The Quality of Public Space in Mexico City: Current State and Trends

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Abstract—Public space is essential to strengthen the social and urban fabric and the social cohesion; there lies the importance of its study. Hence, the aim of this paper is to analyze the quality of public space in the XXI century in both quantitative and qualitative terms. In this article, the concept of public space includes open spaces such as parks, public squares and walking areas. To make this analysis, we take Mexico City as the case study. It has a population of nearly 9 million inhabitants and is composed of sixteen boroughs. For this analysis, we consider both existing public spaces and the government intervention for building and improving new and existent public spaces. Results show that on the one hand, quantitatively there is not an equitable distribution of public spaces due to both the growth of the city itself as well as due to the absence of political will to create public spaces. Another factor is the evolution of this city, which has been growing merely in a “patched pattern”, where public space has played no role at all with a total absence of urban design. On the other hand, qualitatively, even the boroughs with the most public spaces have not shown interest in making these spaces qualitatively inclusive and open to the general population aiming for integration. Therefore, urban projects that privatize public space seem to be the rule, rather than a rehabilitation effort of the existent public spaces. Hence, state intervention should reinforce its role as an agent of social change acting in benefit of the majority of the inhabitants with the promotion of more inclusive public spaces.

Keywords—Exclusion, inclusion, Mexico City, public space.

I. INTRODUCTION

DURING the early years of this century, there has been a great interest in activating public space projects in Mexico City; an interest that is coupled with a social demand for places for entertainment, for social cohesion, expression and interaction. Thus, from observing the fragmented growth of Mexico City, the interest to know what is happening with public space arises.

This article synthesizes Mexico City’s urbanization, starting from 1900 to 2000, discussing some details of the present that support the latest changes. The second part of this article offers a theoretical review of public space, as well as the inclusion and exclusion concepts in order to identify their main components.

Furthermore, we argue on a third part that production and rehabilitation of public spaces in Mexico City today reflect a lack of city growth regulations that results in segregation and exclusion. For this, we base our statements on the mapping of public space projects in the entire city, analyzing not just the quantity, but also the quality of such places.

II. THE URBANIZATION PROCESS OF MEXICO CITY

In the early twentieth century, Mexico City’s urban planning began to expand significantly due to migrations that had been caused by the problems that the inner cities of the republic were facing and because they were attracted by the capital’s lifestyle. In 1900, the city’s size was approximately 850 hectares and had about 344,721 inhabitants, but with these immigrations, at the end of the first decade of the twentieth century the population grew to 716,862 inhabitants in only 1,370 hectares. However, Mexico City did have the infrastructure and basic services to ensure a relatively good quality of life for the inhabitants. We must mention that the existing public space available at that time was sufficient. This consisted of 18 public gardens which included the “Alameda Central” park, the “Zocalo” (the main plaza of Mexico City), the “Hidalgo” garden, the “Santo Domingo” square, and the “Corregidora” atrium, among others [1].

Over the next two decades, urban growth trends were based on revolutionary movements dividing the city into eight quarters that exceeded their limits quickly, once again, due to immigration of neighboring residents. Revolutionary groups caused this and urban sprawl to the West and Southwest occurred. On the other hand, the number of private cars in the city had risen from 136 in 1903 to 18,310 in 1930, excluding passenger trucks and trucks used for the transport of goods [1].

Due to its rapid growth, there was a need to reorganize the city politically; therefore, a division of eleven boroughs emerged. After this, the General Congress of the United Mexican States issued the Planning and Zoning Law of the Federal District and a regulation in 1933. In 1940, the city already added one more borough, increasing its size to 1,352 hectares and its population reached 1,757,530 inhabitants. Thereafter urban growth of Mexico City accelerated; its growth trend was linked to the industrialization process towards the North. During the Second World War, Mexico had the opportunity to invest in the industrial sector, leaving aside agriculture and therefore attracting more people who came from rural areas, in such a manner that by 1950 it already had 3,100,000 inhabitants in 1,500 hectares. At that time, the expansion was already reaching the urban growth boundary of the northern part [1].

