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Urban Development in Bogotá: The Metro Case of Study

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“Every landscape is a product of small or major engineering actions and, therefore, the practice of engineering is a political practice per excellence. And, of course, from the perspective of our approaches, it is an ideological practice that reflects in the landscape a vision of society and an imprint of the image that society has of itself and of the universe.” —Gerardo A. Engineering and territory: An indissoluble political relationship. Magazine Palimpsesto. 2006;5:60-67. National University of Colombia.

Abstract

Bogotá is a growing city with a lot of difficulties shared by most of the Latin American cities nowadays, like the social and economic segregation, that tempt to produce areas of accentuated poverty, inequity, and insecurity, while other areas of the city have services and a better environment; problems related with the distances and the traffic that makes these cities difficult to move around; and among other problems. It seems like the city planning focused on the transport system as a key step to push urban development has been marking the course of the public policies around the city planning in Bogotá, in the last nearly 70 years. The Bogotá Metro is a massive transportation project that has been the subject of debates and studies since 1950 when the mayor Fernando Mazuera decided to eliminate the tram by burying its rails. The purpose of this text is to reflect around urban development in Bogotá and how this thought about transport infrastructure, as the key step of the urban development, has been marking the city planning policy in Bogotá the last two government periods. For this purpose, the institutional discourses and practices are going to be analyzed. The main argument of this reflection is that in the current period of the government, the idea of development through the transport infrastructure and the plans, through which this idea is carried out, accentuate the social, economic, and spatial segregation, as well as the fragmentation of the city, producing territorial reconfigurations that intensify social inequalities and tensions among the multiple and diverse social actors in the territory.

Keywords: urban development, transport infrastructure, relocation, segregation, fragmentation, integration, connectivity

1. Introduction

Urban planning in Bogotá has been marked by policies that emphasize social, economic, and spatial segregation, allowing the market to freely determine the growth of the city, its relationship with the market and global trends, and even the concepts of beauty, value, ethics, and esthetics in the city, as well as deciding who will enjoy the privileges of the development of the city [1].¹

This last one is a problematic issue because the development of the city, including its infrastructure, is part of the general good that prevails over the particular, which is the base of the social and ecological function of property in Colombian land law. But to fulfill the social and ecological function of the property, it is necessary to reflect on who will be benefited or privileged to enjoy these urban developments and greater value of the land and how.

The last two periods of government in the city of Bogotá have been making a great effort to build a Metro as the main project of their government proposals. Although the legal framework for infrastructure development in Bogotá is the same, there is a different political approach that can be distinguished in both governments.

In the period of government between 2012 and 2016, led by Gustavo Petro, despite the tradition of privileging the private sector of construction, he proposed a subway system linked to integrated urban plans allowing people to take part in the development of the city, through their participation in specific projects with opportunities for this population to remain in the affected area. The permanence became a central argument that leads us to the question that underlies the problems around city planning, about how to build a model of integral planning where we fit all and where the land of conservation and urban land are the platform for the construction of the social weave?

The Metro, as a subway system in Gustavo Petro proposals, was integrated to the concept of expanded center of the city, a regional approach that includes the long-term planning connected with the first ring of towns around Bogotá and the intention of creating policies and legislation to develop the city in this way. This transport model came from the integral vision of the city that involves the delimitation of land uses as well as dispositions around the heights, types of development, housing, and collective equipping, all this tending to build integration and connectivity (**Figure 1**).

The revitalization strategy of the expanded center emphasizes on the identification and intervention of zones due to their proximity and accessibility to existing employment zones and the offer of social, cultural, and financial services in the first ring around the urban center. Identifying the potential for reconversion of uses, the responsible densification with the urban habitat, the generation of new public space, and the offer of lands enabled for social housing, therefore, to allow the inclusion and social and economic integration.

¹This trend of growth in the city, apparently since the 1980s, has been identified by authors such as Marie-France Prévôt Schapira, professor at the University of Paris 8 (CRAG) and the Institute of Higher Studies in Latin America (Paris III), and researcher at the CREDAL (Center for Research and Documentation on Latin America).



