The role of the shared Public Realm in social equality: Medellin and 'Social Urbanism'
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#### ABSTRACT

'Social Urbanism' is an approach to inclusive urban development. My research identifies how this approach enables sustainable development of neighborhoods and the whole city. The objective is to document how an integrated planning method uniting government, civil society, architecture, and design, can engender inclusiveness by recognition of the fundamental human right of dignity. The work focuses in Medellin as example of 'Social Urbanism'; the second largest city in Colombia, located in a central region of the Andes Mountains in South America.

Twenty-five years ago, Medellin, Colombia, was considered the most dangerous city on earth (Jimenez 2002). After decades of violence and political instability, local initiatives were developed to address the city's problems. From 2004 and 2007 under Mayor Sergio Fajardo, a 'Social Urbanism' strategy became the framework for all urban projects, especially those located in the deprived neighborhoods of the city (BID 2009). Integrated urban projects were implemented to enhance accessibility and connectivity, also allowing greater self-determination and empowerment. Key to this approach was a commitment to the public realm as a truly shared space. Overall, they could transform Medellin's public spaces from sites of segregation and warfare into spaces where communities would come together (Echeverri 2008).

'Social Urbanism', is more than a functionalist strategy that seeks solutions to mobility, recovery of public space, and green areas. It is also a paradigm, which achieves inclusion by giving dignity back to the urban poor. This research will demonstrate how urban design and architecture can transform a violent city into an inclusive society through integrated interventions to achieve broad goals for a more sustainable future.

### RÉSUMÉ

'L'Urbanisme Social' est une approche au développement urbain inclusif. Ma recherche identifie comment cette approche permet un développement durable aux arrondissements et à la ville entière. L'objectif est de démontré comment une méthode de planification intégrale a pu unir le gouvernement, la société civile, l'architecture et le design peut promouvoir l'inclusion par la reconnaissance du droit fondamental de la dignité humain. Les cas d'étude se concentrer sur Medellin comme un exemple de 'L'Urbanisme Social'; la deuxième plus grande ville en Colombie se situe dans une région centrale de la cordillère des Andes en Amérique du Sud.

Il y a vingt-cinq ans, Medellin en Colombie a été considéré une des villes la plus dangereuse au monde (Jiménez, 2002). Après plusieurs décennies de violence et d'instabilité politique, des initiatives locales ont été développées pour aborder les problèmes de la ville. Entre 2004 et 2007, durant le mandat du Maire Sergio Fajardo, la stratégie de 'L'Urbanisme Social' est devenue le cadre de tous les projets urbains, particulièrement ceux situent dans les arrondissements défavorisés de la ville (BID, 2009). Des projets urbains intégrales ont été mis en œuvre afin d'améliorer l'accessibilité et la connectivité, ainsi que, permettant l'autodétermination et la responsabilisation. L'idée clé de cette approche était un engagement du domaine public comme une espace à partager. En général, ils ont transformé les sites de ségrégations et de guerre de Medellin à des espaces publics où les communautés se réuniraient (Echeverri 2008).

'L'Urbanisme Social', est plus qu'une stratégie fonctionnelle qui cherche des solutions de mobilité, de rétablissement d'espace public et des zones vertes. C'est aussi un paradigme, qui accompli l'inclusion par rendre la dignité des pauvres dans la ville. Cette recherche décrira comment le design urbain et l'architecture peuvent transformer une ville violente à une société inclusive à travers des interventions intégrales afin d'atteindre des objectifs générales pour un avenir durable.

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#### 1 - Introduction

### 1.1 - Definition of the problem

First of all, cities face great challenges when social, physical and economic problems gather in certain neighbourhoods of the city where the increasing numbers of citizens are excluded from social and economic participation. Secondly, social inequality is one of the most difficult problems that Latin America's cities have (World Economic Forum, 2016). Lastly, many observers suggest that this can be alleviated or redressed by connecting communities in common spaces so that everyone can enjoy a convivial atmosphere and an equitable life. Medellin, the capital of the Department of Antioquia, Colombia, is one example of where the political landscape has resulted in a city that is highly unequal, exclusionary, and fraught (Maclean, 2005). For example, to the south of the city, El Poblado is a wealthy neighbourhood that offers a 'typical' middle-class; luxury hotels, high-rise apartments, shopping malls, restaurants, private universities, among others that could compare easily to cities in North America or elsewhere in the 'developed' world with high standards of living (OECD, 2016). However, in the northeast and northwest areas of the city, there are informal settlements, which lack basic infrastructure with high levels of poverty, and violent crime. These areas, are well known as 'communes', are located on the steep Andean mountain slopes of Medellin. 'Social Urbanism' is an approach to inclusive urban development that was implemented in

Medellin, Colombia under the leadership of former mayor Sergio Fajardo. The general aim of this research project is to document how an integrated planning method uniting government, civil society, architecture, and design, can engender inclusiveness by recognition of the fundamental human right of dignity. The work focuses on Medellin as example of 'Social Urbanism'; second largest city in Colombia, located in a central region of the Andes Mountains in South America.

Twenty-five years ago, Medellin, Colombia, was considered the most dangerous city on earth (Jimenez 2002). Colombian's long-lasting conflict involving guerrilla, paramilitary, and militia armed groups, as well as State forces, frames Medellin's violence. Apart from this, Medellin is an example of urban violence. Urban violence that is associated with a rapid city's population growth with high levels of inequality, which merge to create isolated urban spaces with a strong imbalance between the wealthy south and the communes or informal settlements to the north. Medellin illustrates these patterns, as Colombian's industrial heartland, and his attraction for migration from surrounding rural areas (Maclean, 2005).

When looking at Medellin neighbourhoods it is important to understand the stratum system. Residential properties in Colombia are ranked by the Town Hall of each municipality on a 1-6 socioeconomic scale (with 6 being the highest). These are known as stratum or strata. Stratum 6 is considered a wealthy area for Colombians and strata 5 is an upper middle class area, while strata 3 and 4 are considered Colombian middle class areas, and strata 1 and 2 generally poor areas.

# Homes in Medellin metropolitan area

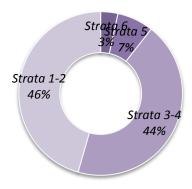


Figure 1. Homes ranked as strata in the Medellin metropolitan area. The vast majority of the homes in Medellin (46% of homes) are in strata 1 or 2.

Source: Medellin's Town Hall, 2016

Social disparities may lead to social instability that may affect economic development and human dignity. Social disparities may have many causes, for example, a variety of factors have combined to determine an individual's lot. At present, income inequality determines social disparities. In other words, economic disparities determine social disparities, no matter whether these disparities are reflected in terms of inequality between 'neighbourhoods' of the city or between men and women. Moreover, this social disparity causes social problems that are linked with violence as the case study presented in this research. Thus, how we redesign cities better for people where social disparities have affected their way of living?

After decades of violence and political instability local initiatives were developed to address the city's problems. From 2003 and 2007, under Mayor Sergio Fajardo, a 'Social Urbanism' strategy became the framework for all urban projects, especially those located in the deprived neighbourhoods of the city (BID 2009). Medellin's authorities started a

series of radical programs to reorganize the social fabric of the communes and mobilize the poor. Integrated urban projects were implemented to enhance accessibility and connectivity, also allowing greater self-determination and empowerment. Key to this approach was a commitment to the public realm as a truly shared space. Overall, they sought to transform Medellin's public spaces from sites of segregation and warfare into spaces where communities would come together (Echeverri 2008).



Figure 2. The Public realm as a shared space, Medellin, Colombia Source: BID, EDU, and Medellin's Town Hall, 2014

Medellin has transformed itself from the former murder capital of the world to a model of urban social integration where the displaced population gain their confidence

and feel that they are part of the city (Agyeman and McLaren, 2016). The transformation of Medellin was based on social programs policies, architectural and urban interventions to combat poverty and crime. The economist Joseph Stiglitz highlights that indeed:

Medellin constructed avant-garde public buildings in areas that were the most run-down, provided house paint to citizens living in poor districts, and cleaned up and improved the streets—all in the belief that if you treat people with dignity, they will value their surroundings and take pride in their communities.

This research seeks to understand how the shared public realm plays a decisive role in social equality and to recognize the ways in which the opportunities afforded to individuals in cities are founded on the collective efforts and actions of whole communities (Agyeman and McLaren, 2016). Developing a shared future whereby each individual feels they have something to contribute in shaping, making and co-creating a joint endeavour where we encounter the proverbial 'other' and where we must relate to 'other' behaviour, other ideas and other preferences (Hajer and Reijndorp, 2001), is arguably key to ensuring sustainability.

### 1.2 - Rationale

This research project aims to explore opportunities and challenges related with the public realm as a shared interest in building an inclusive society. Its purpose is to extend public recognition and understanding the strategies attached to public realm investment in segregated neighbourhoods, with a distinct focus on the role and contributions to

achieve an equal society giving the value of dignity to the poor. The extent to which an individual or group feels included or excluded in a particular community may differ essentially from the extent to which they feel accepted by the wider society. In fact, it has been suggested that:

The sense of place, its meaning and people's attachment to a locality or neighbourhood is no longer constructed through historical attachments or long residence, leading to an 'authentic' attachment to place, but instead is constructed out of mobility, global interconnections and, especially for the lower class income, a deliberate decision to live there and identify with that place (McDowell et al., 2006).

The public realm should reach the highest standard for inhabitants and visitors alike. This built in an understanding of well-designed and managed public space as having both internal and external value, and an important role in the spatial order and a life of a city. We make sense of the world, our understandings of it, and our place in it, through language; our use of language creates, contests and recreates power, authority and legitimation. Thus language is important in creating exclusion and connectedness (Taket et al, 2009).

The approach known in Colombia and elsewhere as 'Social Urbanism' is more as a functionalist strategy that seeks solutions to mobility, recovery of public space, and green areas. It is also a paradigm, which achieves inclusion by giving dignity back to the urban poor. This hypothesis draws on Brown, Dixon and Gillham's book, where they suggest principles that can organize long-term transformations, mediating between values, goals and actual outcomes. As well as the work of Julian Agyeman, which addresses the concept

of 'Just Sustainabilities' defined as the need to ensure a better quality of life for all, in a just and equitable manner. The research uses these ideas to show how 'Social Urbanism' is a successful expression of progressive 'big ideas' (Kolson 2001 and Sandercock 1998) in urban design, and to understand what roles architects played to promote human interaction and a sense of acceptance, inclusion and dignity.

These premises offer a snapshot of practices that have led to transformative decisions on how the public realm is being re-imagined in cities. Where Interventions with an iconic architecture have come to define a new way of life, for people, a neighbourhood and the city in places where the violence was established, as the case of Medellin, Colombia.



Figure 3. Spain Library Park in the Santo Domingo Savio borough. Source: BID and Medellin's Town Hall, 2009

Architecture can be a tool for deep urban regeneration in which spaces speak to the city and its residents invite people out from their confined interiors to connect with their urban environment. A great community does not happen by chance. It is the people, shared interest and collective efforts of everyone that makes a difference.

The significance of Medellin's transformation has been acclaimed and critiqued at the same time (Scruggs, 2014), but it continues to be an example of an inclusive urban development through bright moves in architecture, planning and urban design. The 'Social Urbanism' as a functionalist strategy included initiatives that invested into the lower socio-economic neighbourhoods under Integral Urban Projects, which brought together networks of transportation, education, health, and security infrastructure.

Each architectural and urban design intervention was viewed as part of a comprehensive plan for neighbourhood revitalization. Local government built a transportation system that brings together the formal and informal cities, enhances street life, and contributes to social cohesion (PPS, 2011). By constructing aerial Cable Cars (the Gondola) to provide a new way of transportation for neglected neighbourhoods, the city demonstrates its interest and commitment to invest in those places. They created public spaces next to the stations -lively neighbourhood centers, with seating, food vendors, and landscaping. Nearby, library parks were built to integrate and originate places for people. The library parks is the term used in Medellin for an urban complex formed by a combination of a library building with extensive surrounding green space for public use. These were conceives as places that bring people together to reflect community values and needs, offering a better quality of life for all. The local government further developed the Participatory Planning and budgeting programme aiming to bring government and planning closer to the citizens, as well as legitimating local government and promoting transparency. Medellin and 'Social urbanism' study aim for transforming cities into a more equitable place through compact and well-connected neighbourhoods.

### 1.3 - Research Questions

For sociologists and political theorists, the 'Public realm' concerns shared transitional spaces that can be virtual or physical, among different groups of inhabitants acting as a space of exchange of ideas, opinions and beliefs and users. Public spaces as physical 'moments' and buildings form crucial architectural elements of the public realm, as those places where an exchange between different social groups is possible and also actually occurs (Hajer and Reijndorp, 2001). Lyn Lofland uses the term 'Public realm' to refer to the social region of the urban landscape that is open to the public at large and tends to be populated by diverse and anonymous social actors —a world of strangers (Lofland, 1998). They are significant for the city's sustainability and socio-economical inclusiveness. Based on these premises, this study explores the following:

How did 'Social Urbanism' enable Medellin to pursue the sustainable development of neighbourhoods and the whole city?

How did integrated interventions in Architecture and Urban Design help to transform a violent city into one that is more inclusive, safe, and convivial?

What roles did architects play in 'Social Urbanism' to help promote human interaction and to support a sense of acceptance, inclusion and dignity to achieve broad goals for a more sustainable future?

What strategies for developing shared public realms can be generalised from Medellin's approach to 'Social Urbanism' to support an equitable society in a sustainable built environment?

### 1.4 - Objectives of the research

The transformation of Medellin has been researched both inside and outside academia and it is viewed worldwide as a success story (World Economic Forum, 2016). The first part of the investigation aims to identify the changes that took place and the key elements that defined the transformation, focused on the administration of Sergio Fajardo. After developing a clear picture of what happened between 2003 and 2007, the goal will be to evaluate what remains, with the purpose of identifying the ways in which the city has kept on evolving in terms or urban design and assessing if it has continued on the path that was set during those four years of progress. With that information, the goal is to identify common challenges that cities face, and the ways in which shared spaces of the sort that were developed in Medellin can contribute to urban civility and a more inclusive society.

This research is primarily addressed to practitioners, scholars and students in Urban Design and Architecture that are interested in the context of urban renewal and sustainable development of deprived neighbourhoods, and specifically in relation to the creation of new public spaces towards poverty alleviation, social inclusion and spatial integration. Moreover, the academic contribution to contemporary and future debates on the transformation of cities that represent how united planning method between good administration, society, architecture, and design requires rethinking the regulatory frameworks that will lead to inclusiveness by recognition of dignity.

### 1.5 - Methodology

This study focuses on the role of the shared public realm in social equality; three different approaches were the methodological basis of this research.

The first part of this research develops a conceptual framework based on a literature review to study development strategies, such as *build community in an increasingly diverse society, advance sustainability at every level*, and *make places for people* (as proposed by Brown et al.), sustainable communities (discussed in part by Agyeman) and the qualities of integral urbanism (as proposed by Ellin) to mention a few.

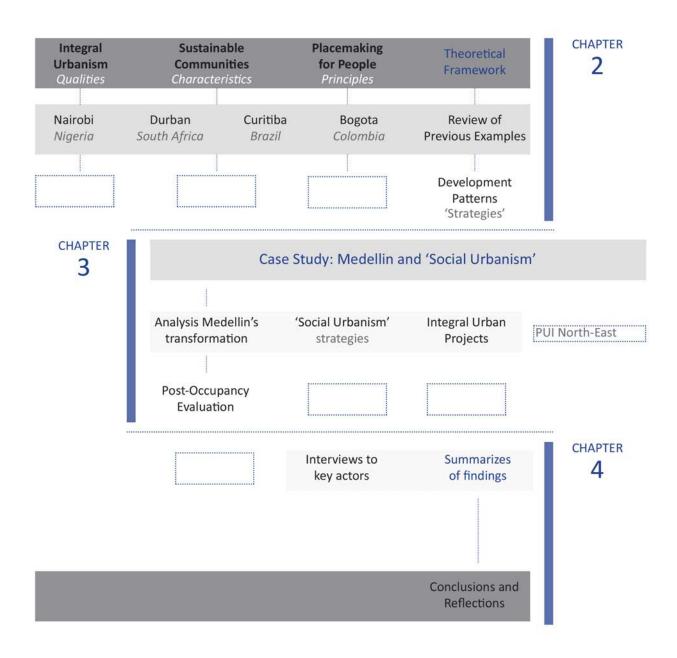
Following this, work that has been done on the transformation of Medellin will be analyzed. Primary and secondary sources such as municipality publications, records of different organizations involved in Medellin's transformation, and published books will contribute to understanding the situation of the city before 2003 and to creating an overall picture of the changes that took place during the administration of Sergio Fajardo. Then, a post-occupancy evaluation is executed in the North East borough to evaluate the present situation of the interventions implemented and to perceive in the context of the everyday life. It seeks to obtain information directly from residents to gain a better understanding of their needs and opinions regarding to their built environment and home.