It is worth mentioning that public spaces created in the early decades of the twentieth century still acted as a city guiding, since the city expanded around public spaces or split from them. This was the case of the western part of Mexico City.
The growth rate was accelerating rapidly with annual rates of increase of about 5% between 1950 and 1970. The expansion that at one time was marked towards the North or South had then abruptly expanded in all directions around the main centrality, promoting not only spatial transformations regarding land uses, but also social changes with new locations of economically high groups, segregating those who were located in mountain areas. Residents from other parts of the Mexican republic continued moving to the City, but they had no access to its downtown; instead they settled in illegal settlements around it. Overwhelmed growth at that time stopped due to the enactment of laws prohibiting the construction of new housing estates [2].

From 1970 to 2005, population increase was better controlled. From 1950 to 1970 the population increased from 3,100,000 to 6,900,000, increasing 3,800,000 inhabitants, but later, around 1990, it rose to 8,100,000, considerably slowing down population to an increase of approximately 1,200,000 inhabitants. For the first decade of the century, it had almost 8,900,000 inhabitants, once again, slowing down the population increase to nearly 800,000. This was the result, in part, of an urban sprawl into the municipalities that today form the Metropolitan Area of Mexico City, which in 2010 had a population of more than 20,000,000 inhabitants [3] (Fig. 1).

**Fig. 1 Urban growth of Mexico City, Modified from MCMA, Laboratory of Mexico City, 2000; and Map of the Ministry of Communications and Transportation of Mexico City**

In the early twenty-first century, the “Bando 2” policy was created as a planned densification for the city aiming at controlling Mexico City’s urban growth, preventing the construction of more housing projects on the outskirts of the city. However, central boroughs did not work as expected. Initially, there was a real estate boom, and yet it did not get the response they expected from the inhabitants due to the high cost of housing and because infrastructure was not adequate. In several neighborhoods, people sadly observed the transformation of the streetscapes, where many trees were cut down and high-rise buildings replaced old housing typologies. The social structure changed too, i.e. 8-10-multi-storey buildings where several families lived replaced houses where all direct family and kin lived. Furthermore, not all departments were sold; public space was not considered into these policies and even much less by the construction companies.

With this form of rapid, disorganized and unregulated urban growth, we wonder: What happened with public space in the urbanization process? Has public space been produced, preserved, rehabilitated and regulated equally in the sixteen boroughs of Mexico City? Does public space show the existing segregation in Mexico City? Is the lack of social cohesiveness reflect in public space? What is the quality that new public spaces have? Based on the theoretical construction of public space, social inclusion and exclusion, we are able to state that in the production and rehabilitation of public spaces in Mexico City today, segregation and exclusion are the main consequence of the lack of urban regulation in city growth.

### III. Public Space as the Protagonist of the City

Public spaces in which we live nowadays are, on the one hand, the result of transformations generated by phenomena that strongly shaped the city: economy, private interventions, social, cultural diversity, globalization processes, lack of state intervention and last but not least, natural phenomena such as earthquakes, hurricanes, floods or tornadoes. On the other hand, public spaces are shaped by places with a strong historical and symbolic significance that have been preserved.

New ways of life have been generated from the transformation of cities and from new territorial needs. New public spaces or the reconfiguration of them have emerged with the reinvention of the city in smaller scales, promoting exclusion in urban spaces, in some cases based on socio-spatial barriers such as roads or even the same road as part of a place for recreational activities.