Figure 1. Delimitation of the extended center of the city [2].

According with the City Plan² in Gustavo Petro period of government, the revitalization of the expanded center strategy included actions such as the updating and expansion of the aqueduct and sewerage networks; the construction of conduction, drainage, and water reuse systems; the generation of green public spaces that make visible and generate new urban meanings around water; the promotion of densification processes through integrated urban projects; and the use of greater buildings and uses to finance urban redevelopment through low-cost housing projects and high-quality construction and space, strengthening the role of the communities to recognize and reconstruct the territory based on the promotion of creative practices, the enjoyment of cultural diversity, and the care of the environment.

The Metro was not the only concern but the integrated transport system, including the adequation of the tram and its rails strengthening regional connectivity, the footpaths and the bicycle paths, and the actualization of the current transport network “integrated public transport system (SITP)”³ as it can be seen in the **Figures 2 and 3**.

On the other hand, the current government from 2016 to 2020, led by Enrique Peñaloza, stopped the project and proposed a transport system above the current system called TransMilenio. In this project, there is neither concept of integrated urban plans nor the possibility of link up the affected people in a scheme that allows them to remain in their territories through renovation and revitalization instruments, and the line is shorter covering only almost the central areas of the city which concentrate the greatest houses and services (**Figure 4**).

²Extract and personal translation from the City Plan of Bogotá [3]

³The SITP includes TransMilenio, but is not an exclusive term to refer to. TransMilenio is a system based on the integrated transport network of the city of Curitiba. The SITP includes TransMilenio and the urban busses.

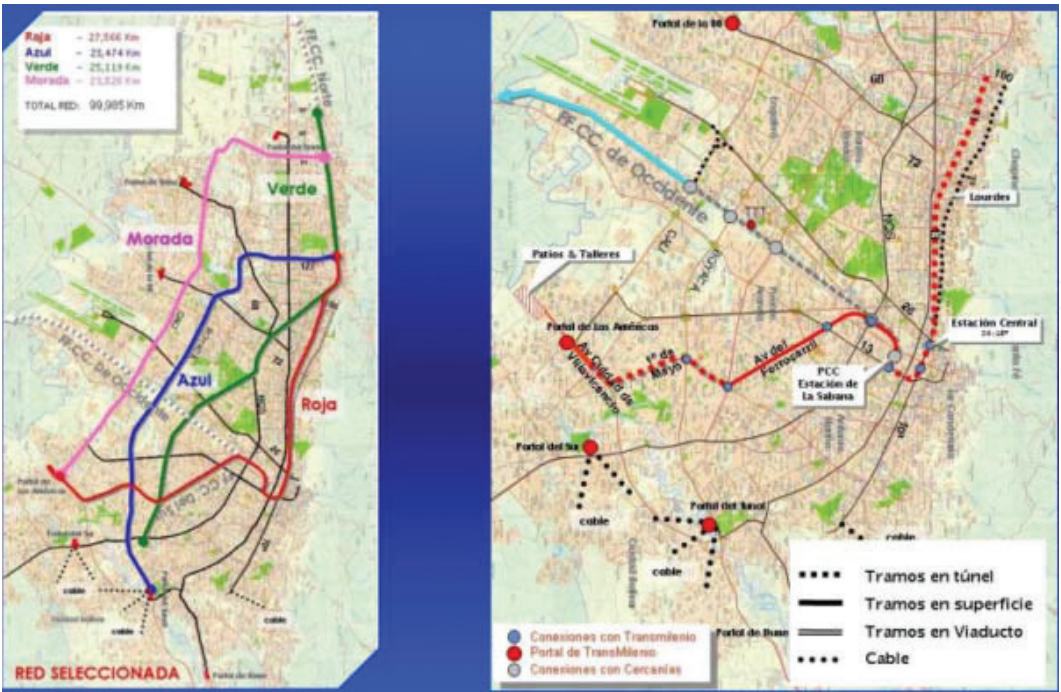


Figure 2. Conceptual design of the first subway line in Bogotá 2012 [4].



