

# Retrofitting suburbia and informal slums in the Latin American context

## Recovering neighborhoods in extreme poverty conditions with tactical urbanism and new urbanism principles

*This paper suggests that, even in situations of extreme poverty, the approach from the new urbanism principles are an important basis for the development of strategies to retrofit suburbia and improving neighborhoods. This research covers three Latin American experiences in three different countries, Argentina, Colombia and Brazil where, as a result of the attraction dynamics generated by cities, informal settlements have emerged in critical condition on the peripheries. Since 2007, and with an important role of local community, a number of different initiatives and actions for social inclusion and improving these neighborhoods with a clearly tactical have been developed.*

**Keywords:** Retrofitting suburbia, tactical urbanism, recovering neighborhoods, public space, urban design, universal accessibility, urban transportation, selective urban repair, urban sustainability.

Many Latin American cities are, for decades, facing the urban phenomenon of poverty growing. Over the years, cities are becoming more attractive to live because of their economic, social, cultural and educational offer. The crisis of the “welfare states” generated by this situation, requires the development of new policies that are able to redirect and enhance the efforts of our societies to overcome inequalities.

This academic research is developed through the analysis of the proposed strategies for the neighborhoods of Comuna 13 in Medellín (Colombia), Barrio 31 in Buenos Aires (Argentina) and Manguinhos Complex in Rio de Janeiro (Brazil). These informal residential neighborhoods in extreme poverty urban contexts, which are generally characterized by the large amount of squatters, originated between 1930 and 1950, due to economic, social and political crisis; the deterioration of living standards; job insecurity; the high land value or the forced migration from rural areas.

These three projects aim to correct the urban imbalances and the excessive private space occupancy, through consolidation of the structural systems of public space. The objective is to reverse the phenomenon of informality in the occupation, use and land profit through the development of urban projects. These projects have to recognize the social construction of habitat, to reformulate the neighborhood project raising the standards of habitability and safety with environmental and equity criteria.

### **Tactical Urbanism: small scale - big change**

The analyzed projects, identical in their concern and interest for a brighter future for neighborhoods and their inhabitants, propose comprehensive approaches to reduce the problem of informal settlements, through the eradication of poverty, access to education, strengthening the sense of belonging to the place, individual responsibility, community involvement and improving environmental sustainability.

The strategic approach from tactical urbanism, refers in these cases not only to short-term and small-scale actions but also to mid-term and neighborhood scale projects. In this case, long-term changes are achieved through tactical interventions concerning infrastructure, public transport, open spaces or facilities, all them catalysts projects for the future transformation of neighborhoods.

## Six strategies to promote tactical transformations and social inclusion

Some trigger factors of the informal development and social exclusion are poverty, differences in the conditions of access to public services and mobility, poor conditions and low standards of public space and facilities, and poor quality and housing deficits.

The intervention initiatives in these neighborhoods arise from the urgent need to improve living conditions, assuring, as far as possible, equal access to the services offered by the city. The urban projects and the intervention tools proposed, are strategies to improve these conditions, promoting social inclusion and reducing the gap between the different sectors of the city.



### **MANGUINHOS COMPLEX** Rio de Janeiro, Brazil

**area:** 400ha  
**population:** 50.000 inhabitants  
**density:** 125 inh/ha  
**year:** 2009  
**figure:** PAC (*Programa de Aceleración de Crecimiento*) Development Acceleration Program



### **BARRIO 31** Buenos Aires, Argentina

**area:** 250ha  
**population:** 32.400 inhabitants  
**density:** 130inh/ha  
**year:** 2010



### **COMUNA 13** Medillín, Colombia

**area:** 700ha  
**population:** 135.000 inhabitants  
**density:** 192,85 inh/ha  
**year:** 2008  
**figure:** PUI (*Proyecto Urbano Integral*) Integral Urban Plan



MAKING CONNECTIONS - *The process of bringing people together*

Mobility and the infrastructure project is one of the key issues raised by the three projects. The main objective of this strategy is to improve and increase the connection of neighborhoods and communities so as to integrate them with the rest of the city, understanding mobility as a system that combines in a balanced way the pedestrian and the vehicle flows. Thus, through projects that connect spaces, it is possible to reduce time spent commuting, while promoting social inclusion and the boundaries between the different sectors are blurred.

