface area of Shopping Malls in Jakarta 1965-2005.
Source: Presentation: Profil Proyek Super Development di Jakarta studi maksimalisasi produksi dan penggunaan ruang by Prof. Suryono Herlambang, Tarumanagara University, 2012. Centropolis Tarumanagara University, 2006.

from Kota to Blok M in the south, was finally implemented, with physical separation, fewer and elevated bus stops, although in the future it was proven to be ineffective (instead of constructing a new lane aside, a lane was removed from the traffic of cars to be used by the too few buses of the Trans-Jakarta, in a single and short route, not attending most of the population and contributing even more for the clogging of the roads). A monorail system which included a green-line of 15 km connecting the centers of Kuningan, Surdiman and Senayan was planned, and is still under construction, after several stops because of the inconsistent flow of funds and the occurrence of protests by environmental agencies. The mayor also had a reputation of ‘King of Eviction’, for eliminating legal and illegal settlements in support of private developments.

As a reaction to the crisis there was an explosion of shopping malls - as a way to attract foreign investment in retail – and other mixed developments, mixed used gated communities with housing and recreational activities. Such gated and secured communities were boosted by the fear of riots and well accepted not only by the Chinese community but also by the upper middle class which was not as badly affected by the crisis, a process that worsened the traffic congestion situation since they were spread out through the city.

With the continuous growth of population, almost all the open space available in Jakarta was then being used. Private lands were transformed by mega-developments of private cities for the rich, increasing the spatial and social segregation in the inner city, and the public owned vacant lands were used for school, mosques, commercial zones and parking lots. Meanwhile the poor were crowded and squeezed in remaining inner-city kampungs which remained in the inner-city and squatting illegally along the rivers and rail lines, continuously forced to move due to evictions or the gentrification process of inner city Kampungs and Social Housing developments

Such profound transformations made the 1985 plan obsolete, therefore it was revised in 1999, becoming the Jakarta 2010 Plan.

The plan’s central theme was ‘growth through equality’, focusing of the principles of sustainability and social concerns, specially housing for the poor and environmental improvements, having as key elements: urban housing, green areas, economic prospective areas, activities centers and upgrading infrastructure and utilities, including public transport.

Different from the last plans, it drew far more attention to environmental issues, including the cleaning of the thirteen rivers of the capital and the expanding of green spaces, and drainage improvements to flood control. For that purpose, once more slum clearance and new housing was necessary.

One of the consequences of the political transformation was the decentralization of functions and funds, being transferred from the central government to the local authorities by laws promulgated in 1999. New urban development programs were introduced, with a more inclusive and participatory approach involving local stakeholders in the decision making progress. Government administrators and legislators were now elected directly by the people and in 2004; president and vice president were elected by popular vote. Under the new democratic wave, the economy started to recovery slowly, with the impediments of tragic incidents such as terrorists’ attacks in 2002 and 2003 and the tsunami that stroke the country in December 2004. The first served as a discouraging factor for foreign investor and the second required a great deal of investments on reconstruction.

After recovering, the period of 2005-2006 was marked by new transformations, with the implementation of many projects that were halted on the occasion of the crisis. Although a powerful

development lobby is still in control, planning now includes a wider spectrum of stakeholders.

Jakarta saw in the last two decades deep spatial transformations in the inner city and the periphery. In the inner city high rises have replaced the patch of kampungs previously existent while many moved to the fringes of the city in what Andreas Peresthu calls 'growth by polarization'. Large areas of farm land were urbanized in between the satellite new towns from the past, being transformed in housing complexes built by private developers with government support, hospitals, universities, warehouses, etc. Different from the satellite cities, those self-sustaining cities were intended to provide work and facilities due to the distance to the center, in addition with the inadequate public transport.

Transformations in the inner city include the proliferation of gated Chinese communities protected by guards and barbed wire as a consequence of the 1998 riot attacks, and after 11/2001 the further protection of US and British embassies. The Chinese district of Glodok was later re-habilitated and also great investments were made in the recovery of the historical colonial core of Kota.

The latest trend in the city of Jakarta are the called Superblocks that consisted of a mix of luxury housing and shopping center functions, aggregated with hotels, leisure, cinema in what has been advertisement as a 'mini-city' which is a way for the rich to refuge from traffic, poverty and disorganization of the real city.

The latest plans for Jakarta acknowledge that, no different from the last decades, the city still suffers from environmental issues such as flooding, solid waste collection, polluted rivers and recently also air pollution with the intense automobile traffic. Although improvements have been made, the city is not yet able to provide sufficient and affordable house for the poor, as well as employment. Health and education are distributed unequally and the gap between social groups has become wider. Public transport is still inefficient and roads are more and more clogged by the increasing number of vehicles. There is a new awareness of the need of open spaces, since they have all been occupied by economic activities. What has changed in the new democratic and participative planning is the vision towards urban planning as a tool for social development through community support and participation.



4.14 Hystorical sequence of designs for Central Park mega development in West Jakarta, showing the constructive Superblock densification.

Source: Presentation: Profil Proyek Super Development di Jakarta studi maksimalisasi produksi dan penggunaan ruang by Prof. Suryono Herlambang, Tarumanagara University, 2012.

Jakarta Over Time

5.1
1950 - Kebayaru Baru satellite city



Map Source: Silver, Christopher, 2008

5.2
1950 - annexation of land



population 1950: 1.782.000

Source: <http://www.kjg.gov.id/>

5.3
Early 60s Interventions
-Serayan Sports Complex - '62 Asian Games
-Grogol and Tebet Housing Complexes



-Boulevard Jalan Thamrin
-National Monuments

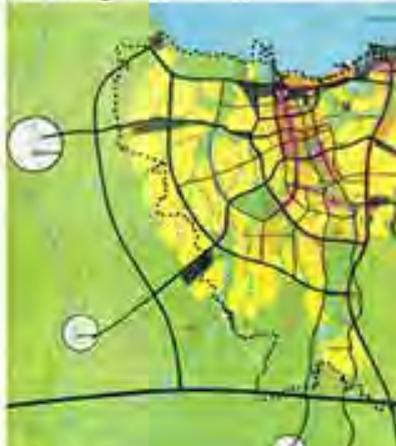


1960: 2.900.000

5.4
Masterplan 1965 - 1985
-Road Network

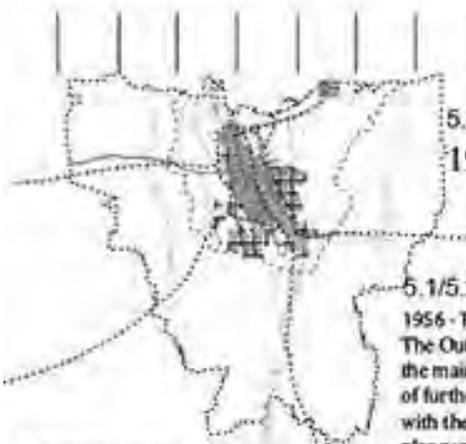


-Zoning

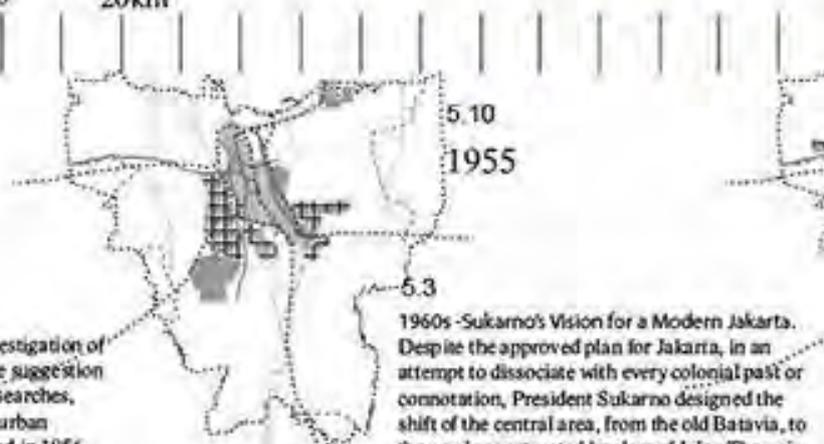


0 5 10 20km

5.9
1947



5.10
1955



5.1/5.2

1956 - The Outline Plan
The Outline Plan intended at the investigation of the main problems of Jakarta and the suggestion of further solutions. The group of researchers, with the leadership of the American urban planner Kenneth Watts was appointed in 1956 and the plan was approved in 1958. The main problems pointed out were: insufficient employment, transportation failure, housing supplies and social security. The recommendations were: "expansion of industrialization on the basis of a regional plan, which would also provide employment in Jakarta's catchment areas; investment in housing program; a system of ring roads for Jakarta; schemes for extension of the water supply, drainage and electric systems and for solid waste collection; and a proposal to create a green-belt around the planned built-up area of the city."

Urban Growth Schemes

Source: Personally devised by the authors, based on several maps from the KIT archive, Leiden.

5.3

1960s - Sukarno's Vision for a Modern Jakarta.
Despite the approved plan for Jakarta, in an attempt to dissociate with every colonial past or connotation, President Sukarno designed the shift of the central area, from the old Batavia, to the newly constructed boulevard Jalan Thamrin, where many monuments were placed. He was also responsible for the construction of the first clover-leaf bridge at Senayan and the first highways of Indonesia and other important nationalistic monuments like the National Monument (Monas) in the center of the Independence Square, a national mosque close to it, the West-Papua Statue, commemorating the withdraw of Dutch from Irian, the Youth Statue celebrating the Youth Declaration of 1928, a sport complex for The Asian Games in 1962 was constructed in Senayan, for which about 47,000 people were removed from their homes. (Abeyasakere, 1984).

5.5
1973 - Regional Plan - New Towns Plan for Jabotabek

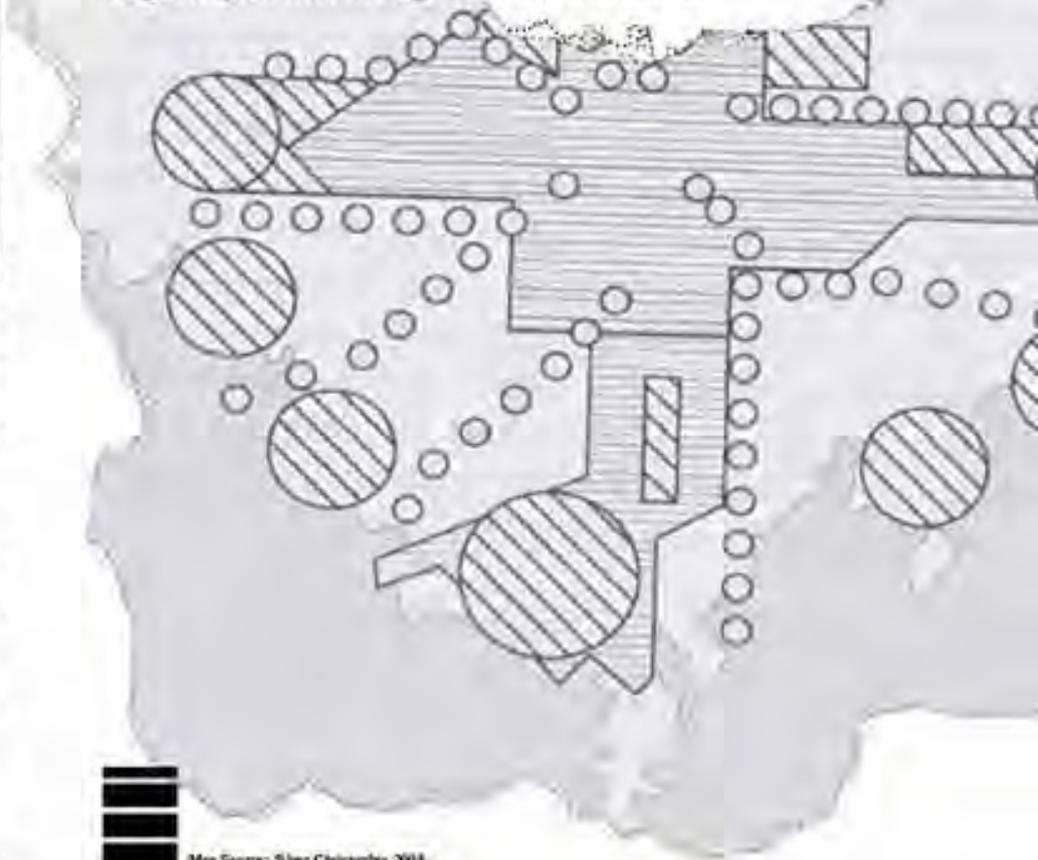
KIP

Still considered of a great success of its time was the Kampung Improvement Program, or KIP, formally named the Mohamad Husni Thamrin project. With the financial support of the World Bank, the first 5 year program that ran between 1969 and 1974 aimed at improving the life conditions of an estimated 60-80% of Jakarta's population that lived in the kampungs. It was an internationally rewarded and recognized program that succeeded in improving the life of its dwellers as well it's appearance, and still able to maintain the kampung's lifestyle. Works consisted of providing the minimal facilities and the basic infrastructure, integrating the kampungs into the city fabric, paving roads, constructing drainage lines, schools, mosques and health facilities. Some critics to the project appoint that the kampung dwellers were not consulted about their priorities, which caused future problems of maintenance, since they were not keen of investing on something they didn't wish for, such as the case of some paths that were constructed one meter higher than the house entrance, in order to control flooding. Another problem was related to priority of kampungs and areas to be improved, since the worse ones were left untouched because they were constructed upon illegal or risk areas along railways or canals. In addition, water provision and rubbish collection remained inadequate. Even with the implementation of health clinics, there was no effective way to improve health if the very cause of diseases was still not solved.



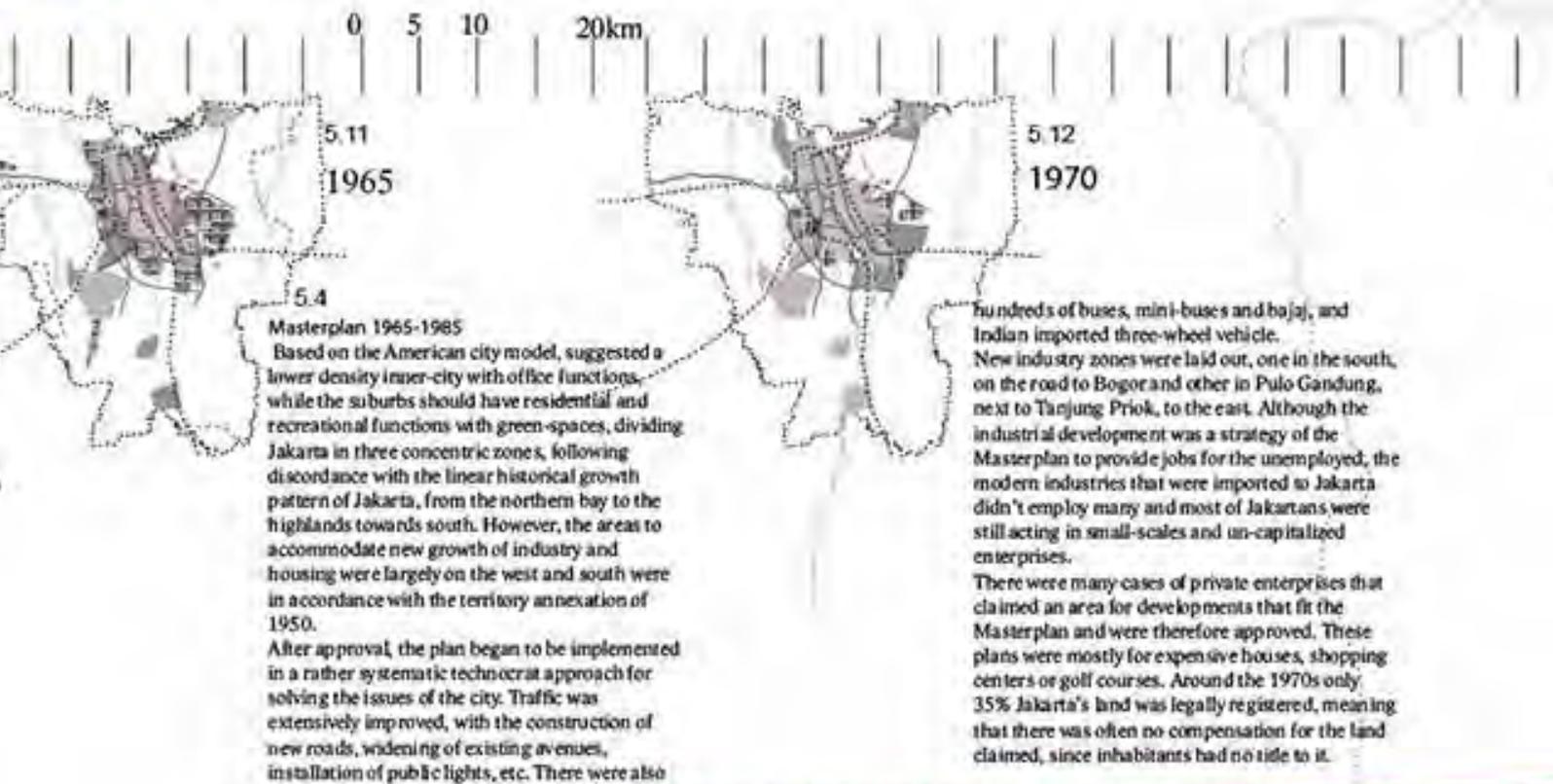
Source: Jakarta DNL 1986

-Regional plan with strategic location of new towns



Map Source: Sireg, Christophers, 2008

1970: 4.437.135



5.11
1965

5.4
Masterplan 1965-1985
Based on the American city model, suggested a lower density inner-city with office functions, while the suburbs should have residential and recreational functions with green-spaces, dividing Jakarta in three concentric zones, following discordance with the linear historical growth pattern of Jakarta, from the northern bay to the highlands towards south. However, the areas to accommodate new growth of industry and housing were largely on the west and south were in accordance with the territory annexation of 1950.
After approval, the plan began to be implemented in a rather systematic technocrat approach for solving the issues of the city. Traffic was extensively improved, with the construction of new roads, widening of existing avenues, installation of public lights, etc. There were also investments in public transport with the input of

5.12
1970

hundreds of buses, mini-buses and bajaj, and Indian imported three-wheel vehicle. New industry zones were laid out, one in the south, on the road to Bogor and other in Pulo Gandung, next to Tanjung Priok, to the east. Although the industrial development was a strategy of the Masterplan to provide jobs for the unemployed, the modern industries that were imported to Jakarta didn't employ many and most of Jakartans were still acting in small-scales and un-capitalized enterprises.
There were many cases of private enterprises that claimed an area for developments that fit the Masterplan and were therefore approved. These plans were mostly for expensive houses, shopping centers or golf courses. Around the 1970s only 35% Jakarta's land was legally registered, meaning that there was often no compensation for the land claimed, since inhabitants had no title to it.

GDP INDONESIA (US\$ billions)
1970: 9.656



5.5

JABOTABEK

In 1973, the province of Jakarta incorporated the neighboring cities of Bogor, Tangerang and Bekasi, as part of the strategic growth for the capital region, with the name of Jabotabek. Regional planning studies were undertaken by the Ministry of Public works with the assistance of Dutch planners including L. Giebels in order to manage the tremendous population growth. The idea of the plan was a 'planned de-concentration' based on the Dutch example of the Randstad, to control development in concentrated clusters in existing towns, induced by improved transport. These clusters would follow a linear system. Another plan was a concentric ring of clustered settlements, with a pattern radial transport lines extending from the center of Jakarta, similar to the one of the Outline Plan. It was expected that these centers would not be mono-functional dormitories but instead multi-functional urban centers, with housing, services and employment.



1980: 6.503.449

5.6

Masterplan 1985

-Zoning



-Road Network



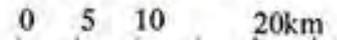
Map Source: Jakarta DRI, 1991

5.7

Regional Plan - 1985



1990: 8.259.266



5.13

1980

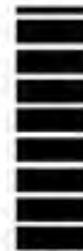
1980: 78.013



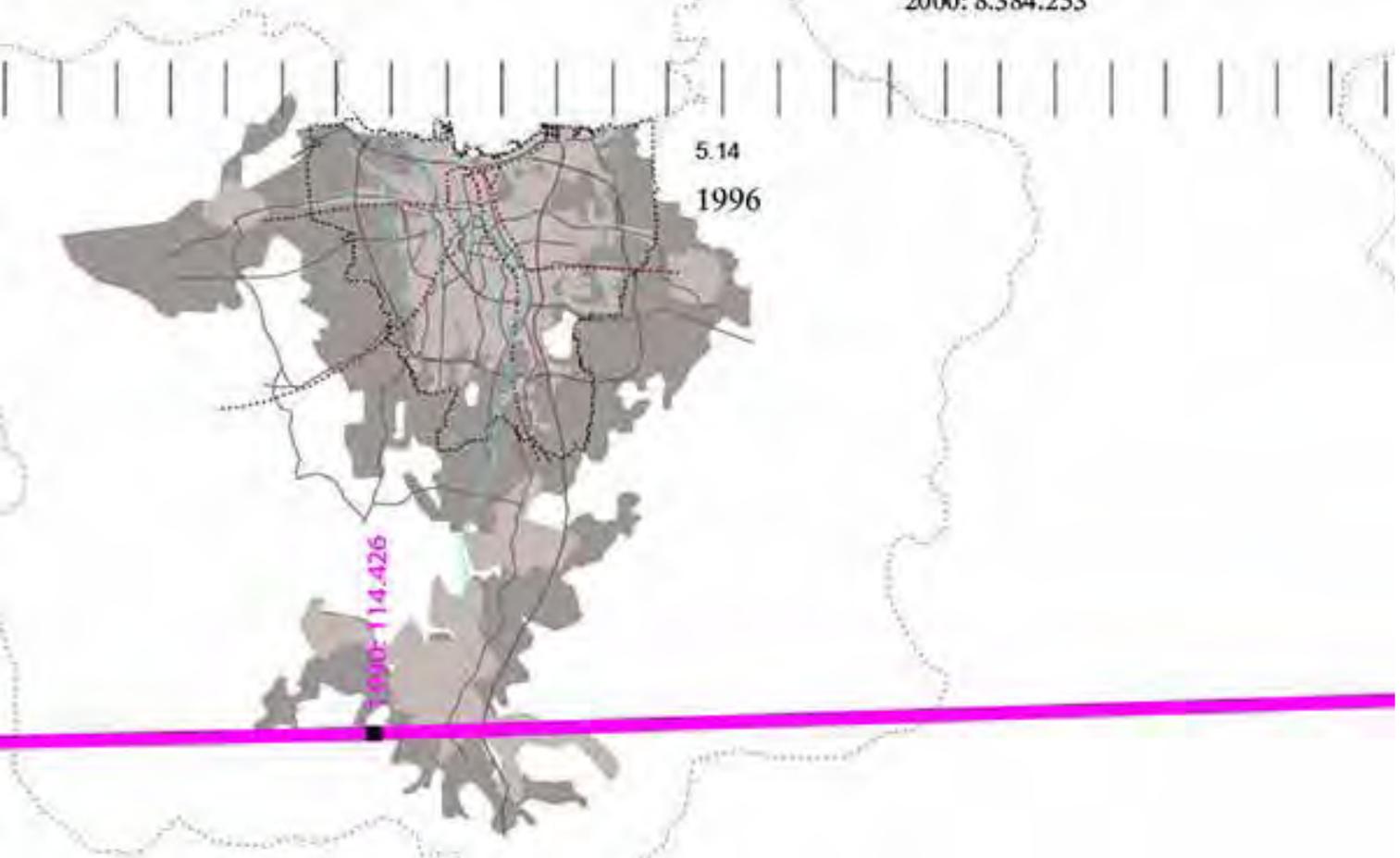
Regional zoning with new centralities in red

5.7
1985-2005 Masterplan

The main aim of the 1985-2005 structure plan was to create a new central business district in the area called Golden Triangle, which by then was still occupied by many kampungs and some upscale neighborhoods. The intensification of commerce and high-rises around this area meant that the roads were constantly clogged with intense traffic. Several actions including squeezing five lanes in what used to be three, and regulations such as the "Three people rule" – an obligation of three people per car in peak hours - and separation of buses and motorcycle, put in adjacent roads, had little effect. The city was calling more than ever for a modern mass transit system, as discussions reinitiated. The commuter train line running from Kota through the city center was elevated, eliminating the surface crossings and improving traffic flow. To attend the places where the bus didn't reach, three wheel vehicles were introduced the bemo and the bajaj, in replacement of the illegal bicycle becak, source of income for many kampung dwellers. The goals of the plan were jeopardized by the late 1990's crisis and the posterior events.