Figure 3. First subway line in Bogotá 2012 [5].

The Metro proposed by Enrique Peñaloza is cheaper and faster to build because it just requires adequation and rehabilitation of the public space around the stations. It does not need a recollection water system, the investment on other systems of the infrastructure like



Figure 4. Bogotá Metro 2016. Bogotá Subway 2016. (<http://www.vanguardia.com/politica/410725-la-nacion-solo-aportara-909-billones-para-el-metro-de-bogota>). Image that shows that the line is shorter and there is only connectivity of the Metro with the lines of TransMilenio projected to be developed also in the current period of government.

energy, expansion of the aqueduct and sewerage networks, the participation of the people, nor plans to integrate city systems and the city with the towns around the first ring. The model proposed in a private-public association consists in creating the financial conditions to build the Metro, which is going to be financed by the private recourses, allowing these investors to grow in altitude their buildings, choosing the best locations and getting the benefits of the greatest value involved in the urban interventions.

Both conceive the transport infrastructure as a key to the development of the city, but as we explained earlier, both approaches underlie different conceptions of development. Today, it seems that the projects that link up people in the development of the city are still utopian and with less possibilities of concretion, as well as the idea, around integrated urban plans for the social integration, economic development, and environment protection.

On the other hand, there are also issues such as the layout and areas where the stations of the system will be located and problems related to the design of the system. Both the layout and its design are fundamental to the extent that it depends on who will access both the transport system and the benefits it brings in the surrounding areas and how.

When talking about the transportation system, there is a procedure to purchase the properties needed for the infrastructure. In any case, people have to sell their properties, but the approach is different in the case of projects that link up people as opposed to projects that expel people. And there is also a big difference in the layout, location of the stations, and in the financing and land management schemes.

It is desirable, a city planning approach based on the direct provision of housing, education, and food security, where the transport infrastructure system can be an articulating axis. Likewise, land policies are desirable that tend to create a market system to guarantee goods

according to people's ability to pay. Policies that seek to prevent accumulation as a path to social power, where the right to common goods such as knowledge and land, are the main assets to which people must have access. It is desirable that these goods be created, administered, and protected by popular associations with the aim of satisfying common social needs, following the approach of Harvey [6].

From this reflection, it can be concluded that the approaches that license the private investments on the city create more fragmentation. "The notion of fragmentation emphasizes the complexity of the socio-spatial dynamics related to metropolization (outbreak, separation, secession) resulting from the aggravation of social inequalities, the rise of poverty and the brutal impoverishment of middle classes," following Marie-France Prévôt Schapira [1]. The approach concludes in pollution, shortage of accommodation, insufficient coverage of urban services, etc.

This discussion leads to the following question: Beyond the differences, is it possible to identify the emergence of a new model, more dispersed, less hierarchical, that replaces fragmented city to organic city, integrating population into the city through the development of the salaried sector and a planned urbanism?

Urban Marxist structuralist sociology (Castells, [7]) devoted itself to understanding how the processes of domination and dependence generate immense peripheries or "urbanizations," but the spatialization of new forms of urban poverty has not been studied, as if they had remained in the simple equation of the past: misery neighborhood equals poverty equals illegality. The observation of the widening forms of poverty in the city shows, on the contrary, that its extension is not accompanied by homogenization. And the conclusion is that these forms of exacerbated territoriality and restricted identity are further accentuated by the reduction of mobility in the city.

2. The Bogotá Metro in the time

In 1981, the Sofretu Ineco CS Consortium was contracted to design the first Metro line for the Colombian capital [8–10].⁴ The study, advanced in the presidency of Julio César Turbay Ayala and Hernando Durán Dussán, proposed a subway system with three lines and a total of 75.8 km. The project supposed a future population in the year 2000 of 7.5 million people that will be reached within the perimeter of the capital city, in the year 2011. If we consider the towns of the first ring, we have already overcome this population.