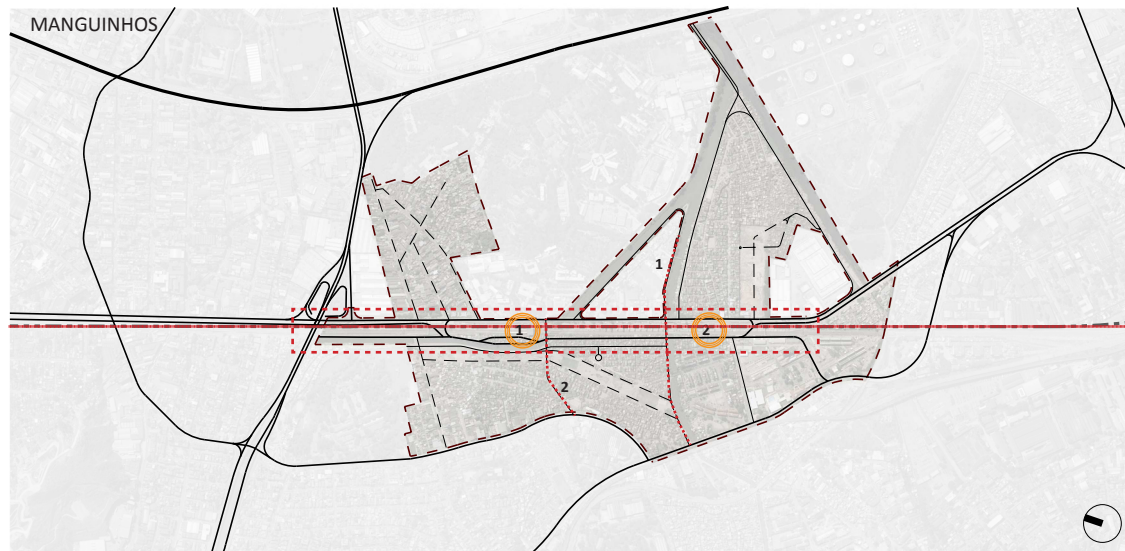
The strategy of connection wants to promote the public transport as a structural axis of mobility in neighborhoods and as a trigger for other urban and social transformations. On the other hand, enhance urban connectivity implies the continuity of the urban structure, discouraging the perpetuation of the fragmentation of the city and the characteristic lack of urbanity of poor areas.

The construction of the Metrocable in Comuna 13, an aerial cable car system; the access to four subway lines at the two ends of Barrio 31, in relation to the railway and the bus terminal; and the elevated railway in Manguinhos are some specific actions in relation to the idea of connectivity and for sustainable mobility. Moreover, with the aim of bringing the people together, the three projects propose numerous actions in relation with road and pedestrian connections, like pedestrian skywalks, ramps, escalators, new streets or street upgrading.

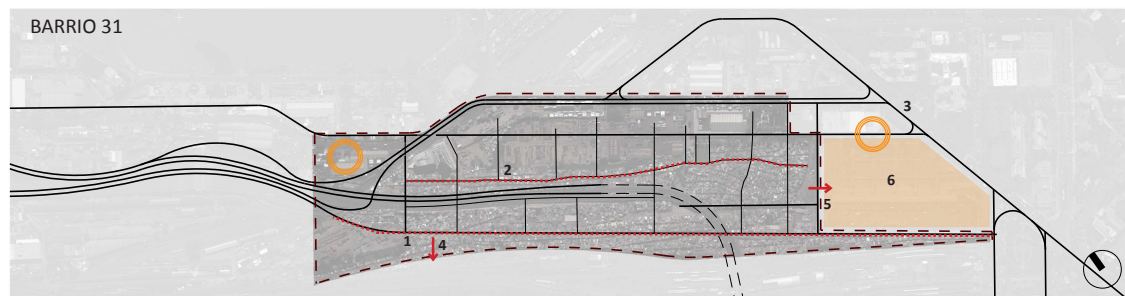




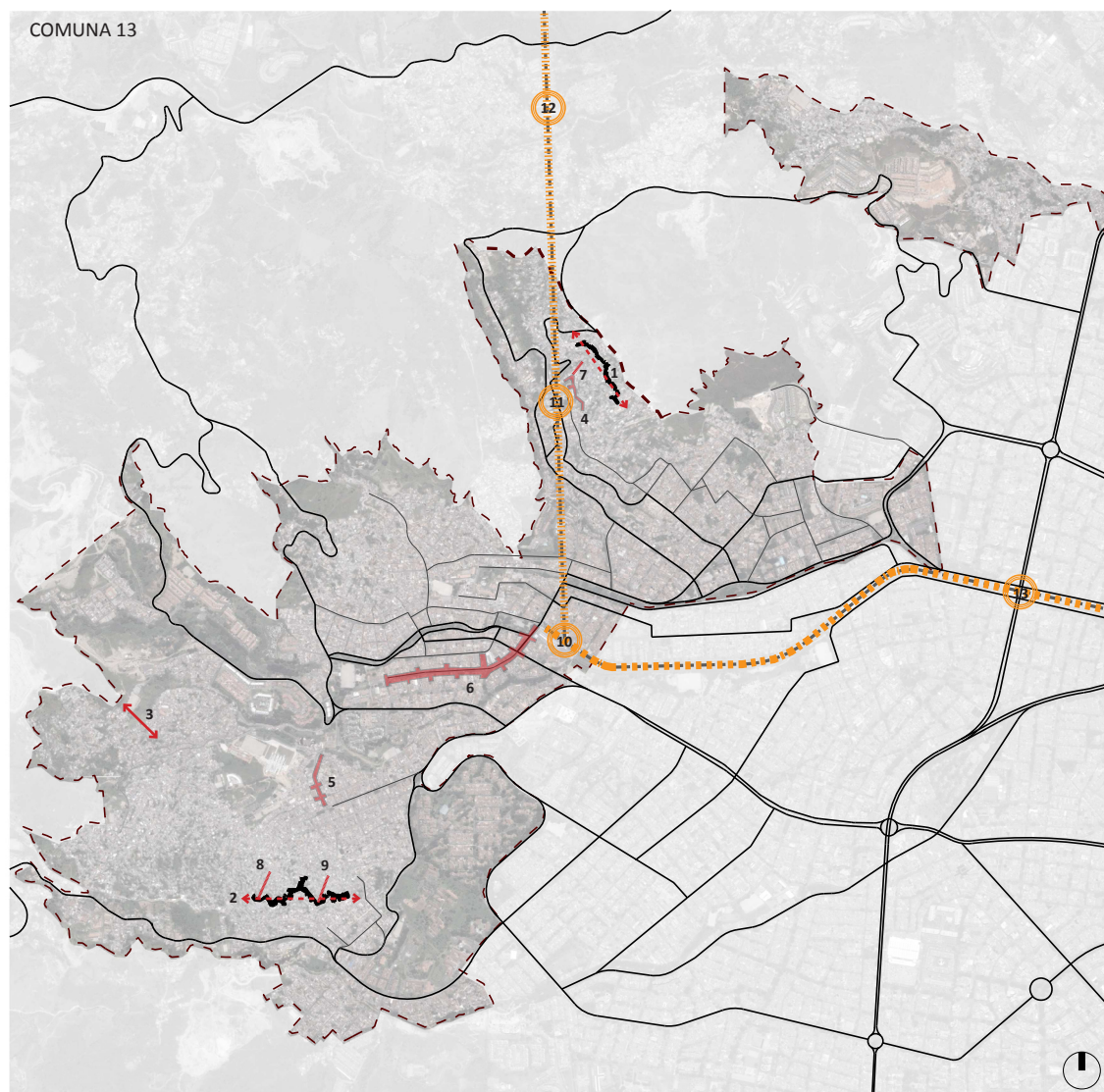
## MAKING CONNECTIONS - *The process of bringing people together*