2000: 8.384.253



5.14
1996

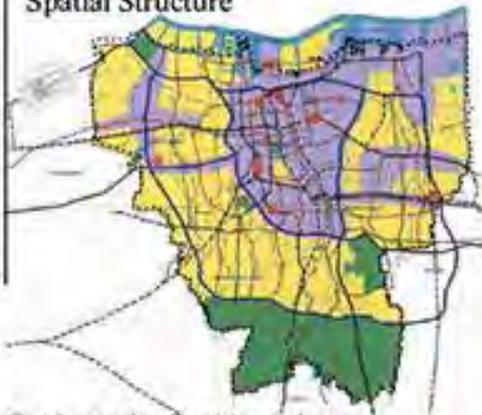
5.8
Masterplan 2010

5.8

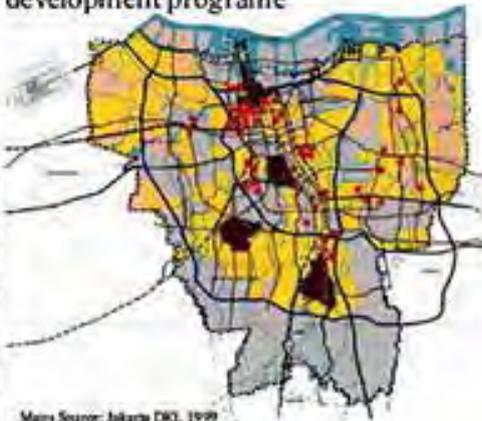
Jakarta 2010 Plan

It divided DKI Jakarta into three development zones, The North Development Zone, consisting of the Thousand Island Development Zone in Jakarta Bay and the North Cost Development Zone; the Central Development Zone, further divided in the Mid-Central Development Zone where governmental and commercial activities were concentrated, another zone to the west that had its own business center and another to the east which holds industrial and warehousing functions. The South Development Zone was mainly residential with higher densities towards the center and lower densities to the south in the direction of Bogor. The plan encouraged the proliferation of primary commercial centers in the East, North and West areas with more mixed-use zones.

Spatial Structure



Guidance for Residential zone development programme



Maps Source: Jakarta DKI, 1999

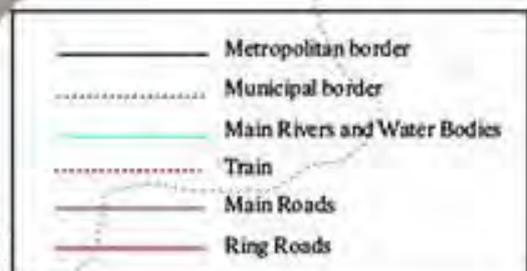
2010: 9.607.787

0 5 10 20km

5.15
2012

2012: 846.832

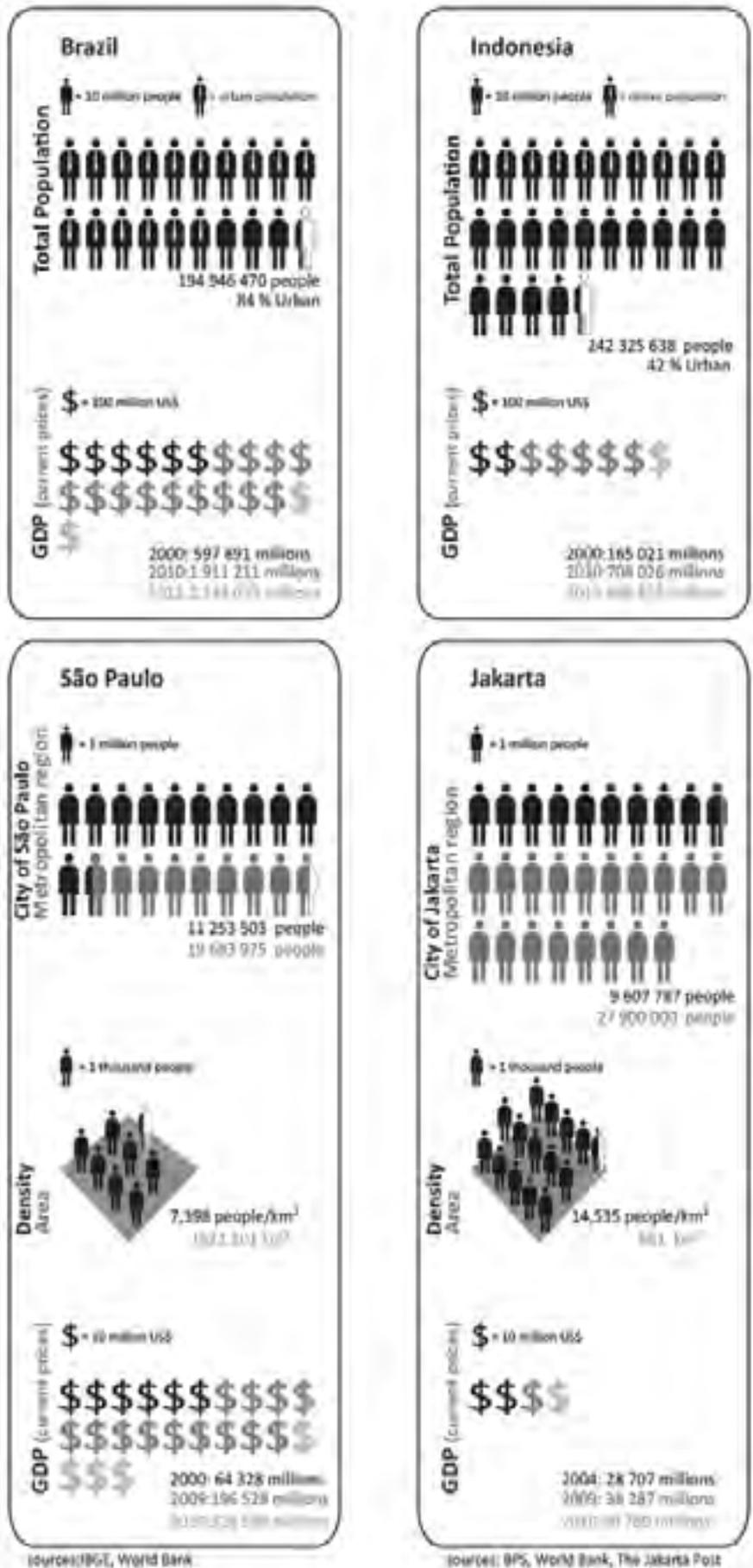
2000: 165.021



Demography and economy

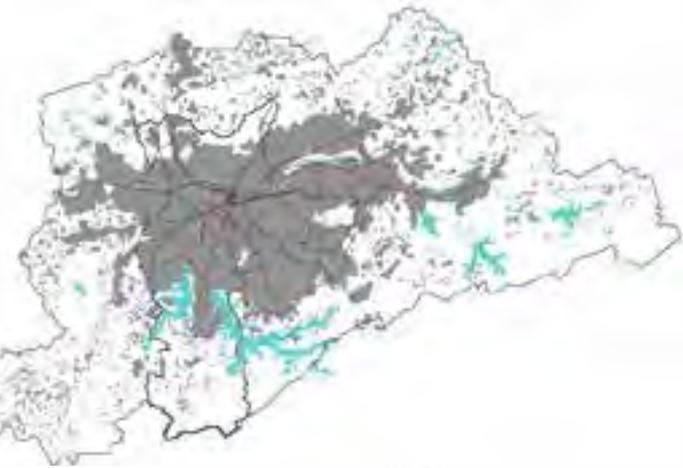
São Paulo x Jakarta

6.1 Comparison between Brazil and Indonesia, São Paulo and Jakarta, in relation to population, area, density and GDP



City scale

SÃO PAULO



Urban Form

JAKARTA



6.2 URBAN FORM

6.3 URBANIZED AREA

6.4 MOBILITY

6.5 WATER BODIES



7.1 Fragment scale map of Jardins, São Paulo

Jardins.

The Induced Urban Fragment chosen as a São Paulo sample is Jardim America, a neighborhood that was formed in the late nineteenth century, along the construction and promotion of the new boulevard, Paulista Avenue, as the next best location for Brazilian bourgeoisie at the time, but still today very present in the imaginary of the city, as a symbolic icon of the globalized Sao Paulo (OLIVEIRA, 1998).

It represents, in a unique way, how most of the induced urban fragments of the city were created and developed: a private enterprise, which initially aimed the Brazilian elite related to the boosted coffee economy and afterwards was slowly redeveloped and “verticalized” as a secure reproduction of capital through urban expansion (OLIVEIRA, 1998), creating a very specific pattern of urban form.

The initial private development consisted of the allotment of both banks of Avenida Paulista and the selling of individual plots for the construction of single-family houses for the sons and daughters of the coffee barons, initially as a second residence of the rural elite, afterwards as residences of the new urban elite families, (SHIBAKI, 2007).

Afterwards, with the coffee economy crisis, the traditional families started selling the plots to new developers and over the 1930’s and 1940’s some towers were constructed along the main axis, but also inside the tissue itself. Slowly, other activities were introduced to the neighborhood, such as schools, hospitals and recreation facilities, like the Tea House and Ball Room where today is MASP, the São Paulo’s Museum of Art.

As Oliveira (1998) points out, meanwhile the change in the predominant use, the villas started to be replaced by other typologies and a process of densification started to occur which. This process led to the transformation of the neighborhood function in the city, once the same process of urban expansion through private allotments started to happen in other areas farther from the center, along and beyond the Pinheiros River.

Until the 1950’s it was mainly Paulista Avenue – the most important axis in the region – which experienced meaningful changes in the initial typology, but by the mid- 1960’s, when the National Housing Funding policy was enacted (SFH - Sistema Financeiro da Habitação) and the Brazilian Housing Bank was created, the typological changes were intense as the real estate market went through an important period of expansion throughout the entire city, led by the economic growth and increase of funding (BARBOSA, 2009). The changes in the urban policies of the 1970’s induced the sprawl of “verticalization”, which only slowed down with the economic crisis and the decrease of available funds over the 1980’s (SOMECK, 1994).

Today, only a few houses from the initial development of Jardim America remained and the perceived urban form is a patchwork of buildings typologies which represent different times of the city’s construction, alternating patterns, densities, setbacks and materials, always related to the time they were constructed.

Induced



7.2 Fragment scale map of Thamrin, Jakarta

Jalan Thamrin Boulevard.

The construction of Thamrin Boulevard in the early 1960's was directly linked to a project of president Soekarno to modernize Jakarta and dislocate its center from the port area, in an attempt to dissociate the new Jakarta of its colonial past or connotation. In this project, Jakarta's new major economic axis would be the newly constructed boulevard Jalan Thamrin, starting from the Lapangan Merdeka – the Independence Square, formally Koningsplein – and going south-west to Jalan Surdiman and reaching the new town Kebayoran Baru, which should host the new Indonesian architecture at that time.

As such, many monumental buildings were constructed along the boulevard in the early 1960s: the Hotel Indonesia, the first multi-stored hotel, the Sarinah, the first department store, the Bank of Indonesia and the Bundaran HI, the Welcome Statue for the athletes and visitors of Asian Games of 1962, a landmark placed in one of the boulevard's roundabouts.

The creation of this infrastructural axis itself induced the establishment of several real estate developments in the area over the last fifty years, always stretching the center relocation towards south-west, consolidating an well-off area called “the golden triangle” (SANTOSO, 2009), consisting of the area formed by Sudirman-Thamrin-Kuningan, with wide mixed use real estate enterprises, high – rise residential and commercial towers, among existing former traditional agricultural villages – Kampung – and colonial neighborhoods.

Such concentration of formal enterprises and activities also attracted and increased informality, with the growth of the informal settlements around the various CBD's, alternating and mixing formal and informal tenure and activities, on one hand creating an impressively integrated and diverse environment; yet increasing the amount of gated and secure enterprises in the other. Therefore, the induced upper-class axis attract, at the same time top-down induced developments and bottom-up initiatives constantly influencing each other, since these informal bottom up processes “play a critical role in city organization, creating distributions, concentrations and centers which we recognize in situ as being of a distinctively urban order” (READ and BUDIARTO, 2008)

The evolution of Mall enterprises in Jakarta, according to SURYONO (2012), follows a periodization which started with

the Department Store of “Sarinah”, carrying a strong sense of modernization characterizes the first phase.

The second phase, from the 1970's until the 1990, medium size shopping malls were developed in by private Indonesian investors, located spread around the city, mainly in one of the new axes.

Over the nineties, there was an increase on the numbers of malls in the city and a change on their size and location, showing a tendency of concentration, starting what are now the mall clusters of the city. According to Suryono, there was a combination of tenants between conventional Indonesian retailer anchor tenant and the presence of foreign (anchor) tenant, introducing foreign capital to these developments, as a sign of the globalization and marking the entrance of the country in the global market. From this period are the Plaza Indonesia (1990), Jakarta City Center and EX Plaza, all concentrated in the fragment studied, along the Jalan Thamrin boulevard.

The end of the third period was intercepted by the economic crises 1997/98, when there was an escape from foreign capital from the local Real Estate Market.

Nowadays, it has become common the construction of Super-Blocks, which are even wider mixed use development, using the shopping mall – attached to the boulevard – as a base to residential towers, hotels and trade centres. The Grand Indonesia complex is an example of this phase.

The new development has swallowed the old Hotel Indonesia into a two block-wide mixed use complex, holding the existing hotel, two malls and two of the highest office towers of the city, well integrated also with the existing Plaza Indonesia and Kebon Kacang Kampung, a former traditional village now going through a spontaneous process of gentrification. Since 2002 a local urban resolution formalized this existing synergy between the traditional settlements and the superblocks in the city, in which it is determined that the new enterprises have to give space to street vendors and informal activities – Peraturan Daerah (Perda) No.2 Tahun 2002. This resolution exemplifies how it is possible to cope with the integration of different fabric, typologies and cultures, showing and understanding of how, even in the induced areas of the city, to promote synergy between two distinct but complementary urban environments.



7.3 Historical Picture of Avenida Paulista and its initial occupation. Source: PMSP Archive.



7.4 Combination of high rise and low rise typologies. Source: E.B.



7.6 Historical houses that have been refurbished several times. E.B.



7.5 Common building typology in Jardins, São Paulo. Souce: E.B.



7.7 View of the area behind Grand Indonesia Mall in Central Jakarta. P.F.



7.9 View of Grand Indonesia Mall, Central Jakarta. Souce: P.F.



7.8 Street vendors in front of the entrance of Grand Indonesia Mall. P.F.



7.10 Use of public gardens around Tharim Boulevard roundabout. E.B.

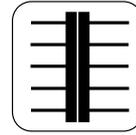
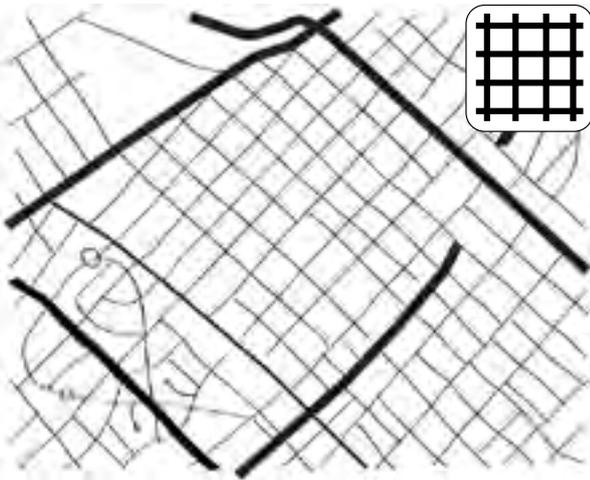


7.11 Indonesia Hotel and Grand Indonesia Mall complex along the Thamrin Boulevard, Jakarta. Souce: P.F.

SÃO PAULO - JARDINS

JAKARTA - THAMRIN

7.12 CIRCULATION SCHEME AND MESH



- Arterial Access
- Primary Access
- Secondary Access
- Foot Path

7.13 URBAN EDGES SCHEME



- Hard Edge
- - - Soft Edge
- Case study area

7.14 PUBLIC SPACES



7.15 LANDMARKS



Mesh and Circulation scheme.

According to its characteristics, the fragment in Jakarta is organized in a fishbone scheme, with a high concentration of real estate developments along the boulevard axis, clearly a “Las Vegas strip” sort of urbanism, whereas in Sao Paulo the main economic axis of the period – Avenida Paulista and its surrounding neighborhood – Jardim Paulistano – were developed in the beginning of the twenties and until today preserves the grid scheme implemented as an allotment along the new boulevard.

The different meshes enable distinct experiences of space and possibilities of urban transformation: while in São Paulo, due to the grid structure, the urban transformations were carried out in a sprawled pattern, in Jakarta the high concentration of developments induce a concentration of activities, polarizing space.

There is very little distinction in the hierarchy of the roads in Jardim Paulistano and, as a mixed use area; most of the streets have also a variety of uses and typologies. Meanwhile, due to the “fishboned” mesh, in Jakarta is clear the higher importance of the boulevard, concentrating all the activities.

Edges

In Jardins the higher hierarchy of Avenida Paulista and Avenida Rebouças indicates important urban edges, even when the tissue itself doesn’t change from one side to the other. Meanwhile in Jakarta the boulevard configures an internal edge, whereas the limits of the clustered development separates the induced fragment from Kebon Kacang Kampung, configuring a softer edge than the boulevard, since it does not restrain the synergy between the two very distinct fragments.

Public Spaces and Landmarks

Interestingly in Sao Paulo, due to the wide presence of skyscrapers in the fragment, the landmarks considered are not only buildings itself, but also commercial and economic axes. Augusta Street and Oscar Freire Street are both urban references in the city due to their specific commercial activities, while Conjunto Nacional, the first skyscraper of Avenida Paulista constructed in the in 1955, is known due to its historical relevance but also the commercial activities of its open ground floor, including the major bookstore in Latin America, Livraria Cultura. In Jakarta, the clustered skyscrapers are clearly landmarks on their own. The Hotel Indonesia, the first five star hotel of Jakarta, was the first to be established in the round-about in the 1970’s, being followed by the Gran Indonesian Mall East and afterwards Gran Indonesian West, now connected by a bridge over the road, an enormous mixed use development which holds one of the highest towers of the city, with fifty-six stories high.

The public space of Thamrin is related to Grand Indonesian Mall, being its open areas turned to the streets in the edge of the Kampung, its gardens on the sidewalk, but also the circulation and entertainment areas inside the superblock itself. In Jardins, however, public spaces have distinct characteristics. They are green small urban parks as Trianon and Mario Covas, but also the sidewalks, with wider concentration of activities in the commercial axes.



7.16 Paulista Avenue. Source: E.B.



7.20 Paulista Avenue. Source: E.B.



7.17 MASP - Museum of Art of São Paulo. Source: P.F.



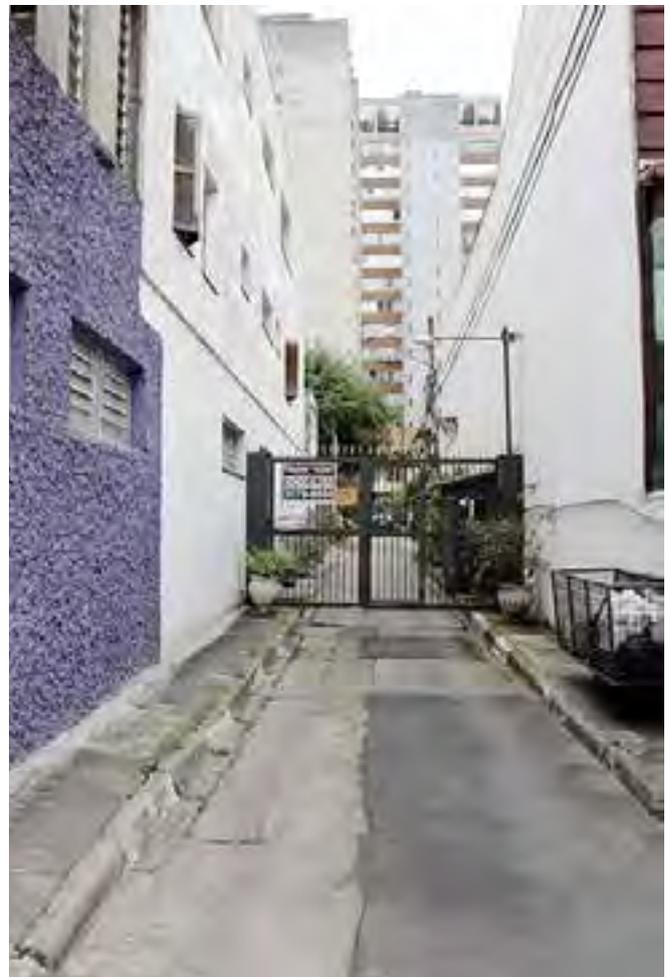
7.21 Interior gallery of Conjunto Nacional. Source: E.B.



7.18 Rua Oscar Freire: high-end shopping street. Source: Jornal jardins



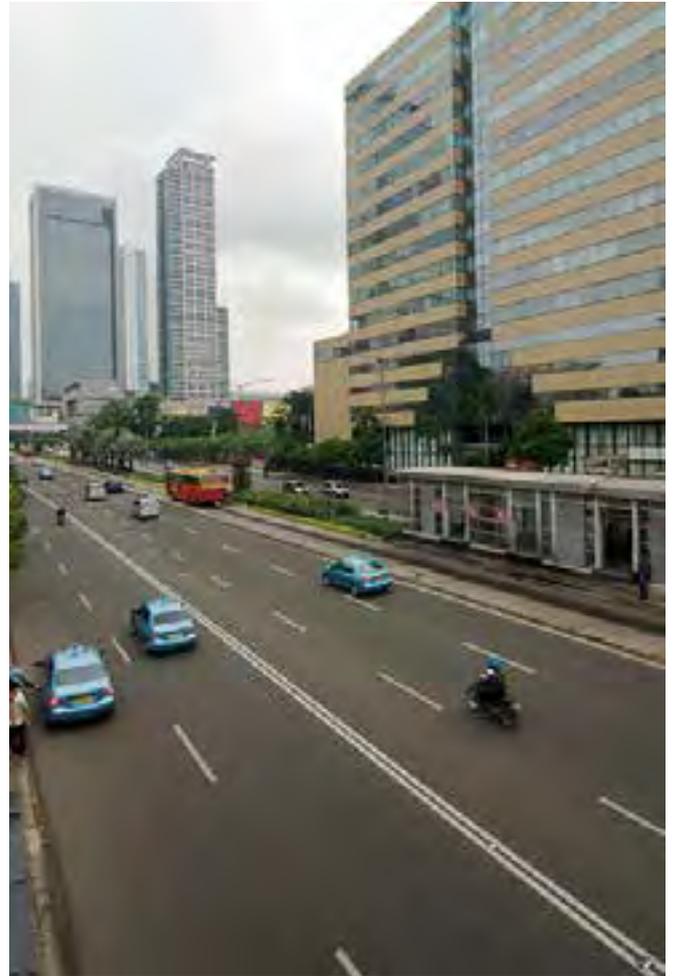
7.19 Sidewalk occupation. Source: E.B., 2012.



7.22 One of the common closed streets of Jardins. Source: E.Q.



7.23 Skyscrapers in Thamrin Boulevard, Jakarta. Source: P.F.



7.26 Thamrin Boulevard, Jakarta. Source: P.F.



7.24 Thamrin Boulevard, Jakarta. Source: P.F.



7.25 Top view of the Thamrin Boulevard and the roundabout. P.F.



7.27 Hotel Indonesia. Source: P.F.



7.28 Entrance of Shopping Mall under its bridge. Source: E.B.

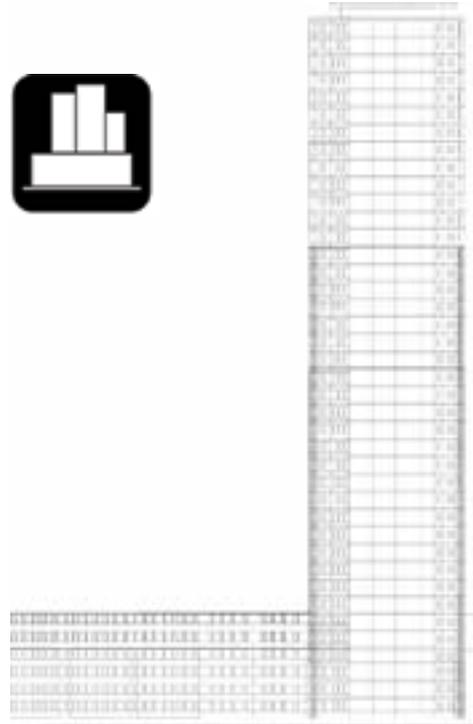
SÃO PAULO - JARDINS

JAKARTA - THAMRIN

7.29 INDUCED SOLID SAMPLE



7.30 BUILDING TYPOLOGY SCHEME



7.31 BUILDING TYPOLOGY EXAMPLES



source: E.B



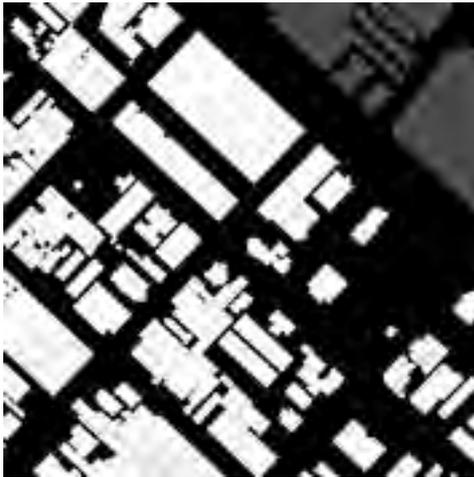
source: P.F.