As the results, the Bogotá subway entered to compete for national resources against the Medellín Metro project. Finally, the priority was given to the Antioquia capital project, postponing the decision on the Bogotá Metro.

In 1987, the national government, headed by the President Virgilio Barco, proposed the development of a Metro system again. This project foresaw the construction of three lines of 46 km,

⁴The following chapter is a summary and personal translation from the books published by the District Department of Planning of Bogotá, under the direction of William Camargo Triana, who latter was going to develop the concept of integrated urban projects as the way to represent the link between revitalization and transport system development, as director of the Urban Development Institute (IDU), during the government period of Gustavo Petro.

on the existing layout of the railway network. Twenty-six countries were invited to submit proposals for the development of the project, giving special importance to the financing offered in the award. Eight offers were received, and finally, the Italian firm Intermetro SpA was selected for the execution of the project.

The proposed Metro was developed in unconsolidated areas of the city, low demand, taking advantage of the low cost that would imply the availability of public land. The study did not propose a scenario of urban development that was articulated with the Metro. Finally, it was decided to include an additional section that accesses the center, outside the lines.

At the end, the proposal of the Italian consortium was not clear in technical terms and its financing. International studies and local specialists hired by the national government concluded that the project was not convenient, in the administration of Cesar Gaviria.

Again in 1996 a subway project was proposed by the Japan International Cooperation Agency (JICA) as a Transport Master Plan. The study was a donation from the Japanese government to the city of Bogotá and was developed in the government period of Antanas Mockus, as mayor of the capital. The JICA Transport Master Plan was developed in parallel with the integrated mass transportation system study (SITM). This is maybe the first moment in which it is possible to identify in the institutional discourse the appearance of the term “integrated system.”

The objective of the JICA study was not to determine the layout of the subway nor its technical characteristics but to propose an integral scheme of development for the future of the city, which included the development of an integrated transport network contemplating several modes (trunk, transport collective, ferrous modes) that would be developed according with the growth of travel demand, as well as proposals to improve the flow of private transport and traffic management. The first line of the JICA had a length of 32 km.

The JICA foresaw the start of the construction of the Metro line in 2006 and the start of the operation in 2016. Shortly after the JICA study was completed, the Capital District proposed a land management plan (POT) that visualized a different territorial implementation scheme, limiting the possibility of development in the north of the city that was a priority in that plan. As a result, the POT and the projects related to mobility in the city did not adopt the main proposals of the JICA Transport Master Plan. Some of the plans for the development of north of the city had the problem of proposing urbanization projects in wetlands.⁵

In 1997, the Systra Bechtel Ingetec (SITM) consortium proposed a scheme of three Metro lines, similar to the one proposed in 1981, complemented by a bus trunk scheme. This study was developed by the national government, with Ernesto Samper as president. The majors of the period were Antanas Mockus and Enrique Peñalosa. According to this study, the first Metro line was going to cover a length of 29.3 km. The SITM studies, similar to what happened with the JICA studies, did not have an official view of what the development of the city should be, since the POT is subsequent to the results of the study. It was assumed then a development loaded toward the west of the city, considering in this occasion the important development that was being generated in the north–south axis.

⁵This is a very important problem in Bogotá, not only in the north of the city but all around and even in central areas.

The period in which the study was conducted was quite critical in fiscal terms. One of the conditions to be able to carry out the project was to achieve an adequate scheme of public-private participation for which an investment bank was hired. As a result, the city implements a mass transit system type bus rapid transit (BRT).

As it can be observed, there are several projects that have been raised in a preliminary way by economic associations, private companies, academics, and promoters of Metro systems, among others. It is important to underline in the projects presented that the Metro is not unique and that the variations in terms of capacity, type of structure, and therefore cost can be significant. In general, Metro studies have failed to integrate the vision of the city with its transport system. The demand projections and the assumptions of development of the city that have assumed in the studies have not been fulfilled.