- Rail Track reconfiguration to allow new transversal connections
- - - Lower space of the rail track reconfigured as a promenade and an equipped park
- New connections**
  - 1 - - - Proposed new linkage road (Brasil Avenue and Democraticos Avenue)
  - 2 - - - Enlargement and extension of Manguinhos road
- Public Transport**
  - 1 New Station Manguinhos
  - 2 New subway station and connection to bus station (inter-modal terminal)



- New connections**
  - 1 "Border" Avenue
  - 2 "Ninth" Street
  - 3 Connection with the Highway to "la Plata"
- New Pedestrian connections**
  - 4 → Pedestrian skywalk / bike path
  - 5 → Bus Terminal ramp
- Public Transport**
  - 6 Bus Terminal
  - 7 Future subway stations



- New pedestrian connections**
  - 1 → Pedestrian Skywalk "la Divisa"
  - 2 → Pedestrian Skywalk "media Ladera"
  - 3 → Pedestrian path "el Salado"
  - 4 Promenade "Street 49A"
  - 5 Promenade "Street 109"
  - 6 Promenade "Street 99"
  - 7 Pedestrian Path and escalators to "media Ladera" 1
  - 8 Pedestrian Path and escalators to "media Ladera" 2
  - 9 Pedestrian Path and escalators Juan XXIII
- Public Transport**
  - 10 Metrocable "J line"
  - 11 Metropolitan train "B line"
  - 12 San Javier Station
  - 13 Juan XXIII Station



## CREATING SHARED SPACES - *Taking back the street and the public space*

In all three projects, the role of generating new dynamics of transformation is given to the public space. The role of public space is essential as a quality element that is able to unite the community and that provides places for recreation, culture and education. Thus, the three proposals consider public space as the essence of the city, recognizing that the quality of the city is measured by the quality of its public space.

For this reason, priority is given to the generation, consolidation, improvement and social appropriation of public space, articulating it with facilities and mobility systems, giving priority to pedestrians and public transport over private mobility systems.

Proposals protect the values of the existing public spaces as places for social interaction and exchange. At the same time, the projects propose new urban articulation public spaces that are safe and diverse. These recreational spaces encourage the meeting of neighbors and strengthen their relationships. The construction of new public facilities such as libraries, business development centers, and sports facilities, as well as the improvement of schools, medical centers and other existing services, contributes to social benefit, to the use of public spaces and to alleviate the situation of poverty.

Is remarkable the proposal in the three cases of numerous parks, plazas, promenades and emblematic pedestrian paths as elements of the urban structure that give continuity to the urban systems and that allows the city to be lived. This is the case of the Immigrants Park in Barrio 31, the linear park and promenade in Manguinhos or the Carla Cristina Foundation Park in Comuna 13.

It is important to emphasize how many of the proposed parks work with the rehabilitation and preservation of open spaces that correspond to forest areas, rivers or streams in order to reduce the risk in front of natural disasters, a way to contribute to the preservation and the environmental sustainability.