Finally, in order to have a broader and more informed view on what occurred from 2003-2007, and to have a clearer assessment of the legacy of this period, interviews with public officials from the Planning Department of the Municipality of Medellin, Architects,

planners and sociologists from the Urban Development Corporation (EDU) of the city are conducted; key actors who worked in the transformation of Medellin.

The research is presented in four chapters, including this introduction. Chapter two reviews literature relevant to this study and presents a general framework about development strategies, sustainable communities and integral urbanism to build communities in a diverse society. Chapter three provides an overview of the transformation of Medellin, Colombia; it gives a general description of the study context before 2003, continuing with a look at its social and physical transformation, as well as specific strategies that were implemented to achieve the 'Social Urbanism'. In addition, an observation process of the present situation will be developed based on a fieldwork to verify the effectiveness of the Integral Urban Project implemented in the North East borough. Chapter four summarizes the findings by introducing some points of view from interviews, and provides conclusions and reflections where architecture and urban design generate spaces and not in which create incomes; the purpose is to upraise the human side and not to win awards, and where the design is to be lived and not to be evaluated. The city and the neighbourhood are places to meet in which their characteristics determine the urban quality of the city, quality in the means for all.

# Medellin and SOCIAL URBANISM



Project Research Structure\_Maria Bibiana Fuentes

Figure 4. Research structure

### 2 – Strategies for Sustainable Development and Inclusive Cities: a literature review

This chapter presents different strategies for Sustainable Development and Inclusive Cities. The Chapter is divided in fifth sections, the first section review the principles for place-making, the second examines the characteristics to create Sustainable Communities, the third section of this chapter investigates some qualities of the Integral Urbanism, the fourth section idealizes a special determinism in a social transformation, and finally a review of some previous examples in Latin America and Africa are analyzed.

### 2.1 - Place-making: Principles

To understand the principles of place-making is important to start by defining it. Place-making is not a new concept as many people think, it initiated with the first human settlements, each symbolically marked to represent community. Such an icon, a totem, an Inuksuk, was a shared phenomenon and actualized the spirit of undertaking jointly. Today we also have parks, monuments, murals, sculptures and more —all in their way providing for the enhancement of our living spaces and illustrating our stories of place. Placemaking returns to the origins of these early endeavours, enabling individuals to be active agents in their physical surroundings. Any discussion of place-making must take into account that the original place-makers were Aboriginal people who did not see themselves as separate from their everyday life in their environment (Canadian placemaking lab, 2016). Jane Jacobs highlights that:

Cities have the capability of providing something for everybody, only because, and when, they are created by everybody.



Figure 5. Convergence of disciplines around place Source: Canadian Placemaking Lab, 2016

The empowerment of community through the 'making' creates a virtuous supporting better quality of life, connected citizens and a "sense of place". An individual's sense of place is both a biological response to the surrounding physical environment and a cultural creation (Hayden, 1995). In addition, Lefebvre argues that:

Every society in history has shaped a distinctive social space that meets its intertwined requirements for economic production and social reproduction. In terms of production, Lefebvre would be close to cultural geography in identifying spaces or landscapes shaped for mining, manufacturing, commerce, or real estate speculation, which ranges over different scales, including the space in and around the body (biological reproduction), the space of housing (the reproduction of the

labour force), and the public space of the city (the reproduction of social relations).

Here he links the physical to the social in decisive ways.

Place-making is not just the act of building up a space; it is a process that fosters the creation of vital public destination —the well meaning of places where people feel a strong interest in their communities and commitment to making things better.

Urban designers have misled as well as led when the profession loses sight of the full complement forces that shapes people's lives. During the past fifty years have been provided a clear set of guidelines for how to create the kind of community that sometimes people seek like the suburban American dream in a single-family house with a yard (Brown et al, 2009). However, there are millions of people around the world who prefer a home that enables them to take transit to work, meet friends in a neighbourhood square, walk with their kids to a neighbourhood park, and shape their lives in ways that promotes sustainability. The Architect and Urban Designer Ken Greenberg highlights that:

Experience is teaching that prescriptive templates do not hold up well when market forces, changing programs, and new needs come into play. What are needed instead are flexible frameworks that allow for innovation, hybridization, organic growth, change and surprise. In Stuart Brand's terminology, we are learning "how cities learn" rather than producing finite products, urban design is increasingly about the anticipation and guidance of long-term transformations without fixed destinations, mediating between values, goals and actual outcomes.

The following principles have as a goal to understand the importance of building a place-making for people that is a tool for sustainable development of neighbourhoods and the city as a whole in an inclusive society (as proposed by Brown et al.).

### 2.1.1 Building Community in an increasingly diverse society

To build a community in an increasingly diverse society is significant to pay attention to fourth elements that made places to everyone no matter how rich or poor, young or old, black or white you are. These elements according to Brown, Dixon and Gillham are:

Create places that draw people together, by creating spaces where all members of the community can mix naturally and get to know one another as human beings, communities can become communities —places where people not only live together, but care about one another, and share common hopes for themselves. Social interaction is important because it implies an exchange that includes real communication, even if only for a moment, and leaves each person feeling that he or she has shared something with another human being. Places that draw people together are spaces that make people from different areas and backgrounds want to be there.

Support social equity, sustainable development will not be achieved unless the needs and rights of all people are fulfilled, especially those living in poverty or otherwise discriminated. Social equity goal should include commitments and targets across the range of social, economic, and cultural between others. Brown et al. highlight that:

Sometimes by intent but often by inattention, many communities have chocked off access to jobs, health care, open space, and other elements central to pursuit of the American dream. Through much of the twentieth century decision makers located highways, power plants, and other uses that damaged public health in the middle of poor and minority communities and located public housing in out-of-the-way places adjacent to rail lines and active industry. While not discussed as often as other elements of building community, it is essential to assure that the benefits of an urban renaissance flow to all members of the community and that new urban wealth is spent in part on righting old wrongs.

*Emphasize the public realm*, the public realm is a vital aspect of the built environment that helps to give a city its identity. A well-designed public realm balances the mobility and access needs for all users and contributes to the efficient functioning of a city and its sense of place. The public realm is the element, which defines how the urban area looks and feels and provides the backdrop for all public interaction. Emphasize the public realm is important for creating the desired image an identity of a community.

**Forge stronger connections**, it is essential to create places that honour and acknowledge the many histories that people of different backgrounds bring to the same neighbourhood. Brown, Dixon and Gillham argued that:

While old divisions of race and ethnic background have receded in many communities, the physical and social barriers that once divided neighbourhoods often remain. This phenomenon is visible in the reshaping of public housing developments into mixed-income neighbourhoods, the transformation of rail yards and strip malls into mixed-use districts, and the metamorphosis that turns industrial sites into riverfront parks. In many cases, extending local streets to form a new gridded connection breaks down barriers. In other cases, where rail lines, six-lane arterial roads, and highways still form barriers, social connections – formed by an exciting new park, interactive fountain, or other public destinations – take the place of physical connections.

# 2.1.2 Advance sustainability at every level

Climate change has generated a global support for promoting green design and materials in planning, these in the way in which urban design should foster sustainability. Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given, and the idea of the environment's ability to meet present and future needs. Some critical elements include *Foster smarter growth*, which looks to create a more compact and efficient community that promote walkable, mixed-use communities that offer a range of transportation choices. It can mean designing some higher-density

housing, lively mixed-use environments, and vibrant public spaces that invite people to enjoy urban life (Brown et al., 2009). In this way, foster smarter growth makes a significant contribution to addressing global climate change.

In addition, it is important to *address the economic, social, and cultural underpinnings of sustainability*, where every project helps to advance sustainability at every level. For example, a community that not offers an economic opportunity, education infrastructure or as simply as a cultural place for the community promote sustainability in a limited way in which inhabitants do not see opportunity.

# 2.1.3 Expand individual choices and enhance personal health

Expand individual choices refers to the elements as provide transportation choices to support communities with the balanced and interconnected transportation networks necessary for mobility, equity, an economic growth, as well as, safe and convenient walking, biking, and public transportation opportunities to support a healthy, active lifestyle. In addition, provide choices than enhance quality of life by creating communities composed of vibrant neighbourhoods and lively centers linked by convenient transportation. At the same time, growing diversity where people have a range of recreational opportunities, culture and other core elements of life. The goal is to develop patterns to build places for human beings that also manage the regeneration of the city, connective layers of the environment, and of the human spirit itself.

### 2.1.4 Make places for people

"The success of a particular space is not solely in the hands of the architect, urban designer or town planner; it relies also on people adopting, using and managing the space –people make places, more than places make people." (Social Value of Public Space, Joseph Rowntree Foundation, 2007)

Designs should accommodate the needs of all users across genders, abilities and ethnicities. It is important that places are accessible for all by enabling everyone to participate equally in everyday activity. Moreover, each place, each culture is unique and it is the result of a place where the community feels ownership and engagement, and where designs serve function. The importance is offering a variety of things to do in one spot -making a place where people can do a variety of activities. For example, a park is good, but a park with a fountain, playground, and food vendor is better. If there is a library across the street that's better still even if they feature storytelling hours for kids and exhibits on local history. If there is a sidewalk café nearby, a bus stop, a bike path, then you have what most people would consider a great place. It is significant to understand that is the people who use the space and they are the best source of ideas for what uses will work best. Successful spaces are those that remain relevant to people's day-to-day lives. Such success is not only a function of the available spaces and facilities but more importantly for people, the connections that those places make with their community, their environment and their history.

#### 2.2 Sustainable Communities

In this section, I focus on characteristics of Sustainable Communities and some aspects that help to understand the ways to build a Sustainable development focusing in Sustainable Communities. First, I look at the characteristics of a Sustainable Community proposed by Agyeman (2005). Second, I look at opportunities toward an intercultural City and inclusive spaces. Third, I look at Communities of Opportunity. And fourth, I look at Government as a champion for Sustainability and Equity.

## 2.2.1 Characteristics of a Sustainable Community

Sustainability is interpreted by (Agyeman, 2005) as 'the need to ensure a better quality of life for all, now and into the future, in a just an equitable manner, while living within the limits of supporting ecosystems'. This definition focuses on four main areas of concern: quality of life, present and future generations, justice and equity in resource allocation, and living within ecological limits. But what is a Sustainable Community? The concept of a 'Sustainable community' is steadily adjusting to meet the social and economic needs of its residents while keeping the environment's ability to support it. It seeks a better quality of life for all its residents while preserving nature's ability to function over time by minimizing waster, preventing pollution, promoting efficiency and developing local resources to revitalize the local economy. Decision-making in a sustainable community stems from a rich civic life and shared information among

community members. A sustainable community resembles a living system in which human, natural and economic are interdependent and draw strength from each other (SFU).

It is also truth that the path to sustainability is different for every community —but the common elements are a healthy environment, a strong economy and the well being of the people living in the community. When sustainability areas are addressed in sequence with each other, they have a powerful, positive effect on the quality of life and future of a community. It is an approach that solves local problems while being innovative about progress. Based on this, the Local Government Management Board in Great Britain in 1994, developed the following characteristics of an ideal sustainable community that support the environmental, social and economy goals.

#### Protect and enhance the environment

- Use energy, water, and other natural resources efficiently and with care;
- Minimize waste, then re-use or recover it through recycling, composting, or energy recovery, and finally sustainably dispose of what is left;
- Limit pollution to levels that do not damage natural systems;
- Value and protect the diversity of nature.

#### Meet social needs

- Create or enhance places, spaces, and buildings that work well, wear well and look well;
- Make settlements 'human' in scale or form;

- Value and protect diversity and local distinctiveness and strengthen local community and cultural identity;
- Protect human health and amenity through safe, clean, pleasant environments;
- Emphasize health service prevention action as well as cure;
- Ensure access to good food, water, and housing;
- Meet local needs locally wherever possible;
- Maximize everyone's access to the skills and knowledge needed to play a full part in society;
- Empower all sections of the community to participate in decision-making and consider the social and community impacts of decisions.

#### Promote economic success

- Create a vibrant local economy that gives access to satisfying and rewarding work without damaging the local, national, or global environment;
- Value unpaid work;
- Encourage necessary access to facilities, services, goods, and other people in ways which make less use of the car and minimize impacts on the environment;
- Make opportunities for culture, leisure, and recreation readily available to all.

These characteristics of an ideal sustainable community could be understood as the way that thinks and acts systemically where communities take a systems perspective and recognize that people, nature, and the economy are all affected by their actions. Sustainable communities capture opportunities and respond to challenges, as well as

engage all facets of society in working together for the benefit of the whole; they engage in continuous discovery, rediscovery, and invention as they learn more about the impacts of their actions.

Sustainability as a planning principle is not an absolute goal but can be achieved gradually through a great number of single steps and actions on the many levels of planning, construction and practical use; it also can contributes to the environment and necessary urban development; as well as it should be made operational on the numerous different planning and design scales, from the regional down to the single building (Fusco Girard et al., 2003).

### 2.2.2 Toward an Intercultural City and Inclusive Spaces

Intercultural cities have a diverse population including people of different nationalities and origins, and with different languages or religions/beliefs. Most citizens regard diversity as a resource not a problem and accept that all cultures change as they encounter each other in the public space. The city officials advocate respect for diversity and a pluralistic city identity. They also ensure equal opportunities for all by adapting its governance structures, institutions and services to the needs of a diverse population, without compromising the principles of human rights, democracy and the rule of law. The high level of trust and social cohesion help to prevent conflicts and violence, increase policy effectiveness and make the city attractive for people and investor alike (Council of Europe, 2013). In the Intercultural city approach, the development of a cultural sensitivity,

the encouragement of intercultural interaction and mixing, is not seen as the responsibility of a special department or officer but as a strategic objective and an essential aspect of the functioning of all cities. The Intercultural City explores diversity, openness and interculturalism.

Public spaces can be sites of huge intercultural opportunity. They may be the only sites where various groups interact at all, and organized events such as soccer matches, festivals or youth group activities may offer important opportunities for intergroup contact and for generating shared experiences. People grow attached to spaces, to their aromas, textures, and the overall 'feel' of a space. Designing culturally inclusive spaces aims to remove the barriers that create undue effort in accessing those spaces and separation by planning and designing spaces that enable everyone to participate equally and confidently (Agyeman, 2013).

Creating culturally inclusive spaces contributes to interculturalism in seeking to integrate groups in ways that contribute to the construction of difference and diversity as an asset within community, rather than a source of tension. When planning and redesigning inclusive spaces, the question is not, as (Guthman 2008) has asked in terms of urban agriculture, 'Who is at the table?' but 'Who is setting the table?' this is the first principle of culturally inclusive practice. It is important to focus efforts aimed at designing inclusive spaces on places that accommodate meaningful interaction among users, rather than simply on areas with the greatest number of people crossing paths (Agyeman, 2013).

It is significant to note that design and planning professionals, as well as locally elected officials must also work to ensure that the spaces designed and developed in their municipalities include culturally inclusive design strategies. Cultural competency has been described as both having systemic elements and being a developmental process. The five systemic elements are: 1) valuing diversity; 2) the capacity for cultural self-assessment; 3) consciousness of the 'dynamics' of cultural interaction; 4) the institutionalization of cultural knowledge, and 5) the development of adaptations to service delivery based on understanding diversity inter- and intra-culturally (Agyeman, 2013). According to Wood and Landry (2007) argue that:

The Intercultural city depends on more than a design challenge. It derives from a central notion that people are developing a shared future whereby each individual feels they have something to contribute in shaping, making and co-creating a joint endeavour. A thousand tiny transformations will create an atmosphere in public space that feels open and where all feel safe and valued.