The same happened with the trunk networks that were not linked in an adequate way to the integral urban project vision. The first interventions that were made, such as the Caracas Avenue, did not include the recovery of public space parallel to the corridor. Subsequently, in the intersections of the Medellín Avenue (80 Street) and the Americas Avenue, the intervention was not adequately coordinated in terms of mitigation of the impact of the layout and design in the surrounding areas. As a consequence, there are urban scars associated with abandonment that were generated and progressive deterioration without recovery, due to the lack of management in leftover lots and lack of an appropriate standard for these cases of intervention on road infrastructure.

3. Bogotá Metro as a possibility for integrated urban projects (PUI): Proposals and discourses in the Gustavo Petro government 2012–2016

The Metro project has been defined as a project for the contribution to the improvement of mobility in the urban level, since it implies an infrastructure different from the conventional transport systems, which will require a wider action that goes beyond the segmented vision of mobility and directly impacts the urban weave; the economic, cultural, and social activities of the environment; and the behavior of the citizens in the face of the implementation of a new system.⁶ The project prioritized mass and collective transportation to reduce the costs and times associated with the mobility of people and proposed the implementation of a multimodal system that combined mass transportation, metro, trams, collective metrocable, and bicycle lanes as is referred in the City Plan “Development Plan, economic and social and public works for Bogotá Capital District 2012–2016.”

The definition of the layout of the first Metro line (PLM) was trusted to the SENER Consulting Group, by the district administration, who carried out the studies for the conceptual design

⁶For this extract definitions given by William Fernando Camargo Triana in his documents written as director of Lines, Transportation, and Public Services in the District Planning Department were taken. Comprehensive urban projects associated with the areas of influence of the mass transportation network—First Metro Line.

of the Metro mass transit network and operational design, legal, and financial scheme, within the framework of the integrated public transport system SITP for the city of Bogotá. Line 01 was designed with a total length of 29 km, 31 stations along its route. Starting at 127 Street, then through the 11th to Lourdes (in Chapinero), continuing along the 13th Street to San Victorino (in the center), continuing until the station of the Savana, it crosses the iron corridor until the avenue Primero de Mayo, in the south, and finishes in the sector of Tintalito, in the southwest. The central station will be located on 26 Street with 13 Avenue where the passengers will be exchanged between the Metro and TransMilenio. The central control station (PCC) of the Metro system will be located at 13th Street with 18.

In the words of Blanco and Apaolaza [11], "One of the main challenges that geographers and urban planners face when thinking about mobility in Latin American cities is how to accurately assess the effect produced by severe social and territorial inequality." In an attempt to explore this question, they identify three key issues related to the inequality-mobility relationship: "(a) mobility as a facilitator in the access to goods, services, and opportunities at different urban scales and its direct effects on poverty and social exclusion; (b) socially and territorially conditioned assets and competences among individuals when managing mobility needs and territorial control; and (c) the uneven appropriation and use of the city, both in terms of proximity and connection to metropolitan networks."

The subway as a possibility for integrated urban projects in the Gustavo Petro government was focused on transport and mobility at the metropolitan scale according to income level and territorial location of households, highlighting the importance of territorial features when addressing mobility patterns of particular socioeconomically vulnerable groups, including mobility of informal settlers in urban peripheries; mobility of domestic workers in gated communities; and mobility of residents at risk of displacement in gentrifying neighborhoods. The key findings stress on how the particular territorial conditions can intensify or attenuate the preexisting socioeconomic inequality. And this is how his policies fulfill the three key issues related to the inequality-mobility relationship proposed above.

One of the main problems that public authorities face when undertaking programs and projects of public utility or social interest has to do with the acquisition mechanisms of the properties required and specifically with the use of the instrument of expropriation. The main tension that underlies the use of the expropriatory instrument is the definition of the value of the expropriated property.