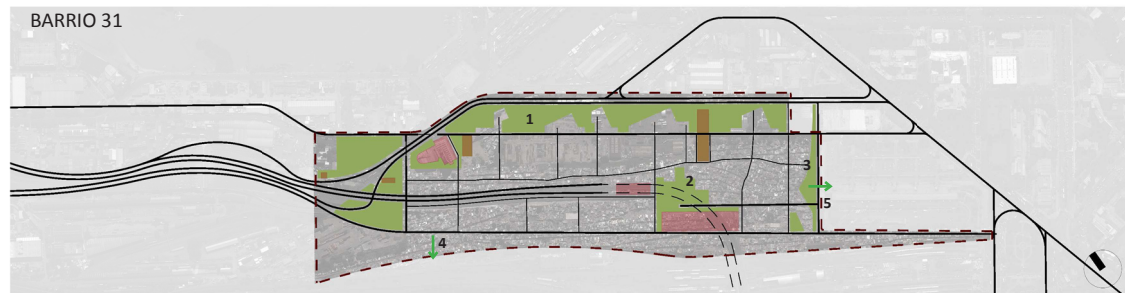




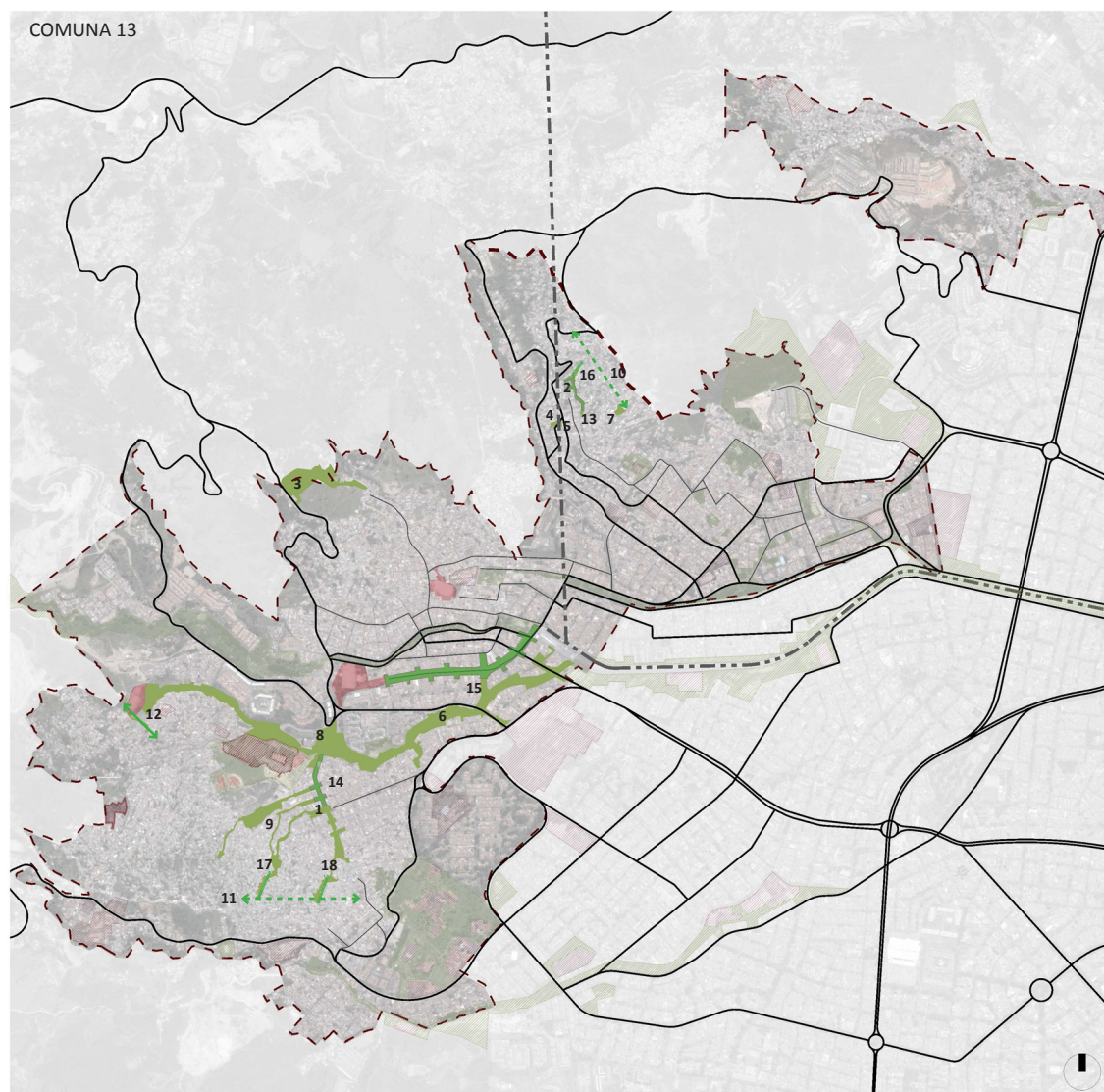
## CREATING SHARED SPACES - *Taking back the street and the public space*



- 1 Promenade and Urban Equipped Park
- 2 Productive corridor



- 1 "Immigrants" Park
  - 2 Central Park
  - 3 "Feria" Square
- New Pedestrian connections
- 4 → Pedestrian skywalk / bike path
  - 5 → Bus Terminal ramp



- 1 "20th July" Park
- 2 "Environmental" Park
- 3 Memorial Park "El Socorro"
- 4 Terraced Park
- 5 Kids Park
- 6 Linear Park "El Salado"
- 7 Viewpoint Park
- 8 Carla Cristina foundation Park
- 9 Reversadero
- 10 ↔ Pedestrian Skywalk "la Divisa"
- 11 ↔ Pedestrian Skywalk "media Ladera"
- 12 ↔ CPedestrian path "el Salado"
- 13 Promenade "Street 49A"
- 14 Promenade "Street 109"
- 15 Promenade "Street 99"
- 16 → Pedestrian Path and escalators to "media Ladera" 1
- 17 → Pedestrian Path and escalators to "media Ladera" 2
- 18 → Pedestrian Path and escalators Juan XXIII





LIVABILITY AND DIVERSITY - *Facilities, complexity, identity and community character.*

If, as we have seen, the most important scenario of the city is undoubtedly the public space, where all the citizens are equal in their conditions, the proposals for the three neighborhoods give facilities and public buildings the role of providing public spaces with the activities that allow the construction of a diverse society.