Solids

In both samples the most common typology is the high rise building, what differs one from another is the scale of these developments. While in Sao Paulo, the Jardim Paulistano we experience today is a product of a plot by plot redevelopment process, in which the former fabric constituted of small houses – some of which still remaining until today – to small scale high rise towers – 12 to 15 stories high –; in Jakarta there is a concentration of developments in one single spot, configuring today one single superblock, even if it was constructed over a few decades. What is seeing in this Sao Paulo's fragment is clearly the result of the sequence of urban policies which constrained density, as a result of the masterplans of 1957 and 1971. The great amount of developments done in the late 1960's and 1970's shows that the redevelopment of the neighborhood was also influenced by the period of economic expansion and great investments in the real estate sector with BNH policy.

In Jakarta, the common Superblock typology along a boulevard shown in the sample is a result of first the clear intention of the 1960's to modernize the image of the city after independence, carried out by President Suharto, and second the tendency of creating concentrated and enclosed activities for the middle class after the riots in the early 1990's. Real Estate developments were induced as a way out of the "Asian Tigers" economic crisis, carried out by national elite, aiming to attract foreign retail investments. The clustering effect was in this case used to minimize risks, since developers established a sequence of enterprises (Malls Plaza Indonesia, Jakarta City Center and Grand Indonesia) with the well-known Hotel Indonesia as the starting point, constituting a consolidated location in these important southern expansion axes.

7.32 INDUCED VOIDS SAMPLE



GREEN
7.33



source: E.B



source: P.F.



URBAN
EQUIPMENTS
7.34



source: E.B



source:P.F.



PUBLIC SPACES
7.35



source: E.B



source: E.B.

Voids

In these cases, the shape of the constructed space in each sample is quite unique, informing a great deal of what is left as an empty space, to be occupied by human activity.

In Sao Paulo, even though there is apparently a great amount of open spaces (voids), these are most of the times private areas, as a part of a fenced plot, created due to the change of urban regulations regarding setbacks and ventilation cones in the 1970's. Therefore, a sample which is apparently full of voids to be occupied, has actually very few. The voids in Jardins' sample are only the sidewalks, streets and the small urban park Mario Covas.

Whereas in Jakarta, the scale of the development and its characteristics create an internal void, semi-public due to its retail characteristics, but also the sidewalks and gardens of the superblock holds important activities. Even the monument surrounded by water is occupied during the nights and weekends by youngsters as a meeting and gathering point beside the mall.

Apart from the different use of the empty space found, in both fragment the green and urban equipment are controlled and most of the time ordered, especially in Thamrin. However, due to its historical construction and reconstruction, the green perceived in Jardins is less ordered and is clear that is not a product of a landscape project, but from the spontaneous additions of different species of trees and bushes of each development on its sidewalk space.

The recent developments in Jakarta, such as the Mall in our sample, have a strong tendency of minimizing open public space. One of hypothesis for this is the preoccupation in controlling the population, after the riots of the late 1990s and some terrorist bombing events of the last decades. Therefore, whenever a large-scale public space is conceived, it is either as an enclosed mall, a gated community or a fenced and controlled park, such as the great Merdeka square, previously mentioned.



8.1 Fragment scale map of Heliópolis, São Paulo

Heliópolis

Heliópolis is today the biggest informal settlement of São Paulo and can be used as a sample of its historical approach regarding informal settlements, communities or what was once called Favela. It consists of an area of around 62ha, located on the southeast part of the city, occupied by around 120.000 inhabitants .

Sample of the historical housing struggle, São Paulo's social movements and the environment the city's informal territories (UNAS, 2013), the area was object of several interventions, representing the several stages of slum intervention and upgrading programs the municipality offered to these territories through time.

Today, recently re-urbanized, the former biggest and most violent favela of Sao Paulo, Heliópolis experiences a time of intensive transformation regarding territorial, cultural and social characteristics. Once stage of extreme poverty and bad living conditions, now the area has a very interesting and intensive small scale real estate market, holds innumerable economic activities, yet maintaining its spatial qualities regarding it's unique urban form and elements.

The area was formed very rapidly, first as accommodation of the workers involved in the construction of the public hospital, later as temporary accommodation for displaced slum inhabitants of Vila Mariana and Vergueiro, and finally occupied by migrants in a process of informal subdivision of the land and illegal occupation, which in time and through the action of several community leaders and housing social movement passed by several processes of improvement.

Initially, still in the 1980's, a process of densification commenced, with the occupation of empty spaces of collective use related to leisure activities (sports fields and gardens). Afterwards, once most of the empty spaces were occupied, the process of densification started to change its character. The entire neighborhood started to become vertical as the house owners added more pavements to their existing construction.

Today most of the houses are of three to six floors high, usually with a terrace on top, used as service and recreational area.

In 1982 the municipality's housing agency acquired most of the site from other governmental companies (Petrobras, Sabesp). During the end of the 1980's and the beginning of the 1990's a "mutirao" program was set up, in which the inhabitants were building their own houses with the municipality's technical and financial support, and now, after the federal law called The City's Statute (nº10.257, 2001) and as part of the Masterplan of 2002, most of the area is classified as ZEIS – Special Zone of Social Interest – enabling the slum upgrading program, responsible for a series of improvements in the built environment since 2009.

Spontaneous



8.2 Fragment scale map of Kebon Kacang, Jakarta.

Kebon Kacang

The Kampung Kebon Kacang area is located right in the heart of Jakarta, within the Tanah Abang sub municipality, in the municipality of Central Jakarta (Jakarta Pusat). The name, which means literally, 'Field of Beans', relates to its historical function, as an agricultural village in the outskirts of the Batavia city. The presence of the settlement can be already noticed in the colonial maps of the beginning of the 20th Century, available at the KIT archives. With the growth of the city in the south direction, specially with the construction of the Thamrin Boulevard - in the 60's - and it's new CBD (Central Business District), the traditional kampung was engulfed by the new developments.

With the city transformations, the kampung was also deeply transformed. From a farming village with only two or three houses surrounded by beans and vegetable fields, it became a consolidated, densely occupied urban fabric. Since the country's independency, the area receives continuous flows of new-comers, in some periods more intensely than others, acting as a 'safe haven' for those who come to Jakarta in search for jobs and better living conditions. The first houses have been subdivided between family members across generations, and the fields have been completely replaced by new houses, shops, public facilities, streets and alleys, constructed extensively during the Kampung Improvement Program in the early 1970s.

The proximity of the Thamrin Boulevard with it's skyscrapers and shopping malls on one end and to the Tanah Abang market, an international textile trade center, on the other, has been adding commercial activities to a former residential area. The economy of the kampung, mostly informal, takes great

advantages from it's location offering many services to the CBD workers such as restaurants, small convenience shops, laundry, so on and so forth. Recently, the profile of the inhabitants has also changed, since at the same time, part of the original population is able to develop economically, also middle class workers are also looking for apartments to rent in this area. Since the land prices in the central area have grown exponentially in the last decades, this layer of society cannot afford to rent units from the formal housing market and also don't want to bare with long commutes from the suburbs, were housing is more affordable, therefore moving to the kampungs. Attracted by rapid cash, the original inhabitants of kampungs tend to sell their properties and move to the suburbs. Currently the kampung holds a population of approximately 23,000 people in an area of 71 ha (0.71 square kilometers), resulting in a density of 324 inhabitants per hectare.

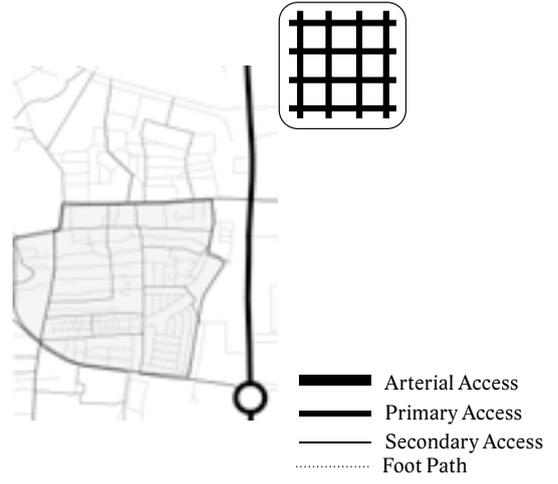
But the same phenomena that changes the kampung and makes it more strong and dynamic is one that could mean it's eviction, since it suffers from growing pressure of land speculation, being so close to the Golden Triangle, Jakarta's most prestigious CBD area. In the same way that the Kebon Kacang has gone through spontaneous formation and development, it's most latent transformations are also deriving from spontaneous estate market dynamics, with no transcendental intentions but rather from an enterprising multitude.



8.3 CIRCULATION SCHEME AND MESH



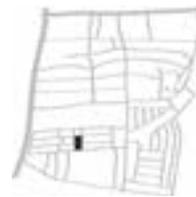
JAKARTA - KEBON KACANG



8.4 URBAN EDGES SCHEME



8.5 PUBLIC SPACES



8.6 LANDMARKS



Mesh and Circulation Scheme.

The spontaneous fragments chosen are, in both cities, examples of urban fragments self-constructed in time by generation of its inhabitants, showing today the results of a sequence of urban policies and planning programs, as Kebong Kacang, but also the spatial result of the lack of such policies – Observed in Heliópolis.

What can be observed in the fragment of Sao Paulo is a Labyrinth scheme since the fragment is a product of the construction of a series of isolated households without a previous allotment of the plot. Although the organic labyrinth tissue could be related to the steep topography, if we compare the fragment to its surrounding areas, under the same geological conditions, we can notice that this is not the only case. Since there was no allotment prior to occupation, the streets, paths and alleys are the old paths of the first settlers. On the contrary, in Kebon Kacang we observe a mesh very similar to an orthogonal grid. This structure is the result of the Kampung Improvement Program, which over the 1970's aimed to improve the living conditions in the Kampung areas, improving and installing urban infrastructure, which led to transformations in the road system whenever possible, improving the kampong connection with other areas of the city. There are still small pathways and alleys in the area, but, unlike Heliópolis, it is possible to observe regularity and connections in road system.

This distinction affects drastically the synergy between the fragments observed and the other fragments of the surroundings. The labyrinth mesh of Heliópolis is unwelcoming for non-inhabitants, while the semi-grid structure of Kebon Kacang, make this area not only welcoming to non – inhabitants but also a pathway between different areas of the city, creating a more integrated urban environment.

The hierarchy of the roads in Heliópolis is complex and does not depend only on the width of the road itself, neither the possibility of connection inside and outside the urban fragment. It relies much more on the existing urban functions, the proximity with the access points and outside urban equipment, such as bus stops.

In Kebong Kacang, over the Kampung Improvement Program, the roads with more connection possibilities to the main roads of the city were enlarged, creating a clear internal hierarchy, dependent of the external structure.

Edges

Heliópolis has serious mobility and accessibility issues related to its urban edges. Surrounded by big city scale equipment and public land (Two Hospitals), configuring very hard edges with high walls and security check points, the area is isolated on the Northeast borders. The accessibility of the northeast area is hampered by obstacles. Rua das Lágrimas, the south west border forms a soft edge, with several access points along its extension, but since this access points do not cross the entire fragment, due to its mesh characteristics, it does not improve accessibility in the fragment as a whole.

Kebon Kacang in the other hand, since it has suffered changes over time, has softer edges and it's more integrated with the surroundings. The harder edge observed is also public equipment, separated from the fragment by an existing river.

Public Spaces and Landmarks.

An interesting difference between the two fragments concerns its civic spaces. The scale of the public spaces and landmarks is quite inferior if compared to other fragments – mostly induced – of both cities. In both cases the public spaces are of small scale, small squares, crossings but most of the time the streets itself. Interesting to notice is that both fragments lack of sidewalks, but hold an impressive amount of activities in its open spaces, which can be considered, structurally, as public spaces in most cases.

Regarding landmarks, the two analyzed fragments are diverse. While an impressive amount of mosques – with their Minarets – is perceived in Kebon Kacang, the only structures, which stand out in Heliópolis' skyline, are the Heliópolis Radio tower and the Technical School water tank. Two other important elements perceived in Kebon Kacang are the markets, one directly related to the neighborhood's daily activity (food market) the other is related to Jakarta's textile vocation. Therefore, while the structures that mark Kebon Kacang are related to religion and commerce, Heliópolis skyline is marked by elements related to communication and education, showing clearly the main tendencies of both fragments.



8.7 Panoramic view of Heliópolis. Source: E.B



8.8 Wall on the edge of Heliópolis. Source: E.B.



8.9 Heliópolis radio Antena Tower. Source: E.B.



8.11 Edge of Heliópolis and its Typology mixture. Source: E.B.



8.10 Hard Edge: Avenida do Estado and the wall of the public hospital.E.B.



8.12 Soft edge: Common street typology in Heliópolis.Source: E.B.



8.13 The Tanah Abang textile market in Jakarta. Source; P.F.



8.17 West Border of Kabon Kacang, Jakarta. Source: P.F.



8.14 West Border of K. Kacang, on the left the Tanah Abang Market. P.F.



8.18 South Border of Kebon Kacang, facing the shopping mall. P.F.



8.15 One of the several mosques within the kampung. E.B.



8.19 North Border of the kampung. Source: E.B.



8.16 Streets of Kebon Kacang, Jakarta. Source: E.B.



8.20 One of the wider streets within the territory. Source: P.F.

SÃO PAULO - HELIOPOLIS

JAKARTA - KEBON KACANG

8.21 SPONTANEOUS SOLID SAMPLE



8.22 BUILDING TYPOLOGY SCHEME



8.23 BUILDING TYPOLOGY EXAMPLES



source: E.B

source: E.B

Solids

The typological analysis shows more some similarities between the two analyzed samples.

Both in Kebon Kacang and Heliópolis there is a certain variety of typologies, yet the majority of the buildings found are horizontal single family houses, from one to four-storey high. There is, in both cases, a considerable amount of mixed use houses, in which most of the time a family shop occupies the ground floor, with direct access to the street and the house itself is located on the back and upper floors.

In both cases the typologies were constructed over time, passing through a process of densification and layer addition to accommodate each generation. Kebon Kacang is an ancient village, therefore the outcome seeing today is the result of the transformations over a larger period, from colonial times to independence and its modernization, the economic crisis of the late 1990's with its housing crisis and the economic recover bringing a spontaneous process of gentrification and addition of new uses in the area, summing up several layers of variety in the same space. Whereas Heliópolis was entirely constructed over the last forty years and its result was carried out only by two generations, first facing major difficulties and insecurities regarding their right to remain in the occupied land and facing a severe economic crisis in the 1980's, afterwards the struggle to assure basic public services as water sanitation and electricity over the nineties and nowadays, from the 2002 Masterplan on and secured by the City Statute instruments, the moment is marked by a slow but continuous improvement of the constructive quality of the houses, allied by the economic expansion and what is called the the "C class uprising", a process in which the lower classes gain access to small credit to assure the consumption level in the country after the 2008's economic crisis.

SÃO PAULO - HELIÓPOLIS

JAKARTA - KEBON KACANG

8.24 SPONTANEOUS VOID SAMPLE



GREEN
8.25



source: E.B



source: E.B



URBAN
EQUIPMENTS
8.26



source: E.B



source: P.F.



PUBLIC SPACES
8.27



source: E.B



source: P.F.

Voids.

As already explained the urban voids in each of the analyzed fragments are mostly the streets, which holds most of the activities and flows of the fragments. The voids seen in the chosen urban samples reflect exactly this assumption. An intense and diverse street life is seen, since, simultaneously, the open space can be used for several activities as the most usual as the local traffic of cars and motorbike and street vendors, to other not so common uses as a repair shop, local inhabitants' small scale public space, children's playground, local parties, hosting an infinite number of others activities.

The main difference from one sample to the other is the concern regarding security and the relationship between the open space – the street – and built space. While in Jakarta a strong synergy between these two is clearly perceived, in Sao Paulo the same elements that characterizes the induced fragment – walls, fences and bared windows – are seen everywhere in Heliopolis and its analyzed sample, showing not only concerns regarding security, but also an obsession about being exclusive, as perceived by the initiative to fence the social housing developments recently constructed, privatizing open space in a similar way as what was done in the induced fragment.

As mentioned before, in Jakarta there are (almost) no public spaces. This phenomenon of the city is what makes the small alleys of Kebon Kacang so lively and special. Protected from the busy highways, in a scale small enough that doesn't need control, the narrow voids of the kampung are the outmost spaces of community and collectivity, being usually used as street-restaurant, outdoors living room or even as wedding venues.

The urban equipment in Heliopolis and Kebon Kacang are usually related to the mentioned street life existing in both neighborhoods, but sometimes also related to public services – as garbage collectors.

Kebon Kacang differs from Heliópolis regarding the higher amount of greenery in its public spaces, created and maintained by its inhabitants as their private gardens, whereas Heliopolis has a lesser green urban environment and initiatives like the ones seen in Jakarta are increasing, but still an exception. Heliopolis site was in the 1960's filled with impressive mango trees and a dense preserved native forest. With its constant process of occupation and densification, very few of these trees have remained intact. One of the remaining samples is at the entrance of the new technical school, today one of the main entrances of the neighborhood and important reference.

São Paulo x Jakarta:

Similar Megacities?

Despite their similar overall city form, the analysis reveals very distinct fragments. Heliópolis with its large size and high density is quite distinct from the compact urban village Kebon Kacang. Jardins is a sprawled version of the concentrated Thamrin Boulevard, exemplifying the “Las Vegas strip” urbanism of Jakarta.

São Paulo, as Richard Rogers (2001) stated, is the city made for profit, offering a final urban form which can be considered entirely spontaneous, where the only difference from one fragment or the other is the stakeholder – strong or not, collective or not – which started the spontaneous process of occupation.

Jakarta, despite the projects of modernization of the 1960’s, can also be considered a spatial outcome of spontaneous processes, at first by the occupation of Kampung and later the private-led transformations and real estate development agglomerations.

Therefore, the case studies are similar megacities in their process of spontaneous spatial development, yet very distinct in form, each with its own patchwork of characteristic fragments.



9.1 Old Quarter in the first half of the twentieth century: the origin of the tube house typology. Source: VIAP archive.

Hanoi is a historic city with over 15 centuries of urban development and approximately a thousand years being Vietnam's capital city, the country's political and economic center. It is possible to say that the current Hanoi is the result of an urban development characterized by the constant political and economic shifts the country has been through, revealing its historical evolution through space.

Originally, Hanoi was an antique village named Long Do, surrounded by natural structures such as Red River, To Lich River and Nung Mountain. During almost the entire Chinese colonial time, the ruling circles settled the citadel at the left bank of the Red River. In 7th Century, the city had become a major settlement of the whole Northern Delta (VIAP, 2012), when Cao Bien (of Tang dynasty) built Dai La citadel (Nguyen Si Que et al, 2009). By then, the city was constituted by the citadel, the trading center – old quarter – and the surrounding traditional villages, until the colonial period.

During French colonial time, Hanoi urban morphology had major changes due to the influence of the modern Western urban planning practice. By the beginning of the 20th century, there were separate quarters for French and Vietnamese in the city. Local inhabitants remained within the ancient trading quarter while the French and those who worked for them settled in the South of the old city. This new quarter had wide grid street network and western Villas, buildings with surrounding spacious gardens. Hoan Kiem lake (in the South East of the citadel) and surrounding areas also became a new center area with a series of commercial, religious, cultural, municipal and public buildings, forming the operation of French colonial regime.

Besides, the French also put massive changes in existing areas. A political – administrative center had been established on the location of the former Imperial citadel. The morphology of trading quarter was also transformed, implementing an orthogonal mesh with the construction, improvement of road network and the land division. Gates of guilds were diminished to improve connection and trading activities. Most of the water bodies in the trading quarter disappeared and the density increased. The traditional Chinese low-rise single family house typology was gradually replaced by what is called the tube houses, multi-story high construction which follows the shape old narrow plots, with western façade decorations.

Over the last half of the 19th century, factories and urban infrastructural facilities had also been sparsely constructed in Hanoi suburban areas. In 1902, the construction of Long Bien Bridge and national railway were completed. Since then, Hanoi became a major junction of roadway, railway, and waterway running connecting the city to the whole country.

At the beginning of 20th century, the city enlarged to the South and the West and development took place by swallowing nearby agricultural and craft villages. Hanoi population had been strongly grown up in its colonial century. In 1918, the population was about 70,000 people. As of 1942, the number quadrupled, becoming approximate 300,000 people. (Le Hong Ke et al, 2010)

1954 – 1975: Hanoi during the US war and Socialist time

After the end of Second World War and the obtained independency of northern Vietnam. By 1954 the city occupied an area of 152 square kilometres and had about 530.000 inhabitants (Le Hong Ke et al, 2010). Although a part of population had left Hanoi in order to avoid the new regime, the population did not change much since participants of Vietminh and their families came back or migrated to Hanoi after the independency war.

In 1961, Hanoi widened its municipal boundary for the first time and four neighbouring districts (huyen) had been included. The City's area increased to 586 square kilometres and the popula-

tion was nearly 1 million inhabitants.

The construction of the socialist regime was strongly associated to the first five-year economic development plan (1960-1965). Big cities, Hanoi particularly, had immense changes when factories, enterprises and trading groups were nationalized and most of empty land or vacant houses also became state properties.

In the particular period 1960-1965, the construction and improvement of housing projects and urban public facilities was implemented parallel to the urban planning proposal. Several pioneering complex collective housing and neighbourhood projects, hospitals and academic institutes were built in the South and West suburban areas.

Also during this stage, Hanoi development was planned based on socialist urban planning and architectural methodology. With support of Soviet Union and Chinese experts, in 1962 Vietnamese planners proposed an improvement plan for the Capital – known as The first proposal of Hanoi Master Plan (Khac Trong, 2011). In this stage, the necessity of associated the urbanized area with a vaster region including Western Ba Vi, Son Tay and Northern areas of Red River had been recognized. However, because of the American War and limited capacity of the new country, this plan was never completely implemented.

From 1965 to 1975, The USA War happened. Vietnam was divided into two North – South regions with two opposing ruling regimes. Hanoi was the capital of North Vietnam – following the socialist orientation with the centrally subsidized economy. The fundamental achievement during war time was that the execution of collective socialist housing projects and industrial zones. Centralized housing policy provided by the state was strongly promoted; however, the houses were only for people who work in state agencies. Former Soviet Union and North Korea-style based housing projects, such as Trung Tu, Ba Mau lake collective housing neighbourhoods (Khu t p th - KTT), were constructed. Industrial zones including Thuong Dinh, Vinh Tuy, Thanh Tri and Minh Khai were located alternately in such above new urban areas.

Hanoi's development achievements however were limited by the circumstances of war since many urban facilities, including schools, hospitals, factories, infrastructural networks and some residential areas, had been destroyed by U.S bombing, especially in early 1970s. The bombardment ended in late 1972 after the failure of US air force. From so on, the recovery and new development in Hanoi started

In this period Hanoi was also threatened by natural disasters and floods. The second conduction of Hanoi Master plan proposal was in 1968 – 1974. The selected proposal aimed to control the old Hanoi with a limit of forty thousand inhabitants and to develop a new Capital in Vinh Yen with sixty thousand inhabitants (Khac Trong, 2011). However, this plan never approved and the deploy on more specialized planning did not happen since, once again, Hanoi had shifted to a new phase with tremendous changes in position and contexts.

After the end of the war in 1975. Hanoi became the capital of the whole country with a population of around 1.4 million inhabitants. (Le Hong Ke et al, 2010).

With the help of foreign experts, Vietnamese planners had worked on the adjustment of master plan proposal. In 1976, the 1st Master plan of Hanoi was approved. The plan envisioned forward to the year 2000 and its estimated population was 3.5 million inhabitants. The real population at that time was around 1.4 million people and, in order to meet the estimation of population and the envisioned development, the municipal boundary of Hanoi had been again expanded. Six districts (Huy n), one town (Th Xã) and some councils (Xã) were merged into the

original city. Accordingly, the area was 2136 square kilometres and the population was more than 2.4 million (Nguyen Thi Ngoc Van et al (1), 2010).

In 1982, foreign experts coordinated a research for the 1st adjustment of the 1976-2000 Master Plan, which was then approved by the Prime Minister. Based on which, the 100 square kilometres central urban area would accommodate an 1.5 million of population, while the suburban areas would host the rest. In fact, the 1982 Master Plan was difficult to be implemented because a large area of site clearance would be required for the construction of massive linear routes. Therefore, in 1984, the Master Plan once again had been adjusted in terms of its spatial concept, however the economic and technical targets were remained (Khac Trong, 2011).

The major implement of these planning policies were the construction of basic main traffic axes such as National A1 highway running across Hanoi from North to South, the commuting East to West 1st ring road and several main avenues. By 1985, a number of important transportation projects had been renovated or newly built including: Duong Bridge, Pha Den Port, Noi Bai International Airport, Thang Long Bridge. Besides, there were around 100 manufacturing enterprises developed in designated areas.

Hanoi urbanized area during 1970-1980 did not change its size and shape much. However, its density had witnessed strong transformation. Due to lack of support from other socialist countries, limitations of the subsidized economy and exhausted state budget in 1980s, the centralized housing policy closed, which created a severe housing crisis, causing the consecutive densification of already established and consolidates urban areas, changing drastically its urban morphology.

The city's population was nearly 2.7 million inhabitants 1985 respectively with the average growth rate of 1.78 to 2.2% (Le Hong Ke et al, 2010).

