

# Brasília and its periphery cities

A comparison of the planned and non-planned areas of Brasília.



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## 1 Introduction

Brasília was designed by urban planner Lucio Costa and became the new capital of Brazil in year 1960. The essay cover a comparison between the planned city, Brasília, and its non- planned surrounding periphery cities. With help from Urban Planning theories, the essay tries to get a richer understanding of the qualities and of how to improve the challenges that the Federal District of Brasília faces.

## 2 Literature Review ( Urban Shelter development)

### **Urban Planning theories**

**Lewis Mumford** was interested in the human scale of a city and saw streets as the place where life is happening and where humans play “*the Urban Drama.*” He looked at the term “*What is a city?*” and described it as “... *a theater of social action,*” and a place for humans to enrich their lives. He saw the importance of community values and the closeness to nature as vital for a city. Furthermore, it needed to have control of density, size and accommodate permanent housing and places for gatherings in order to create good social interactions. He had the idea that suburbs lack the drama that happens in the cities-

**Jane Jacobs** saw the city through a human scale perspective and thought that the design of the city could never rule over how the humans perform. As Mumford, Jacobs was interested in community values and talked about the street as a “*sidewalk ballet*”. She saw the importance of crowded streets with multiple use and how it should not only be dedicated to automobile traffic. Her ideas was that a

clearly defined neighborhood, with the possibilities of humans watching the street, would be able to reduce crime and increase security.

**Ebenezer Howard** was reacting on the industrialization of the cities and wanted to be free from the overcrowded cities that had slums and smoke. With “the Garden City” - he had the idea of breaking the city down through decentralization and by incorporate the nature as the most vital part. It would be community based and separated from the central public services, with clear zoning for the different uses. By building small and incorporate the nature, he had the idea of how the residential areas would be self - contained.

**Le Corbusier** ideas was to build a vertical city made of geometrical towers in a rigorous system. It would be called “ *A Contemporary City of Three Million People*”. The towers were surrounded by open space and park landscape - as a place for tranquility. He saw the street as an organism that poisoned the houses with noise and dirt - they should be organized away from the houses. He thought that dense and centralized cities were better - they would create less distance and easier communication.

**Frank Lloyd Wright** ideas of “ Broadacre City” was a city that would be decentralized into smaller counties and reaching out for the countryside. Streets and the compact city life of other cities were not of interest. The automobile and telephone, gave new opportunities of distances and the possibility of living further away from each other. He based his ideas on new kinds of communities: individualism and family based, where every person had one acre of land. Equal landownership was a way of avoiding class societies.

**The Brundtland Commission - “ Towards Sustainable Development”** became a new way of thinking within urban planning globally - a green politic with focus on a sustainable environment. The report defined what the humans’ basic needs are and tried to communicate that these needs are not met for the urban poor. Developing countries should prioritize the urban poor, also for the sake of the global environment and climate.

**The New Urbanism** movement based some of their ideas from the Brundtland Commission and worked with the values of sustainability. With different principles, they proposed goals for how to deal with cities. The Metropolis scale was about embracing existing environment and work with infill, rather than suburban expansion. Also to reduce the need of automobiles by encouraging a mix of transportation. The Neighborhood scale was about how it could offer closeness

to commercial areas, schools, green space and activities, by being dense and pedestrian friendly. The Block - and Street scale should work for mixed use and take the local context into consideration so that the public space becomes safe and user-friendly. ( LeGates & Stout, 2011)

### **The birth of Brasília**

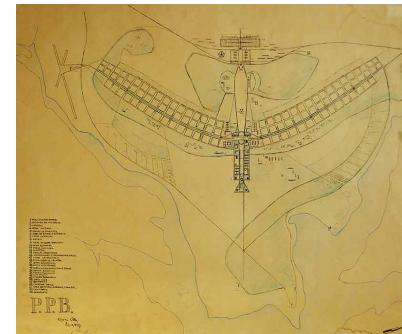
The idea of moving the capital was not a new intervention, but came historically from when the Portuguese ruled over Brazil. In 1956, the new president of Brazil, Juscelin Kubitschek, promised to bring Brazil far into the future. Brazilian urban planner Lucio Costa won the competition



(Google Maps, 2019)

and the new capital moved to the middle of the Brazilian savanna, where hardly any built environment could be found. The first idea with the city, was to break the existing social class differences and make people from different income groups live side by side. ( Brendao Jönsson, 2010)

Brasília was built during three years and was ready to inaugurate in April 1960. The city started with a population of around 50 000 public servants from Rio de Janeiro and over 60 000 migrant workers from the north. (Cherry, 1980) While constructing Brasília, the workers lived in a free camp called; Cidade Livre. As more workers came with their families, Cidade Livre became overpopulated and impossible to live in. In 1958, the government decided to move some of the workers 15 km west of Brasília - to an area that