The proposed model for collective and public facilities in the three cases is a model of neighborhood centralities always linked to the public spaces and walkways network and to the public transport system. The concentration of facilities in strategic locations, wants to create spaces of reference, character and identity that strengthen coexistence, improve quality of life and foster a sense of belonging to the neighborhood.

These centralities and complex urban spaces, intended to dignify the neighborhoods and to be triggers nodes of deeper urban transformations, can create places where productive and commercial activities, tertiary services, community facilities and housing can live together. Centralities such as Independencias or Nuevos Conquistadores in Comuna 13 bring together public services, library-parks, quality schools or sports units.



MANGUINHOS

- 1 Manguinhos School / Restored Building
- 2 Multifunctional Cultural Space in Restored Buildings
- 3 Library Park
- 4 Gymnasium/Swimming Pool complex



BARRIO 31

- 1 View of the production and employment center
- 2 Building block diagram
- 3 View of the Father Mugica Memorial

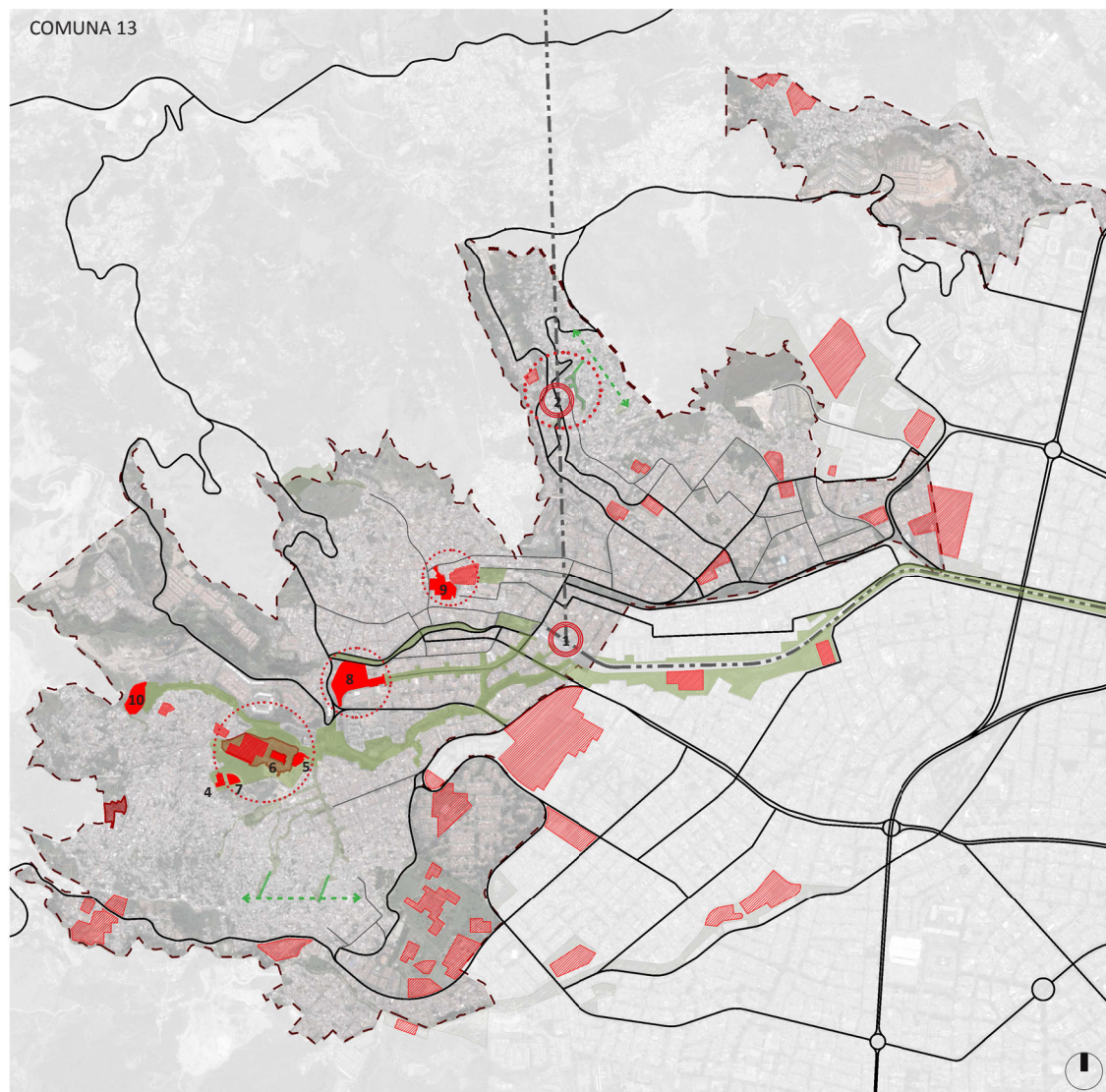
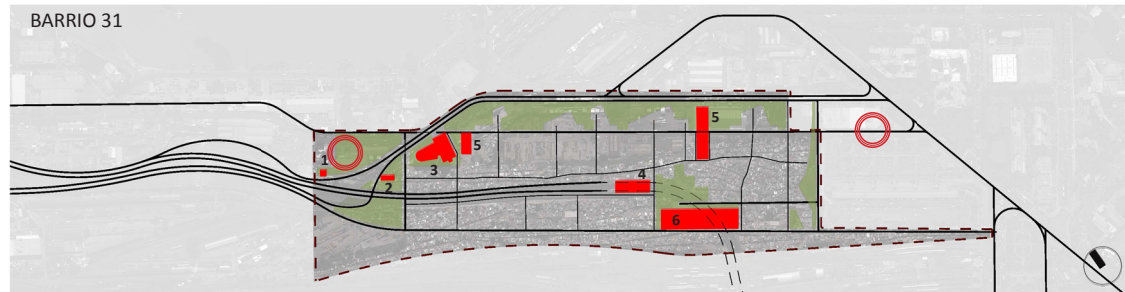
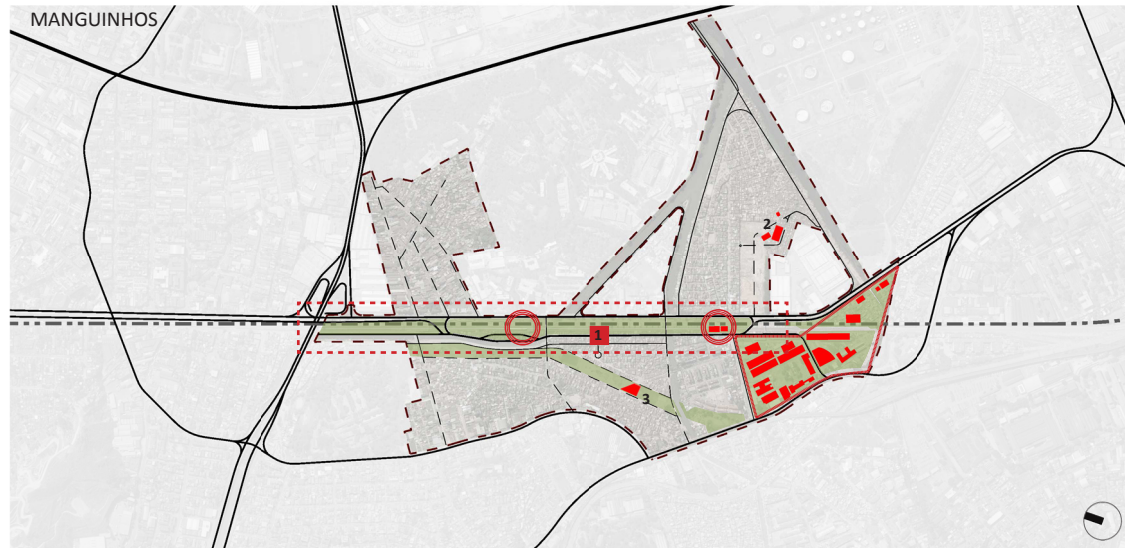