It must be remembered that often such projects are carried out on central areas of the cities occupied by low- and middle-class population and that usually involve the intervention of private real estate capitals in search of locations capable of generating intense and rapid processes of valorization. In this context, the application of a price control instrument may end up reinforcing a very generalized characteristic of this type of process: expulsion of the resident population or what is the same gentrification as is known in the specialized literature. In this way, they can be completed by facilitating the capture of capital gains by private real estate agents who can be beneficiaries of the expropriation processes undertaken by the public power to facilitate and promote such processes.

On the contrary, to allow the original owners of such areas, where programs and projects of urban renovation or revitalization are developed, and to participate in the real estate valuation that the project itself can produce can be a way to facilitate its permanence in the area or at least a good opportunity to increase their assets, giving them greater ability to pay, in case you choose to go to a new location. At the end, “facilitating” the capture of part of the real estate valuation by the original owners can be, in a context of broader analysis, a more equitable measure of distribution of charges and benefits among the different actors. This explanation given, by Juan Felipe Pinilla [12], reflects very well the spirit of the revitalization of Gustavo Petro City Plan which emphasis the Metro as an axis to articulate plans and programs allowing the affordability of housing, social services, and infrastructure, promoting accessibility, connectivity, and social integration. In this sense, an effort to build a discourse and proposals on the base of social integration, connectivity and sustainability, connecting social dimensions with spatial components and the land policies, can be observed.

However, even in spite of the efforts to develop a city model consistent with the discourse of social integration, Bogotá has been dominated by the development model. This can be observed in the resistance of people toward concepts such as social mix and forms of political and territorial integration, through persistence in very discriminatory representations of the places of poverty and their inhabitants.⁷ And it is also almost evident that the private capital has a lot of strength because it has controlled throughout the history of the city its development, a planned development that only benefits a small portion of the population, different than the other large percentage of neighborhoods developed through community action and self-construction, many of them developed illegally.

It is known around the world the concept of “urban crisis” to refer to the problems of the growing cities around transport system, housing, infrastructure, and problems related with the nonrenewable resources, among others. Therefore, the notion of “urban crisis” does not analyze the dysfunctionalities that for many are not new (pollution, shortage of accommodation, insufficient coverage of urban services, etc.), but it underlines the blockade of the model of national-popular integration. The creation of territories for “themselves,” linked to related residential strategies, on the one hand, and the sedimentation of poverty in the areas of exclusion, on the other, are really the extreme and symmetrical forms of that process.

Because of this, it is very important to keep thinking if is it possible that an emergent new model, which is more dispersed and less hierarchical, is built to replace fragmented city to organic city, and keep thinking about how to build an integrated city, under the prevailing models of metropolization and globalization, capable of fighting what seems to be the inevitable process of fragmentation and the creation of urban borders and that accentuate poverty and inequality.

⁷This can be observed in cases like the proposal to build social houses in centric areas of the city, in which the reaction of the people living in neighborhoods around was very resistant and other cases documented through participation in meetings, open interviews, and observation.

4. Bogotá Metro as economic development: Proposals and discourses in the Enrique Peñalosa government 2016–2020⁸

The construction of the elevated Bogotá Metro or viaduct is an idea that emerged in the value engineering exercise carried out by the national government in 2015, by SENER for Bogotá. The result of this study, as well as the construction of the project by sections, was accepted by the district administration in January 2016, to make viable a Metro that was designed. In fact, by this time, the administration had already carried out the socioeconomic studies of the affected properties and had even offered some of them. But as a result of the change of government, the project was stopped. The main arguments are the devaluation of the peso against the dollar could not go beyond of 53rd Street, the total uncertainty due to the quality of the soils, the time of work under ground, the cost of transporting kilometers of public services networks, and the risks and the cost overruns that are still to be analyzed.