When speaking about the city, some authors from different disciplines clearly agree to see it as a scenario where various factors such as economy, communication, politics, education and culture interact, among others [4]-[8]. However, viewing the city as just a scenario can be risky. Cities are not just isolated elements that meet at a certain point to be part of or belong to it. Cities are more than a container where life happens, they go beyond being just a stage for daily performances. They are a system that works altogether and if something is missing, it will stop or cause the rest of its parts to go wrong, resulting in chaos, i.e. what hurts cities, also hurts its citizens. Therefore, the concern of reasoning the dimensions of what belongs to the city is essential for any urban study. However, here it is important to consider the theory of Jordi Borja in “La ciudad conquistada” (the Conquered City) [9], because the city is not going necessarily going to be equal to what actually happens on various topics. The city has always been a changing phenomenon both in its scale and in structure, but not in all cases, a fragmented territory consequently has a fragmented society. In places where a framework of lawlessness and illegality are common,
the city would be the "formal rule of law and the real right to transgression". That is to say, city is not as simple as it seems. Formality, for example, is part of the city and it will not disappear too easily. It belongs to an illegal framework. Hence, we should think about strategies to incorporate it to the city as part of a "formal urban system". Assessing informality will therefore depend on other sectors, such as economy or official instruments required for integration. All problems like these that have to be evaluated as a system are susceptible of being observed in public space. Therefore, we can talk about public space as a synonym of city to capture the size and weight of this relationship.

If we talk about public space as a synonym of streets, this is where the socio-territorial complexity and heterogeneity is expressed, making the problems the city faces in the context of global and local transformations obvious; it likewise makes the scientific and technological transformations that occur within public space clear [10]. For the aforementioned to be reflected, the social function and the community play an important role, because that is where "social expression and identification are built through the different expression and symbolic construction of space" [11]. That is, we leave our small porch to meet a huge “machine” that concentrates all of our culture, but also international movements and trends that we must understand. Then, public places really are spaces owned by everybody and for everyone; they are spaces where citizens can freely access without distinction of gender, religion, race or class. However, there are different conceptions, partly due to the problems related to public space, such as a decreasing amount and size due to excessive population growth, global transformations, privatization, ownership, fragmentation, and segregation, inter alia; and partly due to factors involved in the operation such as social, cultural, economic and political factors [12].

Today public space is also understood with the elements and features derived from current trends. Everything that happens in the world, -the economic, political, technological and cultural changes, - are reflected in public space, expressing a changing society with demands that evolve at a breakneck speed. Then, public spaces must conceive the change that is now being experienced by the city and be adaptable, i.e. to survive the global transformations, which are by nature so different from each other; to absorb these changes in different ways, depending on their environments and impacts that are constantly taking public places. In this sense, globalization is one of the strongest blows to the city in every way, whether we talk about society, space or culture. Cities therefore must reinvent themselves as large producing scenarios with new economic, political, cultural and social concepts.

Public spaces have been hence affected by globalization, making obvious the economic, political, social and cultural differentiation that distinguishes the city in their local and metropolitan dimension. This has as consequence a separation between public spaces through symbolic meanings in cities [13]; there is then a double meaning of public space. However, in either meaning it is important to consider that the time and the environment are important factors for the configuration of the city. Even though these factors are involved in these two phases (configuring and processing), the new elements of globalization also influence the fact that there are new ways of reading space. This is precisely how we learn to read the city from different levels, either from the historic and cultural expression of its layout, or from the global level through social or banking networks. It is also important in the reading of public space to note communication networks and new technologies. In this context, public space also acts as an almost invisible protagonistic of the current city and therefore reflects its deficiencies, conditions, requirements and aspirations of societies that live within. For example, in insufficient public spaces, wide marketing of all kinds is present, reflecting the poor economy, invasion of public spaces and high rates of crime. That is to say, public spaces invaded by street vendors or informally established merchants.

Transformation of Latin American cities and spaces are the result of social, cultural and technological phenomena. These changes create a new form of social organization, a new cultural model, which we may call postmodernism, globalization or neoliberal culture, one that reflects space as a resource, as a product and as a practice: social practices, symbolic practices and political practices by which urban spaces are used, appropriated and transformed [14]. Unfortunately, cities do not have many public spaces that create scenarios with a variety of practices to solve the needs or requirements that came from the same transformations. For example, urban growth of Mexico City resulted in a plenty of forgotten urban places that are now the subject of rehabilitation policies.