## 2.2.3 Communities of Opportunity

Fighting social and urban exclusion is one of the greatest challenges the city will face in the twenty-first century in order to guarantee that all citizens are able to participate in its social life, economy and politics. In general terms, exclusion means isolation from processes of social development, unemployment and distance from economic processes, marginalisation, discrimination, lack of ties with cultural and political

processes, vulnerability and lack of network connections (UNCHS, 2001a). The excluded are those who have been denied the benefits of urban life and its basic services; they are often forced to occupy the land in illegal ways and to live under conditions threatening health and safety. Exclusion is the result of physical, social and economic barriers that prevent participation in urban life, but it is also the consequence of the failure of local authorities that are unable to integrate the excluded in the decision-making process (Girard et al., 2003).

Recent cognitive science research indicates that connectivity and culture are core conditions of happiness. Well-being, it turns out, is a collective activity, carried out through the fourth quality of temperament, community. The quality of our communities deeply influences the character and quality of our lives (Rose, 2016). Opportunity has many dimensions, ranging from educational quality to social status to access to transportation.

'Community of opportunity' refers to the gift of being together, and returning home from our ventures to a safe harbour. A community of opportunity should be safe from physical and social threats, including violence or trauma of any kind. It should be free of toxic compounds in the water, land, and air. Its residents should have access to affordable health care, and to social and mental health services. It should have an excellent public education system, equal to any in its region. It should include diverse people, housing types, and opportunities. Its governance should be transparent and free from corruption, and its citizens should be able to play a significant role in both its long-

range planning and its short-term decision-making. All these elements must be integrated, to intertwine the fabric of community (Rose, 2016).

Low-income communities usually do not have schools, poor access to health care, a lack of safe, green affordable housing and transportation options, and little fresh or healthy food. The solution is to develop communities of opportunity, adjacent to mass transit that connect to both the Metropolitan Center and suburban job markets, are adjacent to education, affordable health care, shopping, open space and fresh food. The community of opportunity framework is an excellent guide for how cities can revitalize neighbourhoods (Rose and Ruiz, 2013).

We live in a highly connected world in which our relationships, aptitudes, and behaviours shape outcomes for our neighbourhoods, our cities, and ourselves. The choices we make now contribute to the metagenome (community genomics) of the city, influencing its level of connectivity and its future prosperity. And just as the ecological niche is the basic community unit in a larger ecosystem, the neighbourhood is the niche that residents most deeply influence, and are influenced by. The social health of a neighbourhood is the key to its function as a community of opportunity, the foundation of a healthy city and extended region. And healthy neighbourhoods begin with resilient, adaptable, well-tempered people (Rose, 2016).

To promote social inclusion means, indeed, taking into account both the individual and society, allowing the former access to housing, employment and services, the enjoyment of social mobility, the reduction of conditions of vulnerability, respect for human rights without discrimination, and the right to live in harmony with oneself and

within the community in conditions of enabling and well-being (Girard et al., 2003). Bell Hooks and Cornell West, as African Americans, offer an alternative to the exclusionary model in the American context:

It is important to note the degree to which Black people in particular, and progressive people in general, are alienated and estranged from communities that would sustain and support us... We confront regularly the question: 'Where can I find a sense of home?' That sense of home can only be found in our construction of... communities of resistance... and the solidarity we can experience within them... As we go forward as Black progressives we must remember that community is not about homogeneity. Homogeneity is dogmatic imposition, pushing your way of life, your way of doing things onto somebody else. That is not what we mean by community... That sense of home that we are talking about and searching for is a place where we can find compassion, recognition of difference, of the importance of diversity (Hooks and West, 1991).

Community, in the sustainable city, has to be inspired by the values expressed in Hooks and West's writings. 'We need, as individuals and as communities, to be about getting people to deal with the fears which immobilize us and bar us from our basic instincts towards growth, change, and harmony'. In working towards more sustainable cities we need new models of planning practice which focus on building communities and working with diverse communities to create the physical and socio-economic conditions for harmonious co-existence in the shared spaces of our cities and neighbourhoods (Sandercock, 2003).

# 2.2.4 Government as a champion for Sustainability and Equity

The principle of equity has social, political and environmental dimensions. At the social level equity can be applied by means of compensation. This involves a range of economic measures such as relief of taxation, regeneration, diversification and infrastructure provision as well as the provision of community facilities. In its political sense, equity involves a commitment to openness, the provision of information, participation in decision-making and, in some instances, the provision for a veto over decision affecting the community. These various measures of community empowerment are necessary if trust, the essential ingredient for any agreement between a community and the industry, is to be secured. Environmental equity covers the minimization of risk through such matter as site remediation and decontamination, monitoring and the management of wastes through improved storage, packaging and immobilization measures. In addition it also covers more cosmetic measures such as landscaping, the provision of recreational areas and nature reserves and other environmental enhancements. Sustainable development is not simply an environmental problem but also a social a political one. Environmental inequality has a social context and mitigation of risk and pollution is a moral issue. But, more than that, it creates communities, which are increasingly conscious of the harmful consequences of uneven development (Agyeman et al., 2003).

Government at the centre of the sustainability and equity debate in proposing solutions to the global environmental crisis, international policies such as Agenda 21 and

the Habitat Agenda propose that 'environmental governance' can be used as a tool for establishing 'a new partnership between governments and civic society that can foster the eradication of poverty and an equitable distribution of environmental costs and benefits' (UNEP, 1999). They also emphasize the role of local government in addressing global challenges: 'Because so many of the problems and solutions being addressed by Agenda 21 have their roots in local activities, the participation and cooperation of local authorities will be a determining factor in fulfilling its objectives' (Agyeman et al., 2003).

The inclusive city is one that fights poverty to activate a process of integration/inclusion of all its inhabitants. However, exclusion and poverty are not synonymous. Poverty refers to the lack of material goods to the process involving all the aspects of an overall condition of individuals and groups and makes it clear their expulsion from the same social system. To build the inclusive city means to rebuild 'social capital', that, together with 'civic involvement' and 'governance', represents the goal of reconstructing relationships and social bonds, granting the possibility to access fundamental rights and the decision-making process (Girard et al., 2003).

## 2.3 Integral Urbanism: Qualities

Integral urbanism proposes more punctual interventions that have a tentacular or domino effect, catalyzing other interventions in an ongoing dynamic process. In contrast to earlier models, these suggest the importance of connectedness and dynamism as well as the principle of complementarity. Integral urbanism is about: networks not boundaries,

relationships and connections not isolated objects, interdependence not independence or dependence, natural and social communities not just individuals, transparency or translucency not opacity, permeability not walls, flux or flow not stasis, catalysts, armatures, frameworks, punctuation marks, not final products, master plans, or utopias. Integral urbanism envisions and realizes a new integration for an enriched future (Ellin, 2006). According to Nan Ellin, Integral Urbanism seeks to integrate:

- Functions or uses –living, working, circulating, playing, and creating (program typology);
- Conventional notions of urban, suburban, and rural as well as the private and public realms (morphology);
- Center and periphery 'local character and global forces' (scale);
- Horizontal and vertical (plan and section);
- The built and unbuilt –architecture and landscape architecture, structural and environmental systems, figure and ground, indoor and outdoor (people with nature);
- People of different ethnicities, incomes, ages, abilities (universal design) locals and tourists, etc. (people of all kinds);
- Design professionals (architecture; planning; landscape architecture; engineering; interior, industrial, graphic designers) as well as designers with construction and real estate professionals (design, build, develop), clients with users, and theory with practice (the design disciplines and professions, designers and non designers, concept and implementation);

- Process and product (time and space, verb and noun);
- System and serendipity, the planned and spontaneous, principle and passion (approach, attitude).

The goal of Integral Urbanism is to achieve flow. It is characterized by immersion, awareness, and a sense of harmony, meaning, and purpose. Integral Urbanism proposes more punctual interventions that contribute to activating places (enhancing flow) by making connections and caring for neglected or abandoned "in-between" spaces. It aims to allow things to happen, things that may even be unforeseen. Produced by people for people, these interventions are arrived at intuitively as well as rationally. They are inspired by the physical context as well as the social and historical contexts (Ellin, 2006). Sim Van der Ryn and Stuart Cowan argues that:

"It is time to stop designing in the image of the machine and start designing in a way that honours the complexity of life itself... we must mirror nature's deep interconnections in our own epistemology of design."

The following qualities of integral Urbanism offers a 'live theory' for enhancing the places we live in.

# 2.3.1 Hybridity and Connectivity

Hybridization connects people and activities at points of intensity and along thresholds. Some cities are offering greater convenience while conserving resources by

combining community centers with libraries, schools, and recreational areas. While bringing programs together, this cross programming is also bringing together people of different incomes, ethnicities, and ages (social integration). Combining the qualities of hybridity and connectivity, large-scale design interventions are focusing on the creation of cores with adjoining corridors (Ellin, 2006).

Architect Alex Wall notes that designers have been interested in providing "Flexible, multifunctional surfaces," creating connectivity tissue between city fragments and programs to support the diversity of uses and users over time. Another way of connecting people and places is through the creation of extensive systems of pathways. For example, public space networks composed of bike and pedestrian paths, mass transit, parks, plazas, and neighbourhoods. All of these networks contain many nodes with very few links and a tiny number of nodes with a great many links or "hubs."

Roger Trancik advocates an 'integrated approach to urban design,' combining figure-ground, and place theories. Figure-ground theory pays attention to the relationship between built and unbuilt as well as public and private space, linkage theory to the connectivity of a place, and place theory to cultural aspects. This integrated approach calls for organizing geometries of axis and perspective to provide a sense of orientation, 'integrated bridging' where buildings provide an uninterrupted mesh of activity along passageways, and the fusion of indoor and outdoor to ensure year-round usage and energy efficiencies.

# 2.3.2 Authenticity

An authenti-city is responsive to community needs and tastes, which have to do with local climate, topography, history, and culture. An authentic-city is always growing and evolving according to new needs that arise, thanks to a self-adjusting feedback loop that measures and monitors success and failure. When people hatch an idea for improving the city such as a network of linear parks, a public market, better crime prevention and educational opportunities, or the development of small business incubators, an authenticity has the ability to implement these (Ellin, 2006).

Architects Deborah Berke and Steven Harris propose "architecture of the everyday," while architects John Chase and John Kaliski along with urban theorist Margaret Crawford advocate "everyday urbanism," both referring to the work of French sociologist Henri Lefebvre. Architecture of the everyday "is blunt, direct and unselfconscious. It celebrates the potential for inventiveness within the ordinary and is thereby genuinely 'of its moment'. It may be influenced by market trends, but it resists being defined or consumed by them." Everyday urbanism seeks inspiration from local cultures, environments, and spontaneous forms of popular expression.

The international Making Cities Livable Movement promotes True Urbanism, enumerating its principles on their website. It advocates such generative design guidelines based upon the 'DNA' of places. This DNA:

... Is expressed in those architectural and spatial characteristics best loved by the city's inhabitants. These may consist of certain buildings materials and colors, a

typical arrangement of scale and architectural forms, building lot size, rooflines, scale of public and semi-public spaces. In order to fit into the context, new buildings have respected this "genetic code," reflecting at least some existing patterns, or interpreting them in a contemporary idiom.

Authenticity search for interconnectedness with the places we live and with a community of people. What we need to recover is our "urban instinct," the ability to satisfy this desire for interconnectedness today through design and other means.

# 2.3.3 Vulnerability

A vulnerable urbanism allows things to happen, things that may be unforeseen. Gilles Deleuze and Felix Guattari might describe this process as liberating the natural flows of desire (which seek connections and syntheses) from the repressive and hierarchical modern city. Applied to existing built environments as well as new development, these interventions may have a tentacular or domino effect by catalyzing other transformations. Since the process of building continues with inhabitation and appropriation, a vulnerable urbanism highlights the role of users who become collaborators rather than passive recipients (Ellin, 2006).

A vulnerable urbanism is dynamic, improvisational, and always unresolved in contrast to the Modernist obsession with control, completeness, fixing things, designing all, and contempt for client, cleanliness and utopia. In contrast to what appears in

retrospect as an anxiety related to rapid change and desire for control characterizing much of the twentieth century, a vulnerable urbanism embraces change; Attuned to the deep interrelationships through space and time, it understands how all affects us and how our actions, in turn, may affect all else. It presumes that we belong to the land rather than the land belonging to us. Rather than seek freedom from nature, a vulnerable urbanism seeks freedom in nature. They acknowledge and care for abandoned and neglected spaces. By increasing density of activity and perhaps building mass, they make connections between places, people, and experiences. Vulnerability recognizes change as the only constant. For designers, it translates into an enhanced receptivity toward the client, the site, and culture, as well as logistical issues. If we truly wish to heal our landscapes and the design professions while improving our quality of life, we must not forsake our vulnerability (Ellin, 2006).

Integral urbanism emphasizes connection, communication, and celebration. While integrating the functions that the modern city separated, this approach also seeks to integrate conventional notions of urban, suburban, and rural to produce a new model for the contemporary city. These integrations are achieved through hybridity and connectivity, authenticity, and vulnerability with the goal of achieving flow. *Hybridity and connectivity* are about bringing activities and people together at all scales (from local to global). *Authenticity* is about engaging real social and physical conditions with an ethic of care, respect, and honesty. *Vulnerability* is about retiring control while remaining engaged, valuing process as well as product, dynamism, and reintegrating space and time (Ellin, 2006).

#### 2.4 Environmental Determinism

Sustainability frameworks tend to centre on pure technical matters of proper planning and design leading to a highly aesthetic and deeply ideological understanding of urban nature (Braun, 2005). They have a lack on question of social inequality and injustice as well as patterns of inclusion and exclusion. This idea is attributed to theoretical frameworks that have analysed nature and society as two separate and isolated fields, interfering in the real understanding of environmental problems. Critical social theory finds the idea that by shaping spaces one can shape society. Social theory has problematized this idea as environmental determinism.

Environmental determinism represented a synthesis of organic theories of society based upon her selective interpretation of Rätzel's implicit nature-culture relationship. In that relationship, the environment was assumed to affect, and to actually determine, all aspects of social and economic development (Frenkel, 1994). The discipline of human geography simply began to offer social explanations for observed phenomenon. But this intellectual move would have been absurd for design, a field whose organizing idea is that improving city shapes and systems improves urban life. Urban form is an abstraction that renders the city a continuous fabric of fixed physical features –channels, enclosures, surfaces, objects, ambiences – that organize flow (Lynch, 1981).

In Defensible space Newman offered a diagnosis of an urban problem: poor architectural design created opportunities for criminal activity. He also developed a remedial proposition: that such activity could be prevented through urban design that

provided residents with patches of territory over which they felt some ownership and sense of responsibility, enabling them to be agents in ensuring their own security (Jacobs and Lees, 2013). The relationship between building design, human behaviour and sense of security was central to the state-endorsed articulation of defensible space principles. In other words, the built environment caused people to behave in certain ways. The built environment is a stable, concrete container for the chaotic play of city sociability where desirable socialites like inclusivity and stewardship are produced through spatial form and social transformations would be as durable and permanent as form itself (Cesafsky, 2015).

# 2.5 Review of previous examples: Bogota, Curitiba, Durban and Nairobi

Bogota, Colombia

Between the most renown of urban cultural and spaces/place transformations, Bogota, Colombia experienced in the late 1990s when first Antanas Mockus and then Enrique Peñalosa, and then Mockus again, became mayor. Where Mockus looked to change the civil culture and citizenship by using bold social experiments, such as hiring 420 mime artists to control traffic, launching a 'Night for Women' between others, both invested in public space and urban access and mobility, and revolutionized the quality of life of people living in the city. By improving public space, public transport, promoting non-motorized transport, and implementing measures for auto-restriction (Wright and Montezuma, 2004).



Figure 6. Bogota before improvement Source: Wright and Montezuma, 2004



Figure 7. Bogota after improvement of Public Transport Source: Wright and Montezuma, 2004

In a few years, the city transformed itself from a typically gridlocked and crime-ridden third-world city in a developing country to an attraction for planners from across the world seeking examples of successful urban renewal (Agyeman, 2013). Mockus's concentration on the social and political features of city culture created a platform culturally and financially for Peñalosa, who focused on public space and physically altering the streetscape as a tangible means of displacing the car and further shifting behaviour (Berney, 2010). The main reason for these emphases was the opportunity for greater equality that public space offers (Parks and Recreation 2008).



