POLITECNICO DI TORINO SECOND SCHOOL OF ARCHITECTURE Master of Science in Architecture for Sustainability <u>Honors theses</u>

Urban renewal – Fluvial linear park along the river Tunjuelo by Laura María Moreno Gallo Tutor: Anna Marotta Co-tutor: Rafael Uribe

The perception that a person has of the city where she or he lives could be different between one individual and another individual because it depends on the social conditions, the sensorial perception, and the needs of each individual. Actually it is possible to recognize a big difference caused by the social problems in society. Because of the economic system it is evident an imbalance between the different social classes, this allows to detect the following issues: violence, insecurity, unemployment, displacement, etc. These problems create a break in the codes of coexistence, which in turn, also, break the factors that determine the urban security of a city.



Latin America is recognized for having big developing cities, and it is considered one of the regions of the world with higher ethnic diversity, characteristic that from a cultural point of view could be considered as a positive factor. However, from a socioeconomical point of view, this leads to multiculturalism were habitants do not have a sense of belonging. In Bogota, the capital of Colombia, this unfortunate consequence of the lack of sense of belonging has been experienced over the last half of the past century. The origin of this unfortunate consequence is a result of the actual violence by arm groups and guerilla, which affect directly the small communities surrounding the cities forcing them to abandon their houses, generating a flow of "immigration" to the city known as "*Displacement*". The displaced people are deprived of all goods and forced to move into the city, this impose them the need of trying to be integrated to society, but it is not possible because of their different lifestyles. This people do not find an economical stability, and as a result a lot of them engage in criminal activities for survival, increasing urban insecurity.

This project tries to achieve an interdisciplinary solution integrating architecture, social psychology and esthetics, using existent theories, in an attempt to change the face of the city, with interventions based on the theory of Urban Acupuncture.



The work is divided in six different parts: the first part regards the city of Bogotá, its important geographic position, its growth along the years, the urban and architectonical development, as well as its socioeconomical division.

The second part tries to clarify which had been the standards that have regulated an important part of the city (the locality of Bosa), and also which are the new standards actually used in the European cities established from the "Comitato Europeo di Standardizzazione" (CEN)¹, that could be applied to the cities of Latin America.

The third part analyses the cities of Latin America, particularly Bogota, and the security as an important topic for the development of any city. The insistent search of living in a safe city, leads to the necessity of comprehend how the security does not refers only to the absence of criminal acts, but also to the presence of an urban secure environment, from a structural point of view.

The importance of the application of some existing and studied theories related to the urban space, is revealed in the fourth part, in a way that shows how a fusion between theoretical and practical studies is essential. These different theories demonstrate the relation between the lack of quality of life in the area and the resulting behavior regardless of its habitants. To understand and explain these theories make the project more complete and reasonable.

The fifth part exposed the existing reality of the intervention area, meaning Bosa, (an important part of the city of Bogotá), through the application of the theories named before. Bosa is, in fact, a poor neighborhood that grew through an informal urban development due to the rural – urban migration, because in this part of the city it is located a huge part of the displaced people. The area of intervention known as the Tunjuelo River, (affluent of the Bogota's River) was chosen because it's a great example of an area that has problems of urban insecurity.

In the final sixth part, are studied some strategies linked to the urban security, responding to the urban sustainable development, that can improve the city, starting in Bosa. There are proposed solutions for the problems of the "UPZ 85", through urban interventions that guaranties the urban security in the area. It had been identified a permanent fragmentation of the urban tissue, that should be remedied by the creation of public spaces and the conformation of the Tunjuelo's river edges, and through the identification of some strategic points defined by the "urban acupuncture" suitable to the development of projects that improves the esthetics, with a particular attention in the integration between the natural and artificial environment and making emphasis in the use of color.

Identifying the problems of the area and knowing its urban ecological structure is fundamental for arriving to the redevelopment of the area of intervention. As has already been said, the principal axis must be the Tunjuelo river, that it is not only important inside the structure of Bosa, but also it is a link with all the city, because it is the second river of the city in dimension that exists in Bogotá.

¹ The CEN was established as an specific international committee, that had created standards and technical public relations about the prevention of criminality through the urban design and the construction of buildings" Bottigelli Carlo- Cardia Clara. Progettare la città sicura, "Pianificazione, disegno urbano, gestione degli spazzi pubblici. MANUALE". Ulrico Hoepli Editore S.p.A (2011),pp. 23

Actually the river is not recognized as a positive element because it is an urban hurdle and also a problem for the habitants, due to its pollution and the fragmentation of this part of the city. Specifically in the area of the Central UPZ, the river becomes a negative aspect, since in this specific area the edges of the river are not define and had become an area of refuge for many habitants of the city that do not have a home including the displaced people.