The economy had limited resources and unstable development during after the national unification. From 1976-1980, both Gross Industrial production and Gross Agricultural production decreased around 3.3%. However, thanks to a series of changes in policies, economy of Hanoi in later stage had grown. The average GDP growth from 1980 to 1985 was 8.1%.

The year 1986 marked an important milestone on the comprehensive and profound renovating progress in Vietnam. Hanoi shifted from homogeneous public ownership to the multi-ownership and open economy (Nguyen Tri Dinh, 2008). The abolishment of subsidizing commodity on coupon and of condominium regime had promoted the free trading activities and migration. Hanoi gradually became a grand pole of attraction in the North of Vietnam.

Increasing population had driven the increase of dwelling demands. In the context of the increasing housing demand, of limited provision from the state and of people having right of using land, dwelling repairing, improvement and construction were undertaken everywhere. Tube houses and collective apartments were buildings, which have the most astonishing typological transformation. Besides, a great amount of new self-built houses, mostly vertical tube houses, appeared and soon became a major part of housing market. The Hanoi urban area had spread in a multidirectional way and most of the urbanized areas were also getting denser.

During this phase, the Master Plan adjustment, implemented from 1982-1984s, continued to be deployed until 1992. The original scale of Hanoi was so large that it slowed down the process of gathering labor and materials for urban construction. Therefore in December 1991, the Hanoi municipal boundary was once



9.2 KTT social housing complex. Source: VIAP archive.



9.3 KTT social housing complex: informal additions. Source: E.B.



9.4 KTT social housing complex: informal additions. Source: E.B.

again adjusted; seven districts and towns were returned to Ha Tay and Vinh Phuc provinces. With such adjustment, the area of Hanoi was about 922 km² with an approximate population of 2 million inhabitants (Le Hong Ke et al, 2010). The Adjusted Master Plan of Hanoi, envisioning development until 2010, was approved in 1992. According to its guidelines Hanoi would be mainly developed in the Southern and Southwestern areas of the Red River.

The major implement of 1992 Master Plan was the formation of traffic network, which became basic foundation for the recent city road network (2008). The most visible evidence was the 2nd ring road, crossing around the city in the West, South West and South of Hanoi, connecting the city with northern provinces by Thang Long bridge (1985). Chuong Duong Bridge – a made in Vietnam’ design was built the next year There were two other bridges schemed by this 1992 Master plan which could not be built during this time, however, the ideas about their location and function had been inherited in the following Master plans . Both of those infrastructural works now are playing critical role in communication of Hanoi to northern vicinity and further. Most of the radical roads nowadays were also constructed during this period. Industrial parks in Gia Lam district (huy n), Trau Quy town (th tr n) and several industrial factories in the South West areas, adjacent to Red River, were also originated from such plan.

With the end of the economic embargo in 1993, foreign investment rushed into Vietnam. Funding of Soviet Union and other socialist countries stopped, however soon replaced by ODA and developed countries. Such aid helped to shape social and urban infrastructural networks for Vietnamese cities, including Hanoi . Industrial parks continued to be constructed in the suburban, far away from residential areas however most of the factories were private enterprises.

Ever since the openness of the economy, Hanoi had witnessed three real estate “fevers”. The first housing-thirst in Hanoi took place in the mid 1990’s, associated with the commence of the Open Era and the presence of foreign investors in Vietnam. This “thirst” was mainly cause by tremendous land demand for industrial parks as well as for private enterprise’s office and warehouses. On the other hand, the turning point for urban land was the introduction of the Land Act 1993, in which, land use rights and land lease rights for organizations, households and individuals were recognized. These two rights authorized civil construction activities to be undertaken by different private stakeholders.

To ensure the development of Hanoi in this new era, an adjustment of Hanoi Master Plan had been approved in 1998. This Adjusted Master Plan aimed to develop Hanoi towards the North, turning Red River into an internal natural flow inside the city.

Road network was considered to be the most coherent and consistent with the actual development compared to previous plans. The 2nd ring road was planned to link to satellite towns in the north, while the 1st would connect to the island formed by silt deposition of Red River.

In the 2000’s the 2nd real estate fever occurred, when first new large scale urban areas (Khu đô th – KĐT) were formed and effectively were occupied. The location of those areas followed the orientation of 1998 Master Plan; according to which, the priority of development was the South and South West direction. To name some typical successes enterprises: KĐT Linh Dam, KĐT Dinh Cong, KĐT Trung Hoa Nhan Chinh, among others. The success of their operation and their pleasant new appearance had prompted the desire of people’s for this new living lifestyle, thereby promoting the construction investors and real estate companies as well.

In 2003, Hanoi's actual urbanized area had soiled out across the third belt, towards the South and Southwest, primarily and priority along radical traffic lines. By then, the planned construction of Northern areas had not been deployed.

The most severe real estate boom of Hanoi took place between 2007-2008. In August 2008, Hanoi had a new change in its administrative border, incorporating the whole Ha Tay province, Me Linh district of Vinh Phuc province and four communes of Hoa Binh province, reaching an area of more than 3.340 km². That grand extension had turned the city as one of the top 17 largest capital cities in the world. Shortly thereafter, a Master Plan for new Hanoi was studied.

During the public consultation for the new Master Plan, the biggest ever land and real estate fever in Hanoi has risen. A series of urban and housing projects in the planned-to-be urban areas had been proposed. Real estate investors did not miss any chance, starting a speculative chain in which a single housing unit - villas, apartments, etc - or parcel of land before its real housing construction was bought and sold many times in the market. Profits after each transaction increased, pushing the price higher and higher. Mostly, the price was not based on the needs of the people and their paying ability. Real estate speculation leading to the massive construction of new urban areas happened, while infrastructure and social facilities were still absent. After the last booming period, real estate market in Hanoi cooled down and nowadays has reached the bottom (2011-2012). The consequence is that today Hanoi has several ghost towns, empty land with unfinished projects, entire neighbourhoods abandoned with empty houses and apartments, while, a number of its population still cannot afford these.

In order to celebrate its 1000 years, Hanoi has deployed many urban development projects in large scale. Thanks to this special event, series of planning projects, of social and technical infrastructural projects and of redevelopment projects have been undertaken, leading to a more modern and pleasant look of Hanoi from 2010 onwards.

On July, 26th 2011, Hanoi Master Plan had been approved. Now Hanoi and besides the core urban area, all the towns in Hanoi region started their detailed Master Plan planning.

Nearly two decades of Renovation had brought an extraordinary economic development. According to statistical data from the Statistic Office of Hanoi, the GDP in the non-extended Hanoi in 2008 (at constant prices of 1994) rose by 6.8 times against 1990; means 11.2 % per year. Of which, the sector of industry and construction grew most with 13.7% GDP per year. (Nguyen Thi Ngoc Van et al (2), 2010)

After the expansion of administrative boundaries, Hanoi is about 3324.92 km², including 1 town, 10 inner district and 18 outer districts and small towns. In such territory, the population of Hanoi was around 6.699.600 people with the average density was 2013 people per km² and the rate of urban population was roughly 41.1 %. (Vietnam General Statistic Office, 2012) However, with the massive wave of immigrants from nearby and Northern provinces, the real number of people living in Hanoi definitely would be higher and would increase at accelerated speed in the future.

Also during such period, the pressure of the urbanization process in Hanoi natural environment became more evident and tended to magnify. Hanoi water surface system is minimized and polluted. Two rivers, which used to define the city's boundary in previous time, To Lich River and Kim Nguu River, do not hold the role and status as before. Hanoi suburb villages and green agricultural belt alternating gradually merged with the Hanoi center.



9.5 Informal occupation along the recently finished highway. Souce: E.B.



9.6 Sidewalk appropriation in the French Quarter. Souce: E.B.



9.7 Example of Ghost Town: recently constructed and completely finished empty neighborhoods. Souce: E.B.



9.8 Ghost Town and agricultural fields. Undesired suburbs in Hanoi. Souce: E.B.



9.9 Agricultural village. Souce: P.F.



9.10 Food production is located closer to the urbanized area. Souce: E.B.



9.11 Phong, onde of the most common dishes of vietnamese cuisine, based on fresh vegetables Souce: P.F.



9.12 Economy activities and the appropriation of the sidewalk in the center. Souce: P.F.

Tracking Hanoi urban evolution, you can see the various urban areas appear respectively in time, forming urban layers arranged next to each other and sometimes overlapped. Hanoi's territory is formed by the large concentrated urban region, green land (agricultural land, natural landscape), and grey land (industrial zones). The large concentrated urban region, former Hanoi before 2008 extension, consists of different historical areas/ quarters , each of area has typical architectural buildings (Kunihiro Narumi, 2009):

- (a) The old Citadel area (The core of the city): citadel/ palace (almost been destroyed) ,
- (b) The Ancient trading quarter (The 1st Urban layer): Traditional shop house,
- (b) The French colonial quarter (The 2nd Urban layer) : Villas and colonial building,
- (c) Public Neighbourhood planned and built in socialist time (3rd Urban layer): Socialist collective apartment
- (d) Newly developed areas since Renovation: (The 4th Urban layer): row house, villa, high-rise apartment

The more recent layers of Hanoi (c and d) are not really compacted as the previous layers. They have been mixed with others and with many old urban villages. Once suburbs of former Hanoi urban region, these layers are today inside the central region. Within three decades of renovation, there were massive changes inside all urban layers of the city. The agricultural and natural land and the urban villages have been consolidated by self-built houses, similar to the inner city tube houses.

Because of the recent extension, since late 2008, all towns, rural villages, green and grey land of former Ha Tay province have become parts of Hanoi territory and such circumstance, movement and development also contribute to the development of diversity and complexity of Hanoi.

Hanoi is a city a thousand years of urban formation but has only more than a hundred years of development under urban planning towards modernization. Such special historical characteristic has turned this city into an urban region of diversity with both traditional and modern characteristics under current astonishing transformation.

Hanoi is a city small in scale but always subject to quite large changes. Its politic shifts, historical transformations and economic waves enabled 'extreme' transformations. During the war, the city suffered severe devastation. In the Renovating and Opening stage, the concern and investment to this city mounted the top and consequently, the urban development has always been surprisingly powerful. Increasing population and massive migration contributes to the great picture of this city.



9.13 The traditional urban elements in the urban villages: the temple.
Souce: E.B.



9.14 Agricultural villages and food production inside the urban area.
Souce: E.B.



9.15 Traditional Tube houses and the new developments, contrasting scales. Souce:E.B.

Hanoi Over Time

10.1 1924 E. Hesbrad 's Master Plan

From 1888 to 1920, in the 1st colonial exploitation in Indochina, the French turned Hanoi into capital of the Federation of Indochina, with the planning based on widely grid road network . There would be 4 functional regions in Hébrard's scheme. First was Political center, where is now Ba Dinh district, a Federal political Center for Indochina would be formed, The focal point of which would be a Round Square, surrounded by civic buildings. There would be two diagonal angle of 45° roads, forming a diamond shape in the middle and the symmetric triangular at 2 sides (Doan Duc Thanh, 2010). Industrial zones would be located in Gia Lam where was adjacent to critical traffic nodes and at the end of windflow. The West lake would be planned as recreational green parks. The sport centre would be in Cau Giay - Nghia Do (South West of Hanoi). Unfortunately, this scheme did not reach it completion due to economic difficulties. (Nguyen Sy Que et al, 2009)



Urban Design and zoning

Map Source: Scanned in Emmanuel Beville, article 'Hanoi: From Hébrard and urbanization in Indochina', book 'Period of changes - Urban and architectural morphology', page 122, Scientific and Technical publishing Co., 2005; (from Architectural Magazine, China XJ, dated 15/02/1926- page 1848)

10.2 1943- Louis George Pineau's Master Plan

The 1943 Hanoi master plan of Louis George Pineau's inherited many planning philosophy from Hébrard's and other predecessors'. Planning spatial concepts emphasized the harmony between architectural buildings and natural landscape. Starry and wide traffic network, squares with different levels and the secondary road system surrounding the perpendicular cluster of housing were the most typical features. In this scheme, the ancient quarter would remain as before; many surrounding villages and agricultural land would become urbanized areas and the city would be expanded westward. This master plan was approved nor complemented in reality because of the massive change in Vietnam society a couple of years later.



Roads and zoning

Map Source: Scanned in Rue Centre and Nathalie Lancret et al, Hanoi, book 'Period of changes - Urban and architectural morphology', page 71, Scientific and Technical publishing Co., 2005; (collected by Nathalie Lancret - from Storage center, the French Architectural Institute, Paris (page 3302))

10.3 1956-1960 Master Plan

Zoning

Map Source: Khae Trong, post 'Overall planning of Hanoi period 1955 - 1964: Recovery, rehabilitation and economic development, culture, City first.com Hanoi Department of Planning and Architecture's website, 2011

10.3

With support of Soviet, Chinese and Polish experts, during period 1954-1960, Vietnamese experts made a plan of improvement for the Capital city, at the scale of one million of populations and about 20,000 hectares of land. (Khae Trong, 2011)

The necessity of being associated with the vast regions including Western Ba Vi, Son Tay and Northern areas of Red River had been recognized. Scale has been increased by the development of centripetal axes starting from the center (Old Citadel) to West, South West and South. The zoning of the Urban Functions added different elements such as collective housing, public works and industrial zones. Accordingly, a new development area and a small industrial zone would be formed at the North-east, across the Red River. The largest new urban center would be placed around the West Lake and the other smaller ones located in the previous downtown area. An orthogonal road network was established forming a grid of square-shaped blocks. The 2nd ring road would be the hard boundary of the urbanized area, defining a consise urban form for the city

However, this was only a preliminary plan. Despite of that fact, this plan needs to be recognized as for the first time Vietnamese planning had approached modern urban planning methods: the radical and ring urban road network ring surround the city centre. Rational Planning structure with adequate functional areas of which urban service serves system hierarchically.



10.9 1925



10.10 1943



Urban Growth Schemes
Source: Personally devised by the authors, based on several maps from Hanoi Planning and Architecture department's website

1968-1976 Master Plan

Concept Plan - Structural elements

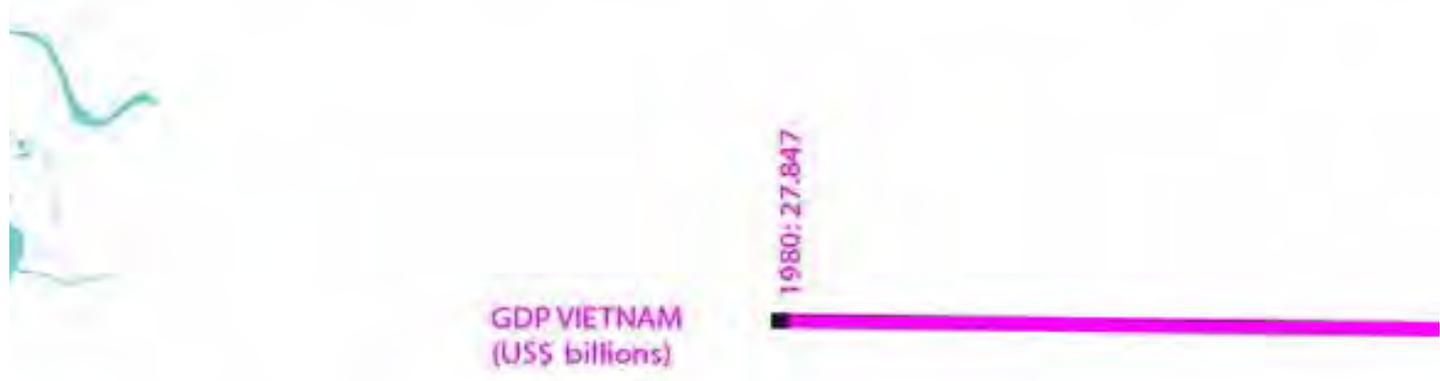


Map Source: Khai Trung, post 'Overall planning of Hanoi period 1964 - 1974 The 2nd Expansion', Hanoi Department of Planning and Architecture's website, 2011

10.4

In 1976, the capital Master plan of Hanoi was approved (planning by year 2000 with the population of 1.5 million people). Accordingly, the suburban areas of Hanoi would not only be the green belt supplying food but also a place to arrange culture and recreational activities, head traffic works and environmental protection belt. Cities of Ha Tay, Hoa Binh and Bac Ninh provinces in the West and North (Xuan Mai - Son Tay - Ba Vi, Vinh Yen - Tam Dao - Bac Ninh) were oriented to be surrounding satellite cities with functions in industry, agriculture and tourism and resort. The general direction of spatial development was mainly to the South.

Following the above orientation, in December 1978, the boundary of Hanoi was adjusted; accordingly several southern and southwestern districts, towns and communes were merged into the big city. Capital Hanoi at that time covered an area of 2136 km² (hectares) with population of 3.5 million people.



10.4

In 1976, the capital Master plan of Hanoi was approved (planning by year 2000 with the population of 1.5 million people). Accordingly, the suburban areas of Hanoi would not only be the green belt supplying food but also a place to arrange culture and recreational activities, head traffic works and environmental protection belt. Cities of Ha Tay, Hoa Binh and Bac Ninh provinces in the West and North (Xuan Mai - Son Tay - Ba Vi, Vinh Yen - Tam Dao - Bac Ninh) were oriented to be surrounding satellite cities with functions in industry, agriculture and tourism and resort. The general direction of spatial development was mainly to the South.

Following the above orientation, in December 1978, the boundary of Hanoi was adjusted; accordingly several southern and southwestern districts, towns and communes were merged into the big city. Capital Hanoi at that time covered an area of 2136 km² (hectares) with population of 3.5 million people.

10.5

1982 - The adjustment

Zoning



Map Source: Khac Trong, post. 'Overall planning of Hanoi period 1975 - 1985: Main direction of development for Hanoi is in the south of the Red River', Hanoi Department of Planning and Architecture's website, 2011

10.5

Accordingly, the urban size would be minimized into 1.5 million of population and 100 km² of land; the suburban region would contain 11 districts and towns.

In fact, the 1982 Master Plan was difficult to be implemented because a large area of site clearance would be required for the construction of massive linear routes. Therefore, in 1984, the spatial concept would be adjusted while economic and technical targets still remained. (Khac Trong, 2011)

10.6

1992 - The Adjusted

Master Plan

Zoning and road network



Map Source: Khac Trong, post. 'Overall planning of Hanoi period 1986-1998', Hanoi Department of Planning and Architecture's website

10.6

In 1991, Hanoi municipal boundary once again had adjustment. 7 districts (huy n) would return to Ha Tay and Vinh Phuc provinces. With such change, Hanoi's size was 924 km². The adjustment of Hanoi Master plan was officially approved in 1992. According to which, the estimated population for urban area was 1.3 million people in 2000 and 1.5 million in 2010. (Khac Trong, 2011) The city would be mainly developed in the Southern and South-western areas of the Red River. Three dwelling belts of Hanoi were clearly comprehended: The core dwelling area (historic districts), the new dwelling area 1 (between belts 1 and 2) and the new dwelling 2 (between belts 2 and 3) and a green agricultural buffer zone in between the new dwelling areas 1 and 2. Respectively, radial lines/roads (4 lines) and ring lines/roads (3 lines) expressed clearly the equal spread to both the Southern and South-western directions and the tendency of having unipolar center of Hanoi.

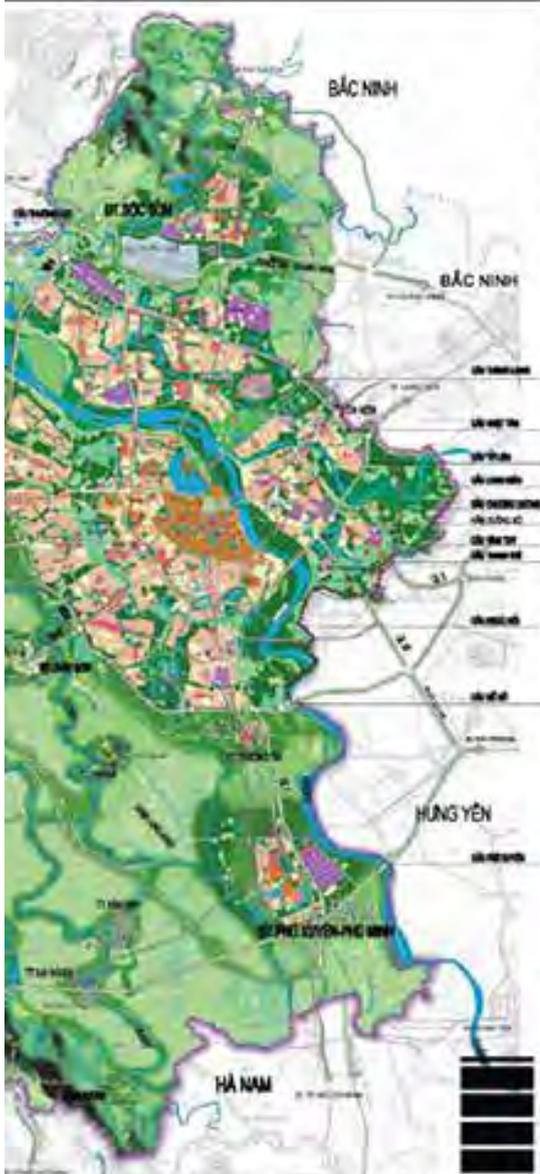
5 10 20km

1986: 2.811.000

1990: 6.472

10.11

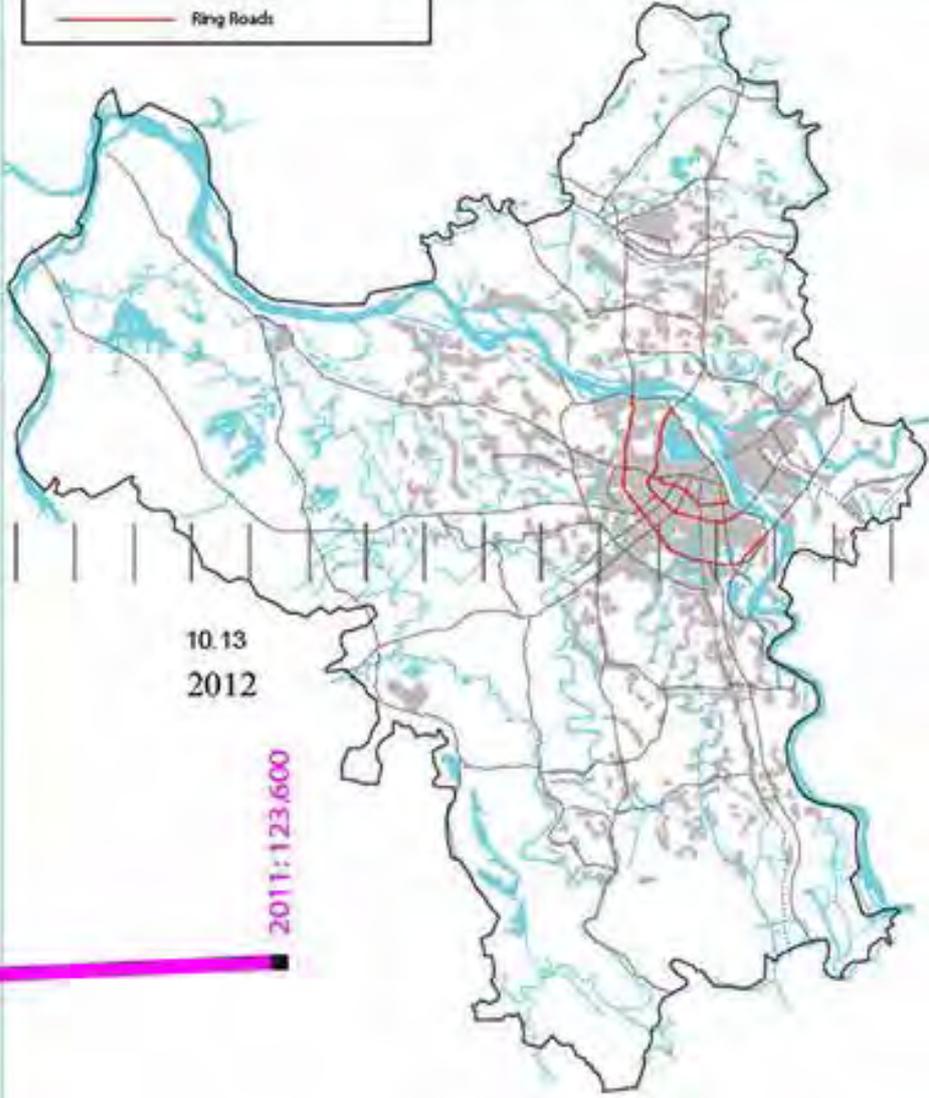
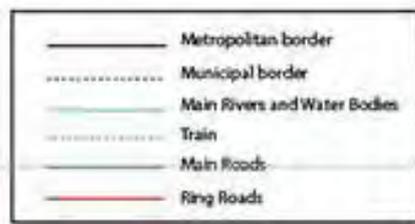
1998

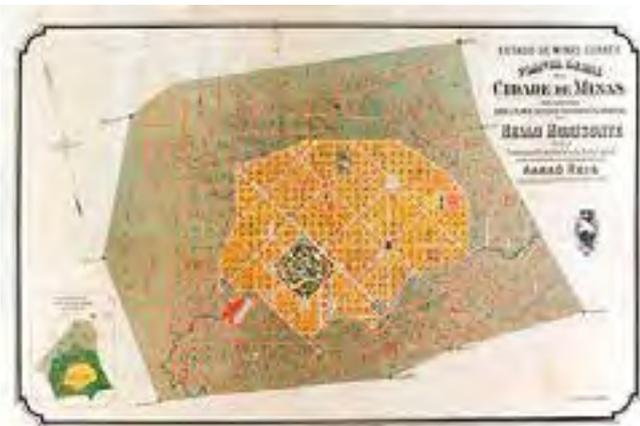


on of urbanized areas/new centralities
 2008: 6.233.000

10.8

The first highly acknowledged feature of 2008 Hanoi Master Plan is the interaction of Hanoi with the surrounding environment in a global context. Accordingly, Green buffer zone would cover 70% of the total area (PPJ Partnership, 2008). However this green buffer zone is established in an area where existing villages lay, with a severe threat of the demographic trends and gentrification of these villages affect the green area. The second feature is the humanist planning intention: considering intangible valuable traits of Hanoi. Spiritual axis (Thang Long highway running from west to east) connect West lake (west of Hanoi's centre) and Tan Mountains (Ba Vi) is a sharp manifestation . For the first time in Hanoi, planning policies incorporated the such cultural aspects, indicating a paradigm shift between the previous Soviet- influenced plans, towards a more traditional and genuine Vietnamese spatial planning paradigm. From now on it will be a matter to accompany and evaluate if such different policy orientation will be carried out in the next phase of city development.