Figure 8. Avenue Jimenez revitalization in public space Source: Wright and Montezuma, 2004

Peñalosa transform the street from a conduit for cars into shared public space because of his deep-seated belief that public spaces are a great equalizer. Thus, Bogota underwent an influx of public works during his tenure from 1998 to 2000 that installed a robust rapid transit (BRT) system called the TransMilenio (based on the lessons of Curitiba, Brazil), the addition of more park space, and the expansion of cycle lanes and pedestrianized spaces (Agyeman, 2013).

Responding to one need, during the 1990s Guillermo Peñalosa, the brother of Enrique who served as Bogota's Commissioner of Parks, Sport, and Recreation, greatly expanded Ciclovía that opens car-free streets to cyclists and pedestrians on Sundays and holidays. The even has since grown to 70 miles of roadway and involves over 1.5 million participants on a weekly basis largely walking and cycling, thereby improving levels of physical activity (Rydin et al., 2012). Civic participation was integral in the success of these endeavours and the continuation of public satisfaction with the use of space. Some of Bogota's notable improvements were (Montezuma, 2005):

- Formalizing water, electricity, and paved road service to 316 mostly lowincome neighbourhoods;
- Creating 1200 new parks and planting 70.000 new trees;
- Building a 17 kilometer bicycle and pedestrian corridor (Ciclovía) connecting lower-income communities to shops, jobs, and public services;
- Dedicating road lanes to the BRT system TransMilenio.

These improvements transformed the physical space; they were also reflected in Bogota's social conditions. Peñalosa said that, 'This is not a transit system, this is an urban improvement' when referring to the TransMilenio and adjacent Ciclovía. He also said that the new network of pedestrian greenways connecting rich and poor neighbourhoods: 'This is not an experiment in urban infrastructure, this is an experiment in urban social relations'. Some of these societal 'experiments' have already been quantified and attributed to the transformations implemented by the Peñalosa and Mockus administrations (Wright and Montezuma, 2004; Montezuma, 2005):

- Education: school enrolment rose by 30 percent (140.000 more students)
- Safety: the murder rate fell by 42 percent and traffic deaths fell by nearly 50 percent;
- Economy: tax revenue doubled and property values rose up to 22 percent;
- Environment: ambient air emissions decreased by over 10 percent in TransMilenio's first year of service.



Figure 9. Bogota - 'Ciclovía' on Sunday.

Source: www.caracol.com.co

In seeking to return private spaces to the public, to provide both men and women with access to public space and mobility within the city, and to support the fulfillment of human potential, Peñalosa's and Mocku's political legacies distinguish themselves by a principle of equity and justice that is realized in civic cultural transformation, through urban space —and place-making (Agyeman, 2013). The fact that there was some sort of continuity between Mockus' and Peñalosa's administration, as they had "several aligned goals" (Berney, 2010) was essential to the success of the process. Both mayors had an interest in how public space should be used and how people should behave within a community. Mockus modified people's attitudes, while Peñalosa used the renovation of existing spaces and the construction of new ones to deliver collective resources and as an ideal instrument to reach out to citizens. Peñalosa paired the infrastructure interventions with recreational programming, such as soccer tournaments and aerobics classes in parks throughout the city, which made people, realize that the public space was theirs and that they had a right to use it in an adequate and respectful way.

## Curitiba, Brazil

Curitiba is one of the most reputable cities in terms of sustainability achievements which can be categorized into six integrated subjects: integrated urban planning, effective public transport system, local environmental consciousness, pedestrian and public priority in the city, social justice concentration and local waste management system (Mills, 2006). Curitiba like Bogota was the site of substantial transformations in public space —especially

as related to the space of the street and transportation – that heightened its capacity to provide for the majority of its citizens, specifically the poor. Jaime Lerner, an architect, urban planner, and three-time mayor of Curitiba, Brazil was a visionary not only for the concept of BRT that he introduced and the pedestrianization and street sharing that accompanied it, but also for his vision of the city as an integrated system (Agyeman, 2013). During his administrations, he helped to produce a city that is healthier and more inclusive of an attuned to its citizens. The city's transformation began through a focus on first two then four main corridors that included car-free streets, bicycle path expansion, progressive density zoning, affordable housing construction, recycling initiatives, programs for low-income adults and children, and extensive park creation (Rabinovitch and Leitman, 1996).



Figure 10. Flowers Street – Pedestrian Street

Source: www.promobrazil.it

Car ownership is high in Curitiba, more than 25 percent of car owners ride the BRT. Daily ridership increased from 25.000 in 1974 to 2.4 million in 2008; twice as many trips in the city are taken via bus than by car, and BRT ridership is still growing (Fox, 2008). The

Curitiba Master Plan was approved in 1966 but did not begin implementation until the first administration of Jaime Lerner in 1971. Rabinovitch and Leitman (1996) describe:

Progressive city administrations turned Curitiba into a living laboratory for a style of urban development based on a preference for public transportation over the private automobile, working with the environment instead of against it ... (and including) citizen participation in place of master planning.



Figure 11. Dedicated Transit Lanes Source: garba.org/aboutme/pictures/Curitiba

Curitiba has continued its leadership in streetscape democratization, transforming a highway that cut through the city and averaged 45.000 vehicles a day into a new transit corridor called the Green Line. The new axis included goals like increased pedestrian

safety, the inclusion of bike paths and sidewalks, and status as a mixed-use area (Institute for Research and Urban Planning of Curitiba, 2009). In addition, Curitiba is referred as the ecological capital of Brazil, with a network of 28 parks and tree-planted areas (in 1970, there was less than 1 square meter of green space per person, but in 2010 there were 52 square meters). Citizens' participation has a great role in this greenery development movement. They have planted 1.5 million trees along city streets. It is a highlighted example of citizens' participation in urban environmental sustainability achievement (Soltani and Sharifi, 2012).

Improving the quality of life has been a guideline for Curitiba's municipality. Since 1980s that city has begun a project called the 'Faróis de Saber' (Lighthouses of Knowledge). These Lighthouses are free educational centres, which include libraries, Internet facilities, and other social resources. Job providing programs and sustainable income policies are followed in the decision-making process as well as action plans. The concentration of social programs is on poor citizens to provide social justice. The city's public housing program has built one of the largest plots of available lands as the home for 50.000 poor families called 'Novo Bairro' (New Neighbourhood) (Smith and Raemaekers, 1998).

Besides environmental benefits, money raised from selling materials goes into social programs. City employs the homeless and recovering addicted people in its garbage separation plants. Sanitation and waste management programs were developed by utilizing local prescriptions to improve citizens' welfare and social justice (Soltani and Sharifi, 2012). Long-term participatory planning, innovative investment in public interest

projects, and democratized streetscapes have cultivated an urban setting in which residents of all socio-economic levels take pride (Agyeman, 2013). From the Curitiba example it becomes clear that social, environmental and economic solutions can be integrated with holistic approaches to promote the quality of life.

# Durban, South Africa

Durban is the largest city and port on the east coast of Africa with a population of some 2.8 million people, covering an area of 2297km2. It was the first of the major metropolitan areas in South Africa to initiate a Local Agenda 21 programme as a corporate responsibility in 1994. The program has been undertaken in a phased approach. To 2002, three phases were completed and a fourth, 'Unicity' Phase began (Roberts and Diederichs, 2002).

The first phase of the programme (1994-1996), a participative approach was taken in the planning and execution of the SOE&DR project. This included the establishment of three participative forums to engage communities, business and industry, and local government stakeholders in discussions around the project. Five environment and development issues emerged as the top priorities amongst Durban's communities:

- Promoting peace, safety and security in the metropolitan region;
- Improving water and sanitation management;
- Developing an integrated housing policy;

- Establishing a structure to coordinate land use, transportation and environmental planning in the metropolitan area;
- Institutionalizing the integrated environmental management procedure of the national Department of Environmental Affairs and Tourism.

It was followed by the initiation of a package of strategic projects in Phase two (1996-1999) aimed at addressing the city's most urgent environmental and development challenges. Two projects are significant from a sustainability and equity perspective (Agyeman et al., 2003): the Durban South Basin Strategic Environmental Assessment (SEA), and the Durban Metropolitan Open Space Framework Plan.

The Durban South Basin is an environmental 'hotspot' containing areas of heavy industry and residential development located in close proximity to one another in a topographically contained region. It is the economic 'heartland' of Durban and is South Africa's second most important manufacturing centre (Roberts and Diederichs, 2002). The South Basin has become a focal point for community mobilization around environmental quality and justice issues. The aim of the SEA was to develop sustainable development guidelines to address existing problems and to guide future development in the area. The extensive public participation process undertaken during this project included an environmental education and capacity-building component.

The Durban Metropolitan Open Space Framework Plan focused on the design of an open space plan to protect and guide the management of the city's natural resource base.

A review of the role of open spaces to have a key role in providing goods and services

(such as water supply and pollution control) that are vital in meeting the basic needs of urban residents, in particular poor, conventionally unserviced communities. To demonstrate the advantages of improved environmental management to local communities, a project was undertaken to create usable open spaces in high-density residential areas that would contribute to the ecological functioning of the open space system. This project was intended to address community priorities such as poverty alleviation, improved quality of life, and equal access to resources and job creation (Roberts and Diederichs, 2002). In education, the initiative included the production of media materials, capacity-building and training opportunities, and the use of innovative tools such as street theatre.



Figure 12. Traditional Medicine and Herb Market
These markets provide economic opportunities for the poor, and create
Opportunities for people to socialize.
Source: Project for Public Spaces Inc.

The third phase was focused in a transition period as preparations for establishment of the Durban 'Unicity'. It was decided that the most strategic use of this

time would be to consolidate work already done and to lay the foundations for future programme development. In Durban, there was a metamorphosis from a municipal area of 300 square kilometres (pre-1996) to a transitional metropolitan area of 1.366 square kilometres (1996-2000) and finally culminated in a 'Unicity' (post 2000) of 2.297 square kilometres. This resulted in a large area of peri-urban, rural and tribal land included within the city's boundaries. 60% of Durban is considered to be peri-urban and rural in nature. The projects initiated during phase fourth were a response to the required transition from a metropolitan to a 'Unicity' administration (Roberts and Diederichs, 2002).

In reviewing Durban's experiences provides a useful tool for highlighting the lessons learned that might be applicable or consider to other local authorities around the world such as the mentioned for (Roberts and Diederichs, 2002):

- Ensure long-term benefit: it is call for long-term change in all sectors (government, business and industry, communities);
- Capacity-building and Institutional strengthening;
- Sustainability;
- Transferability (the activity can be applied to other sites, in or outside the country);
- Participatory process;
- Effective and efficient communication process
- Culturally respectful;
- Strengthening local identities;
- National legal policy;

- Regional dimension;
- Human rights.

## Nairobi, Kenya

Kounkuey Design Initiative (KDI) converted impoverished communities by collaborating with residents to create low-cost, high-impact built environments (Productive Public Spaces) that improve their daily lives (Project for Public Spaces Inc.). Participatory planning and design as a key for sustainable development where communities are involved from conception through implementation, everything is built based on local residents ideas by enhancing them with technical knowledge and design innovation, and connect them to existing resources. By doing this, KDI empowers communities to advocate for themselves and address the major physical, social, and economic challenges they face (Project for Public Spaces Inc.).

At Kibera, the largest informal settlement in Nairobi, a site that lies along the river that runs through the settlement, a space was selected for a public space project. In 2011, the two large riverbanks flood during the rainy season and the site is used for waste disposal throughout the year. Poor drainage along the access roads greatly decreases residents' pedestrian access to and from their houses, although a bridge connects the two banks. In spite pollution, the river is currently used as a play area for children, a laundry area for families, and gathering area for nearby residents (Placemaking and the future of cities). Through community workshops they created design solutions, and explored micro-

enterprise opportunities at the site such as a poultry farm, an improved drainage channel, flood control, a community center to house a school and health clinic, kiosks, and a playground built from locally sourced lumber and recycled metal.



Figure 13. Kounkuey Design Initiative (KDI) transforms impoverished communities by collaborating with residents to create low-cost, high impact built environments that improve their daily lives. Source: KDI

## 2.6 Conclusion: Development Patterns/Strategies

In summary, development strategies for Sustainable development and Inclusive Cities as mentioned in this chapter is based on three patterns that cities have to consider: sustainable communities, place-making and urban integrity expressed in qualities such as connectivity, vulnerability and authenticity.

Sustainable communities characteristics that help in keeping future generations in mind, with plans that consider economic, social and environmental goals. These as a

meant to drive responsible environmental and sustainable development management, and set out goals, targets and implementation strategies designed to further effective sustainable development where the pillars of sustainability are: social, economic and environmental. Sustainability of cities can be achieved by balancing factors as: sustainable decision making, sustainable society, sustainable environment and sustainable economy, the balance between these factors is related to the context potentials in local, regional and global scales. Every urban environment has its specific opportunities and constraints but still is many things to learn from other cities'. Crucial is to look at successful principles based on existing precedents, analyze them with the consideration of their local context and moderate them in order to apply in other contexts.

Place-making belongs to everyone, it is bigger than anyone (person or organization), supports the movement, growing the network and sharing our experiences and resources. Place-making is community-driven (the community is the expert), visionary (develop a vision), function before form, adaptable, inclusive, focused on creating destinations (creates a place, not a design), context-specific, dynamic, trans disciplinary, transformative, and flexible, collaborative, sociable.

Place-making pattern can be a starting point for community revitalization, integrate diverse opinions into a cohesion vision, translate that vision into a plan and program of uses, and ensure the sustainable implementation of the plan. Turning a shared vision into a reality –into a truly shared inclusive place. The community is an essential element to the place-making process. It belongs to anyone and everyone who is sincere about creating places and who understands how a strong sense of place can influence the

physical, social, emotional, and ecological health of individuals and communities everywhere.

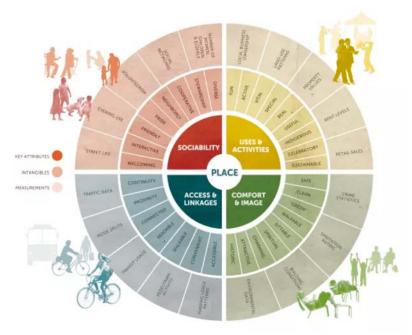


Figure 14. The Place diagram is one of the tools Project for Public Spaces has developed to help communities evaluate places. The inner ring represents a place's key attributes, the middle ring its intangible qualities, and the outer ring its measurable data.

Source: <a href="www.pps.org/reference/what\_is\_placemaking/">www.pps.org/reference/what\_is\_placemaking/</a>

Connectivity, vulnerability and authenticity as qualities of Integral Urbanism, which creates networks not boundaries; relationships and connections not isolated objects; interdependence, not dependence; natural and social communities not individuals; flow not stasis; catalysts, armatures, frameworks, punctuation marks not final products or utopias. Convergences in space and time (of people, activities, businesses and so forth) generate new hybrids. These hybrids allow new convergences and the process continues (development). This conceptual framework based on a literature review studied and presented some development strategies, sustainable communities characteristics, and qualities of integral urbanism to build communities in an equal and inclusive society in a sustainable built environment.

# 3 - Case Study: Medellin and 'Social Urbanism'

This chapter illustrates the transformation of Medellin, what it was, what happened and the current situation after the social and physical change occurred. The Chapter is divided in fourth sections, the first section review general aspects of Medellin, the second examines the 'Social Urbanism' strategy, the third section of this chapter analyzes the Integral Urban Projects in specific the one located in the North-East area of the city, and finally a post-occupancy evaluation in the area selected is explored.

## 3.1 – Medellin: The transformation – what it was and what happened

Medellin, the capital of the department of Antioquia, is located in the Aburra Valley (Figure 15), a central region of the Andes Mountains in South America, at an altitude of 1470m. With a population of almost 2.5 million as of 2017, according to the National Administrative Department of Statistics (DANE). With its surrounding area that includes nine other municipalities, the metropolitan area of Medellin is the second-largest urban agglomeration in Colombia in terms of population, with almost 4 million people.

The Medellin Metropolitan Area is made up of ten neighbouring municipalities (from north to south): Barbosa, Girardota, Copacabana, Bello, Medellin, Envigado, Itagui, Sabaneta, La Estrella and Caldas, along 60 km over the Aburra valley.