(Carvalho, 2017)

would be called Taguatinga. It became Brasília's' first periphery city and nowadays has a population of over 220 000 people. Taguatinga was built of concrete barracks organized in a grid system. (Brendao Jönsson, 2010)

Costas plan of Brasília consisted of two axes of highways that crossed each other-one highway with the residential neighborhoods and one with the governmental institutions, organized with a centrum in the crossing of the axes. Furthermore, an artificial lake was built in order to improve the hot and dry climate. The plan of Brasília looked like an airplane and got the name: “ Plano Piloto”. The architect Oscar Niemeyer was assigned to design most public buildings. ( Brendao Jönsson,2010)

Superquadra was the name of the residential area where a neighbourhood was defined. 240 superquadras was designed for Brasília, with a size of 300 m times

300 m. and a total expectation of around 500.000 people. It consisted of between 10 -12 residential slab buildings. ( Grahame Shane, 2011) The slabs were formed in different directions and had a maximum building height of six floors. Moreover, each house was lifted on pillars to generate an open social space with public access. It created a buffer zone between the nature and the buildings, inspired by the ideas of Le Corbusier. Furthermore, each Superquadra had a green belt and numerous of planted trees, consisting of species from the flora and fauna of the surrounding savanna landscape. ( Tattara, 2011)

According to Costas plan, no one were allowed to build outside of the Plano Piloto. But politicians and landowners started to make money by selling public land around the lake to very cheap prices. The buyers were middleclass and consisted of variation of important persons. Therefore it was not possible to move the settlements, as happened for the low income families. First recently, the settlers had to pay extra money for the difference of not paying the real market price that the land was worth. ( Brendao Jönsson, 2010)

### **Brasilia - Plano Piloto**



(Google Earth, 2019)

### **Sol Nascente, Ceilândia**



(Calzolari, 2015)



(Franca, J., 2019)



(Franca, J., 2019)

Attracted by the opportunity to work, migrants from all over the country came to start a new life in Brasília. The growth of Brasília, was not included in the original plan. Those who got affected, was the workers that could not afford an apartment inside the Plano Piloto. As a result, more illegal squatters started to put up their

settlements inside the city centre. Each Superquadra got their own favela and the city continued to grow. (Cherry, 1980) The workers living in these settlements did not intend to move back to where they came from. The government thought that these informal settlements would damage the picture of the new capital and therefore decided to move the squatters to the periphery. The new periphery city was called Ceilândia and was founded in 1970. It now populates more people than in Plano Piloto - around 350 000 people. (Brendao Jönsson, 2010)

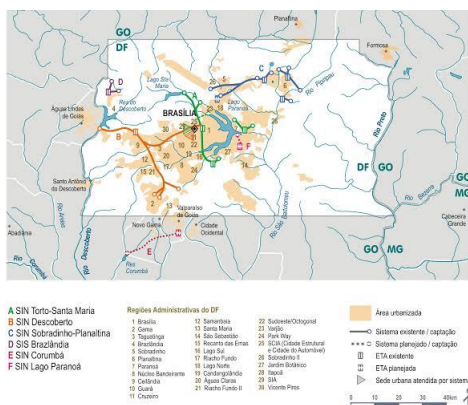
More periphery cities started to pop up and the Federal District of Brasília now has over 31 legalized periphery cities, (the official name is Administrative Areas). As a result of the growth and expansion of the periphery cities, a metro was built in 2001. The metro has one line inside Plano Piloto and then split into two lines - towards Taguatinga and Ceilândia. The metro has few stops inside Plano Piloto, but is now being improved and extended. (Brendao Jönsson, 2010)

All Administrative Areas have been provided with public infrastructure, even though the quality not always keep up the standard. Unfortunately, there are some areas that can be called favelas, like Sol Nascente - a horizontal favela situated next to Ceilândia.



(Calzolari, 2015)

It is about to become the biggest favela in Brazil and has over 56 000 inhabitants. Sol Nascente still has informal settlements, even though public roads and electricity partly have been provided. Nevertheless, few of the roads are in asphalt and neither sewerage or garbage collection is working well. Furthermore, it is lacking schools and public transportation. Due to high poverty, the area is also known for high criminality and violence. (Globo News Reportage, Sol Nascente )



(Atlas Brasil, 2010)

A lot of people spend hours commuting from informal areas, favelas and poor cities outside of the Federal District of Brasília. Since those cities are outside of the Federal District, they do not receive any Federal money for infrastructure and public services. Furthermore, no Administrative Areas in the Federal District can have municipalities, due to the constitutional law.