11.1 Belo Horizonte's first plan, the grid and the diagonal structure. Source: Belo Horizonte municipality archive.



11.2 Official Urban interventions of the 1940's in the Metropolitan area of Belo Horizonte. Source: Probel, 1986 apud Tonucci, 2012.

Belo Horizonte

Belo Horizonte was founded in the turn of the 19th century, out of a political decision for the strategic economic development of the province of Minas Gerais. The strong role played by the public administration in leading the economical and, consequently, physical development of the city can be recognized in many periods all throughout its history in the last century. Today, the city is the third biggest in the country and was the one that presented the largest GDP growth rate in the last 5 years.

In order to understand the spatial outcomes of urban planning in the time lapse of the last five decades, it is important to highlight some key moments of the historical process of development over the last century. In this case, it is fundamental to understand in which basis the city was created, out of a designed plan, and how some patterns of growth and tendencies were visible throughout the events of the early century, locally and globally.

After the proclamation of the Brazilian Republic in 1889, discussions were initiated about creating a new capital for the province of Minas Gerais. The provincial constitution ("Constituição Mineira") of 1891 already determined the transference of the capital to a new location. It was due to the obvious difficulties of the old Capital Ouro Preto (located on steep hills, having severe limitations of access and future growth) but mostly because the image of the old 17th century colonial town didn't represent the new modern Republic.

After some political struggle between the major economic oligarchies, the location of the new capital was chosen, among three other possibilities. The reasons were due not only to its proximity to Ouro Preto, but mainly for its centrality in the province, since it was meant to establish equilibrium and unity (PLAMBEL, 1986).

The engineer Aarão Reis, inspired by the models of Hausmann for Paris and L'Enfant for Washington, drew the plan of the city in a geometric tracing of streets, with functional zoning and strict control of space by the urban legislation. It was subdivided into three main zones: Urban, Suburban and Rural.

The Urban Zone, the area within the perimeter defined by the Contorno Avenue with privileged topography received a double grid, adjusted diagonally, containing the functions of the commercial zone center, the governmental buildings and housing for the high rank civil servants (Bairro dos Funcionários). Beyond the limits of the Avenida do Contorno, on the Suburban area; the grid tracing was adapted to the hilly topography, with narrower streets and less public spaces. The Rural zone was intended to form the green belt for the food supply of the city with agricultural colonies and small agriculture production.

During the first decades there was a general amusement for the revolutionary character of the city that was born out of a plan and the image that was formed was of a modern, clean and organized city. There were great expectations for the city to become the new Capital of Brazil, when the discussions on this matter started, also in the turn of the century (PLAMBEL, 1979).

However, the plan of Aarão Reis was considered to fail almost immediately after its conception when it came to implement the city de facto. The restrictions to build in the urban area, were so strict and the price of the land became so high that most of the population could not afford to live there. The poorer population began to disorderly establish all around the suburban area, where infrastructure was deficient, while the elites were provided with privileges such as a complete urban infrastructure, public and private services.

In addition, in the initial moment the poor population was allowed to live in temporary wood houses within the Urban Zone, converting it temporarily into Suburban Zone. This was the origin of the first 'favelas' in Belo Horizonte. Later, this population

was expelled and relocated in the peripheries of the north, where the city was growing in disarray.

On the plains of the Arrudas River, the railway was implemented, on the northern edge of the Urban area. This way, it prevented that the noble southern part would be sectioned by a large barrier therefore establishing in a very early stage the segregation between the noble and urban south to the poor and suburban north.

In 1905, only 44% of the population was living in the Urban Zone, and 1912, 68% were already living in the Suburbs, towards the east and west, contradicting the initial plan of growth from the center to the periphery (VILLAÇA, 1998). This expansive occupation of the suburbs rather than in the urban area, was one hand driven by land speculation and on the other, by the highly restrictive building regulations in the central zone.

The development of the city was brought to a halt by the First World War, due to the difficulty in importing construction materials. After that period, with the establishment of a number of steel factories and the University of Minas Gerais, the city was able to consolidate as, not only the administrative, but now also cultural and economic center of the province. In 1920 the population reached 55,5 thousand inhabitants and in 1930 it was already of 140 thousand inhabitants, finally reaching 214 thousand inhabitants in 1940 (TONUCCI, 2012).

Due to the process of industrialization, in face of the fast expansion of the city, already in 1933 the general plan was revised in order to re-define parameters for the central area in order to increase densification and verticalization. In 1935 the efforts began in regulating the land subdivision and to cadaster the entire city. However, land continued to be subdivided illegally and villas continued to grow without approval in the suburbs. Contrary to what would be considered as a normal pattern, Belo Horizonte initial growth happened from the periphery to the center. In the same manner, it would be expected that the implementation of infrastructure works towards the periphery would have influence on the direction of the urban mass growth, but in Belo Horizonte it was the pressure of communities in the already occupied suburbs that allowed the implementation of such infrastructure.

On a national level, the 30's and 40s were marked by the “developmentalist” politics that initiated with the emergence of the “New State” (Estado Novo) in the presidency of Getúlio Vargas. The main driving force of development that was highly embraced by the government was industry. After the coffee trade crisis – on the chain of the great depression – the surplus of capital and working force were combined in the construction of the city and the development of industry. Also in this period, politics (so far performed mostly by the agricultural elites) grew very close to the proletariat groups, forming a highly populist government.

The consequences of those in Belo Horizonte, under the administration of the envisioned Juscelino Kubitschek, (from 1940 to 1945) were the launch of a new Industrial City in the adjacent municipality of Contagem (west) and later the implementation of the Pampulha (north) as a sports complex around a lake; both followed by the urban development and land subdivision of the surrounding areas. In addition, large avenues were constructed to connect the center to those new equipments, starting to delineate the future urban form along the North-Center-West axis, since these two avenues would later form the backbone for the urban growth of Belo Horizonte. Despite the efforts in updating the cadastral plan of the city, reorganizing the taxing system of plots and intensifying the control of land subdivision and development in the periphery, the city continued to expand in all directions. The construction of the new radial avenues and the improvement of the system of bus lines boosted the peripheral



11.3 Pampulha sports complex, Mineirão and Mineirinho, 2006. Source: P.F.



11.4 Igreja São Francisco de Assis, Pampulha. 2006. Source: P.F.



11.5 Different urban regulation created historically different patterns of urban form. Souce: Giorgio Ponzo, 2012.



11.6 View of Belvedere III, from the parking terrace of BH Shopping Mall. Souce: Giorgio Ponzo, 2012.



11.7 Belvedere III. Souce: Carla Braga, 2013.

expansion of the territory. The new strict regulations resulted in the increase of the illegal settlements instead of halting their growth.

The actions of JK were important in delineating the future growth of the city and its metropolization with the construction of important roads that would consist of the beginning of the radio-centric system conformation (TONUCCI, 2012).

In 1948, the major Otacilio Negrão de Lima declared that the city had no capacity to accommodate the growing population and therefore satellite cities would be constructed around it. One agricultural colony to the west, called Barreiro, with the Industrial City half way between that and Belo Horizonte and Venda Nova, to the north, would be a residential town, each with an specific function should form a harmonic group able to hold 1 million inhabitants (PLAMBEL, 1979).

For the attraction of foreign investment the proper offer of infrastructure was fundamental. In this sense, all the public investments were laid out for the Industrial City even though it was not fully functioning until the construction of a new hydroelectric power station, with the implementation of the Electric Company of Minas Gerais (CEMIG) in 1952.

The Second World War and the difficulty in importing products this time boosted the industrial development in the Brazilian cities. On the following years, the second mandate of the President Getulio Vargas (1951-1954), was a period of intense state intervention towards industrialization with the direct financing of services and infrastructure. After him, Juscelino Kubitschek, as a president (from 1956 to 1961), had a clear plan of economic development through the expansion of industry, by replacing importing goods with the opening of the economy for foreign capital. His well-known “Plano de Metas” (Targets Plan) included heavy public expenses in the energetic sector, road system, steel industry, as well as the construction of the new Capital Brasilia.

Naturally, as a consequence of the boosted industrialization, rural-urban immigration also grew extensively in this period. Around the 60s, most of the Brazilian cities were suffering from an urban crisis. In Belo Horizonte it was not different. Between 1950 and 1960, Belo Horizonte and its surrounding cities had an annual growth of 6.5% in population, double folding from 500 thousand to 1 million; 60% of this demographic growth was due to immigration (TONUCCI, 2012). In 1960, 81,2% of the population was composed of immigrants (PLAMBEL, 1978).

As in most of Brazilian cities which experienced this processes, the industrialization program was not accompanied by a urban program, aiming to host the new proletariat. The “Favelization” process was a constant concern for the municipalities. The overall intention was to expel the poor population that illegally occupied the areas with high land value, to be relocated in the periphery. In 1964-65 Belo Horizonte already had 79 favelas, with a population of around 120 thousand inhabitants, presenting a growth of 229% since 1952 (PLAMBEL, 1978).

The patronage politics of the period led to the approval of a great number of urban developments around the 1950s, the decade in which the city presented a highest population growth. In the end of the decade, the real estate speculation was already a problem to the municipal administration since great portions of land were in control of a small number of owners, and entire areas already licensed were kept on hold waiting for the land prices to rise, in a severe speculative system. The regulation that determined that only a small part of the city could have high rise towers also aggravated the land speculation, since all the neighbourhoods adjacent to these were frozen in the expectancy to be included in these more profitable regulations.

The first Masterplan, enacted by the 1951, is from this period, which had in its commission names as Francisco Prestes Maia, Oscar Niemeyer and Burtel Marx. Apart from the discussion, what was really implemented were the main avenues, contributing to the sprawl of the city, by then already extended way beyond the original plan, increasing the road system, illegal allotments and the speculative process of land occupation, simultaneously (AMORIN, 2007).

By the late 1950's and early 1960's the issue of urban poverty, uneven development among the areas of the city and the crescent sprawl was already noticed and discussed. The conclusion of SAGMACs reports claimed the necessity of improving living conditions of slum residents and the necessity of an urbanization plan for the urban expansion, disciplining growth through zoning, schedule for the implementation of necessary infrastructure and a plan for approval and enhancement of the already consolidated villages, therefore, whereas the results of the 1951 plan were concerned with the expansion of the road system, the SAGMACs report's main concern were the vital necessities of the urban population.

Unfortunately, the military coup d'état of 1964 changed, again, the vision of the municipality regarding urban development, focusing on economic growth and initially a process of "desfavelização" (de-favelization), meaning slum clearance, as a police, not a political, matter. This policy ended up increasing social tension and disparity, since slum dwellers were pushed out of the city, without a proper offer of affordable housing.

Meanwhile, the economic development policy being implemented offered incentives to the construction industry and regulated real estate activity, which enabled urban expansion. The city grew rapidly and unequally, while a process of urban renovation occurred, substituting older typologies in the central area, without the concern of preservation.

Public intervention on the city's development, as had happened historically before, was even more rigidly determined by the federal government, represented by a set of urban infrastructure required, related to logistic and production distribution, connecting the state to a wider picture of the country's development.

By this time, occupation overcomes municipality limits in a metropolization process crystallized in the 1970's when an official metropolitan planning office was established called, PLAMBEL in 1973.

Over the 1970's and 1980's, with the economic crisis and the first reports made by Plambel, a new understanding of the city and its policies emerged, orienting urban politics to be more conciliatory. The state aimed to, as the author suggests, indirectly correct the urban problems generated by the processes financed by the own state.

As a result of this continuous road based expansion process, starting in the 1950's and increased by the dictatorship urban policy in the 1970's and early 1980's, the efforts to create and maintain the agricultural colonies and the "Green Belt" around the city had come to an end. The improvement of accessibility enabled by the investments in the road system increased the competition of these products with the ones coming from Sao Paulo and Rio de Janeiro; meanwhile the urban sprawl process increased the land value of such colonies, with the land being too expensive to maintain the agricultural production, therefore increasing rural migration.

The 1976 plan stimulated densification in consolidated areas through zoning regulations and the creation of new centralities in the north and west, for industrial and housing purposes, stimulating speculative processes which the plan of 1985 aimed



11.8 Peripheral social housing complexes, as part of the Minha Casa Minha Vida Social Housing Program. Source: Belo Horizonte municipality archive, 2012.



11.9 Belo Horizonte's formal and informal (highlighted in black) neighborhoods. Source: Probel Archives, 2009.



11.10 Nova Lima. Souce: Carla Braga, 2013.

to correct. In the end both plans helped real estate processes of urban development, urban expansion and sprawl of middle class towards south and the spread of poorer settlements in the peripheral areas of the metropolis, once the plans followed the tendencies of the reality on the ground, instead of perhaps trying to invert it.

According to Amorin (2007) the urban landscape of today is the result of the urban regulation regarding use and occupation of urban land of the 1980's. The city grew with the verticalization and concentration of economic activities.

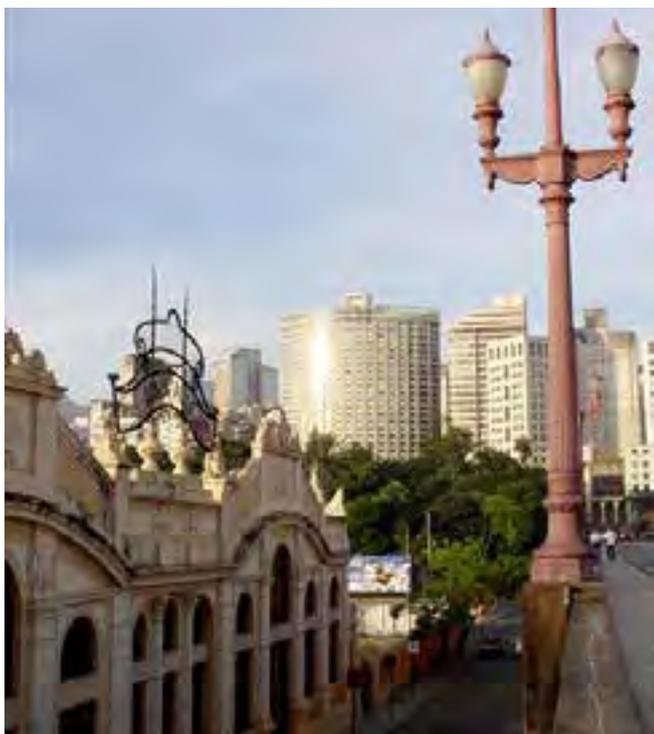
The plan of 1990 and 1996, enacted after the constitution of 1988, had more democratic goals, aiming to slowly implement transformation, create new centralities, improving living conditions by the decentralization of public investments and promoting environmental balance, and opening, in the plan of 1996, the possibility for public participation.

Nowadays, after the City Statute, according to the report of the III Conference of Municipal Urban Policy (PBH/SMURBE, 2009), there were significant transformations in the urban structure of the city, mainly due to recent urban policies and economic growth, which increased the living standards of the population as a whole.

A decrease of the population growth rate was perceived in the last 3 decades and interestingly, the rates of real estate developments are superior than the demographic growth indicating not only that a suppressed demand is finally being met, but also that the number of inhabitants per household is decreasing, from 5 to 3,9 in 10 years (IBGE, 2010).

There is still a tendency of re-location of the elite towards the southern area of the metropolitan region, today extrapolating the borders of the core municipality towards Nova Lima (VIL-LAÇA, 2001; COSTA, 2006), despite the historical attempts from the municipality to develop other areas. Some restrictions for densification of some areas might not be working according to the Masterplan Intentions - configuring a new wave of land speculation - and the incentives to densifications in some areas were successful due to the marriage between the aims of the law and the interests of the real estate sector.

The economic growth not only boosted real estate development, but improved employment rates as well as the advanced productive services, with industries spread over the metropolitan



11.11 Historic Center of Belo Horizonte, Souce:P.F, 2008.



11.12 Uneven Urban Development in Belo Horizontal caused its uneven landscape. Souce: E.B, 2012.

region and the advanced tertiary concentrated between Belo Horizonte and Nova Lima.

The main commercial activities are still concentrated in the central area, with spilling along the main roads, forming “linear centers” in the corridors.

After the economic and housing crisis of the 1980’s and 1990’s with the end of BNH (National Bank for Housing), it was only in the mid 2000’s that the real estate obtained stability again, with the diversification of financing modalities, increasing the percentage of high rise housing buildings in several regions of the metropolitan area, apart from the center already verticalized since the 1950’s, and 1960’s, a process enabled by the 1996 change of urban regulations.

There is an ongoing growing process of informal settlements - from 1994 to 2004 the population living in slums grew around 7% -, simultaneous to the construction of social housing gated communities financed by the federal program MCMV (Minha Casa Minha Vida, 2009), both the peripheral areas of the metropolitan region.

Mobility is becoming an important issue, due mainly to the increase of the number of private cars, the insufficient bus based public transport system and the main challenge is in the fact that the city center is still the main articulator of urban transport and depends extensively on the implementation of transversal ways predicted.

Circulation and uneven patterns of growth and density are historically a problem in the city and increased by its historical way of development. According to PBH/SMURBE (2009) there has always been a mismatch between the processes of land subdivision, especially for housing neighbourhoods, and land occupation, creating an eternal speculative cycle, most of the times increased by restrict urban regulations, having as a result a low density urban sprawled metropolis, with voids being currently occupied - formally and informally - by various and heterogeneous processes, from wide gated communities, to informal subdivision of plots and the proliferation of informal economic activities such as warehouses and small factories, increasing the fragmented sense of space in the metropolis of Belo Horizonte today.

Belo Horizonte still today grows in the opposite way of public planning and investments, with the elite moving towards south and dragging infrastructure investment behind them. Heavy public works were made recently in the north, starting from the International Airport, inaugurated in 1984 outside the municipal region, followed by recent major road infrastructure improvement connecting it to the center and ultimately the con-

struction of the ‘Cidade Administrativa’, an enormous public administration apparatus, attracting thousands of civic servers and XXX visitors a day. This move, besides being strategic for the development of the north, emptied a series of buildings in the historical center of the city, in an attempt to de-congest the area, which is now going to be refurbished as museum and other cultural and educational functions. That are a few alarming problems for this strategies: the first is that although attracting a great number of people to the area, still no mass public transport is provided. The second is that despite all the investments, no significant change can yet be noticed in the overall economical and social development of the north region. Finally, the installation of the new equipment of the “Administrative City”, which hosts mostly the high rank servers of the province, has contributed in raising the land speculation on the site, raising the prices of land even before the existence of a real demand, making it inaccessible for the lower layers of society. This phenomenon expels the disadvantaged population to even further away, inducing urban sprawl, while the land remains empty. Although in general many improvements of economical, education and infrastructure conditions can be measured throughout the city, the well-known pattern of public planning x public investment x land speculation is predominant.



11.13 Occupation of environmental protected areas. Source: E.B, 2012.

Belo Horizonte over time

12.1
1895 - Original Plan by Aarão Reis



Map Source: Public archive of Belo Horizonte

12.1
The Inaugural Plan made by the engineer Aarão Reis, predicted a city divided in three zones:

- Urban Zone, within the perimeter of the Contorno avenue, where the commercial and administrative functions would be located as well as the residences of high rank civil servants. This area is designed according to a double grid adjusted diagonally.
- The Suburban area, beyond the perimeter, where the grid would follow the topography and where construction rules were more flexible.
- The Rural zone that would form a green belt, composed by agricultural villages for supplying the city.

12.2
1940s



Map Source: PLAMBEL, 1985

- 12.2
In the 1940s the city was already in expansion, with two major public interventions that directed its growth:
- The Industrial City, in the neighbor municipality of Contagem, was the first sign of metropolization.
 - The sport and leisure complex in Pampulha was constructed for attracting the elite in that direction.

population _____ 1950_ Belo Horizonte: 352.724
Metropolis: 599.738

Source: IBGE

0 5 10 20km

1960: 683.908
1.012.964

12.8
1936

12.9
1957



Urban Growth Schemes

Source: Personally devised by the authors, based on several maps from the ZAU/PMG and PRODUZEL archives.



Map Source: PROAMBEL archive



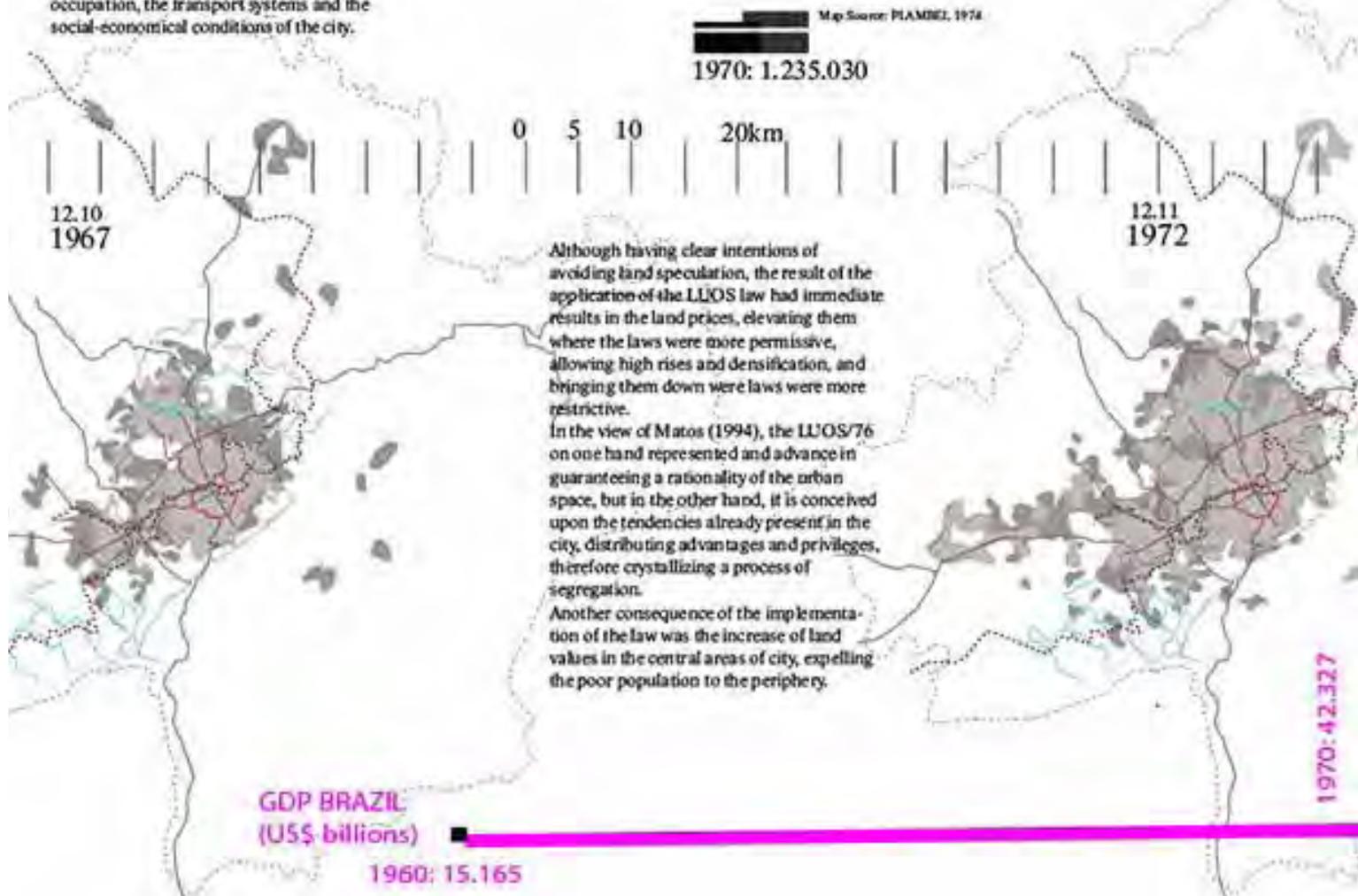
12.3

1975 - PLAMBEL

The creation of the metropolitan planning institution for Belo Horizonte, PLAMBEL, in 1971 was preceded by the creation of a study group under the Fundação João Pinheiro, established to study the problems of the urban conglomeration, in the scenario of the great urban crisis that was established in the 1960s.