As a response to the actual problems the urban proposition revolves around the consolidation of the edges of the river, to the redevelopment of the urban axis and its continuation. A linear park along the river that allows the creation of the dike and also offer public space by the seam of the limits from this suburb area in the city is proposed, avoiding that people go to live in the dike. The park's objective is to connect the different neighborhoods that conform the Central UPZ, through dynamical paths that connect different areas generated by social, cultural, natural, and productive activities. "Linear park- innovative refigurations of public space. Dynamic set of connections rather than of a destination... linear park opens pathways to diverse neighborhoods and new recreational spaces and experiences of nature; it invites explorations of alternate modes of transport and of cultural resources. The linear park extends a continuous line of living and healing tissue, a habitat corridor which fosters life rather than expanding these corrosive suburbanizations, and projects a continuous garden through city, suburb and farmland"².

Starting with the idea that linear parks had been created as the best answer for creating public space as a response to the lack of public spaces in the city, specifically in those industrial areas were sub urbanizations had been developed. "The original American Park movement emerged in response to industrialization and to the dense industrial hub cities it created. The movement established the "idea" of parks – not piazza, public spaces or esplanades, but central urban parks as both the best response to the new conditions and is the ideal public space for American society".³ The proposition adopted the idea of linear parks, because Bogota is a city that has 4,35m² that does not even correspond to half the space that must have today each person according to the l'OMS (Mundial organization for heath) that is 15 m² for each person.

Inside the park, a natural barrier is proposed as path for bicycles that helps to create and design the edges of the river, and also generates a positive transporting system for the environment that in a certain way it its connected with the existent network of bicycle paths in the city.

After the research and the analysis of informal settlements it is possible to arrive to the conclusion that Bosa is an important area of the city that has a strong issue of urban insecurity. These problems are related to the problems of the lack of public space in Bogota and to the widespread and illegal growth of residential areas because of the social problems that affects the city.

² Balmori Diana. A new Kind of Park. Landscape transformed. 1996 Academy Editions. pp 45 -46

³ Balmori Diana. A new Kind of Park. Landscape transformed. 1996 Academy Editions. pp 44

The further analysis of the social, economical, spatial and urban dynamics of the context helps to understand that we are in front of a city that had grown without any control, with a constant aggregation of urbanizations, without any physical element of reference. Because of the lack of public space and the high quantity of social conflicts this part of the city is not well articulated with the ecological structure that is very important for the city.

Particularly in Bosa it is important to understand that the development has had a lot of conflicts due to the inappropriate progressive growth of the urban tissue and the inefficient use of the space especially along the edges of the river Tunjuelo. This is definitely caused by a deficiency in the government management of the settlements.

However, it had been recognized that it is an area of the city that has a lot of potential because it has an important natural physical element that makes part of the structure of the city, the Tunjuelo's River. Something that cannot be ignore is that Bosa, specifically the Central UPZ, has not been integrated to the ecological structure in an adequate way. The conformation of this part of the city has to be retrained to arrive to an integration that corresponds to the environmental structure of the city, the urban dynamics, and the confrontation of the social problems and the illegal homes in the same ecological structure. A correspondence with the urban tissue is also missing because of the lack of infrastructure, making the area not well connected with the city.

The proposal aims to take into account some interventions like the redevelopment of the edges of the river and the design of a fluvial linear park along the river, looking for the integration of the neighborhoods in the Central UPZ, with the ecological structure. It is not only important to intervene the ecological structure as well as the specific urban dynamics of the area, and to boost the conditions for improving the quality of life of the population.

The approach of the proposal is too seek the integration of the community making it a part of the interventions, either in the construction or the management of the buildings and the new urban dynamics. The residents will have an active participation proving that what I want as an architect is to interpret the space but they will be the ones that guide me because they are the ones who know the area and have grown on it.



Sustainability has a very important function all along this process. By the construction in different steps, the funding (completely tied with the Colombian State) and the different strategies for the efficient use of the resources as an economical opportunity for the community to gain in the project, it is been sustainable. The recuperation of the edges of the river with the active participation of the habitants is the most concrete example of the sustainability of this proposal.

In synthesis the project tries to improve the quality of life of the population among the spatial, economical, and social integration of this informal sectors with the formal part of the city through two fundamental concepts:

1. Urban Security and Social Issues

- Redevelopment of the urban structure through the recuperation of the edges of the river Tunjuelo, creating a fluvial linear park and public space that integrates the neighborhood with the ecological structure of the city.
- Stitching of the urban tissue in order to connect the neighborhoods of the Central UPZ with the city (Paving, prolongation and redirection of the streets).
- Creation of a network of public services that give to the community the possibility of doing different activities, avoiding social problems. (Stealing, assault, sleeping on the streets, etc) because of the lack of activities in the area.
- Active participation of the community in the process of *Dignitecutra*.
- Design and construction in different steps.

2. Sustainability

- Integration of the citizens in the process of cleaning the edges of the river. Training process for the community for getting used to recycle avoiding that garbage is thrown in the edges of the river and into the river.
- Mitigation of risks, through the conformation of the edges of the river and the design of a fluvial linear park.
- The insertion of new houses in specific areas, constructed following the legislation and without flooding risk.
- Create sense of belonging through the redevelopment of space.

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