The total number of citizens are today is close to 3 million people in the whole Federal District of Brasília. ( Brenda Jönsson, 2010)

According to **Charles Correa**, migrants that moves to seek work, are nothing new. The importance is how to work with the growing population and how to “*re-structure*” our cities. Governmental institutions build houses today that the low income families can’t afford - those houses express little variety and becomes inhumane. Correa argues that an increasing density, does not necessary mean better life quality for the inhabitants and maybe it will just increase the cost of housing. As a continuation, he believe that a city needs many center points to work better. ( Correa, 2000)

According to the book “*Planning and Housing in the Rapidly Urbanising World*”, trends within the field of development theory has influenced urban development globally. Thus, urban development will always be a result of the economical- , political -, cultural - and social situation in the country/ region/ city. Urban development should be a result of the “*actual reality*” and always be supported by analysis of the context. (Evans, Jenkins Smitt, and Wang , 2007)

### 3 Argument, Critique or Discussion

Life in Plano Piloto relies on automobiles for most things - even to go to the closest grocery store. Inspired by Le Corbusier and Lloyd Wright’s ideas about the car as the future way of transportation - citizens of the Plano Piloto have become dependent of the automobile. Dependency on the car, creates a kind of individualism and isolated environment. Few street markets and spontaneous outdoor eateries will be found, as the opposite of Jacobs ideas of the active and multipurpose street. As a result, the outdoor space is calm, organized and secure.

The design of Plano Piloto, can be read as a reaction towards other crowded Brazilian cities, though questions can be asked how good the social relationship between the residential buildings are. The green belt of nature, surrounding the slabs of the Superquadras, can clearly be linked to Le Corbusier’s ideas of towers in a park, except that the slabs are not as dense. The green belt is mostly used as a passage by people who works inside Plano Piloto and live in the periphery - not as a “European park where the citizens have picnic and where Mumford’s drama takes place. Consequently, social meetings are not taking place in the Superquadras. Life in Plano Piloto is expensive and requires money- only a limited amount of people can afford to live there. Plano Piloto is usually quite in the night and has no

disturbing noise from roads and bars, as other big cities in Brazil. The power and public institutions are centralized in one huge area, while the Superquadras are more comparable with Howards “Garden Cities” and becomes decentralized by the distances. Human scale is lacking and the distances creates huge voids. The Superquadras are not self-contained, but can be read as floating islands in a green landscape, decentralized from the rest of the city’s public functions.

As a continuation, Plano Piloto is protected by UNESCO, which makes future developments and infills difficult. Seen as a positive aspect, Brasilia is a unique city which will be kept as an example to future generations.

The primary qualities with Plano Piloto are the open fields of green urban space in between the buildings and closeness to nature and it’s biodiversity. The city is clean and organized. A unique city that can’t be found anywhere else.

The largest challenges with Plano Piloto are how to work with affordability, better accessibility for pedestrians, how to increase public transportation and how to connect Brasilia with all the administrative cities? As Mumford ideas, how can the human drama be brought in to the streets of Brasilia and the neighborhoods become inclusive? Furthermore, how to adapt to a more sustainable way of developing the city, by following the Brundtland Commission.

Life in the periphery cities usually means commuting to work in Plano Piloto, often for many hours. The areas can in a way be compared with Howards “Garden cities” and Lloyd Wright’s ideas about the suburban life. The difference is that people living there have not chosen a suburban life and most of the population there belong to an income group that ca not afford to have a car. As a result, the majority of the population living there are dependent on public transportation, that is usually fairly good nor efficient. The periphery cities usually have a shortage of other essential public services and cultural/ political institutions, which can only be found inside or closely to Plano Piloto. As an effect, the decentralisation creates bigger gaps between humans and places.

The quality of housing standard and public services as roads, electricity and water management, are often poorer and sometimes non existing. The human shelters are often small and built with primitive materials, lacking facilities that will be found in Plano Piloto. As a positive aspect, neighbourhoods are often more alive and there is another type street life and spontaneity, that can’t be found inside Plano Piloto. Comparable with Jacobs ideas on mixed use streets and Mumford’s ideas of

the street drama - the space between the buildings is where life is happening. Street markets, shops, bars and restaurants activates the streets and strengthen the social life. Human scale is present and creates a more welcoming environment. As a negative effect, some Administrative Areas are overcrowded, having poorer living conditions, less income and a clear segregation. Consequently, the lack of future perspective, ownership and proudness gives life to criminality and violence. The government has lost control of some of the areas and several fundamental rights, as being safe in your own neighbourhood, is lacking. Furthermore, The Brundtland Commission does not seem to have had any effect on the investments in sustainability and green politics for these areas, neither the impact of increasing the living condition for the urban poor.