It was then officialized with the creation, by federal law, of the Metropolitan Region of Belo Horizonte - RMBH - among with many others in the country, including São Paulo. In 1972 the group realized several diagnostic studies regarding the physical occupation, the transport systems and the social-economical conditions of the city.

Based on this studies, some solutions were proposed and presented in the first integrated plan called: "Plano de Desenvolvimento e Integração Econômica e Social da Região Metropolitana de Belo Horizonte" (Plan of development and economical integration of the metropolitan region of Belo Horizonte), also know as PDIES. It was presented in three plans: Esquema Metropolitano de Estrutura (metropolitan scheme of structures) - EME; Plano de Ocupação do Solo da Aglomeração Metropolitana (plan of land



12.4
POS 1976 - Plan of Land Occupation

12.5
LUOS 1985



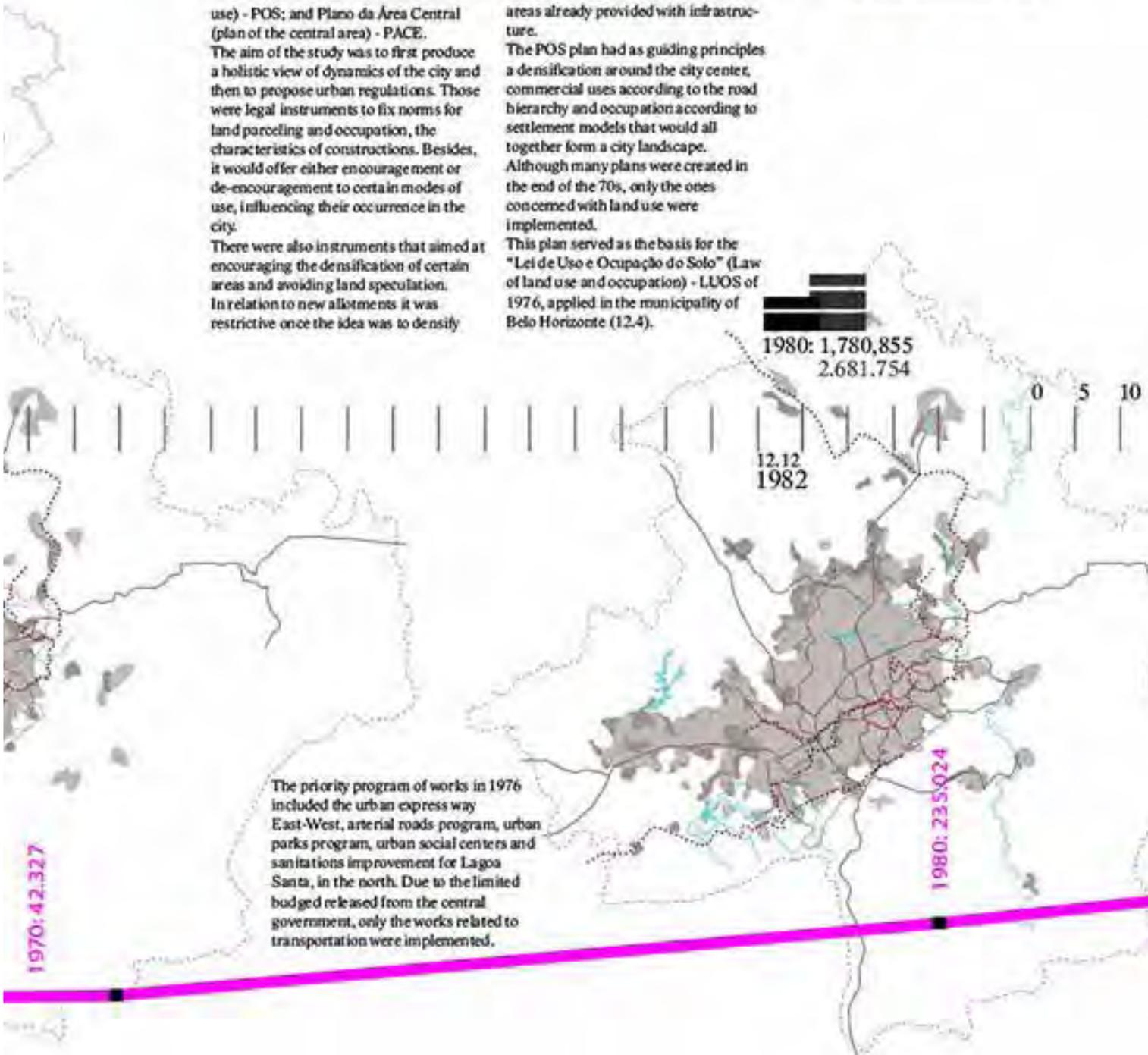
Map Source: PLAMBEL, 1976; modifications made by MCK, 2004



Map Source: BELO HORIZONTE, 1985

use) - POS; and Plano da Área Central (plan of the central area) - PACE. The aim of the study was to first produce a holistic view of dynamics of the city and then to propose urban regulations. Those were legal instruments to fix norms for land parceling and occupation, the characteristics of constructions. Besides, it would offer either encouragement or de-encouragement to certain modes of use, influencing their occurrence in the city. There were also instruments that aimed at encouraging the densification of certain areas and avoiding land speculation. In relation to new allotments it was restrictive once the idea was to densify

areas already provided with infrastructure. The POS plan had as guiding principles a densification around the city center, commercial uses according to the road hierarchy and occupation according to settlement models that would all together form a city landscape. Although many plans were created in the end of the 70s, only the ones concerned with land use were implemented. This plan served as the basis for the "Lei de Uso e Ocupação do Solo" (Law of land use and occupation) - LUOS of 1976, applied in the municipality of Belo Horizonte (12.4).



12.6
PDDI - 1996

Zoning



Map Source: SMURREK, PRODAEML, 2007

Road Works Priorities



1990: 2,020,161
3.519.535

20km

12.13
1992

1990: 461.951

12.5

LUOS - 1985

The Use and Occupation law of 1985 was an update of the previous one, of 1976, with few significant changes, still restricted to zoning, but now with more permissive uses and occupation throughout the most of the city, with decreasing construction potential in proportion of the distance to the city center.

In addition, it expanded the location of commercial activities once the concentration of those in the city center predicted in the last plan was excessive.

An advance of the law was the creation of special zones that tried to tackle the problem of the favelas. Around the 1980s, in the face of the inability of the government to provide housing for all, the authorities were forced to recognize the favelas and to initiate projects to urbanize and legitimize them. (Tonucci, 2010)

12.6

PD 1996

In 1988 it was determined by the Federal Constitution of Brazil that the cities and properties should fulfill their social function, therefore attending to the interests of society as a whole for the well being of all the citizens.

In 1990, the "Lei Orgânica" - Organic Law - provided more details on the new directions of urban planning by the use of certain instruments of urban policies.

In this sense, the Plano Diretor - Master-plan - of 1996 was elaborated having the determinations of the Constitution as a basis and incorporating some of the instruments of urban policies such as "Urban Operations" - interventions coordinated by the administration and sponsored by private entities in order to enable works in pre-determined areas; "Urban Agreement for Social Interest" - cooperation between the municipality and private initiatives for social housing; and "Transference of the right to build" - the right to transfer the right to construct to another location, in the occasion that it cannot be done in situ. I.e. for heritage listed properties.

Another significant change in this plan was the public consultancy and participation for its elaboration through several conferences and open debates.

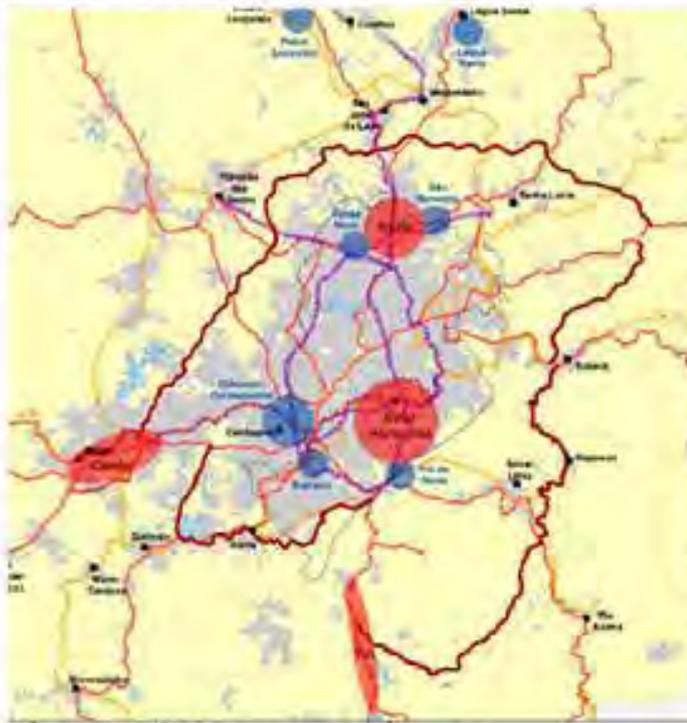
In respect to the land use law (LUOS), the commercial use became more flexible throughout the whole territory, allowing its occurrence according to its nature and width of the road.

The occupation was defined according to the density criteria - areas to be densified and areas where density should be restricted - and a zoning was proposed according to the growth capacity in addition to the demands of environmental, historical, cultural or landscape preservation.

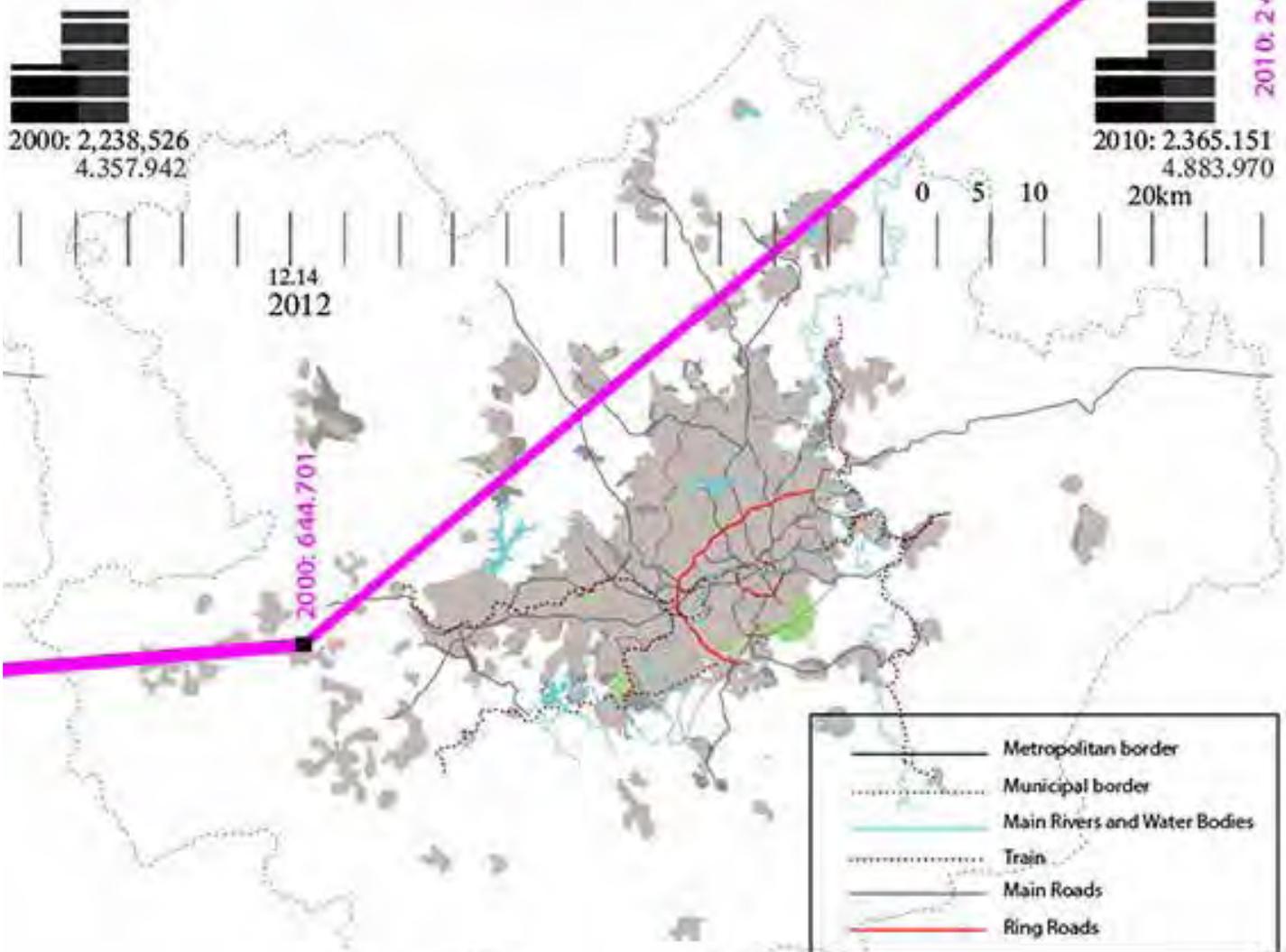
It also regulated the ADE - Áreas de Diretrizes Especiais. (areas of special guideline), areas in which specific policies are required and therefore have special rules that overcome the zoning. Those areas are usually areas with social, cultural or environmental qualities, mostly occupied by lower income groups. The neighborhood associations had an important role in this process, managing to restrict occupation in their territory. The PD also established a number of guidelines for economic development, environmental protection, social cohesion, housing programs and favelas. It was also in the scope a list of priorities in road works and transport improvements, shown in the map on the left.

The 1996 PD was updated in 2000 and again in 2010, adapting to the principles of the City Statute of 2001.

12.7
Masterplan 2010



12.7 PDDI 2010
 The "Plano Diretor de Desenvolvimento Integrado da Região Metropolitana de Belo Horizonte" (Masterplan of Integrated Development of the metropolitan region of Belo Horizonte) of 2010 is the first plan to embrace the entire metropolitan region (now extended) since the 1975 plans of the extinguished PLAMBEL. It is current under development and the proposals shown here are preliminary and still under study for approval. The planning approach presents innovation for being a coordinated project between universities and the municipality, involving all the municipalities and its in numerous entities and institutions along with the consultation of the population. Besides the municipalities that form the Metropolitan Region it creates a "metropolitan collar" that integrates the towns around the region that are also affected by its dynamics. The study is subdivided in several major transversal themes such as: land use and centralities; urban mobility; dwelling and life quality, culture, education and work; health, environment, sanitation; culture complexes, so on and so forth. Some priorities issues appointed are: excessive polarization and unequal relation between centers, disarticulated and poor periphery, urban dispersion and internal unbalance, perverse effects of the market in the real estate dynamics (lack of control and lack of housing programs), commitment with environmental and cultural heritage, need for a mass transport system, etc. The preliminary proposals include the de-centralization of activities, the expansion of the railway and subway networks and the creation of a larger ring road connecting the main metropolitan accesses.

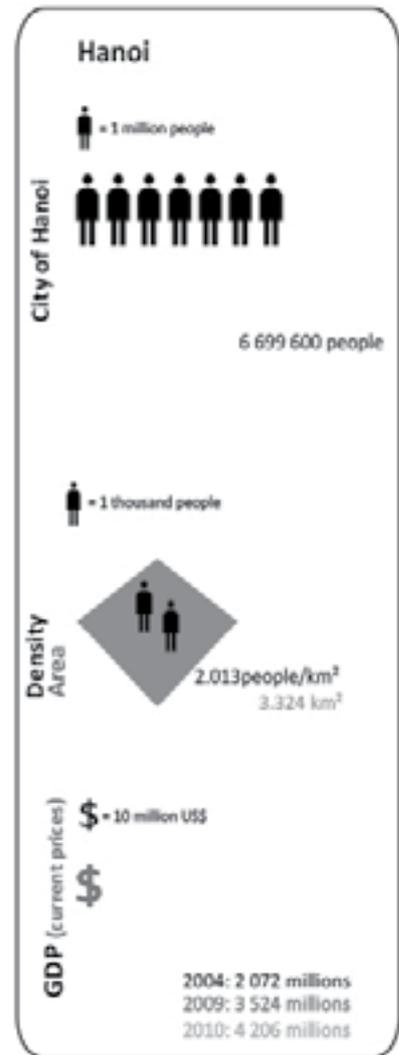
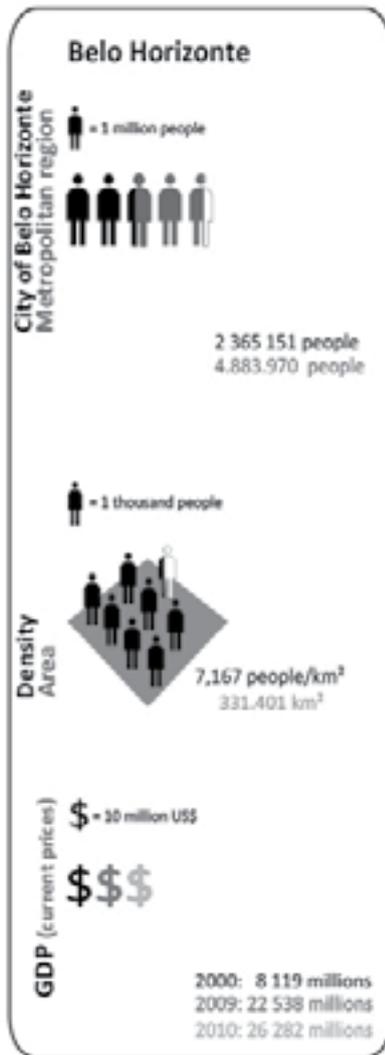
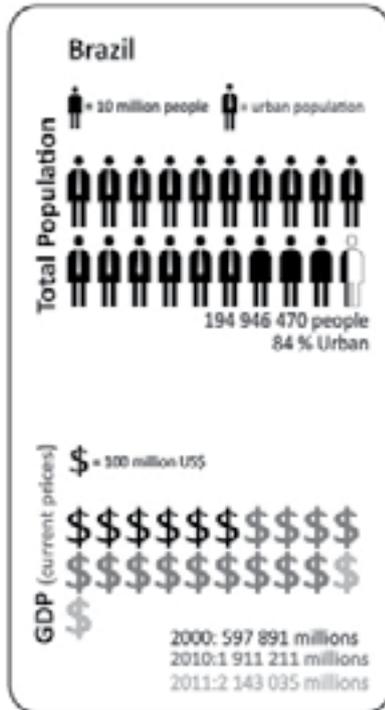


Demography and economy

Hanoi x Belo Horizonte

13.1

Comparison between Brazil and Vietnam, Hanoi and Belo Horizonte in relation to population, area, density and GDP.



City scale Urban Form

HANOI

BELO HORIZONTE



13.2 URBAN FORM



13.3 URBANIZED AREA



13.4 MOBILITY



13.5 WATER BODIES



14.1 Fragment scale map of Linh Dam, Hanoi

Linh Dam New Housing Development Complex

Linh Dam peninsula housing complex is one of the 3 components of a bigger project in the South of Hanoi centre. Grand Linh Dam Service and housing project has an area of 200 hectares staying within the boundary of Hoang Liet ward, Hoang Mai district, Hanoi city. It is about 7 kilometres away from the city's center, at one side of 1A National Highway.

The three components are: North Linh Dam, Linh Dam peninsula and Expanded Linh Dam housing complexes. With such housing capacity, the Linh Dam grand housing project is expected to accommodate 25,000 people. The project commenced in 1997 and basically finished its 2nd phase of construction by end of 2000s. In 2009, this grand project was recognized as a “a model of urban housing development complex” and “ a work dedicated for the anniversary of Thang Long – Hanoi’s 1000th year “. The success in its development and operation has shifted Hanoi into a more prosperous stage when a series of new urban housing developments in Hanoi and other provinces have been launched afterward.

The 35 hectare Linh Dam peninsula housing complex, surrounded by the 74ha Linh Dam lake, was built at the 2nd phase of construction. The estimated full population is 9600 residents. A special feature of this new urban housing development is that it was originated from the former Hoang Liet village and Lind Dam marsh. Such vast lake and marsh used to be a common place for traditional worship and festival of surrounding ancient rural villages to take place. It also played an important role in regulating the natural water storage and drainage system in the southern region of Hanoi. Therefore, effective and sustainable social and economic development in the harmony with nature is the highest objective of this housing project.

Within only a decade, this peninsula has witnessed a rapid change. From being a low-density wetland mainly flooded by lakes and ponds, the area has become a modern urban housing area having pleasant living environment and unique natural landscape.

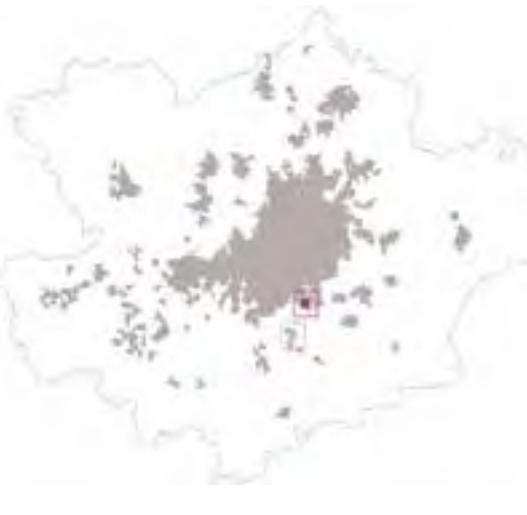


Linh Dam peninsula housing complex is characterized by landscape axes and symmetric road network. Accordingly, the linear commercial street as main landscape axis is the major spatial link. This link connects the newly developed area with old village Hoang Liet. In the access gateway area is a cluster of public buildings comprising green market, supermarket, cultural house, sport center etc. Linh Dam peninsula housing development has a diverse housing provision in order to meet various demands. There are mix-used residential apartments locating adjacent to the main road, the rest are 3-4 storey street houses, tube houses and villas. The housing layout which follows the pyramid form (high in the center, lower at border) allows to maximize the visual values.

Now, most of the houses in Linh Dam peninsula have been filled. The population there is mostly composed by intellectuals, and middle to high-income people. Their lifestyle encouraged by pleasant living environment has set up a social image for this neighborhood. The society does not have strong bond as in the old village however has some outstanding features such as being more modern and civilized.

Currently, the challenge of Linh Dam peninsula is how to reconcile the two different living environments which are traditional ancient Hoang Liet village and newly developed neighbourhood. Those have been physically separated by the 3rd Ring road as hard border and gradually separated by life-style difference. Besides, the other critical issue is the shrinking of Linh Dam lake and the affection to aquatic system.

Induced



Belvedere III

14.2 Fragment scale map of Belvedere III, Belo Horizonte

Belvedere III is a high-rise upper middle class neighbourhood located in the southern edge of the city in an area under the incidence of several cultural, environmental and urban regulations. According to the Federal environmental law the area is considered to be a protected zone, which would therefore characterize its occupation as illegal due to its proximity of the environmental protection area of Serra do Curral. The history of occupation and consolidation of the area is an entangled process of debate and negotiation between state, real estate capital and civil society, in which so far the real estate market has won the right to develop the area, despite the regulations, exemplifying a common process in the Brazilian metropolitan areas development and expansion, in which land speculation and exceptional deals enables processes of urban expansion (AMORIN, 2007; GOMES, _____).

The area, is located next to BR 040, the main road which connects the center of Belo Horizonte to Rio de Janeiro and BH Shopping, the first mall of the city inaugurated in 1980, which together were the main reasons why it was since the beginning of implementation a valorised area for further development.

The first area to be occupied, starting from the 1970s was the area in closer connection to the other existing neighbourhoods, already vertical, as a pure single family housing area for the higher classes. This was Belvedere I, the second phase was between that the BH Shopping Mall, called Belvedere II. The area of the study is the Belvedere III, the third phase of occupation that differentiates from the others for its verticality and the mixed use.

Today this most recently occupied area holds more than 400 already occupied real estate developments (AMORIN, 2007) and a few more under approval, is considered the most expensive and luxurious place to live in the city and, together with developed areas of Nova Lima, the adjacent municipality, configures a new and important centrality in the southern Belo Horizonte metropolitan area.

Even though being initially conceived in the 1960's, it was only in 1996, after an extensive legal battle, that the first developments started to be constructed, therefore the spatial outcome seeing today is the result of less than 20 years of rapid transformation. A very intricate series of

changes in the urban regulations of the area, culminating with the negotiation, which over closed doors enabled its development, took place. First, in the zoning plan of 1976, the area was considered an Special Zone, in which all the possible enterprises should be discussed with the municipality due to the steep topography and environmental importance of the area, consecrated by the state laws which turned it into part of a wider perimeter of cultural heritage (1984) and environmental protection area (1985), but, in practice, started the speculative process.

In the zoning plan of 1985, however, a first modification was made, supported by pressure of landowner and developers, allowing the allotments. After, a law enacted in 2000, nº 8.137, enabled the housing verticalization of the area and afterwards, turned it into mixed-use development area.