COMUNA 13

- 1 Justice House
- 2 Sports Unit "Antonio Nariño"



## LIVABILITY AND DIVERSITY - *Facilities, complexity, identity and community character.*



- Train and subways stations
- promenade / equipped park
  - Bike Path and track
  - Skate board track
  - Tennis court
  - Soccer field
  - Multi purpose court
  - Station Market
  - Playground
  - Urban street wall with service oriented businesses
  - Market and Bicycle parking
  - Municipal Shelter
  - Gardens and Permanent Retention Pond
- 1 São Daniel Profeta Church Arch. Oscar Niemeyer's project
- 2 Local facilities
- 3 Local facilities
- New Centrality and Civic Center. Rehabilitation of old industrial buildings
  - Working generation center
  - Manguinhos School
  - Library Park
  - Health center
  - Cultural center
  - Gymnasium / Swimming Pool complex

- 1 Father Mugica Church
- 2 Father Mugica Memorial
- 3 "Movement Building"
- 4 School
- 5 Sports centre
- 6 Production and employment center
- Future subways stations

- 1 San Javier Station
- 2 Juan XXIII Station
- 3 New Centrality
- 4 Elderly House
- 5 Justice House
- 6 School
- 7 Playground
- 8 Sports Unit "Antonio Nariño"
- 9 Sports Unit "El Socorro"
- 10 Sports Unit "El Salado"