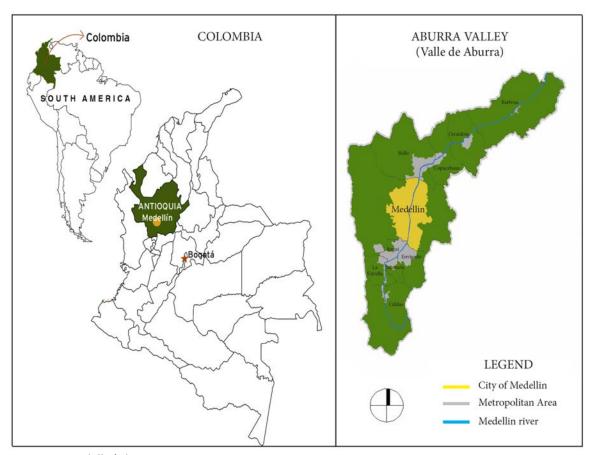


Figure 15. Medellin's location

The urban area of Medellin is divided into six zones, which is subdivided into 16 communes (comunas in Spanish). These communes (Figure 16) are further divided into 249 neighbourhoods. The six zones division of Medellin's city are the following:

- Zone 1\_Northeast: Communes 1, 2, 3, 4
- Zone 2\_Northwest: Communes 5, 6, 7
- Zone 3\_Center East: Communes 8, 9, 10
- Zone 4\_Center West: Communes 11, 12, 13
- Zone 5\_Southeast: Commune 14
- Zone 6\_ Southwest: Communes 15, 16

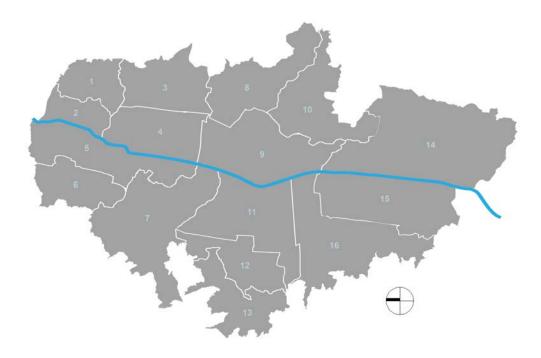


Figure 16. Communes of Medellin (Comunas). 1.Popular 2.Santa Cruz 3.Manrique 4.Aranjuez 5.Castilla 6.Doce de Octubre 7.Robledo 8.Villa Hermosa 9.Buenos Aires 10.La Candelaria 11.Laureles Estadio 12.La America 13. San Javier 14.Poblado 15.Guayabal 16.Belen

The administrative organization of Medellin is therefore not just the result of processes of social exclusion and gentrification in the city's northern and southern zones, but also the result of divisions and social distances to the scale of neighbourhoods in slope or flat zones.



Figure 17. Medellin, view from the slopes

Source: 'Libro Medellin, Transformación de una ciudad 2009' Town Hall office

## 3.1.1 Medellin before the change

The city of Medellin experienced rapid growth from 1951 when the population tripled in size in over 20 years (Drummond et al., 2012). The new immigrants, escaping the violence in rural areas or looking for a better economic life in the city, often arrived lacking resources to obtain housing forcing them to illegally occupy the hillsides. Local political parties were not equipped to represent the interests of the growing masses of the urban poor and to provide adequate resources for their development (Drummond et al., 2012). The new settlers in the 'slums' and squatter settlements were the most vulnerable and the least secure members of Medellin's population (Doyle, 2015).

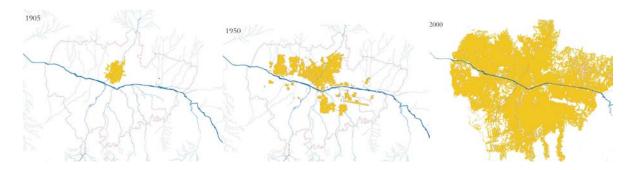


Figure 18. Urbanisation of Medellin 1905-2000.

Source: Bahl, 2012

Medellin was once the most murderous city on earth. In the 1980s and 1900s, the city became known as the epicentre of the global trade in cocaine. At the peak of the violence in 1991, there were 375 homicides per 100.000 population in Medellin (Uran, 2010). This was more than 35 times the World Health Organization's definition of epidemic violence, which is 10 per 100.000 (UNDP, 2013), and even compared with the

Colombian average for that year, which was 79 (Figure 19). In addition to that, violence involving paramilitaries, urban militia, and the state was locally prevalent in Medellin.

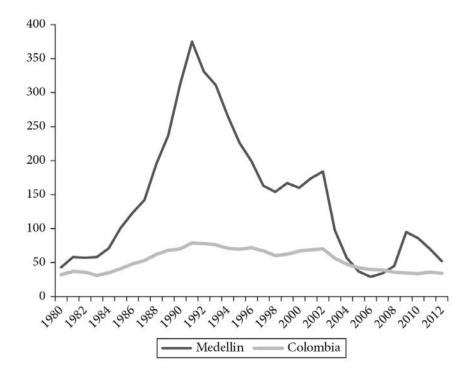


Figure 19. Homicide rate per 100.000 population in Medellin and Colombia, 1980-2012 Sources: Uran, 2010; Medellin Como Vamos, <a href="http://www.Medellincomovamos.org/seguridad-y-convivencia">http://www.Medellincomovamos.org/seguridad-y-convivencia</a>; Maclean, 2015

In terms of its physical aspects, the infrastructure was decaying, there was reduced open space, the sidewalks were used for parking people took the land for their own purposes (mostly commercial purposes). The problem of the lack of public space was deteriorated by the fact of insecurity, and people living in the hillsides were completely disconnected from the city's networks. Further, there is a strong social and economic divide between the high and low strata. The quality of life of a rich person is different from that of a poor one and the physical structure of the city and the lack of public intensify these differences.

#### 3.1.2 A new skin for Medellin

It seems, however, that Medellin's darkest days have passed, and the city is now known for the decline in violence that has occurred over the last 25 years. Although the statistics show that Medellin has some way to go, the murder rate in Medellin for 2013 was 39 per 100.000 and, in 2015, Medellin achieved the lowest homicide rate seen in the city in over 40 years: 20.17 per 100.000 residents (Medellin Secretary of Security). This decline, known as the 'Medellin Miracle', has become associated with the approach to urban development in the city known as 'Social Urbanism'. At the beginning of the 21<sup>st</sup> century the city regained industrial dynamism, with the construction of the Medellin metro commuter rail, liberalized development policies, improved security and improved education.

Things began changing in 2003, when Sergio Fajardo was elected Mayor of Medellin. Fajardo, a mathematician with limited experience in public policy discussions in his attempt at becoming mayor used innovative political methods searching to break the political power of the traditional political groups. He walked the streets to meet people and with the idea on finding solutions to three problems: inequality, corruption and violence. The result was that Fajardo and his team, could had the city in their 'skins, minds and hearts' —meaning that they knew how the city looked and smelled, understood the social, political, and economic problems it faced, and grew more passionate about their causes (Fajardo and Andrews, 2014).

"You have to touch people's lives. There are plenty of beautiful plans drawn up by architects but they require political action to implement" (Sergio Fajardo, Mayor of Medellin, 2004-2007).

In 2003, the new independent local mayor Sergio Fajardo was elected and his new government begun to increase public investment and extend public services into the lower socio-economic neighbourhoods under Integral Urban Projects (Proyectos Urbanos Integrales) which brought together transport, education, health, and security infrastructure. The local government further developed the Participatory Planning and budgeting programme aiming to bring government and promoting transparency. This urban development strategy became known as Social Urbanism and included initiatives that invested in infrastructure for the poorer areas of the city and iconic architectural projects to address the 'historical social debt' owed to these marginalised neighbourhoods (Mclean, 2015).

Medellin focused its development strategies based on integrated and inclusionary upgrading policies. An "equal city for all an where all citizens can construct relations stimulated by neighbourhoods rich in services, culture and public space" became the main goal of the three year development plan for Medellin 2004-2007 (Municipality of Medellin, 2004).

In addition, the urban development of Medellin was influenced by the new urbanism that had come out of Barcelona before and after the Olympics in 1992 that reconstructed the urban fabric and rearticulated a sense of cultural identity and place. The key characteristics taken from the Barcelona model: first, dialogue between architecture,

planning and infrastructure at all levels promotes multi-disciplinary integration of plans, and projects; second, is highly urban, dense and compact planning and; finally is a tight collaboration of politicians, professionals and citizens.

Medellin's transformation has produced headlines worldwide. Some coverage in media, literary, and policy circles has oversimplified the transition, proclaiming that the city is now 'safe' and implying that this miraculous transformation was directly due to the impact of the architectural and infrastructural projects implemented (Maclean, 2015). For example, the *New York Times* published that crime had been successfully fought with architecture (New York Times, 2012), and was described by the *Washington Post* as a remarkable transition from 'drugs violence to tourist destination' (Washington Post, 2010). Iconic architecture projects, infrastructural investment, and high-profile cultural events have become a planning manual for any city with an eye on the global stage.

The period from 2003 until now, saw the social movement that has become known as 'Social Urbanism' where the urban projects became the driving force for inclusion and social development as an alternative to violence in the city. The city seemed to awaken from a dark period marked by economic stagnation, a lack of social cohesion and a sense of hopelessness arising from the violence that characterised the daily life of its inhabitants, especially the poorest (Brand and Davila, 2013). Medellin experienced considerable changes, especially in terms of a decline in levels of violence (homicides), significant improvements in the range and quality of public transport services and, in general, advances in quality of life indicators for all inhabitants.

#### 3.2 - 'Social Urbanism'

'Social Urbanism' the framework for all urban projects, especially those located in the deprived neighbourhoods of the city (BID, 2009) was conceptualized as an urban strategy that merged all at once physical transformation, social-institutional programs and participatory processes.

"In simple terms, its objective was that whenever there was an urban intervention, in parallel to the physical transformation, there were new social-institutional programs and activities that complemented the physical change" (Echeverri, 2006).

Social and institutional programs and activities targeting at education, culture, sports and recreation, and employment should strengthen and make active use of new public spaces and public facilities. All this was achieved through coordinated and integrated actions of the different organizations of the municipality and the involvement of the community during the different stages of the projects.

Behind these initiatives there was a deeper and more serious purpose: the reconstitution of the social fabric that had been shattered by decades of violence and which affected the city's population (Hylton, 2007). The municipal administration spoke not only of "building better architecture, which the people can be proud of an builds the community's self-esteem and sense of belonging", but also of "leverage projects" that "lead to a profound social transformation" (Brand and Davila, 2013). The ambition was to build, a new 'social contract' through the provision of spaces of citizenship, places for democracy and environments of conviviality (Municipality of Medellin, 2008).

The policies that came to be known as 'Social Urbanism' were developed and promoted to 'change the skin of the city'. Interventions addressed mobility, infrastructure, and the provision of public parks and spaces, and were aimed at encouraging responsible political participation and socioeconomic development from below (Maclean, 2015).

From 'Social Urbanism' strategy is significant to mention three important aspects in terms of project implementation: First of all, the municipality centred its project management on the Urban Development Agency (Empresa de Desarrollo Urbano –EDU)<sup>1</sup>. It allowed the performance of new and fresh ideas in short periods of time, in addition to guarantee in avoiding old clientelistic practices due to the existence of politically independent municipal administrations. The second aspect relates to financing. All projects have been financed by the city itself. And the final aspect to mention is the functional coordination and spatial coherence of the projects achieved, in the sense that the aim was to go beyond site-specific interventions, develop synergies and create conditions for area-wide improvement (Brand and Davila, 2013).

#### 3.2.1 Policies

The policies implemented under 'Social Urbanism' had in common a mission to reverse the historical social debt that the city's elites owed to neglected areas, especially the hillside 'comunas' of Medellin, and to change the skin of the city by addressing the spatialized exclusion that so graphically characterised the city's inequality (Echeverri and

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<sup>&</sup>lt;sup>1</sup> EDU, public enterprise created in 2002 formed by technicians, young professionals and academics new to public administration.

Orsini, 2012). The Medellin strategy addresses the structural inequalities that underpin the violence by given the violence and its relationship with the urban environment.

#### *Infrastructure Projects*

The infrastructure projects have taken on a particular meaning in the context of the battle against violence and the recognition of the city's social debt to the poor. These projects are central to the aims of changing mobility around the city and addressing the inequality and exclusion, which were recognised as causing the violence (Maclean, 2015). The transport projects were the most important elements of 'Social Urbanism' where the Metrocable was the most remarkably.

The metro and Metrocable were intended to change mobility around the city and construct a more inclusive economy, as people on the periphery would be able to access wealthier markets in the centre. There is also an important political symbolic element to such investments in poorer, stigmatised areas: the metro and Metrocable are signs of conspicuous investment in previously neglected and stigmatised areas (Brand and Davila, 2013).

The Metrocable links the metro system, which owing to the city's topography runs only the length of the valley (Gilbert, 2008), with two of the most notorious neighbourhoods –Santo Domingo and San Javier. It connects the poorest, with the city centre by reducing journey time between those areas and, in addition, letting people living on the slopes to travel more easily to work and to the markets in the centre. The Metrocable lines were not isolated investments. They were part of a participatory process

called Integral Urban Project (Proyecto Urbano Integral -PUI), which emphasised the importance of community participation at every stage (Blanco and Kobayashi, 2009).



Figure 20. Metrocable line (K). Connects the Acevedo Metro station with Santo Domingo Metrocable station. Initial line that was built and first opened in 2004. It is 1.8km (PUI-Northeast). ©Researcher fieldwork 2017.

#### **Iconic Architecture**

"The most beautiful for the most humble, so that the public pride can illuminate us all. The beauty of the architecture is essential: where once there was death, fear, misunderstanding, today we have the most impressive buildings of the highest quality so that we can all find ourselves surrounded by culture, education and peaceful coexistence (Sergio Fajardo, mayor of Medellin 2004-2007)".

The iconic architecture in Medellin has taken the form of 'library parks', which, according to the City's Development Plan for 2004-2007, are intended to 'strengthen the libraries as integral centres for development and culture' (Fajardo, 2004). They function as libraries, community and training centres. They represent conspicuous investment and are intended to contribute to a more inclusive economy, as they address not only educational needs but also the information gaps that can impede access to available resources (Maclean, 2015).



Figure 21. San Javier Library Park (Parque Biblioteca San Javier). Source: 'Libro Medellin, Transformación de una ciudad 2009' Town Hall office

The 'library parks' created new spaces that tackle exclusion in the city through an investment in education and human capital that can make a contribution to economic development and shift the image of the city on the international arena.

#### **Public Spaces**

Public space is innately social and is defined as much by the way that people interact, converse, and identify with each other within it as by the physical boundaries demarcating the area.

The lack of public space in Medellin in the 1980s and 1990s was eminent. More affluent areas were highly securitised, and the poorer areas on the hillsides, dominated by informal settlements. In 2005, the amount of public space in Medellin was 4.01 sqm per person (Municipality of Medellin, 2005). The lack of public spaces was viewed not only as a symptom of the violence but also as a cause: the spatial exclusion that had resulted from decades of high levels of migration that had not been accommodated by city planners lay behind the economic and social exclusion which had led to such high levels of violence (Maclean, 2015).

The libraries, parks, and educational institutions that make part of the new public spaces in Medellin, had the aim of improving the standard of living of the city's residents and making the city more attractive, as well as they intended to be "spaces of encounter that serve as urban landmarks and gathering spaces for the community (Castro and Echeverri, 2011)".

The approach to urban planning in general was explicitly guided by the need to create public space. The PUIs (Integral Urban Projects) targeted the most vulnerable neighbourhood, included the creation and beatification of community spaces by building walk ways and escalators, pedestrianizing certain areas, greening the streets, and increasing the area of public space per person (Castro and Echeverri, 2011). The Integral

Urban Projects also enhanced public transport system and the library parks, which themselves are public, community spaces.

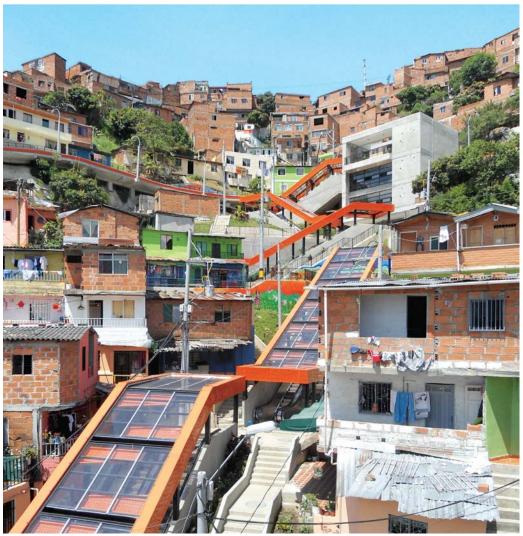


Figure 22. Escalators in Commune 13 (Comuna 13 – San Javier)

Source: EDU, 'Equidad Territorial en Medellin', 2012

Art has been an important component of the policies to change the skin of the city and noticeably invest in poorer areas. The local television station Tele Medellin also showcases community artists, and its slogan 'Aquí te ves' ('See yourself here') which articulates its mission to reflect real life across the city. Additionally, at the libraries, there are exhibitions of art dedicated to the memory of the violence.