By this time, the elite areas of the city, entangled between the southern hills and the city center – the element that segregates the privileged and equipped south to the poorer north - were almost entirely saturated. The area of Belvedere III was one of the only spaces left for the construction of a new luxurious mode of life gifted with the environmental qualities of the nature around, a milder climate, at the same time that it had fast and direct connection to the city center along the national highway BR 040.

Even though being an area developed plot by plot, as most the Brazilian fragments, it is interesting to notice that there was an initial landscape design of the area as a whole, assuring high standards of greenery and sidewalk pavement, enabled by the association of companies working to promote it as one entire real estate development, as a different way of life. This high quality of public space attracts inhabitants of the area and other neighbourhoods of the surroundings to exercise in the streets, an interesting phenomenon considering the overall characteristics of the urban space: gated and fenced developments grouped around a mall and a highway, surrounded by neighbourhoods of steep topography with only a couple of landscaped squares with few commercial activities around, without any major equipment.

14.3 CIRCULATION SCHEME AND MESH

HANOI - LINH DAM



BELO HORIZONTE - BELVEDERE III

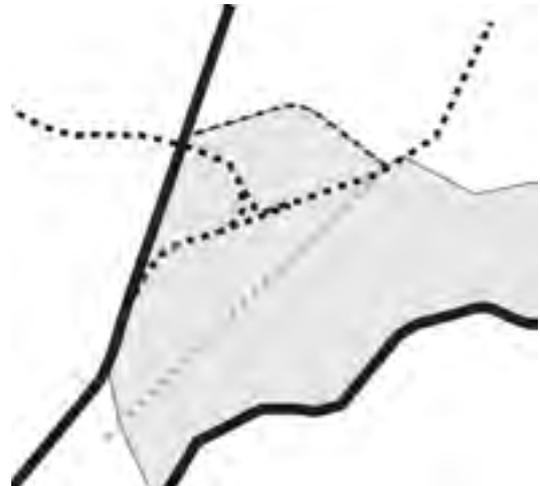


-  Arterial Access
-  Primary Access
-  Secondary Access
-  Foot Path

14.4 URBAN EDGES SCHEME



-  Hard Edge
-  Soft Edge
-  Case study area



14.5 PUBLIC SPACES



14.6 LANDMARKS



Mesh and Circulation Scheme.

Both fragments were recently urbanized out of unoccupied land – either agricultural or nature reserve. The main difference between the two is the process of development. While in Hanoi the neighbourhood is the direct result of the masterplan chosen as an area of priority development in the southern edge, with the aim of consolidating it as an expansion vector, in Belo Horizonte, Belvedere III is the result of the city's stakeholder game and political process in the city, influencing the expansion of urbanization by supplying a demand of the luxury real estate market. The initial land owner, a very influential elite member in the city, was able to first transform this area from special reserve zone to new urbanized zone in the 1980's and afterwards, was able to influence the change of construction parameters allowing the verticalization process of the area.

Lihn Dam is an interesting case, since is a development predicted in the city's detailed masterplan, as a result of the very top-down and controlled planning policies observed in Hanoi. Therefore, the mesh and circulation scheme were drawn in such a way to be self-enclosed and attached to the main circulation scheme of the city, with the 3rd ring road. The fragment Belvedere III is a result of the allotment of previous private land in a very steep hill. The outcome is a labyrinth mesh following the topography lines, which flow is feed by the Highway.

The circulation scheme of both fragments is not well integrated with the surrounding fragments and highly dependent of the main circulation roads structure of the city.

Edges

In both cases, the fragments present hard edges and a detachment from other areas of the city. In both fragments the existing geography can be considered a hard edge, since in Lihn Dam the lake separates the area from the rest and in Belvedere III the steep topography disable the integration with other areas.

The main road - An Estate Highway – in Belvedere configures a hard edge and the Northwest border of the neighbourhood. The other main roads can be considered internal but more subtle edges. In Lihn Dam, the main road passes through the area configuring an internal hard edge, separating drastically the two distinct fabrics existing in the area.

Public Spaces and Landmarks

Interesting to notice, the public spaces in both fragments are quite similar. The main public space of both fragments are neighbourhood squares located along the main access marking its entrances.

As a planned neighbourhood, Lihn Dam offers other public spaces related to public equipment as the school and community center. In Belvedere, however, the only public spaces existent is a sunken, flooded and inaccessible block covered with vegetation, surrounded by gated high-rise communities and with the mall in the edge of the highway serving informally as a public space and can be considered as a landmark. The lake around Lihn Dam is its main landmarks, but also the ancient temple in the edge of the 3rd Ring Road.



14.7 Housing blocks around green space. Source: T.N, 2012.



14.10 Edge of the lake, under construction. Source: E.B.,2012.



14.8 Green areas in Lihn Dam. Source: E.B., 2012.



14.11 School in Lihn Dam. Source: T.N, 2012.



14.9 Housing blocks along center axis. Source: E.B., 2012.



14.12 Lake front, under construction . Source: E.B.,2012.



14.13 Abundant green areas. Source: P.F., 2012.



14.14 Residential towers in Belvedere III / Nova Lima. Source: Carla Braga, 2013.



14.15 Lagoa Seca, the green square in Belvedere III.. C.B, 2013.



14.17 On the left, residential towers. On the right, the shopping mall

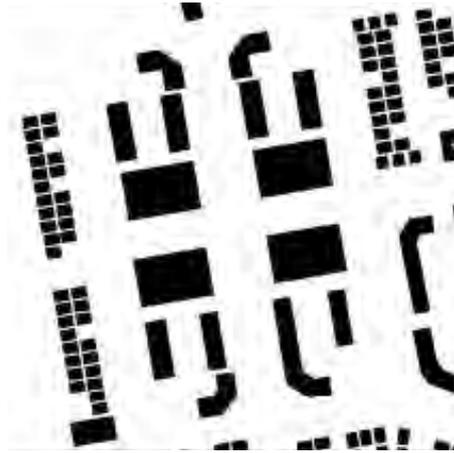


14.16 Commercial towers in Nova Lima. Source: Carla Braga, 2013.

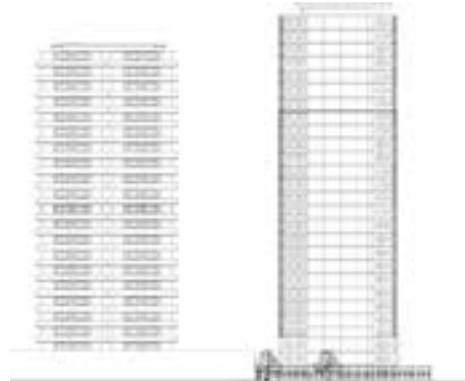


14.18 On the left, residential towers. On the right, the shopping mall

14.19 INDUCED SOLID SAMPLE



14.20 BUILDING TYPOLOGY SCHEME



14.21 BUILDING TYPOLOGY EXAMPLES



source: E.B



source: C.B.

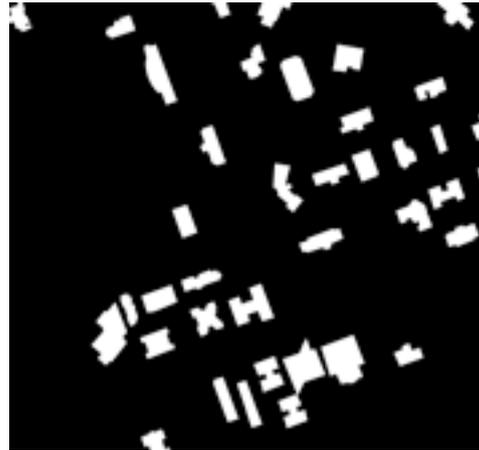
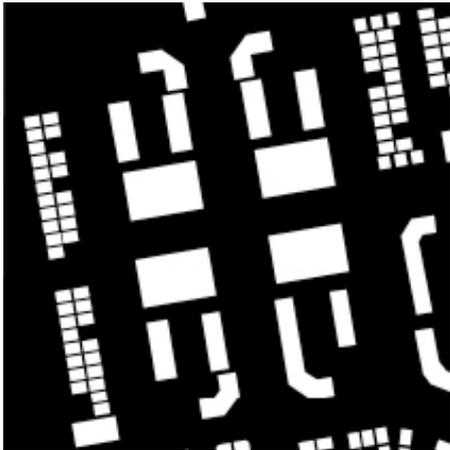
Solid.

The samples extracted show quite clearly the differences from these two fragments.

While the solid space if Lihn Dam is clearly ordered as a result of an urban project derived from a sectorial plan, what can be seeing in Belvedere III is a chaotic form, result of unplanned market- led developments, which do not structure the open spaces of the territory.

Regarding typology, there are also differences, creating an interesting paradox: while in the planned fragment a variety of typologies is observed, providing wider options for future inhabitants, but also creating a non- uniform urban form, in the market led fragment, there is only one typology – the multi storey high development – creating a an even urban form, despite the chaotic figured ground.

14.22 INDUCED VOIDS SAMPLE



GREEN
14.23



source: E.B



source: C.B.



URBAN
EQUIPMENTS
14.24



source: E.B



source: C.B.



PUBLIC SPACES
14.25



source: E.B



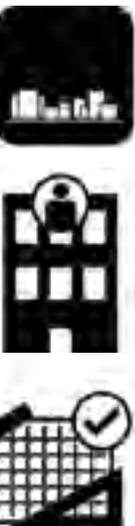
source: C.B.

Voids

The voids are wider in Belvedere III, since it is less dense, however, apart from the streets, they are mostly private spaces, occupied by communal facilities of the real estate developments, as private gardens, playgrounds, sports facilities.

In Lihn Dam there is a wider variety of public voids, as gardens, wider sidewalks, pathways and public spaces along the lake. It is clear that the space was conceived to induce occupation and street life, however it rarely seen. Even by being a mixed-use development, the issue of lower density of functions other than housing is maybe the reason why there is a lack of public life if you compare the area to other central areas of the city. The isolation fact is also an issue, due to its location and road structure; the lack of continuity and connectivity does not help the attraction of new activities.

As many Brazilian city fragments, Belvedere is marked by the internalization of urban activities and in this specific fragments is not different, but interestingly, due to existence of the sunken square, the low traffic of cars and a quite regular topography, if compared to other areas of the city, there is a significant spontaneous use of the streets for sports activities. Its inhabitants and the inhabitants of its surroundings use this area for running and jogging training during the weekdays afternoons and weekends, configuring a quite unique curious point and social activity.



15.1 Fragment scale map of Lihn Dam, Hanoi



Van Quan Traditional Village

Van Quan is an village of former Ha Dong city - about 13km from the Hanoi's center. Like many other ancient villages in Hanoi, Van Quan still maintains many precious delighting cultural features such as the village festival from 15th century, the strong bond between local people and traditional life style.

Van Quan village locates in the administrative center of Ha Dong district (former Ha Dong City), and adjacent to critical public spaces such as the Department of Hanoi Transportation's office (former People's Committee of Ha Dong's office), NguyenTrai municipal park etc. Such location is therefore quite special and advantage in terms of urban development and became one fundamental reference for the construction of the very first urban housing complex of Ha Dong district to be operated there.

In 2003, the construction of Van Quan - Yen Phuc new urban area officially started in a site which belongs to Van Quan and Yen Phuc village. Because of large land acquirement, not much land of the Van Quan village was left. The remaining village is now, limited by a wide city main road (8 lanes) at one side and by a district main road on the other (North)

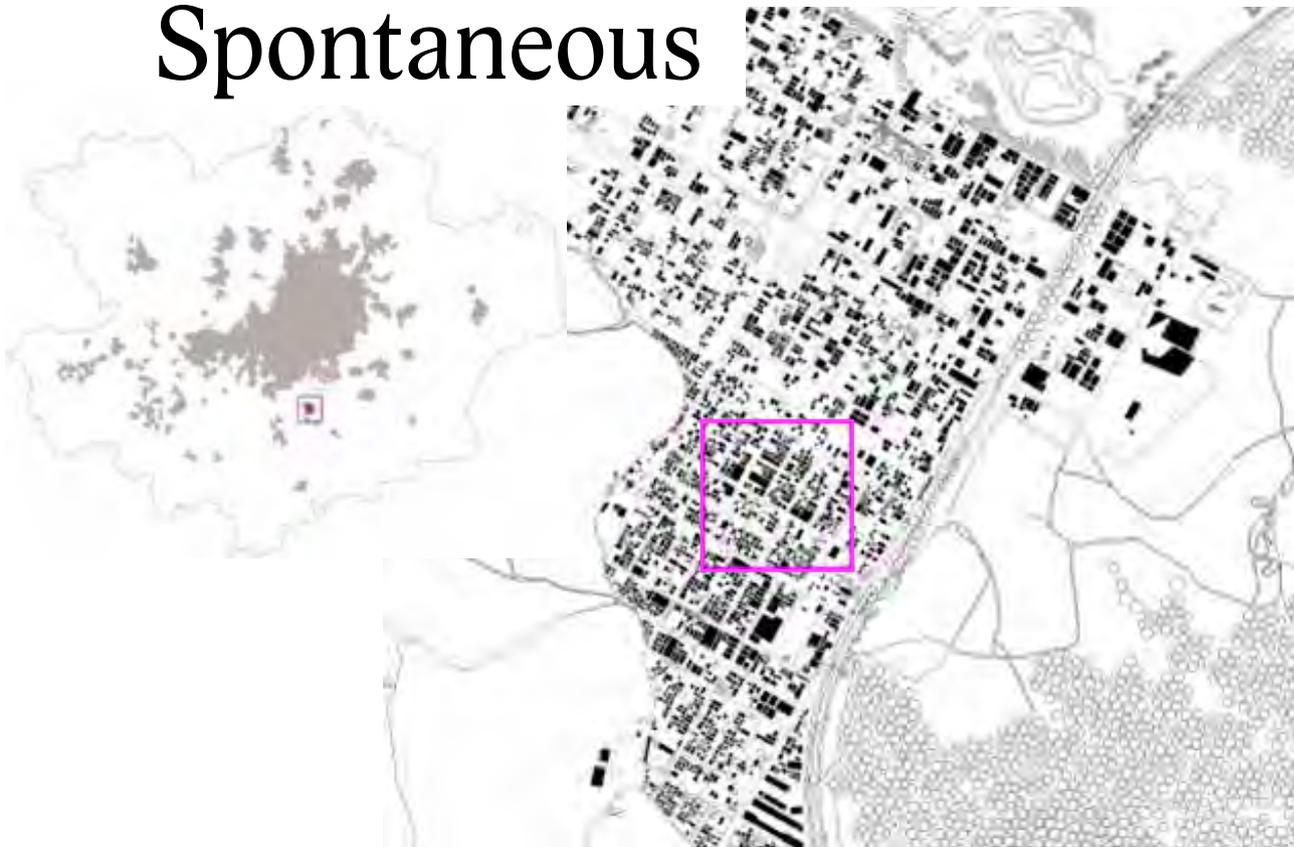
Van Quan village became a typical example of Hanoi's village during urbanization time, as being a place where modern urban street and traditional village meet and become "Urban village". Rapid urbanization in Ha Dong had created a new appearance to Van Quan area. Van Quan village in modern time can be considered to be formed by two parts: the 'hard core' and the 'soft (absorbing) layer'. The

core has been filled and formed by existing factors such as historical public places, religious buildings and traditional residential areas. Meanwhile, the 'soft layer' - the intersection between the remained existing village and new urban areas, concludes houses for resettlement, public civil buildings such as sport ground, cultural club or kindergarten. The core's area and built density have been more less the same for years while the surrounding layer seems to expand and gets denser as well.

Since limited by roads, the soft layer cannot expand towards the new urban area. Its expansion and consolidation has happened by absorbing backward to the core, initially resulting by the changes of existing housing morphology. Concrete 3- 4 storey tub houses have gradually replaced the tiled or straw roof house with surrounding small garden.

Part of the former Van Quan Village's population has been re-settled their new homes in this new urban area, part of them moved out. Despite of being minimized, the rest of the population still can maintain their bond neighboring relationship and rich culture.

Spontaneous



15.2 Fragment scale map of Belvedere III, Belo Horizonte

Jardim Canadá

Jardim Canadá is an allotment in the southern edge of Belo Horizonte's metropolitan area, officially part of the municipality of Nova Lima, but with close relations to the major fragments of the southern parts of the metropolitan area, in terms of service and labour force provision.

The neighbourhood exemplifies how most of the urban fragments of the city were established, even though it holds very specific characteristics regarding its spatial outcome, being considered a hybrid urban fragment (CRAVEIRO; LINHARES, 2006). Initially the area belonged to mining companies - Cia. Morro Velho and St John d'el Rey Mining Company Limited - , which concentrate until today the tenure of land in the region. In the 1950's it started to divide, allot and sell individual plots in areas away from the core of the metropolitan region, for second residence purposes with a preserved natural landscape as the element of attraction.

In that period this particular development did not reach success and the area, even though partially urbanized, stayed empty and started to be slowly informally occupied by lower income residents, occupying and subdividing, most of the times illegally, the empty plots, configuring the spontaneous "favelization" process of the area. The area today holds highest housing deficit in Nova Lima according to the Housing Plan (2009), with a majority of low income (0 until 3 minimum wages) illegally occupying its plots - around 230 families.

This process started to change in the end of the 1990's, when gated communities started to proliferate as part of a new metropolitan process of urbanization, in which the surroundings allotments, some of them with the same characteristics, appeared in the surrounding neighbourhoods and rapidly started to be occupied by the elite, consolidating a process in which the upper middle class dislocated itself from the saturated cent-

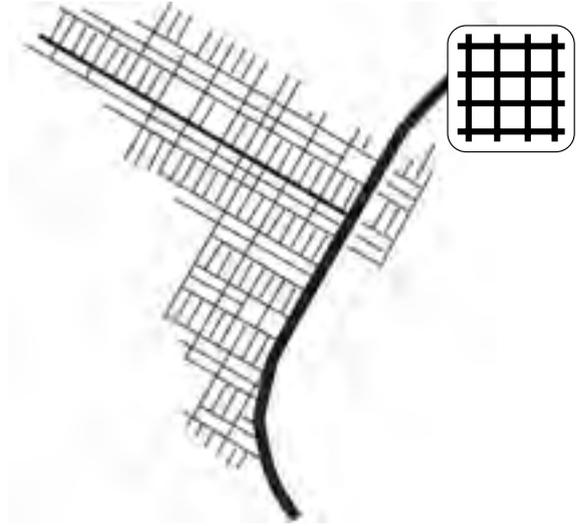
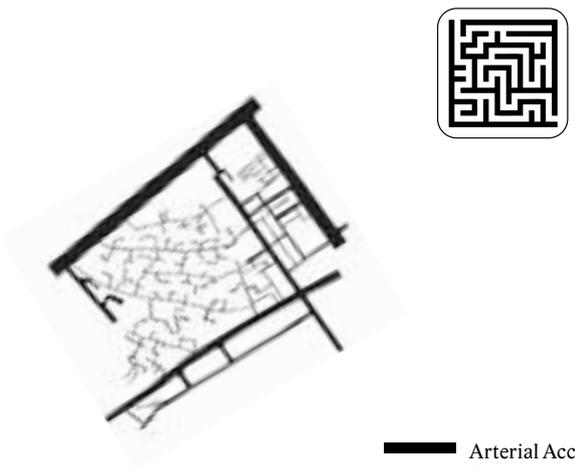
er - due to factors such as urban violence, real estate pressure and marketing, becoming closer to nature - to the southern axis, enabled by the existing infrastructure (BR 040).

These middle class and upper middle class population brought a demand to new service and commercial areas, also rapidly installed in Jardim Canadá, stimulating changes in its current urban regulations enabling and stimulating this process. Therefore, the area seen today, is still in the process of being entirely occupied, but holds interesting figures regarding current use and occupation: 21% of the plots are occupied by housing, 12% by commercial, industrial or service facilities and 17% are considered mixed use.

The area, therefore, from the mid 1990's on, became this interesting territory, in which a variety of enterprises of different market areas coexist: and inferior circuit of commercial activity, related to the local population and lower skilled functions; and a superior circuit, in which activities of metropolitan character, related to the whole southern axis of the metropolitan region, with high skilled non-local labor force and technology dependent (CRAVEIRO; LINHARES, 2006). The two circuits coexist and depend of each other, creating an interesting diverse neighbourhood, a new peripheral centrality without the "centrality of polis and the representations of power". According to the authors, the transformation of the neighbourhood represents, therefore, the relations between Capital and State in generating contemporary urbanscapes in the periphery of metropolitan Brazilian areas. It holds advanced and archaic means of production, , as the result of a process of post-industrial metropolization, supporting the mobility of the elite, related to the superior economic flow circuit, without eliminating or expelling the marked presence of the inferior economic circuit, its initial inhabitants.

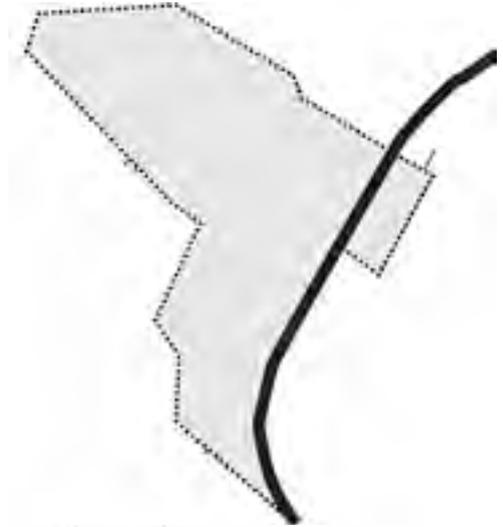
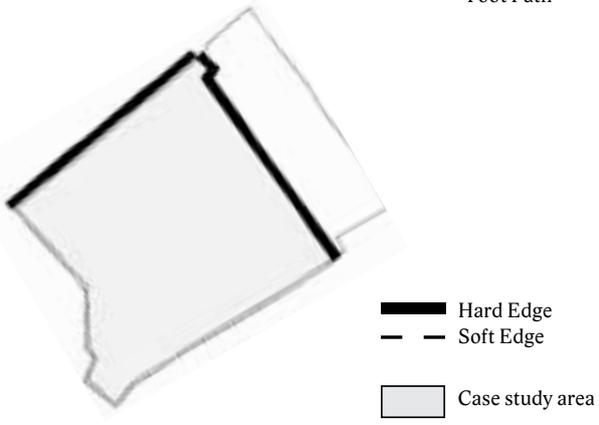


15.3 CIRCULATION SCHEME AND MESH



- Arterial Access
- Primary Access
- Secondary Access
- Foot Path

15.4 URBAN EDGES SCHEME



15.5 PUBLIC SPACES



15.6 LANDMARKS



Mesh and Circulation Scheme.

The Mesh and Circulation Scheme of both fragments are very distinct. While in Jardim Canadá the mesh follows an orthogonal logic, configuring a grid structure originally determined by the allotment of agricultural land approved in the late 1950's, the mesh in Van Quan is a product of the ancient gradual occupation. Initially an ancient agricultural village, the fragment was slowly being swallowed and cornered by the adjacent fragments of new urbanized area, with a very distinct tissue, as can be seen in the scheme. Whereas, Jardim Canada stands alone, isolated from other areas of the city, completely dependent of the highway.

Edges

Apart from being of a different tissue than the adjacent areas, Van Quan is relatively well integrated with the other fragment. The harder edges are main neighbourhood roads, which also offer a variety of access points. The only hard edge in Jardim Canada is the highway. The other borders of the fragment are not as strong, however all other borders face empty land, emphasizing the isolation of this territory.

Public spaces and Landmarks

Regarding public spaces and landmarks, Van Quan being an ancient Vietnamese village possess the traditional landmarks: The gate, which marks the entrance of the village, the lake and temple, positioned close to the gate according to Feng Shui tradition and the ancient tree. The lake also functions as a social and public space.

In Jardim Canadá, however, as a newly occupied allotment, the layers of historical occupation cannot be seen yet. There is no landmark apart from the highway itself, which serves as an urban reference of its inhabitants and visitors. The public spaces are neighbourhood squares, empty most of the times, centered of the neighbourhood but not related to other public functions as the commercial activities which follow the highway access.



15.7 A common street in Van Quan, Hanoi. Source: P.F., 2012.



15.11 A common street in Van Quan, Hanoi. P.F.,2012.



15.8 Temple in Van Quan, Hanoi. Source: P.F.,2012.



15.12 The traditional gate of the village. P.F.,2012.



15.9 Temple in Van Quan, Hanoi. Source: P.F.,2012.



15.13 Commercial area of Van Quan, at the main road. P.F.,2012.



15.10 Commercial activities within the fabric. P.F.,2012.
112



15.14 Street food close to one of the borders of the area. P.F.,2012.



15.15 Housing typology of Jardim Canadá, Nova Lima, Belo Horizonte. E.B.,2012.



15.19 Unpaved streets of Jardim Canadá..C.B., 2013.



15.16 Gas station "Posto Chefão" serves as the gate to the area.C.B., 2012



15.20 The Gas Station shop and facilities. C.B., 2013.



15.17 A major luxurious supermarket and pools for sale. C.B.2013



15.21 A Catholic Church. C.B., 2013.



15.18 Large public space with green areas, playground and equipments of Jardim Canadá, in Nova Lima, Belo Horizonte. Source: Carla Braga, 2012.