If we even add to this shortage, the components of an emerging new cultural model, (inequality, marginalization and spatial polarization), the impact of these components result in urban fracture, militarization of city life and public space, super modern interventions over the city, suburbanization, the impact of rapid transit routes, abandonment and deterioration of infrastructure and traditional public spaces, the new "so called" public spaces as a result of the detriment of the real public spaces, concentration of social and cultural activities, impact of mass media and virtual social spaces, displacement of social and personal "face to face" relationships with virtual relationships and the appropriation of the public sphere by powerful corporations, both national and transnational, among others [14]. These components are characteristics of current cities to which we refer. Cities that have reduced the creation and maintenance of public spaces and could continue degrading them if a quick solution to the problem is not given.

Researchers from different disciplines have been studying urban problems and the satisfaction of the inhabitant’s needs. The question is how to find a reciprocal relation between the intense use of the space but at the same time its conservation. That is, that appropriation and use of the spaces do not accelerate its deterioration every day. On the other hand, the emergence of new public spaces such as shops, shopping malls, temples, etc., reveal a confusion between what is public and what is private, and coupled with this, this
spatial trends change the conception of the life of society. Globalization drags us through the intervention of such trends.

IV. INCLUSION-EXCLUSION: THE DUALITY OF THE CITY

The phenomena of social inclusion and exclusion have always existed in all cities and societies throughout time. However, they have existed in isolation, for one to be, the other must exist. However, it is within public space where the inclusion-exclusion dichotomy has been more evident. In the case of Mexico City, urban expansion has been a fragmented process with little planning; so it is important to refer to these phenomena to help us understand what is happening in today's public space.

We can say that somehow, expulsion takes some element aside and segregates it, it segregates it to another group and therefore integrates it elsewhere, i.e. exclusion cannot exist without an integration from which you could then again exclude. This duality in the city can be confusing since it seems that everything related to expulsion is bad, and if integration is bad too, then a positive side is difficult to find. Inclusion then does not solve the problem of exclusion, since it is part of the same dynamic. Any exclusion includes the excluded or excludes by including [15]. Under this logic, exclusion does not refer to a physical confinement because the latest refers to the means of control and power that different administrations can exert on humans. An example would be the people held in jail [16]. This leads to analyze the duality of the term exclusion-inclusion since those held are excluded but also included in a community. For capitalism, this way of thinking is normal since dichotomous categories are established: rational-irrational, human-inhuman, normal and pathological, included-excluded; therefore capital will seek to integrate them elsewhere, i.e. exclusion cannot exist aside and segregates it to another group and those held are excluded but also included in a community. For capitalism, this way of thinking is normal since dichotomous categories are established: rational-irrational, human-inhuman, normal and pathological, included-excluded; therefore capital will seek to integrate them elsewhere, i.e. exclusion cannot exist aside and segregates it to another group and those held are excluded but also included in a community. For capitalism, this way of thinking is normal since dichotomous categories are established: rational-irrational, human-inhuman, normal and pathological, included-excluded; therefore capital will seek to integrate them elsewhere, i.e. exclusion cannot exist.

In the table, we can see the components that refer to the social, economic and political dimensions as a result of processes that impacted during these two periods and most important, incorporating components of inclusion which are also action steps that have been addressed in recent years and could even be improved. There are also other elements of inclusion and exclusion from the urban perspective. These have been gradually created such as inaccessible primary and secondary roads, public spaces of the upper classes invaded by poor sectors, streets, parks, sidewalks and others that are used as borders, excessive surveillance, watched places, private guards, police, cameras, high risk for violence and virtual walls [20].