Figure 23. Medellin Wall Art

Source: 'Libro Medellin, Transformación de una ciudad 2009' Town Hall office

# Participation and economic development

High levels of inequality, informality, and poverty present a socioeconomic context in which to roll out model urban regeneration. Participation is at the core of Medellin's 'Social Urbanism' and has been evident in the participatory budget, inspired by the Porto Alegre model, and the PRIMED informal settlement upgrading scheme, inspired by Rio's favela-Bairro programme.

Mayor Juan Gómez Martínez first implemented participatory budgeting in 1998. It was further developed by Fajardo into the Participatory Planning and Budgeting Programme, which aimed to bring government and planning in general closer to the

citizenry and civil society, and to legitimate local government and promote transparency (Valencia et al., 2009). More than an economic initiative, participatory budgeting is a political initiative designed to empower communities to determine their own priorities and increase the transparency of how funds are spent (Uran, 2010).

Programmes funded by the participatory budget include art and theatre exhibitions dedicated to memory, community kitchens, and football parks. Whilst these do in a sense include and support participation – and change the political subject into one who makes proposals rather than just demands –at the same time they fundamentally change the dynamic between citizens and the State (Maclean, 2015). Developing communication and collaboration through participation, representing collective memory and identity and building family and community values.

#### Socioeconomic development from below

Medellin has become known as a city of competitiveness and solidarity ("Medellin: Ciudad competitive y solidaria") and the most educated city ("La más educada") (Fajardo, 2007). These slogans aim to conceive a more inclusive economy by encouraging cooperation and alliances between informal and formal businesses, and associations within communities that can bid for public contracts. In addition to support for community associations and micro-enterprises, there are larger-scale initiatives to encourage inclusive economic development (Maclean, 2015).

Another initiative was the *Cluster City Programme* –consists of six strategic clusters: electric power; textile/apparel, fashion design; construction, business tourism,

fairs and conventions, medical and dental services, and technology, information and communication technologies. These focusing in a way to build an inclusive city whose development are for all its citizens, as well as to enable Medellin to attract investment (Medellin Ciudad Cluster). Additionally to his, an education and training programme pointed towards youth living in the slopes of the city that are viewed at risk of gang involvement.

The CEDEZOs are among the programmes to promote economic inclusion. These centres, located next to or in the 'library parks', are information points that unite all the potential services available to support small and micro-entrepreneurs in the deprived neighbourhoods. They provide information about potential sources of credit, training, and small business competitions that can result in contracts with the city's chain stores (Bateman et al., 2011).



Figure 24. CEDEZO Santo Domingo. Located next to the Metrocable station. ©Researcher fieldwork 2017

## Medellin: the most educated city (La más educada)

"We are investing 40 percent of our budget on education and this year we built, among other things, 10 new schools for Medellin, really beautiful, well-equipped buildings located in the most neglected areas of our city, and equipped with all the necessary tools for children and young people to see the world in a different way, many of these schools have similar standards or better than any private school in the city (Fajardo, 2007)".

Education was the centre core in Medellin's 'Social Urbanism' to the inclusion of people in the slopes of the city, both to improve possibilities for upward mobility and to increase political awareness. The emphasis on education has extended to adult learning and NGO programmes, and there have been a number of funded scholarships that allow students from the *comunas*, particularly community leaders, to get places at prestigious private universities. Underpinning the increased investment in education is an agreement among the city's leaders that education is the most important investment that can be made (Maclean, 2015).

#### 3.2.2 Integral Urban Project

For taking into the practice the principles of 'Social Urbanism', an integrated and participatory urban upgrading model named 'Integral Urban Project' (Proyecto Urbano Integral –PUI) was developed with the objective to create higher, faster and more visible results in a specific areas of the city. The Integral Urban Project core was divided in three main components:

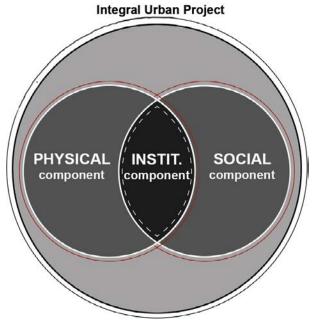


Figure 25. Integral Urban Project components Source: Adapted form EDU, 2012-2015

# Institutional component

In charge of coordinating the existing social programs of the administration and create arena for collaboration among organizations (Municipality of Medellin, 2007). The institutional component is one of the first elements to be developed within the projects. The local government finances the resources for the feasibility studies and starts a process of divulgation as a way to attract external investment and social acceptance. Strategic alliances from NGOs, universities, and public sector are introduced to create multidisciplinary groups with the aim to discuss and specify the goals and the best way to achieve results, without duplicating efforts.

#### Social component

Based on the participation of the community. Once the institutional program is established, the community participation became almost the central axis of action. In

Medellin, one of the most important activities developed in this component were the 'Imaginaries workshops' (Talleres imaginarios). These were organized with the aim to gather the ideas of the community in relation to their collective spaces, promote leadership on the community and an active community involvement.



Figure 26. Some drawings from the 'Imaginaries workshops', and an encounter with the community. Sources: EDU, 2012-2015; Municipality of Medellin; Blanco and Kobayashi, 2009.

They identified specific places that were important for the social and spatial network such as the area for washing the clothes, or the most suitable and needed leisure equipment. During one of the 'Imaginaries workshops', the community was invited to answer questions like 'how do I imagine my park?' 'What does this place mean to me?' 'Which memories do this place brings to me? By drawing their dreams. The working process with the community was maintained not just during the diagnosis and formulation, but in a permanent way, including skill training and workshops, as well as an employment program to hire some residents as part of the labour force for the construction works (Blanco and Kobayashi, 2009).

#### Physical component

Based on urban interventions (as public spaces and different facilities) with community involvement that can enrich social networks with direct benefits and wellbeing. As mentioned before, the local government decided to integrated the Metro

system with an additional system called the Metrocable. This aerial massive transportation system was inaugurated in 2004 and is used daily approximately by 67.000 residents (Metro de Medellin). As a final evidence of the institutional base, supported on the voice of the community, the three-dimensional results, or physical component did translate the ideas and concerns into projects through the following subprograms (Blanco and Kobayashi, 2009): housing, public equipment and facilities, environment recovery, and public space and mobility.

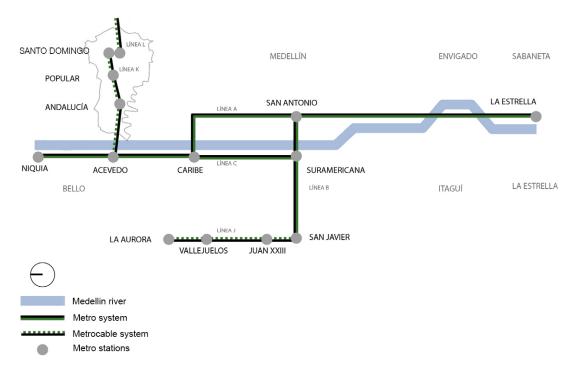


Figure 27. A partial plan from Medellin Metro system (PUI-Northeast Metrocable line) Source: Adapted from EDU, 2012-2015

The methodology applied in the PUI-Northeast served as a base for the next PUIs developed in the different zones of the city, however, each one has specific conditions in territorial level as well as social and environmental levels. The (figure 28) shows the components and actions of an Integral Urban Project (PUI).

The team working on those Integral Urban Projects was conformed by an interdisciplinary group of professionals as planners, architects, social workers and environmental engineers that manage, coordinate and support all the different actors, institutions and projects within each plan. They allowed a closer contact with the community in case of doubts, suggestion or difficulties during the process (Echeverri, 2006).

PUI: Integral Urban Project					
	COMPONENTS		ACTIONS		
INTEGRAL URBAN PROJECT- PUI NORTHEASTERN COMMUNE: MEDELLIN	INSTITUTIONAL COORDINATION		INTERINSTITUTIONAL COORDINATION		
			INTERSECTORIAL COORDINATION		
	SOCIAL	COMMUNITY PARTICIPATION AND COMMUNICATION	IDENTIFICATION		
			VALIDATION		
			PARTICIPATION		
			EDUCATION		
	PHYSICAL	PUBLIC SPACE & TRANSPORT	CONSTRUCTION OF NEW PUBLIC SPACES		
			IMPROVEMENT OF EXISTING PUBLIC SPACE		
			ORDERING OF THE PUBLIC TRANSPORT SYSTEMS		
		HOUSING	NEW HOUSING CONSTRUCTION		
			HOUSING IMPROVEMENT		
			HOUSING LEGAL TENANCY		
		PUBLIC FACILITIES	IMPROVEMENT OF COMMON FACILITIES		
			CONSTRUCTION OF NEW FACILITIES		
		ENVIRONMENT	ENVIRONMENTAL RECOVERY		

Figure 28. Integral Urban Project (PUI) components and actions. Sources: Blanco and Kobayashi, 2009

The Northeast zone, in 2004 presented the highest levels of informality of the city, as well as the lowest score in the Human Development Index –HDI (Municipality of Medellin, 2004), reason why the administration decided to implement the first PUI in that zone of the city. The area of intervention was 158 hectares, which comprehend 11 neighbourhoods and a total of 170.000 inhabitants (EDU, 2005).



Figure 29. View from the 'Library Park' developed in the PUI-Northeast.

Source: EDU, 'Modelo PUI Zona Nororiental', 2015

#### 3.2.3 PUI - Northeast

The communes 1 and 2 are located within a territory characterized by an intricate topography lack of good transportation systems and the presence of hundreds of squats that have formed illegal settlements since half of the century. Additionally to its complexity and illegal tenancy origins, the Northeast areas, as well as the Central-eastern areas were scenarios of the late 1980s and 1990s crime. The Northeast commune became a synonym of danger and seemed to be condemned to remain as a ghetto feared by the rest of the city (Blanco and Kobayashi, 2009).

The city government selected the Northeast area to apply the first PUI (Integral Urban Project) due to the identification of the lowest indexes (quality of life index and human development index), the high number of homicides by that time, and a significant population growth in the area. As the first in its kind, the Northeastern PUI was conceived as part of Medellin's strategy to cluster public buildings, infrastructure and public space in order to maximize the benefits and create synergies for the neighbourhood that for decades, rural and urban migrants colonizes the hillside. The city expanded along the slopes exponentially, often without formal planning or services.

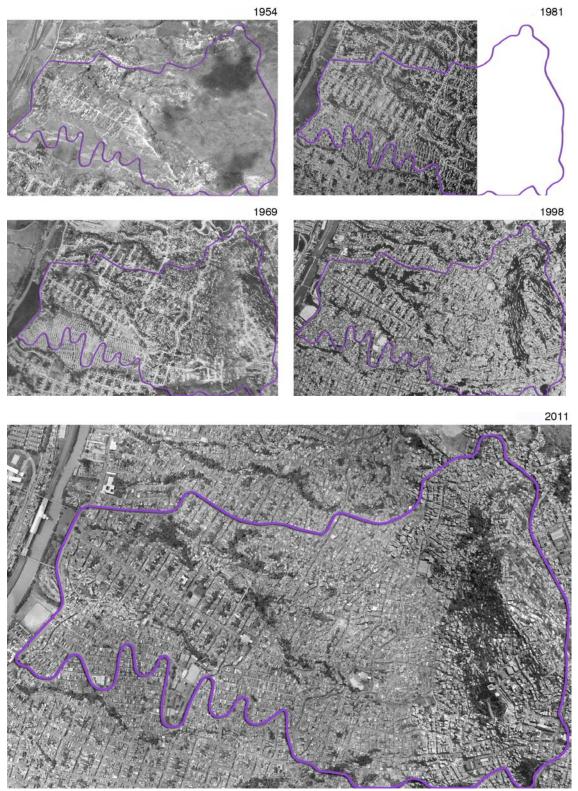


Figure 30. Occupation process in the Northeast Area of the city from 1954 to 2011 Source: EDU, 'Modelo PUI Zona Nororiental', 2015

The stages of parcelling, urbanisation, and construction in the area was characterized by: first, housing built by the state; second, those resulted from illegal trading of land and then building by self-construction; and finally, invasion phenomenon.



Figure 31. Occupation in the Northeast Area of the city, 1969 Source: EDU, 'Modelo PUI Zona Nororiental', 2015

In this way, the interventions realized by the PUI (Integral Urban Project) were constituted as a contribution for the solution of the social conflict in the sector, and also an opportunity to provide an urban model intervention that could be replicate in different areas of the city with similar physical, social and economic conditions.

In the case of the Northeast zone, the type of parcelling was defined for each settlement according to its soil conditions, property promotion, and it development.

There were identified four types of parcelling: planned, organic, mix and invasive.

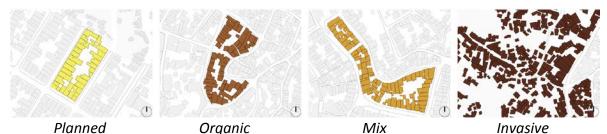


Figure 32. Parcelling types in the Northeast Area of Medellin

Source: EDU, 'Modelo PUI Zona Nororiental', 2015

It was evident the existence of habitable trends and a problematic that as much the inhabitants were populating and taking the natural ecosystem, the deterioration of the physical conditions of the housing associate with a direct lack in their built environment, insalubrity and uninhabitable were also problems. The housing component in the area after the diagnosis was the following:

	Commune 1	Commune 2
Strata 1	23,6% of the population	3,5% of the population
Strata 2	73,4% of the population	96,5% of the population
Number of dwellings	31.691 dwellings	24.447
Number of households	31.904 households	24.569 households
House buildings	54,40%	54.80%
Apartment buildings	44,80%	44,50%
Rooms or 'Ranchos'	0,70%	0,70%
Homeowners	65,90%	62,20%
Lease or Sublease	27,60%	33,20%
Usufruct or Antichresis		4,60%

Figure 33. Housing component in the Northeast area

Source: Adapted from EDU, 'Modelo PUI Zona Nororiental', 2015

#### Physical problems

In terms of housing, the Northeast zone was outlined with different problems some of them were: first, low habitable standards and lack of housing that were reflected in overcrowding tends; second, dwellings in high risk due to construction and structural

system used; third, poor housing conditions. Additional to the housing problems, the area had a lack of public space, which was identified in the lack of pedestrian mobility and the inefficiency in the public transport system.



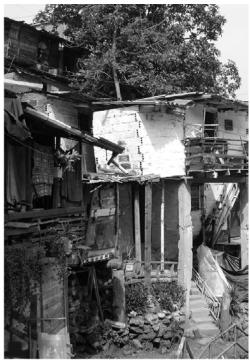




Figure 34. Housing physical problems in the Northeast area of the city Source: EDU, 'Modelo PUI Zona Nororiental', 2015

## Social problems

High levels of poverty and lack of opportunities, in addition to a built environment that did not make a convivial space neither a sense of belonging, which contribute to social segregation. This situation is considered as a fact that promotes illegality and violence, as well as divisions that result in the fragmentation of the society from the different sectors of the city.

# *Institutional problems*

Besides the social situation, the sector was isolated and marginalised by the state.

There were not social and physical actions for the area, and a lack of control in terms of occupation processes of the territory.