15.22 SPONTANEOUS SOLID SAMPLE



15.23 BUILDING TYPOLOGY SCHEME



15.24 BUILDING TYPOLOGY EXAMPLES



source: E.B



source: E.B.

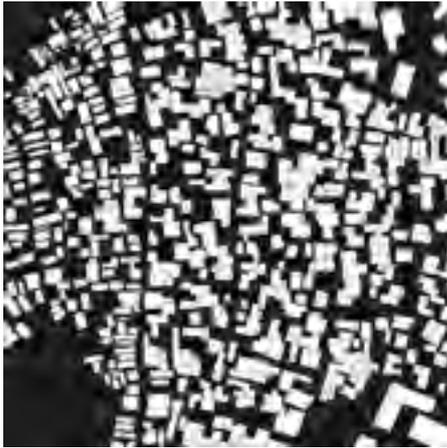
Solid

The first difference seen is the size of the houses and the organization of housing units in the tissue. In both fragments a spread of housing units is perceived, with a wide variety of sizes, shapes and highs. The mesh, which structures the territory, is distinct, but the process of occupation is the same. In the case of Jardim Canadá there was a spontaneous process of plot subdivision during the last decade, which, in certain a way, approximates its spatial result from the one observed in Van Quan regarding its variety. This spontaneous adaptation of the plot structure ends up densifying the fabric in some parts of the tissue, approximating the two fragments.

The typologies, however, differ substantially. In Van Quan old village houses are observed, with wider setbacks and less height than the other areas of the city, but also the very common verticalized hanoian tube house appears in the tissue.

In Jardim Canadá, however, due to its mixed use characteristics, there is a wider variety of typologies, according to their use. The houses are quite similar to other spontaneous Brazilian fragments, even if less dense due to the recent occupation. They are still only up to two story high, usually not painted and without any decoration in the informal area, the shops and restaurants which support the neighbouring areas are relatively luxurious, whereas the small factories are quite simple and rational.

15.25 SPONTANEOUS VOIDS SAMPLE



GREEN
15.26



source: P.F.



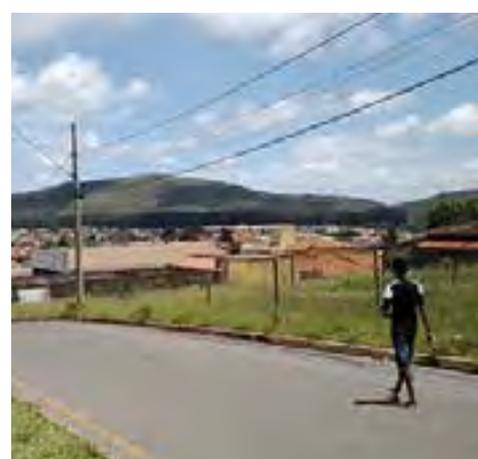
source: C.B.



URBAN
EQUIPMENTS
15.27



source: P.F.



source: C.B.



PUBLIC SPACES
15.28



source: P.F.



source: C.B.

Voids

Due to its peripheral characteristics and lower density, both fragments present less use of the public voids than the other spontaneous fragments observed. By being dependent of other centralities, they do not hold enough activities in the open and public spaces to assure vibrant street life.

In Van Quan, small scale commercial activities take place in the streets, but not as frequent and intense as happens in other areas of the city. In Jardim Canada, the empty plots and streets are used by children as a space to play soccer, but also with fewer activities, especially commercial, than the consolidated spontaneous fragments of the city, as Morro do Papagaio. In the case of Jardim Canada this process happens due to its recent occupation and lower density, while in Van Quan, the recent transformations on its surroundings changed the internal structure of the fragment. Instead of a strong commercial axis concentrating the activities, as usual in traditional hanoian villages, now the fragment has a peripheral market, closer to the main neighbourhood external road, exemplifying the strong dependency between from ancient to the new fabric of the area.

Hanoi x Belo Horizonte:

Distinct Peripheral Situations?

Hanoi and Belo Horizonte had their peripheral and recently transformed fragments compared aiming to stretch their singularities, revealing more than differences in their quite distinct form, differences in their ongoing transformation processes.

Sovereignty and modernization guided spatial development in Hanoi and Belo Horizonte through time. In both cases, in different times, extensive regulation of the planned cities drummed its future, concerning housing and the urban poor. However, distinct political process produces nowadays presents diverse spatial processes and outcomes

In one hand, a very state controlled induced area exemplified by Lihn Dam and in the other the free-market induced area of Belvedere III. The dynamic and diverse Jardim Canadá in one side and Van Quan, a dreary urban village, swallowed by new urban development, in the other.

These samples show how distinctively recent global economic processes were canalized to the space of these two cities and shaped differently: with a very controlled outcome, sometimes despite de pre-existences in Hanoi and with the free-market private led model, generating new arrangements in the existing tissues in Belo Horizonte.

Main Findings

The main research question that the present research intended to answer is: which are the spatial consequences of urbanization processes and which are the differences and similarities between each city and its development?

The processes investigated had impact on form, creating similar outcomes, in the cities, fragments and samples observed. The particularities found in each case study presented helpful lessons for the others, important also to frame the materialization of the southern city in general. The presented results deal with all the different scales analyzed – overall and local socio-politic, economic, cultural dynamics, the city, the fragment and the sample of different urban existing conditions.

Regarding the overall city scale, there has been historical similarities regarding urbanization processes in São Paulo, Jakarta, Hanoi and Belo Horizonte, perceived through the dynamics of the three countries' politics, economy, external relations and social indicators, as well as in each city's urban expansion process, planning approaches, politics, urban regulations, demography, local economic and real estate dynamics.

In the three cases there was a project for the country and its image, which altered, in specific periods in each country, the spatial configuration of its main cities.

The consequences of fast urbanization processes were urban growth, due to rural migration, and a physical sprawl, due to private land parcelling - legal or illegal.

In Indonesia and Vietnam there was an urge to re-define the spatial structure after independency, over the 1950's and 1960's, however in the specific case of Vietnam this process was interfered by the American war.

In Indonesia the vision of Dictator Suharto had a clear modernization agenda, similar to the developmentalist agenda of the Brazilian dictatorship. This agenda of development enabled a series of interventions in Sao Paulo, Jakarta and Belo Horizonte, whereas in Hanoi there was a project of societal change, with soviet influence.

Therefore, in Brazil and Indonesia industrialization was an important issue of public agenda, while in Vietnam, assuring sovereignty in the country was the priority, but in all cases modern architecture and planning were used to spatially organize and represent ideals, despite being an unfinished (HABERMAS, 1997) or a selective modernity (DAVIS, 2012). In all cities, this selective modernity disregarded the offer of sufficient affordable housing in pace with the speed of urbanization.

The global consecutive economic crises affected the countries' economy and the space production similarly. Since the developmentalist and industrialist mentality of the 1960's and 1970's were funded by foreign investors, the money input retracted in the late 1970's with the oil crisis. The credit crisis - Asian Tigers Crisis of the late 1990's - caused an evasion of foreign capital, both in the Brazilian cases and Jakarta. The latest global crisis – from 2008 on - however, caused initially an increase of real estate activity in all cities analyzed, with the evasion of real estate capital from Europe and North American cities towards southern opportunities. The consequences of this real estate expansion processes and its possible retraction are yet to be seen and further analyzed.

Regarding what was observed in the fragment scale exemplifies these overall relations and dynamics, whereas their urban tissues and typologies show how macroeconomic dynamics al-

lied to urban regulations are able to shape differently parts of the city.

Nevertheless, the urban fragments analysis results, classified as induced and spontaneous in each city, calls for a conceptualization of a more balanced urban development, maybe, calling the attention to the necessity of creating a hybrid fragment, not too loosen up as the ones we are classifying as spontaneous, not too rigid as the planned ones, but something in between the two typologies of urban fragment, acknowledging the best features of both. As Provoost states, there is a necessity to redefine the antagonisms between what has been called planned and unplanned territories, highlighting that the terms suggest an antithesis that in reality doesn't exist. The difference lies in the identity of the planner, an individual versus a collective stakeholder, a trained versus an untrained, a top down versus a bottom up process, nevertheless in both cases there is planning. The author suggests that for 21st century cities an emerging process is the "retrenchment of urban informality as a way of life, at this moment of globalization and liberation" (PROVOOST, 2010).

The result of the urban sampling process shows that the most common typology found in the induced areas are the sparse multi-familiar high rise apartment buildings and corporate towers, even in Lihn Dam, a planned neighborhood, showing the possible association of the typology with the higher living standards and modern life. Whereas in the spontaneous areas analyzed, the most common typology is the densified single family low rise house, reaching up to 4 floors high.

Therefore, as lessons learnt by the overall process of local and global entangled stories that spatially shape development, one can state that similar processes – based on dependency, international economic flow and the necessity of positioning the country within its direct economic context and within the global scale – generated a series of contradictions, to follow.

The cities, ambitiously expanding in order to create space for infrastructure to assure growth, do not adequately shelter people, whereas the major urban infrastructure – roads, mass public transport, tunnels, bridges – area always incomplete and insufficient.

In the implementation and proposal of such new infrastructure, the pre-existent conditions are usually ignored, with the mentality that the resources – land, water, air – are inexhaustible, whereas natural disasters become more frequent, mainly floods and landslides, worsening the need for more infrastructure, but mostly housing.

The great urban projects and plans drawn historically reflected the urge for modernization and modernity, however they were consciously never entirely finalized, mainly due to economic constraints, and therefore the aimed modernity never came to an end.

Most often, out of all the good intentions drawn on the plans, in face of the lack of resources for implementing it all, the only visible outcomes are the investments in the infrastructure, arguably essential for development. This envisioned development is therefore not sustainable or complete, since it does not take into account the direct welfare of the entire population. The historical pattern of unequal distribution of wealth the southern cities get more and more inflamed.

Finally, despite the innumerable contradictions common to the four cities, and one might say to all southern cities in a certain extent, what one city could learn to the experience observed in the other?

Belo Horizonte and São Paulo, even in different stages, offer a clear message regarding land speculation processes and the danger of uncontrolled – even if planned – indiscriminate land parcelling approval of areas which might remain empty for years, jeopardizing urban dynamics and flows in a wider scale. The disadvantages of this process are a lesson to be learnt for Hanoi, with its innumerable upcoming detailed plans and new neighbourhoods, yet to be constructed, or, worse, already constructed and unoccupied.

From Jakarta and São Paulo one can learn quite a lot observing the way they have used their natural resources to exhaustion and today face severe consequences, especially regarding the pollution of water sources and the floods in the rainy season. Hanoi and Belo Horizonte, due to their size and urban form, still have chances to keep developing based on less savage processes, of course, if processes as the one observed in Belvedere III are bypassed.

Hanoi and Jakarta, with their obsession regarding expanding and shrinking urban borders, according to political occasion, show how important it is to define the limits to what is considered urban. In Hanoi today, as much as the current expanded perimeter shows a diversity of urban conditions, it also offers a diversity of rural conditions, considering that planning, or at least acknowledging, the whole territory is of extreme importance to avoid processes as the ones seen in Belo Horizonte's fragmented metropolis historical development. In Hanoi the large scale road based infrastructure is being implemented only recently – over the last ten years – and an unplanned linear occupation of its borders has already started. This process has to be observed with caution, avoiding the uncontrolled sprawl of urbanization, annihilating the green buffer zone and the food production areas, since the abundance of fresh and non-processed vegetables are vital for Vietnamese culture, as the base of its cuisine.

In Hanoi, the image of sovereignty was constantly an issue and the development of the city was marked by a historical struggle for liberation and affirmation, overcoming war and natural disasters. From Hanoi one can learn from resilience and the ancient relation with the Red River, a much-respected physical structure, enabling Hanoians to have a greater respect for the natural environment. The weakened economy had its share in the protection of the city against the advances of capital, but the expectative regarding upcoming growth are concerning, since it is likely to have the more substantial economic growth in the next fifteen years, according to Scientific American Magazine's rank of Better Smarter Cities (DICHIRSTINA, 2011).

No doubt the city could learn what not to do observing the experiences seen in the three other cities, focusing on the industrialization allied to redistribution of wealth and sustainable spatial development, balancing the expected economic growth with the integration of the natural features of the city and a balanced environment, as well as social equilibrium. Social housing or affordable housing is the main issue to be addressed – how to assure that the real estate – a potentially growing sector – covers all incomes? How to assure that ghost towns will not be continuously replicated? Is there still an excessive and prejudicial control of the state on the expansion of urbanization?

Belo Horizonte - the extensive regulation of the planned city interfered in its future, expelling the urban poor. This is a lesson learnt for Hanoi, since a similar process, with the detailed masterplans of neighborhoods, is happening and it might expel the poor forcing them to move out of the city or planned suburbs without a proper offer of affordable housing. The city's urban sprawl increased the value of the land up to a point when agriculture was not viable in the metropolitan area anymore, jeopardizing the production of food supply of the city, something

that could easily happen in Hanoi in the upcoming future, with an increase of real estate pressure to develop agricultural areas closer to the center.

The enormous synergy between the planned and the unplanned fragments found in Jakarta is doubtless the great lesson for São Paulo, where the informal settlements, even when already urbanized and well provided with urban services and equipment, are still stigmatized, a prejudicial image hard to overcome. The vitality of the favelas for the functioning of the city, with its informal economy and social dynamics, the strong community bonds and its labor force potential, are yet to be recognized and evaluated.

In the matter of synergy between distinct types of fragment, the case of Jardim Canadá – an interesting hybrid case, which started as formal, went through an informal process of change and now is under an spontaneous process of transformation, gentrifying without expelling the poor – offering, against all odds, a quite interesting example of how this synergy could happen, even though there is a possibility that the enormous voids are the key which allow the fragment to stay where it is: the distance between the area and the other ones, having the highway as the connecting elements, therefore the intense synergy between different classes in the same territory – workers, inhabitants and consumers – happens without the intermediacy of the state.

While In Jakarta this synergy happens in one of the most prestigious and notorious area, in Belo Horizonte it seems that this synergy can only happen away from the eyes of the state and society, in an island, working well despite the induced an spontaneous processes of occupation and class segregation, which traditionally had happened.

Both in Jakarta and Hanoi the spontaneous fragments, mainly due to their longer period of existence and the fact that they were built slowly in time, are areas which the households and the space of the street are generally better maintained, whereas in Heliopolis most of the houses are not painted and do not have facade decoration. Traditionally in the neighbourhood the battle for improving urban conditions was more important than investing in their typologies per se, a process which is changing slowly now. In Jardim Canada, a less dense area, the process is the same. The lesson learnt: aesthetic matters, especially when considering the existing prejudice from the formal and planned areas inhabitants towards spontaneously constructed urban areas. JACQUES (2011) in the fascinating book “Estética da Ginga”, partially reveals these cases in which the author highlights the opposition of the rigid modern rationality – which orients until today planning and the design of formal areas – and the complexity and ingeniousness of slums spaces. She argues, and we agree, that most of the prejudice is based on the “fear of the unknown, the different, the other”, due to the different aesthetics perception, therefore she argues in favour of the artistic potential of these spaces, yet to be explored. The called “urban divide” is widened due to this aesthetic prejudice, even where there are no hard edges physically separating territories.

From the eyes of the unaware visitor, it is common to classify whatever settlement in which the façades are not treated and the red-bricks are exposed as a ‘favela’. Most of the times, specially in peripheries of São Paulo, the massive agglomeration of red-brick houses with flat roof are not a favela, but simply a poor neighbourhood. The use of the term is in discussion nowadays, since the name is related mostly to the informal and illegal conditions of the settlements, although many areas still carry the name, for being traditionally known as such. ‘Favela da Rocinha’ and ‘Favela do Gato’ are examples. Since the name is embedded with a lot of prejudice, many prefer the use of terms such as ‘community’, ‘the hill’ (morro in Portuguese), ‘agglomeration’ etc.



16.21 Traditional street Market in Van Quan, Hanoi. P.F., 2012.



16.22 Sidewalk occupation in Lim Dam. E.B., 2012.



16.23 Temporary housing in Jardim Canadá. C.B., 2013.



16.24 Spontaneous occupation next to Grand Indonesian Mall. P.F., 2012.



16.25 Sidewalk occupation in Heliópolis. Source: E.B., 2012.



16.26 Street wedding in Hanoi. Source: E.B., 2012.



16.27 Social housing addition in Jakarta. E.B., 2012.



16.28 Hanoi French quarter: the sidewalk transformed in a sports field. Source: E.B., 2012



16.29 Corner at Paulista Avenue and Augusta Street: Spontaneous square. E.B., 2012.

The same happens in Jakarta with the Kampung. To the eyes of the outsider, a small scale neighbourhood could resemble a Kampung, although the name relates to the origins of the area, meaning a 'village'. In a reverted process of the Brazilian case, the term is now starting to be used also the new settlements that squat illegally around railways or riverbanks, having the same tissue and social life than original Kampung.

From the Belvedere III case, it is possible to understand the dramatic way of how the pressure of certain stakeholders – real estate companies and land owners – can change urban regulations abruptly, jeopardizing the environment. Besides, the increase of population in this area contributes immensely with the daily clogging of the highway, the only access to the neighbourhood, which is disputed between dwellers of this area, dwellers of other communities in that direction and the exit of trucks and goods in the direction of Rio de Janeiro. Despite that, there are also interesting features regarding the use of public space – streets and sidewalks -which attracts people of other neighbourhoods, even without properly offering activities and proper space to conduct these activities.

In a smaller scale this has happened also in Jardins, in Rua Oscar Freire and Rua Augusta, where private initiative pressured the municipality to intervene in the sidewalks, but in an opposite process, since these streets were already used and visited for its commercial functions. The sidewalks of Paulista Avenue in Jardins also receive an enormous flow of visitors, especially after 18:00pm and over the weekends, an interesting phenomena of appropriation of space, despite its physical characteristics.

These processes of street and sidewalk spontaneous appropriation in Belvedere and Paulista should be further studied and understood, since these areas became a point of attraction, despite its activities and urban functions, and not because of them. To understand what attracts people to these areas, despite their design, would improve the capacity of designers and planners to create urban spaces vivid and more adequate to urban appropriation, as a symbol of civility.

Interestingly - both in Jakarta, São Paulo and Belo Horizonte the occupation of the elite was historically moving towards south, once the current area went through a process of obsolescence and new areas were being offered by the market. The difference is that in Jakarta this obsolescence was created by the government, due to the colonial image of the center and driven by the market, which had close relation with the dictator, whereas in Brazil it was purely market led, and in the case of Belo Horizonte later ratified by the state, as seen the Belvedere III case. This is a lesson regarding the necessity of acknowledging the dynamics of public and private investments, which sometimes follows market logic, disregarding social urban needs. To understand this process is the first step to overcome it.

The fragments chosen were quite heterogeneous, but some remarks can be made: the less labyrinthine meshes studied are also the more integrated with other areas of the city, improving the synergy between different fragments, as in Kebon Kacang and Jardim Canadá.

Real estate regulations and the historical plot sizes were determinant to the final forms of the induced areas of Jardins, Thamrin, and Belvedere III. In Hanoi, as the formal urban development is still very controlled by the municipality, the resulting urban form can be considered neither induced nor spontaneous. It is, as matter of fact, intended, the result of urban design. The lesson here could be regarding how to create vibrant planned neighbourhoods, since the contrast between these areas and the buzzing centralities - the old quarter and the west lake - is huge. Density might be the key issue, but this is a subject that needs to be investigated deeper.

In the sample scale analysis even though the typologies of the induced areas are quite similar - high-rise apartment buildings and corporate towers - their size, proportion and insertion are rather distinct.

In Sao Paulo and Belo Horizonte, both induced neighbourhood were first allotted, offering single-family house plots. The main



16.31 Hanoi Old Quarter's restaurant. Source:P. F., 2012.

difference was the process of occupation, which in Jardins went through gradually, first as the original planned typology, afterwards with its substitution, having as a result a wider variety of typologies composing the urban landscape, whereas in Belvedere III, due to the complicated process of urban regulation changes, when finally occupied, it was done with a more contemporary typology, the gated communities.

The urban regulation restricting densification in Brazil in general does not allow such densification and verticalization observed in the Asian cities, mostly Jakarta. The real estate market and financial capital, however, has limited resources, therefore these developments stay concentrated, clustered, while in Sao Paulo they are done in smaller scale but sprawled in the entire territory of the expanded center, creating quite different urban forms, despite the similar processes, which highlights the importance of regulation shaping the final form of the cities. More recently, after 2006, due to the last urban regulations enacted on 2002 and 2005, it is perceived an increase of size and shape of the developments however they are even more spread throughout the metropolitan area.

From what has been discussed and suggested in these final remarks, the answer to the main research question, regarding the similarities of global processes' spatial outcomes, in the context of southern cities, can be explained through one concept: spontaneity.

Spontaneity was perceived, as a key characteristic of the cities analyzed, and is present in most of the conditions, processes, spaces and shapes analyzed. Even in the so called induced fragments, spontaneous processes of market-led re-development, construction of entire neighbourhoods, public space appropriation and highly synergic relations were observed. When spontaneity is not explicit, as the case of planned areas in Hanoi, there is the consternation of becoming ghost towns, as many of Hanoi's new planned suburbs turned out to be.

As a conclusion, one may say that imposed and planned axes of development do not always work as the plan intended. Market axes of the development are, most of the times, strong enough to overcome it, even to push the change of urban regulations, whereas spontaneous urban appropriations also tend to happen despite planning. The lesson learnt from all cities is to understand how to use the market logic for sustainable development, where supply follows demand, in order, to dialogue with capital, to co-create with the population, not to impose processes, but to manage the spontaneity of urban development, diversity and transformation.

It is precisely the lack of planning tools - order, control, zoning, structuring – that forms the most interesting spatial assets of tissues such as Kebon Kacang, Heliópolis, Van Quan and Jar-

dim Canadá: serendipity, informality, spontaneity, and most of all, mixity. But it was also the public interventions (planned or unplanned) and the law apparatus, that made them more liveable and sustainable, especially in the cases of Jakarta and São Paulo, once the efforts of urbanizing the fragments and connecting them to the city, enhanced their qualities and consolidated them as fundamental pieces of the urban jigsaw.

Excess of planning means predictability, which, after the modernists exploitations of the past, have proven to be not only often uninteresting but, in the aim of suiting for all, sometimes it suits none, for its generic inflexibility. Linh Dam, if compared to other areas of the city, seems to be asleep. In the reality of Brazil, the combination of free-market of city-making, patronage politics and fast transformation adds an extra ingredient to the 'formal' city, which is what makes it more exciting. The social activities of the business Avenida Paulista, in Jardins, after dark and the sports complex in which the residential neighbourhood of Belvedere III is transformed on weekends are clear evidences. In the Thamrin area of Jakarta, is the proximity to the Kampung with its street vendors that brings and extra layer of excitement to the entrances of the great shopping Mall. It is the un-wanted young occupancy of the round-about of the Thamrin boulevard, designed for being 'pedestrian-free' that brings life for the avenue at evenings.

From these conclusions, a question remains: how to induce the spontaneous?

Planning is sometimes done backwards. In an almost perverse (one could even say Machiavellian) logics of "the end justifies its means", after a goal is established, planning tools are used to make ends meet. An example of this is the bold implementation of infrastructure in order to boost growth, such as the construction of the heavy estate apparatus on the north of Belo Horizonte, or the 'ghost towns' in Hanoi. However, the realities in the ground and the needs are not always considered. There is a recurrent problem, especially that the local authorities are limited to making endless diagnostics, detailing all the socio-economic conditions, evaluating and highlighting qualities and deficiencies, without proper resources (powerful laws and capital) to take action. Instead, higher levels of the political hierarchy have visions of strategic actions on the nation scale, which are then implemented on the city and have its own consequences on the small scale, generating deficiencies. Those are analyzed over and over by the local instances of power, creating a vicious cycle, due to this planning scale discrepancy.

One hypothetical solution to this dead-lock would be subverting the logics of power, a populist approach in its good sense, empowering the people as a matter of avoiding the complete abstract administration machine, which is most of the times not



16.31 Hanoi self-built suburban neighborhood, the replication of the tube house typology throughout the whole territory. Source: E.B., 2012.

connected locally.

In the history of urbanism, north and south, there is an alarming bureaucratic detachment of planning and the reality, especially in fast urbanizing cities. Even though there is today the spread out tendency of participative and integrated planning, the scales of planning only grow further, with the expansion of borders (Jakarta and Hanoi) and the creation of administrative metropolitan regions (São Paulo and Belo Horizonte). Therefore, there is a problem in the 'scale of planning', connected to the administrative layers and planning tools. Another process, perceived globally, is that often the process of planning is exhaustively time consuming, so when it is finally enacted it is already 'outdated', once the city has already changed on its own, one could say spontaneously, with newer and more intensive problematic to be tackled.

In conclusion, the city is produced out of all this stakeholders, outside planning. Being so, why not embody it and propose that, instead of purely top down or bottom up initiatives, urbanism and planning mediate this different actions and stakeholders.

What is the right dose of planning? In which stage and in which scale of spontaneity should planning intervene, adding infrastructure, services, connections and expansions? Why not a "meet half way" urbanism?

More than a set of answers, the conclusions here raise some new and exciting questions.

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