The primary qualities with the Administrative Areas are the vivid street life and closeness to the neighbours. Social life functions on another level than in Brasilia.

The largest challenges with the Administrative cities are how to deal with lack of education and work opportunities, how to reduce poverty, how to improve the building standard and how to increase accessibility inside the Federal District of Brasilia. Furthermore, how to reduce criminality and violence, how spread equality and increase the quality of life.

## **Conclusion**

Setting a precise number of how the population will grow in the future, has shown to be impossible to predict. To plan density will never constraint the population to grow in itself. It results in the importance of having future criteria's on how to deal with a growing population and the futures' unpredictable way of living.

The Federal District needs to work with how to infill the existing areas, as to create better flow and transitions. Thus, they need to work with small scale improvements and if possible, start to work locally in the center of the Administrative Areas. To create smaller centurms and spread out the importance of the power in Plano Piloto, can be an important tool for the future. A city is built on its functions - so through decentralization (to create important functions outside the city plan), the functions will now start to work in the whole district.

To deal with how to stop segregation and increase social inclusion, the government needs to create affordable housing inside Plano Piloto. Each neighborhood should mix income groups and have a certain amount of affordable



apartments. Moreover, the residents need to trust their public institutions, and the government could gain trust by spread out their institutions, so that they are existing in all Administrative Areas. Maybe they would also win to open up for the opportunities to create Municipalities inside the Federal District of Brasília - to further decentralize the power.

Furthermore, poverty still last due to for example lack of education and work opportunities. The government would need to open up new schools and try to move bigger companies and institutions outside of Plano Piloto. Education is a human right and should not be a matter of class. Higher education and more work, could lead to less criminality and a safer society.

What can be read through the lines is that resources are not lacking, but what they are spend on. To improve the quality of life in the Federal District, relocation of resources to nourish all Administrative Areas, is important. Also, the political interest need to change. Decisions needs to be taken in a bottom up structure, not only top down. Politicians need to get out of their offices and visit the Administrative Areas.

Additionally, the government need to work with the responsibility of creating an environmentally sustainable situation and learn from the Brundtland Commission. A release of the importance of automobile would be necessary, by inventing an attraction with other types of transportation methods. It might be possible to shut down one of Brasília's many roads, to generate attractive and accessible roads for bikes and pedestrians. The whole District and peoples quality of life, would gain of having better connections between all the Administrative Areas. The government need to increase the amount of public transportation and make it appealing and trendy to use public transportation. The trickiest would be how to get the politicians to go on with a good example - to not choose the car.

The listing of Brasília in UNESCOS World Heritage List, has now made it impossible to change certain parts of the city. One could try to take advantage of the situation and see it as a way for Brasília to gain international attention and be a practical example for the future of how to build/ not build. Maybe it also opens up for the opportunities of making the periphery more important. Conclusively, Brasília was built in three years and has only been populated during 59 years. It was a response of that times urban planning theories. It will require many more centuries before the city starts to become history and when it is possible to really evaluate how Lucio Costa plan truly worked. The challenge for the now and future is how

to work with the growing population and how the Federal District of Brasilia can meet the future requirements on sustainability - for an environment that last for everyone.

## Urban Shelter Design

Design criteria to improve the future development of the Federal District of Brasilia ( Plano Piloto and all Administrative Areas) and how to make it better for the urban poor.

### **Urban Scale**

- Increase public transportation inside Plano Piloto and out to/ between the Administrative Areas.
- Introduce new ways of working with sustainability. Ex. Offer a mixed public transportation.
- Increase and relocate work opportunities within the Federal District of Brasilia.
- Even distribution of finances and resources to all Administrative Areas.

### **Neighbourhood scale**

- Work with pedestrian friendly streets and increase accessibility.
- Increase safety and security by adding more schools and work opportunities within the neighbourhoods.
- Bottom up structure for decision making.
- Allow more outdoor public markets and restaurants inside Plano Piloto, to increase activity.

### **House and street scale**

- Introduce affordable houses and apartments within Plano Piloto.
- Increase the human scale in Plano Piloto by working small scale and locally.
- To improve the houses in the Administrative Areas, work with incremental and participatory design.

## 5 The Role of Architects

It is clear that the architects and urban planners today don't have too much power when it comes to politics. They would need to get out of their offices, to see the real situation of how people live in the periphery cities. The architects of today need to look at social housing and how to integrate the urban poor. They would need to learn from example Jane Jacobs and The New Urbanism - how to make cities safe and with qualities for everyone. One idea could be to work with a participatory design process and have workshops with students and the community - plus let the workshops consist of a mix of professions and knowledge. Their challenge is to fit

the design to the citizens of today and designing for future change, population growth and development. They have many cities and countries to learn from, regarding public transportation and sustainability questions.

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