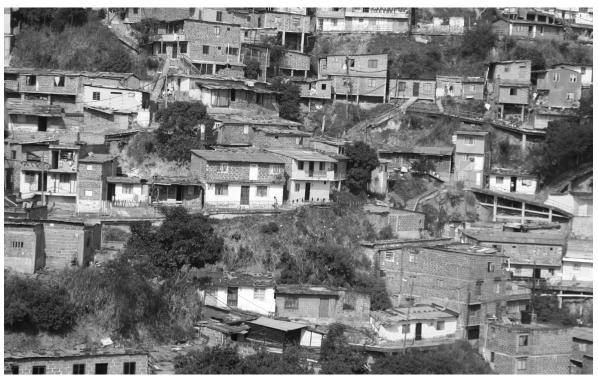


Figure 35. Physical situation before the interventions through the PUI (Integral Urban Project) Source: 'Libro Medellin, Transformación de una ciudad 2009' Town Hall office

The turn of the century kicked-off a number of the projects on the Northeastern PUI, including the Metrocable (Cable Cars), the 'Library Park' Spain (Parque Biblioteca España), schools and kindergartens. The project combined a novel transportation approach, quality of architecture in public buildings, and generous public spaces for social life. The complex intervention upgraded Medellin's oldest and largest informal settlement on a physical, social, educational and institutional dimension. As a result of the individual buildings and urban design interventions, the Northeastern PUI nurtured an entirely new identity for the neighbourhood that had a transformative effect in the districts economy and urban fabric (AEDES, 2015).

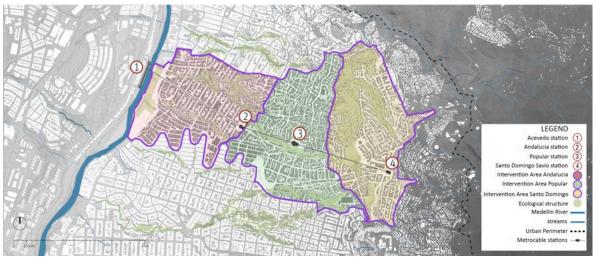


Figure 36. PUI-Northeast interventions area delimitation Source: EDU, 'Modelo PUI Zona Nororiental', 2015

Some of the interventions achieved in the Northeast PUI were:

#### 'Imagination park' (Parque de la Imaginación)

Public space intervention that promotes a convivial space and a recovery of the public space as a place of encounter.



Figure 37. 'Imagination Park'

Source: EDU, 'Modelo PUI Zona Nororiental', 2015

Consolidate spaces was a tool for the integral urban project of the Northeast zone where the presence of open spaces were arranged with amenities and built it for the active and passive use of the community, such as parks, small squares, and lookouts.

# 'Andalucía promenade' (Paseo Andalucía)



Figure 38. Proposal plan for the promenade Source: EDU, 'Modelo PUI Zona Nororiental', 2015







Figure 39. Intervention process and final result Source: EDU, 'Modelo PUI Zona Nororiental', 2015

The objective was to enrich the function of the street as a pedestrian promenade and articulate it with commercial activities to improve the socioeconomic development of the community.

# 'Andalucía bridge-lookout' (Puente Mirador Andalucía)

The bridge-lookout intervention improves the connectivity between neighbourhoods that is limited by streams and natural basins present in the zone, but it also serves as an integrated element for the community that has been divided by imaginary borders lines caused for the rivalry between criminal bands from each neighbourhood.



Figure 40. Andalucía bridge-lookout section Source: EDU, 'Modelo PUI Zona Nororiental', 2015



Figure 41. The Andalucía bridge-lookout Source: EDU, 'Modelo PUI Zona Nororiental', 2015

# 'La Herrera linear park' (Parque Lineal La Herrera)

The objective was the environmental recovery of La Herrera stream as natural element along the intervention, as well as the development of public spaces that promote an active and passive enjoyment of the community.



Figure 42. 'La Herrera' linear park intervention Source: EDU, 'Modelo PUI Zona Nororiental', 2015



Figure 43. 'La Herrera' linear park intervention plan Source: EDU, 'Modelo PUI Zona Nororiental', 2015

The Santo Domingo Metrocable station is the highest point where the PUI Northeast developed different interventions around it by changing the build environment of this area of the city. The most significant were the following:

# 'Urban promenade' (Paseo urbano)

This promenade serves as an axial connector between the Metrocable station and the other interventions developed. It works as pedestrian path that provides urban furniture, vegetation and Cobblestone Street.

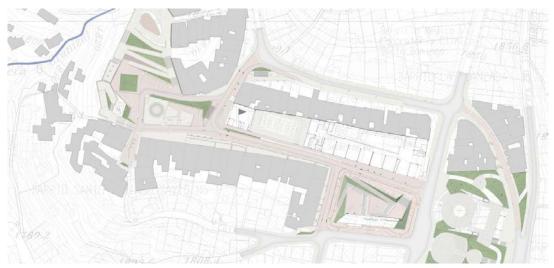


Figure 44. Integral Urban Project plan: promenade, CEDEZO, and 'Library Park' around Metrocable Source: EDU, 'Modelo PUI Zona Nororiental', 2015



Figure 45. Urban promenade at Santo Domingo station ©Researcher fieldwork 2017

It qualifies the space of the street as an essential element for citizen encounter where pedestrian and vehicle coexist. Moreover, it fosters the economy of the sector with the emerging and improvement of commercial spaces.



Figure 46. Urban promenade at Santo Domingo station ©Researcher fieldwork 2017

# 'The CEDEZO' (Centro de Desarrollo Empresarial Zonal)





Figure 47. CEDEZO located at the Santo Domingo neighbourhood

Source: EDU, 'Modelo PUI Zona Nororiental', 2015

The CEDEZOs support the poor in developing business by providing free-of-charge business support services and technical advice.

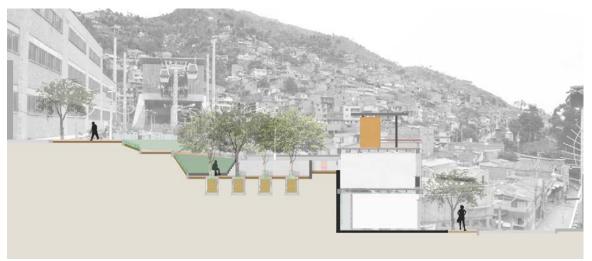


Figure 48. CEDEZO and Urban promenade section Source: EDU, 'Modelo PUI Zona Nororiental', 2015

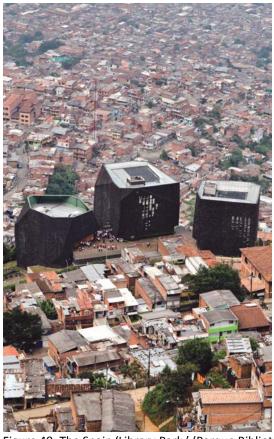


Figure 49. The Spain 'Library Park ' (Parque Biblioteca España) Source: 'Libro Medellin, Transformación de una ciudad 2009' Town Hall office



Figure 50. 'Recreational Unit and Soccer field Granizal' (Unidad Deportiva y Recreativa Granizal) Source: EDU, 'Modelo PUI Zona Nororiental', 2015

## The Housing intervention - Juan Bobo



Figure 51. Housing at 'Juan Bobo' settlement before the intervention Source: EDU, 'Modelo PUI Zona Nororiental', 2015

The intervention was based in three principles: a social principle, conservation of the socioeconomic relations of the community during the resettlement process; a physical principle, the improvement of liveability; and an environmental principle, take care of the environmental imbalances of the territory.

The actions achieved were: resettlement and relocation in situ, creation of public space and housing improvement. During the process of intervention the community and the state (municipality of Medellin) traced rules due to the inhabitants' concern about the fact that they could be relocated far away from their family, economic, social and cultural ties that over the years they have built and from which they feel part of it. For this reason,

the project understood from the beginning that if they do an intervention with the aim of improve the quality of life of the residents, they should act in benefit of the same inhabitants. In this way, it promotes to the conservation of the social and economic relations of the community. The objective was kept the identity and the familiar feeling.

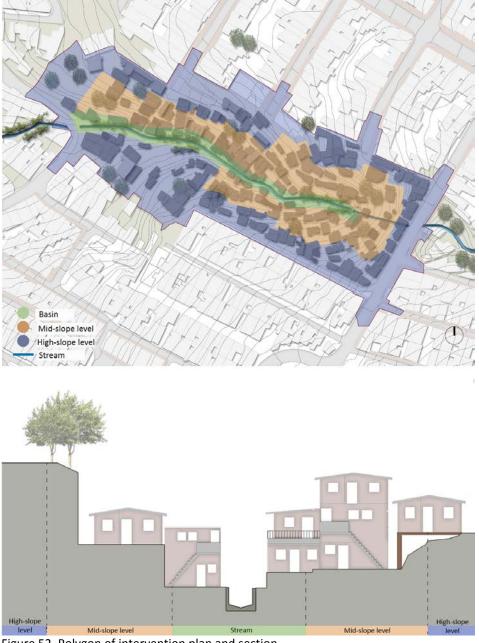


Figure 52. Polygon of intervention plan and section

Source: Adapted from EDU, 'Modelo PUI Zona Nororiental', 2015

The space located in the high-slope level defined the limits of a block; the midslope level relocation of dwellings and the low-slope level is used for the stream.



Figure 53. The housing situation before and after the intervention Source: Adapted from EDU, 'Modelo PUI Zona Nororiental', 2015

This intervention was characterized for the participative design with the community. The apartments building were provided with flexible and adaptable floor plan, ecologic terrace, and in the first floor a communal space (used as commerce or play center).

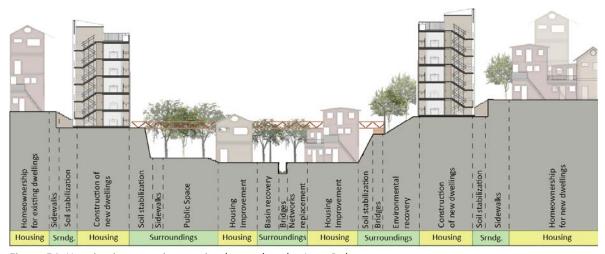


Figure 54. Housing intervention section located at the Juan Bobo sector Source: Adapted from EDU, 'Modelo PUI Zona Nororiental', 2015

Through the execution of this housing intervention in the Juan Bobo sector of the Northeast commune, was achieved the integral, coordinate and permanent presence of

different actors and government and no government institutions in the national, department and municipal level that made possible the transformation of the territory.





Figure 55. Juan Bobo sector after the housing intervention Source: EDU, 'Modelo PUI Zona Nororiental', 2015





Figure 56. Urban and housing interventions achieved at Juan Bobo sector in the Northeast area of the city Source: EDU, 'Modelo PUI Zona Nororiental', 2015

#### 3.3 – Post-Occupancy evaluation

POE seeks to obtain information directly from residents to gain a better understanding of their needs and opinions regarding to their built environment and their home. By finding out about people's experiences living after the different interventions achieved with the PUIs, cities can refine their expectations for this kind of development, and that will help them achieve the vision of a highly liveable and sustainable community. A final purpose of conducting the post-occupancy evaluation related to the important issue of community well-being. Three subjects were analysed: a safe environment, focus on families, and space and place harmony.

## A safe environment

A safe environment is a vital component of community well-being. Residents were asked about this topic and the majority of respondents feel safe. Life has changed to them since the first brick arrived to their neighbourhoods. In that moment, they felt that they were part of the city and every intervention fosters a sense of community that can last for several generations, beyond the physical neighbourhood location.

"I have been living here for more than 40 years, and I can tell you that twenty five years ago you could not come here. From the river everyone point out our area as 'dangerous place' and, it was... a hard reality. By that time, we knew that around 5pm we have to be at home and do not go out, close the windows and then, wake up the next morning with the result of a sad environment."



Figure 57. The Northeast area from the metro station ©Researcher fieldwork 2017

Residents argued that these days, they have a unique living environment where small squares and parks recreate their life and where they can share with their community and the city.



Figure 58. Two squares at Santo Domingo borough ©Researcher fieldwork 2017



"Every morning I came to sit in this bench and I spent time looking at kids playing around the squares and then, I started to think about how was before and... I cannot believe how a space, building, green area, art wall and a 'gondola' could

change our lives. We feel proud of those, they are part of our community and now we have to take care of them because they represent the change of our neighbourhood. A safe area surrounded for beauty spaces and buildings."

"Now everyone wants to come to visit the buildings and to ride on the Metrocable to enjoy the magnificent view of the city from our place".

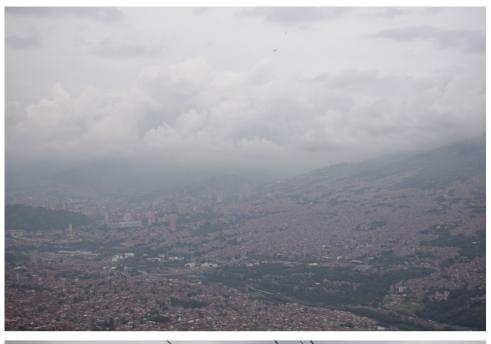




Figure 59. Medellin view from the Communes ©Researcher fieldwork 2017

"We feel safe even in the area, we can walk from a neighbourhood to another because now we have bridges that connects us, and bring us the opportunity to share with others in a convivial place. You can cross the bridge and look for something there without having fear that something will happen to you."



Figure 60. A bridge to connect housing development in the area ©Researcher fieldwork 2017

Before the bridge was installed, there was a rivalry between neighbourhoods because each of them represented a different criminal band. People could not go to another sector different from the one they were living. The bridge represents not just a connector element between two neighbourhoods; it represents the reconciliation between both communities.

In terms of housing, some residents are concerned about the small space in which they are living while others said that it was difficult the change from house to apartment but now they feel safe because they are living in better conditions in terms of infrastructure and services.

"I feel I live in a safe neighbourhood, but I do feel the space in my apartment is a bit small."

"I get used to the space where I am living."

"I am comfortable where I am because I do not have to be worried at any climate condition."



Figure 61. Housing development in the Northeast communes ©Researcher fieldwork 2017

Feeling safe and comfortable in the urban environment is a significant goal for urban regeneration as one way of enhancing community safety, specifically by altering the physical design of the communities in which humans reside and congregate in order to deter criminal activity, as the case of Medellin. Mostly when design affect elements of the built environment, as the fabric of an entire urban neighbourhood and give them an amount of opportunities for eyes on the street.

## Focus on Families

Public libraries, parks, recreation squares, schools, community organizations, health centre, youth groups and attractive public spaces with art and cultural artefacts have formed, empowering citizens to declare ownership of their neighbourhoods.

"The neighbourhood offers a lot of activities to our kids, from a square plaza to a soccer field."



Figure 62. Recreation Square integrated to public 'Library Park' ©Researcher fieldwork 2017

"My son uses to plan soccer games after school with their friends. I feel calm... at least they are doing something that make them be far from the neighbourhood roots (drugs and crime)."



Figure 63. Soccer field as part of the interventions achieved in the PUIs ©Researcher fieldwork 2017

"Streets are now for families, you can find facilities that children can use and play with, and at the same time, adults can get together to talk about any subject. On weekends, I usually go out and spend a lot of time with my family on those places. We have everything close to our home."



Figure 64. Playground and skate are for children and youth at the Northeast area ©Researcher fieldwork 2017

Parks and square-plazas revitalize urban cores and attract residents, even small lots, when developed into a public space can transform a neighbourhood. Public recreation spaces and family places help build healthier individuals, families and communities. They play a role in building positive social values, reinforcement of positive norms of behaviour within peer groups, and opportunities to engage in constructive and creative activities within safe settings.

# Space and Place harmony

Space and place harmony refers to the direct connection between the 'sense of place' as an aesthetic concept viewed from 'the personality of a location' as a way of defining it, and place also as a sense of the right of a person to own a piece of land, or to be a part of a social world. People make attachments to places that are critical to their well-being. An individual's sense of place is both a biological response to the surrounding physical environment and a cultural creation (Hayden, 1995). During the fieldwork realized in the Northeast area of the city of Medellin in 2017, I could link the physical to the social through the analysis of the harmony between space and place as a significant meaning for the community.

"Our places are not just brick and concrete, there are plenty of colours and murals that give a new chapter for our community."

"Colours make beauty our neighbourhood."

"Graffiti culture is an opportunity for many youth in the area that provides them a way of expression. It is a different way to tell our story."





Figure 65. Art-wall. The picture on the left said: "Nos quisieron enterrar. No sabían que éramos semillas" ('They tried to burry us, they did not know we were seeds')

©Researcher fieldwork 2017











Figure 66. Collage of graffiti culture present in the Northeast area of the city of Medellin ©Researcher fieldwork 2017

Street art and graffiti culture in the communes have been part of the change of their skin. Much of the public wall space is, in a way, given back to the people to see a reflection of themselves and their story.