In 2016, the national and district government promoted a study of alternatives, typologies, and costs by the SYSTRA [13], a subsidiary of the Paris Metro. In the analysis exercise, using as reference the existing studies, SYSTRA evaluated and compared 8 path length options, with high and underground sections, through 31 indicators (environmental, urban, constructive, social, financial, and risk). In this exercise, the greatest relative weight was found in the economic component, where it was found that:

With the recourses designated to build a kilometer of underground subway, it could be built 1.48 km of elevated Metro. The cost of operating the elevated Metro is 28% less than the underground because it does not require mechanized ventilation, or pumping for water extraction and only night lighting. The elevated meter can be built faster because the grins can be prefabricated in a workshop and then quickly installed on the columns, including the stations. The elevated subway work presents lower construction risks in Bogotá; the assessed risks of the underground solution are related to the excavation under bodies of water and the desiccation of the soil, which in Bogotá would produce settlements in the buildings up to several blocks away. Operational risks were also considered, and underground trains are more complex to handle emergencies such as fires, attacks, or accidents and stranded trains.

The sum of the analysis, and the conclusion of the government of all these criteria, concluded that the viaduct or elevated typology was the most convenient for Bogotá. Was highlighted that the thanks to the geological studies to be carried out represented a serious risk in the process of building an underground and with high costs and risks of destabilization of buildings, drying, and interruption of public service networks.

As it can be observed, there is an emphasis in the financial matters than the long-term vision of the city that could result in a faster project to build to show immediate results to the city but far from the integrate the systems of the city in a scheme involving social, economic, and spatial integration and connectivity.

⁸The chapter takes for the discourse analyzing the definition found in the current web page of the Metro that shows the project (<http://www.metrodebogota.gov.co/por-que-elevado>) [13].

5. Conclusions

The new motilities are accentuating preexisting inequalities. Where there was local urban poverty, a new urban poverty emerges that reveals different ways of inhabiting conflicts between those who dispute the land, power conflicts between territorial agents, among others. The causes and responsibilities of urban inequality and the lack of territorial opportunities of households are questioned. But to some extent, territorial conflicts emerge as the search for equilibrium of classes, forms, or mechanisms of improve social mobility.

Socio-spatial conflicts are assumed as forms in which different collectives make their interests representative. Therefore, the conflict between agents and territories arises not as antagonistic positions but rather as the search to reconcile interests. There is a need to reduce inequities as the responsibility of different agents who are in conflict but who require a new citizenship to claim the right to land, to housing, and to citizenship, ensuring a mobility and the social construction of territory and territoriality.

A socio-spatial model is needed as a space of rights of access and circulation that denote public freedom, in terms of Henri Lefebvre [14]. In terms of professor Ricky Burdett [16] for the Quito Papers conference, toward the open cities, there is three concepts that should be taken into account: (1) Porosity: notion of open places to a variety of people, instead of closed to specific groups. Planners have the tools to create open spaces where interact the diversity of people, communities, and groups that inhabit the city, which have different social, economic, and cultural conditions. (2) Synchronicity: a concept to exemplify the mix of uses, all in the same place. The author explains that it is not a mixture in the traditional sense, but a phenomenon of many types of activities happening at the same time. (3) Informality: as incomplete forms of the city.

The general design criteria contemplated for the implementation of the Metro in the government of Enrique Peñalosa as well as building the most significant system of public transport in the city consisted of integrating the users as the most important determinant of the project. As a contribution to the urban space, elements such as trees, furniture, and squares were studied, generating a large number of square meters of public space of different hierarchy.

These proposals had previously been implemented for the TransMilenio system resulting in areas without collective use and without appropriation by users. In most accesses to pedestrian bridges, there is no linkage of urban uses (commercial and services mainly), which degrades the character of these sectors and contributes to the loss of land value.⁹ Consequently, there is a crisis of public space in two main dimensions: as a multipurpose element, as a place of exchange and collective life, and as an element of continuity, articulation of different parts of the city, community expression, and citizen identity in terms of Jordi Borja [15].