If we look at Mexico City, we will cross primary and secondary roads that were initially created for better mobility and were located in peripheral contexts. They initially worked well, but over the years, they became obsolete due to the amount of cars, propitiating to create more roads on new boundaries of the city or even above those that already existed.
In some cases the same route separates areas with different land uses and different life styles; and in other cases, new roads have a high cost for the population in general.

The last perspective pointed out in this paper is that of Mario Luis Fuentes [21], with a more human vision. For him, massive poverty, vulnerability of people, lack of health policies, violence, lack of legal protection and discrimination should be considered and analyzed to establish policies that integrate a social change to these sectors of the population, aimed at a better quality of life.

V. MEXICO CITY: PUBLIC SPACE INTERVENTIONS IN THE XXI CENTURY

The ideal city would be one that is planned so carefully that spaces are defined according to the needs of its users. The roadways are designed according to a population density and they respond to all the factors that may be involved in city’s modifications. That city should be prepared i.e. to face any type of disaster, whether natural or manmade; it has adequate services, good quality housing, entertainment, enough public spaces that meet the society’s demands and not only residual spaces, etc. However, cities like Mexico suffer from many problems created from its expansion of the last century. To answer the research questions supported by the theories described, it is essential to point out that public space is one of the components primarily affected. Therefore, it is important to know what happened to it from these transformations and point out the importance of keeping track of it at the city scale.

After the accelerated urban transformations of Mexico City, public space was left aside as a component of urban planning, or to be more precise, it was left aside as the guiding principle of urban planning, since urban design was still based on public space in the early last century. However, today there is not much open public space left because of unplanned urban growth and densification policies such as “Bando 2”. The purpose of that policy was a planned densification of the central parts of Mexico City. Therefore public space has been reduced to what is left, i.e. the places that have been forgotten, residual spaces, neglected spaces or areas of violence that possibly were never part of a planning as public spaces for gathering and interaction. However, the need for places to socialize, walk and enjoy the city itself has been a concern in the last decade, so the Federal District implemented a series of interventions through the Ministry of Urban Development and Housing (SEDUVI), in conjunction with the Public Space Authority. In such interventions, they undertook urban projects for public spaces with the aforementioned characteristics, attaching economic activity to give attention to the citizens’ needs.

From the city’s fragmented and disorganized expansion, a problem with public space has been created and discussed by various authors who even foresee its disappearance. To analyze the current state of public space in Mexico City, as well as whether or not it has been homogeneously produced, preserved and rehabilitated, we analyze the official interventions in public space in the sixteen boroughs of the Federal District from the year 2000 to the first half of 2014 (Table II). After that, these official programs and interventions in public spaces were mapped (Fig. 2). On the one hand, we identified “new public spaces” (see darkest dots in Fig. 2).

Table II
PUBLIC SPACE INTERVENTIONS IN MEXICO CITY, 2000-2014 [22]