Figure 67. Squares around the stations as a point of reference for the community ©Researcher fieldwork 2017

Improve streets as places, is to have the ability to make our streets as comfortable and safe places for everyone. As the case of Medellin, plazas have been the bases of the 'pylons' supporting a transport system that have become in a lively neighbourhood center.



Figure 68. Public spaces enhance a 'sense of belonging' ©Researcher fieldwork 2017







Figure 69. Pedestrian paths transformed in art gallery (left) and commercial area (right) ©Researcher fieldwork 2017

It is evident the way in which the community can transform a space in a place for them. In (figure 69), we can observe pedestrian paths that were fitting one, into an art gallery by taking the wall and transforming it in a long mural of stories while the other into commercial needs.

Some places have been also an absence for the community. The public library located in the Northeast area is under construction and for some residents the past years have been a lost for their community. Municipality stated that in order to make the building safe, they had to remove all of the top level of slate tiles to improve structural weaknesses. The 'library Spain' façade was removed; only the frameworks of the building remain now that all the stones have been taken down. Community is still waiting for their iconic place that represent a space for culture and encounters.

"We do not have our most significant place"

"I miss the big rocks. I used to locate my place from the metro because of them"

"I used to pass by the library to navigate on Internet, do some homework or sometimes watch a film."





Figure 70. Spain Library framework façade on the left, and a 'loose public space' ©Researcher fieldwork 2017

During the fieldwork observation, I could find another place different from the Library that was in a state of abandon. This example could help to outline how a 'loose space' could act as a way to demonstrate how communities appropriate or in which way the place could achieve the community needs. Understanding how sense of place develops and changes is relevant to understanding how people interact with their environment in general and considering how this interaction may become more sustainable.

## 4 - Findings and Conclusions

The findings in this report intended to identify experiences that, while specific for Medellin, may have relevance to other cities in a similar context. They provide the basis for the final conclusions. The findings relate to the topics explored in this report, as well as different points of view from interviews with key actors and residents in the area of study.

# 4.1 – Summary of findings

The transformation of Medellin was remarkable in many ways and the progress achieved through the 'Social Urbanism' strategy and community initiatives has made great changes in taking back the city for all its citizens. It emphasizes the significance of design for equity by investing in an intercultural and shared public realm. From the 'Social Urbanism' approach, there are lessons we can learn and share as new opportunities and challenges related with the public realm as a shared interest in building an inclusive society.

The multi-neighbourhood projects called the 'PUI' (Integral Urban Project) through the interaction of the three components (Institutional, social and physical) reaches:

Community participation, that provides equal opportunities at the interior of the city, through the recovery of marginalised areas by state presence, which creates employment opportunities, and conditions that dignify its society by training of

community leaders, the creation of activities and spaces that allow the community to be informed supervise and evaluate the projects that were implemented in their community.

Identification of new opportunity areas and their problematic, by focusing on territorial interventions in specific areas of the city and understanding its context to enhance social inclusion where every place is integrated into the city's dynamics in order to foster their individual and collective potential.

Inhabitants sense of belonging recovery, the understanding of the territory tackle the identification of its physical and social surroundings, as well as the community participation and its accompaniment that qualify the *PUI* intervention and provide a sense of belonging of the inhabitants from the intervened zone, as a first step for sustainability. The feeling of sense of belonging is to get involved in the world by connecting with others in the community. The sense of community belonging embodies the social attachment of individuals and reflects social engagement and participation within communities.

Municipality administration presence in the area of intervention, is an example that could be illustrated in subjects like road and transport infrastructure, public services, lots legalization and principally the definition of the public space as linking element and maker of the city that started to be part of different social and citizen actions that define the future planning of the city.

Public spaces as a place of encounters and a communal living for inhabitants, allowing individuals to enjoy a city, its surroundings and services as a best way to make them active citizens. In the case of Medellin, the PUIs do not end directly after the development of new public spaces and public facilities. In the wider context of the

integrated principles of 'Social Urbanism', physical transformation was in hand with social and institutional programs such as education, sports and recreation, culture and economic development that made public spaces a convivial and liveable places for the community.

Transparent management that lead to trust recovery in the areas of intervention and the whole city, the participatory planning and budgeting program was a good example and has great potential when carried out with transparency and respect: it generates ties of mutual trust between civil society and the state, and constitutes valuable social capital for municipal development.

Strength civic engagement with the development of their community, the case shows the improvement of the built environment and the creation of new public spaces and public facilities that can be complemented and reinforced by the strategic use of integrated and participatory approaches. The *PUI-Northeast* shows that participatory process and the active involvement of local communities are important part in the process of building an inclusive society where educational and cultural activities during a participatory process, could aim at bringing the community together, and involve them in the development of the area.

At neighbourhood level, the strategy also had significant outcomes that were beyond the physical improvements. The construction and operation of Metrocable line brought a new energy to the urban economy in the area, as well as subsequent urban upgrading efforts. The journeys that the residents had to take everyday were longer and more expensive (Medellin Metro 2005). In addition to the economic benefit, the

inhabitants could reduce the time for their journeys for work or any other movement within the city.

The different interventions achieved through the *PUIs* represented more quality of life and more spaces for families, their recreation and their education. This can be seen in 2007 and 2013 quality of life index (figure 71), where the results show the increase in the quality of life of its inhabitants. However, income levels still remain below those of other city sectors, the city's serious inequality problems between rich and poor areas are still present.

COMMUNE/YEAR	1 POPULAR	2 SANTA CRUZ
2004	73,47	75,88
2005	75,12	75,70
2006	76,20	77,89
2007	77,56	78,93
2008	75,38	77,17
2009	74,80	76,53
2010	76,27	77,73
2011	75,98	79,21
2012	76,88	78,21
2013	77,35	79,46
2014	77,42	79,59

Figure 71. Quality of life index from 2004 to 2014 in the Northeast area Source: Planning Department of the Municipality of Medellin, 2017

The *PUI* (Integral Urban Project) strategy applied to the model of 'Social Urbanism' followed the philosophy of integral human development, which objective was to achieve a physical, social and institutional impact while creating programs and projects

with the community to provide employment and enrich the existent economic activities in the area of intervention.

Medellin challenges are still many, particularly in housing. However, through innovation and leadership, Medellin has showed the seeds of transformation, leading to its recognition as a city with potential for long-lasting success. Through the PUIs, they enclosed community leaders, the city's public and private sectors, civil society networks and academics by creating a collective and participatory process. The policies they formulated became interventions in small scale but high impact projects designed to tackle illegal activities, strengthen government authority and rebuild social and economic institutions.

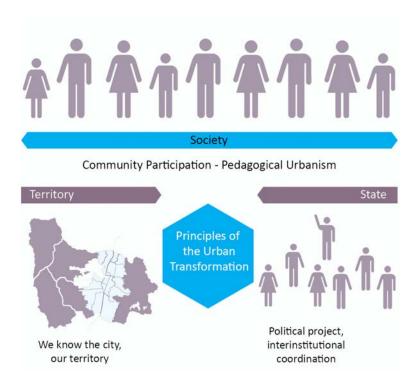


Figure 72. Physical transformation process

Source: EDU, "Equidad Territorial en Medellin", 2012

'Social Urbanism' strategy was an approach to set about the violence in Medellin's communities. Foremost in order, police presence was increased in the city's most violent areas —to fight crime and provide inhabitants with a sense of security. Second, Medellin focused on public transportation infrastructure as a functional way of addressing crime, inequality, unemployment, and public and societal disengagement.

"For many years in Medellin we built fences that separated us. Invisible walls that divided the city turning it into pieces, in ghettos in which only we were relating to those similar to us, we stayed in selected spaces because of the violence, the fear, the distrust, they restricted us from moving freely. We were waiting for a different conception that could tackle with our two fundamental problems: the violence and the social inequalities. For this reason, the public space turns into a wonderful stage that provide the encounter, look at the eyes, recognise our city, our neighbourhoods, but also those marginalised neighbourhoods that have been forgotten until now. In Medellin, a public space for education, recreation or culture, is different from one to any other place in the world." (Mayor of Medellin 2004-2007)

#### 4.2 - Conclusions

How did 'Social Urbanism' enable Medellin to pursue the sustainable development of neighbourhoods and the whole city?

The city's interventions and new policies addressed multiple factors at once and were designed, implemented and monitored using interdisciplinary processes. Policies involved significant municipality investment in infrastructure and improved services for the poor, including the new way of transportation that connects the poor areas located on

the hills with the rest of the city and different programs that may strength the feeling of belonging of the communities and the city as a whole. As part of their efforts to regenerate the neighbourhood, the city also improved pedestrian walkways; built bridges over the different streams located in the areas of intervention, and opened health care centers, new schools and library parks. Cultural development centres that offer music, art and cultural activities meant to improve the quality of life of inhabitants. Some families were relocated and moved by the government into high-rise public housing, in a way to make better conditions of living for them. Moreover, development centers by area of the city that promotes and provide help in employment opportunities.

Integrated planning helped the city foster social cohesion and equity but it is also important that a city become and remains resilient. Unless there are still many challenges, the 'Social Urbanism' enabled Medellin to transform itself from the world's murder capital into an example of a way in building a sustainable development of its neighbourhoods and the whole city.

How did integrated interventions in architecture and Urban Design help to transform a violent city into one that is more inclusive, safe, and convivial?

Understanding context is essential to making design decisions. Interventions should be site-specific in order to integrated into the urban fabric and inclusive to the people using the space. Context includes the spatial qualities and conditions of a place and the people and organizations to interact with it. The space of the inhabitant of the urban field is shaped by the urbanized landscape; where-in different places take on different

meanings in everyday life. In this way, the new urbanity thus reflects the new, highly dynamic 'time-space patterns' of citizens: increasing flexibility in the world of employment, changes in the form of personal relationships, shared responsibilities, cultural trends in home life and recreation (Hajer and Reijndorp, 2001).

Engaging the community in the design process is significant to ensuring the space is responding to specific needs. Collaborating across different disciplines and sharing the process with the community produce a culture of human-centered that promotes equal access, and opportunities. The process of working towards safe places would also result in a higher quality of life for all and to achieve a more equitable city. The visual aesthetics are also important because what is seen in the environment is often the strongest stimulation for the community. In this way, architecture and urban design serve as a way to transform a violent city into one more inclusive, safe and convivial.

What roles did architects play in 'Social Urbanism' to help promote human interaction and to support a sense of acceptance, inclusion and dignity to achieve broad goals for a more sustainable future?

The transformation adopted by the architects in Medellin has the potential to be applied in many situation and locations where social change is desired, but the measures can vary depending on context.

Multi-disciplinary approach to design: architects working alongside other professions such as anthropologists, sociologists, urban planners, politicians, social workers, community organisations and many other disciplines in order to drive social change. In

this way, the architect finds a position within the framework of urban regeneration as a whole. It is within this framework that architects operate with a wider range, expand their professional knowledge and understanding of social issues and implement an integrated, informed approaches to design.

A larger-scale vision: punctual projects and interventions do have the power to drive social change as can be seen in the Northeast PUI, but a city-scale approach that includes community participation and economic, social and cultural interventions can have a more widespread and sustainable impact.

Participatory design: participatory design for projects has been common in Medellin as a tool to get involve the community, stakeholders, municipality with the goal to help ensure the needs and the way in which spaces will be used. This is significant throughout all urban projects and is a mandatory element of all interventions in Medellin.

Focus on social capital: by building social and human capital while developing the economic development of communities, the 'Social Urbanism' of Medellin has achieved what appears to be a sustainable and long-lasting impact on several of the most vulnerable areas of the city. This is perhaps where architects have the biggest impact. The punctual nature of architecture and the design building limits its impacts on a city level but at community level represents many positive aspects of communities by bringing them together to encourage collective communication, cultural representation and identity formation, promote certain aspects such as education and, in a violent affected areas, build state presence and trust in the government by showing dedication to the improvement of living standards.

What strategies for developing shared public realms can be generalised from Medellin's approach to 'Social Urbanism' to support an equitable society in a sustainable built environment?

- Focus on specific areas and apply interventions that combine public transport, new public spaces, housing and new services around education and culture.
- The public transport system adopted in a way to integrate a Metrocable system with the metro system in the aim to provide ways of connection between people living on the hills with the city;
- Having as an objective the rapprochement between the people and their community where infrastructure is one of the tools. And to transform the relation of people and society itself to recover confidence in their urban quality of life in which architecture is a significant element;
- Create a city plan in the sense of connecting one intervention to the next,
   which is not only physical, and how they became part of the common life of the community;
- Engage the community with existing infrastructure and, when needed,
   improve things by connecting new interventions;
- And finally, the most important thing is to connect with the people, small actions interconnected to each other can transform societies.

The case of Medellin and 'Social Urbanism' explored some opportunities related with the public realm as a shared interest in building an inclusive society where all

interventions executed had a distinct focus on the role to achieve an equal society giving the value of dignity to the poor located in segregated neighbourhoods of the city.

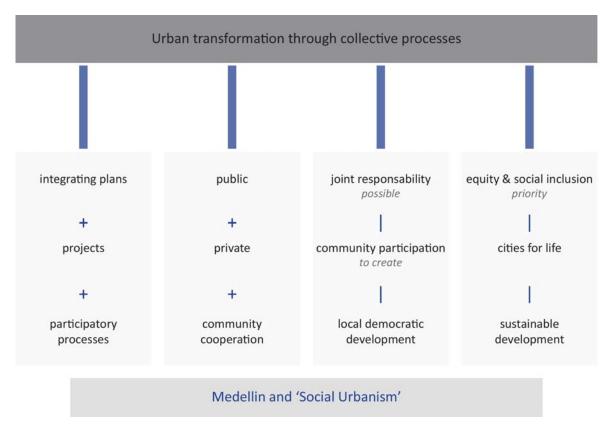


Figure 73. Key tools for an urban transformation based on the 'Social Urbanism' strategy.

This research demonstrates that the effect is to reinforce the view that cities are essentially social spaces, and that cultural, economic and political processes exist, and are enrolled in, and help shape, urban life (Braun, 2005). In this way, it is significant how decisions about the way that the public space will be filled in are an expression of the way we deal with the shaping of the society. Moreover, this identifies the challenges that cities face, and the ways in which shared spaces of the sort of Medellin can contribute to urban civility and a more inclusive society. And finally, Medellin is an example of how a city in a critical situation can be transformed in a city of opportunities.

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#### **APENDIX**



Research Ethics Board Office James Administration Bldg. 845 Sherbrooke Street West. Rm 325 Montreal, QC H3A 0G4 Tel: (514) 398-6831

Website: www.mcgill.ca/research/researchers/compliance/human/

# Research Ethics Board I Certificate of Ethical Acceptability of Research Involving Humans

**REB File #:** 479-0417

**Project Title**: The role of the shared public realm in social equality: Medellin and 'Social Urbanism'

Principal Investigator: Maria Bibiana Fuentes Department: School of Architecture

Status: Master's Student Supervisor: Prof. Robert Mellin

Approval Period: June 6, 2017 to June 5, 2018

The REB-I reviewed and approved this project by full review in accordance with the requirements of the McGill University Policy on the Ethical Conduct of Research Involving Human Participants and the Tri-Council Policy Statement: Ethical Conduct For Research Involving Humans.

Deanna Collin Ethics Review Administrator, REB I & II

<sup>\*</sup> Approval is granted only for the research and purposes described.

<sup>\*</sup> Modifications to the approved research must be reviewed and approved by the REB before they can be implemented.

<sup>\*</sup> A Request for Renewal form must be submitted before the above expiry date. Research cannot be conducted without a current ethics approval. Submit 2-3 weeks ahead of the expiry date.

<sup>\*</sup> When a project has been completed or terminated, a Study Closure form must be submitted.

<sup>\*</sup> Unanticipated issues that may increase the risk level to participants or that may have other ethical implications must be promptly reported to the REB. Serious adverse events experienced by a participant in conjunction with the research must be reported to the REB without delay.

<sup>\*</sup> The REB must be promptly notified of any new information that may affect the welfare or consent of participants.

<sup>\*</sup> The REB must be notified of any suspension or cancellation imposed by a funding agency or regulatory body that is related to this study.

<sup>\*</sup> The REB must be notified of any findings that may have ethical implications or may affect the decision of the REB.

<sup>\*</sup> The REB must be notified of any suspension or cancellation imposed by a funding agency or regulatory body that is related to this project.

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