Another problem with this system is the property impediment to advance architectural and landscape improvements in trunk lines. This is due to the fact that in some cases the leftover properties along these urban infrastructures do not comply with the minimum area required

⁹An example of this could be the third millennium park, which is a public space created in a deteriorated area, next to one TransMilenio Station.

to generate real estate or any other type of development. These properties over time reproduce the deterioration associated with factors such as the fragmentation of the wall, the inability of the properties to generate facades in the corridors and to join others of greater area and to modify morphologically, and typologically the predial sections adjoining them. This phenomenon is multiplied even more after the absence of specific urban norm for such interventions or sufficient incentives so that these actions (promoted by private initiatives) are realized.

This is how urban transformations in Colombia have not been accompanied by a parallel urban action aimed at recovering and generating new public space, updating public networks and services to new densities, improving accessibility, etc. Therefore, although urban renewal has been conceived in the POT as the fundamental tool for consolidation, the lack of an integral vision of the city means that not only there are few executions but that many of the projects presented are considered as isolated urban interventions, with the dubious objective of achieving a dense and compact city.

Likewise, public interventions linked to neighborhood improvement or the implementation of urban-scale infrastructures such as the TransMilenio lead to an increase in the stratum, without improving the population's ability to pay. The effects can be expulsion of the population due to higher payments of taxes and public services, which would contribute to the elitization of space but, above all, a negative balance effect in terms of urban integration objectives, because the improvement of the spatial conditions of the environment have a cost for the inhabitants of the popular districts that is not necessarily easy to assume, especially in a conjuncture of constant increases of tariffs and reduction of the subsidies. It would be taking for granted that the quality of the environment is proportional to the income of the inhabitants of an area, denying the possibility of favorable environments for the poorest.

The conception of infrastructure and transport projects is usually promoted, from the sectoral agendas, by squandering the potential and synergy that can be obtained by coordinating integrated actions on the territory, where investment in roads and transport lines are the most important catalyst for new urban forms. As a result of this unfortunate approach, isolated actions have generated adverse consequences for urban matters, which translate into the physical appearance of stock, urban voids, and spaces of anomie. In terms of functionality, the creation of barriers for pedestrian mobility, which economically cause a reduction in value in the assets of the city, promoting insecurity and the loss of ownership of the different places.

This reflection makes it necessary to advance in the approach of instruments that allow to orient in a synergic and coordinated way, the actions on the territory, seeking to break the traditional way as the road infrastructure projects have been understood in the city, which mostly only address road technical aspects and do not generate a comprehensive strategic approach.

Revitalization, as a strategic integral approach, means generating stable socioeconomic conditions so that the inhabitants and in general the population, living in the central areas, are not displaced by new "more profitable" activities that are implemented, or by the qualification of an urban space that later cannot be paid, since in both cases the revitalization processes must provide mechanisms for the previously settled population to remain and be beneficiary of the actions.

Associated management as an instrument to participate in land rents can be used to achieve public-private partnerships and effectively involve landowners in the transformation of the city, to avoid gentrification and rejection of land renewal processes.

Bogotá needs to expand the technical, political, social, economic, and spatial vision of urban problems; this induces to debate more on the problems of the city in general and its urban transport. To avoid stagnation in discussions about mobility and the advantages and disadvantages of certain types of infrastructures or projects in progress, it is a priority to have a city project that synthesizes the type of city desired, in which the road network and public transport can be considered as one of the bases of structuring and balance. And finally, to conclude the reflection, Bogotá needs the Metro that has not been built yet.

Acknowledgements

The text reflects on aspects of mobility in Bogotá, through the case study of the Metro, as well as analyzing phenomena such as spatial social segregation and the fragmentation of the city, taking as reference the literature produced during Gustavo Petro's government, who is currently a presidential candidate, and to whom we owe the possibility of thinking about an inclusive, integrative, and connected city development.

Conflict of interest

I declare that I am facing a situation of conflict of interests because I belong to the institution that designs and executes the transport infrastructure plans, the Urban Development Institute (IDU).

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