<table>
<thead>
<tr>
<th>Boroughs</th>
<th>Number of Projects</th>
<th>Types of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Álvaro Obregón</td>
<td>8</td>
<td>• Public Monuments restoration.</td>
</tr>
<tr>
<td>Azcapotzalco</td>
<td>4</td>
<td>• “Bolsillo” Parks (Pocket, small). It is a Program of the Federal District, in charge of the Public Space Authority (AEP). It offers the inhabitants places of social interaction, identity and economic activity in response to the local demands of the inhabitants.</td>
</tr>
<tr>
<td>Benito Juárez</td>
<td>5</td>
<td>• “Ecoparq” (Parking meters program).</td>
</tr>
<tr>
<td>Cuañinalpa</td>
<td>2</td>
<td>• “Bonds of Friendship” (Renewal projects based on the exchange of artistic expressions from other countries).</td>
</tr>
<tr>
<td>Coyocán</td>
<td>3</td>
<td>• Improvement of spaces with inclusive design.</td>
</tr>
<tr>
<td>Cuauhtémoc</td>
<td>25</td>
<td>• “Light up your City” Program.</td>
</tr>
<tr>
<td>Gustavo A. Madero</td>
<td>3</td>
<td>• “Ecoparq” (Parking meters program).</td>
</tr>
<tr>
<td>Iztacalco</td>
<td>2</td>
<td>• “Bonds of Friendship” (Renewal projects based on the exchange of artistic expressions from other countries).</td>
</tr>
<tr>
<td>La Magdalena Contreiras</td>
<td>1</td>
<td>• “Bonds of Friendship” (Renewal projects based on the exchange of artistic expressions from other countries).</td>
</tr>
<tr>
<td>Miguel Hidalgo</td>
<td>11</td>
<td>• Rehabilitation of heritage sites.</td>
</tr>
<tr>
<td>Milpa Alta</td>
<td>2</td>
<td>• Under bridges projects.</td>
</tr>
<tr>
<td>Tláhuac</td>
<td>1</td>
<td>• Pedestrianization and semi-pedestrianization of streets.</td>
</tr>
<tr>
<td>Tlalpan</td>
<td>1</td>
<td>• Mobile Parks (itinerant green areas).</td>
</tr>
<tr>
<td>Venustiano</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Carranza</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Xochimilco</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

On the map, we can see that in terms of production and intervention of public space in the Federal District in the XXI century, and because of a fragmented urban change, an imminent segregation is noticeable. If we look again at Fig. 1 wherein the stages of urban expansion are presented, it would be reasonable to believe that the vast majority of projects concerning public space are concentrated towards the center-north because it is where growth began and it would be likely to have more inhabitants there. However, the most densely populated boroughs are located to the east according to the 2010 Population and Housing Census (Table III), where the activation of projects is very scarce. For example, it is clear that in Cuauhtémoc borough, where the largest activation of projects in public space is, it has a population of 531,831 inhabitants; however, in the Iztapalapa borough, with the highest percentage of inhabitants in the Federal District (1,815,786), government has only activated two types of projects, so that there is no equilibrium in implementing them. Some of these projects have been very successful, such as the case of the “pocket public parks” or “under bridges projects”. |
that aim for every citizen to have access to a public space in a safe and accessible way, as well as to provide citizen mobility alternatives and options for healthy recreation, social and family living in the city. However, these places with the characteristics of “public” are far from providing the user with inclusive basics such as accessibility, good location and comfort. At the same time, these parks demonstrate a strong demand for public spaces. Therefore, we can find spaces in corners and between the buildings, road corners recovered for pedestrians, and the spaces under the bridges: former abandoned areas that were re-designed having 50% for public common areas, 30% for commercial uses and 20% for controlled parking lots. According to these data, the rehabilitated public space is only half of it and the other half has been privatized; so public space has in fact decreased. On the other hand, the place becomes more robust by the mixture of land uses and it is somehow compensated, but in fact, the proportion of interventions under the bridges tilts towards the place’s privatization. Where then is public space?

VI. CONCLUSIONS

The need to create and intervene in public space will be strong, determined by the dynamics of urban growth, i.e. if it is a disorderly growth; public space will be directly affected in their functioning and may provoke the weakening of the social cohesiveness.

Public space in Mexico City has not been equally produced, preserved, rehabilitated and regulated in the sixteen boroughs of the Federal District. This is reflected in a severe segregation marked by the disadvantages of location.

The creation and intervention of public spaces in Mexico City in the XXI century have been guided by official guidelines, which are immersed in a globalized world in search of publicly owned spaces with inclusive features, but also with an economic retribution.

In that search, the political-economic conditions become more important than the social needs. On the one hand deteriorated public places are regenerated and rehabilitated for the citizens. However, such projects have split between the need to generate resources and the need to provide people with recreational areas. A result of this is that public space is being diminished by the private project intervention proposals.
Moreover, the production of public spaces in this century has been resulting in residual spaces that possess depleted characteristics that cause them to struggle between the inclusion-exclusion duality.

REFERENCES