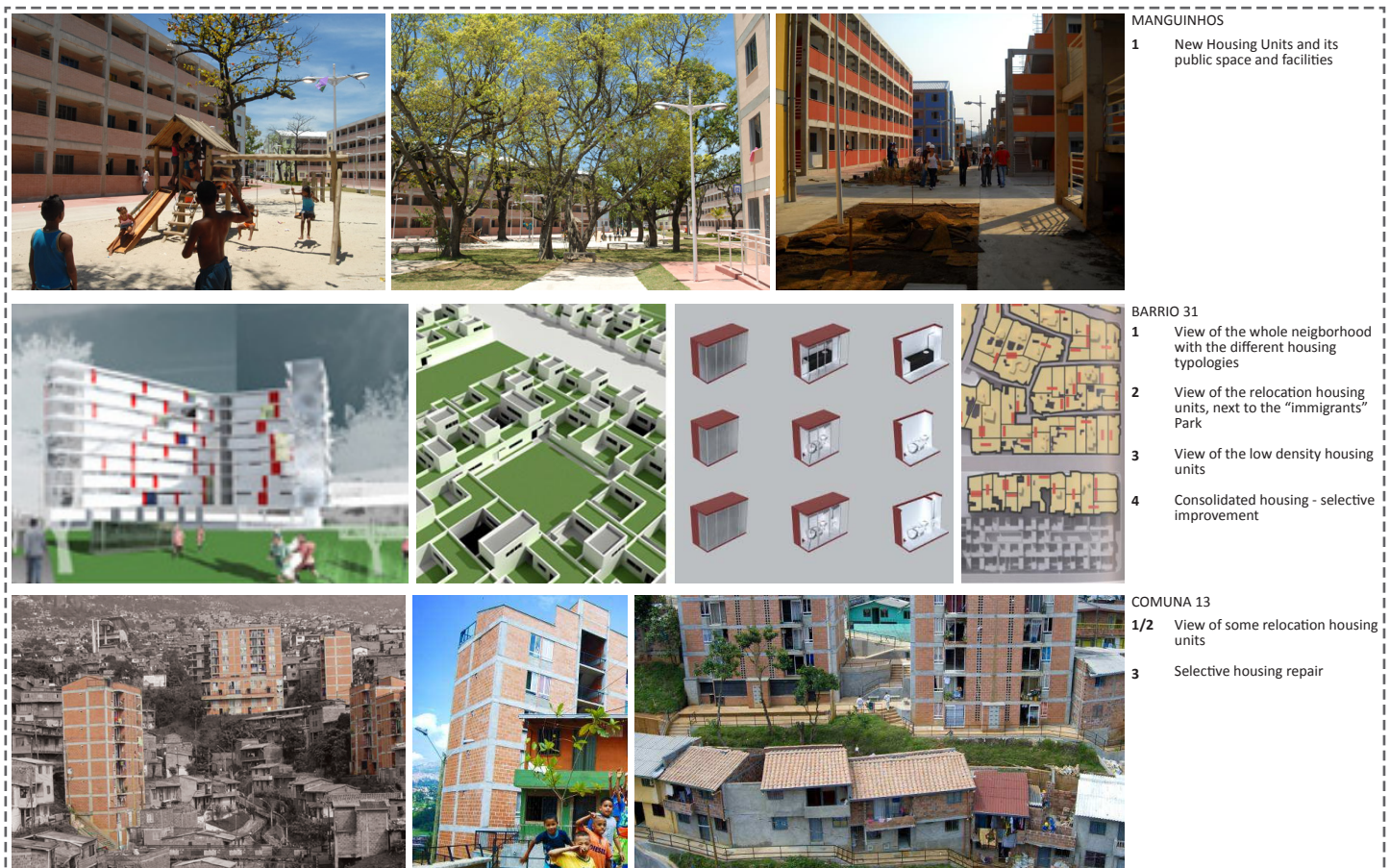
## SELECTIVE URBAN REPAIR - *Improving the quality of life. From eradication to settlement.*

The strategy of selective urban repair works with the problems of urban housing and urban habitat of the neighborhoods. This strategy faces the precarious conditions of most of the housing units as well as to their location in natural risk areas, major problems in contexts of poverty. Mainly, and more specifically, the objective is to efficiently resolve the qualitative deficits of housing and improve the living conditions of the population. However, quantitative aspects are also resolved with the provision of new housing that aims to curb the expansion of informal settlements and to generate a correct urban development. Thus, the proposed model promotes the consolidation and settlement in contrast to the policies of eradication.

The three districts follow two basic strategies:

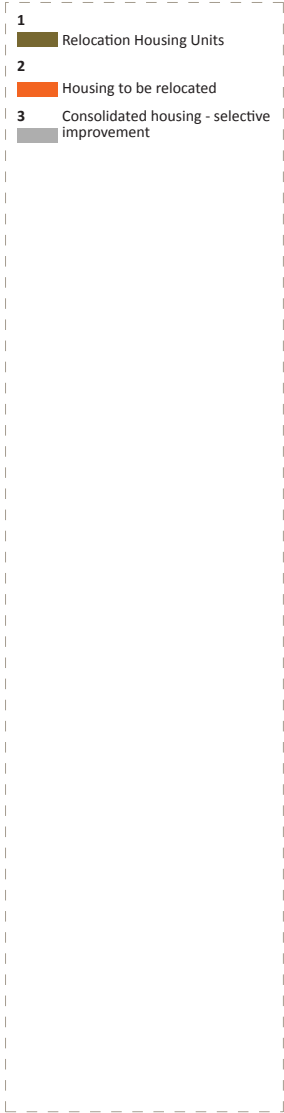
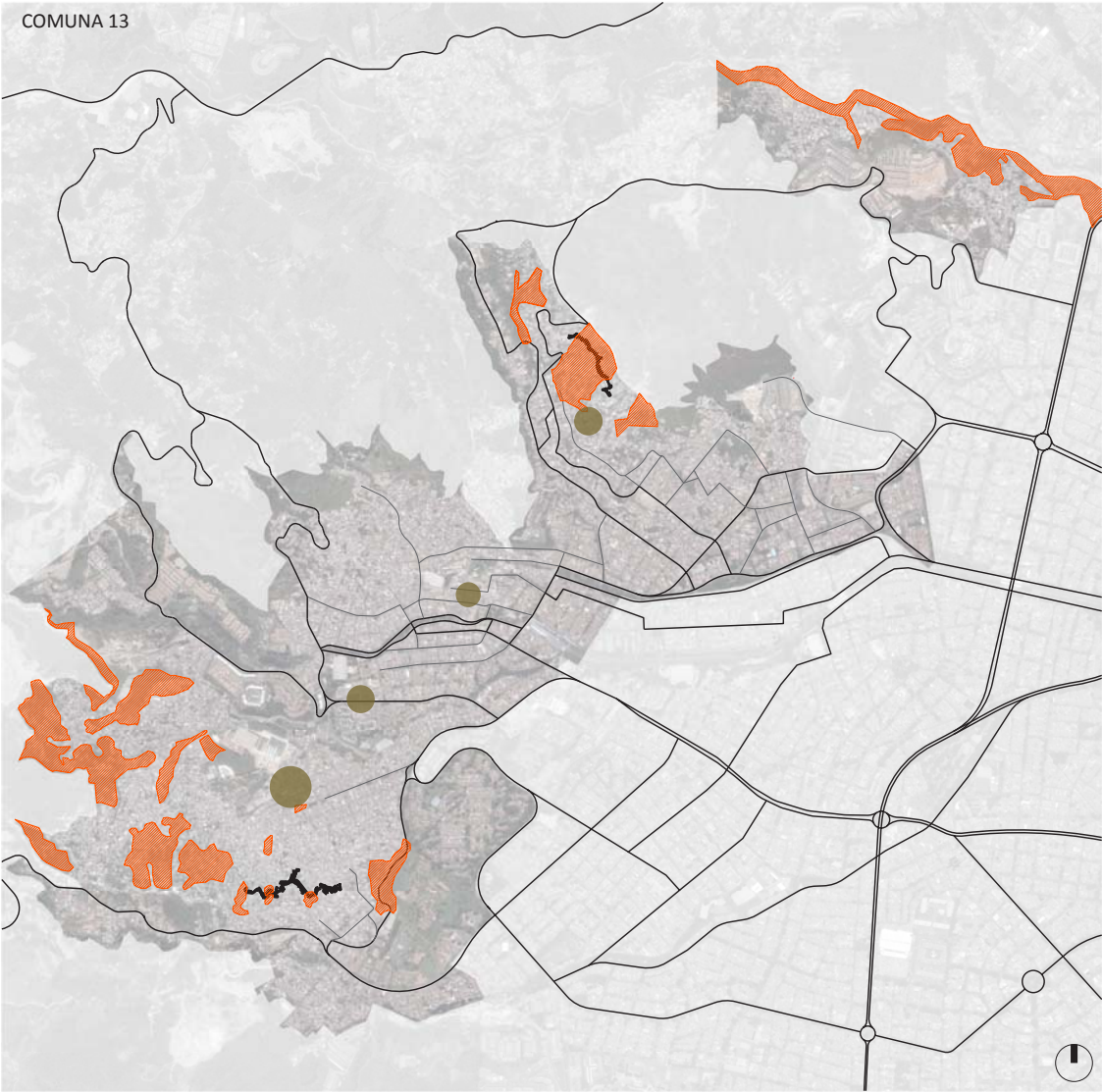
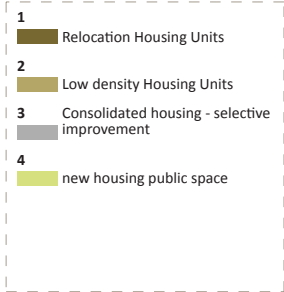
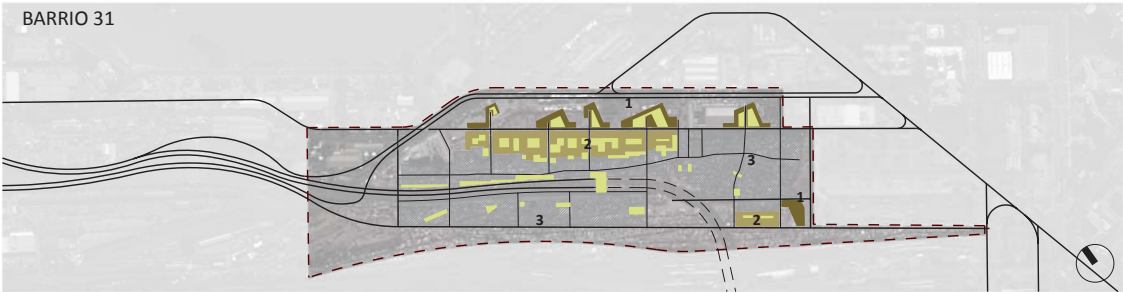
**Selective Housing Repair** - In order to maintain the character of the neighborhood and the sense of belonging to the place of the population, the most common strategy is to develop projects to consolidate, regularize and improve housing. This proposed strategy, besides being the best accepted by the residents, is a clear commitment with the economic and environmental sustainability. The actions of the housing repair work on the improvement of the habitability conditions of housing units that allows the improvement of quality of life. In this sense, the improvement actions are directed primarily to overcome structural weaknesses and deficiencies, to improve health, sanitation and habitability conditions, and to control the size and density of housing.

**Housing Relocation** - In those cases where the selective repair is not possible, because houses have been built in natural risk areas or because of their precarious conditions, the strategy is to relocate and resettle the families. New housing for relocation respond to two situations, those that are located in the areas of centrality, which tend to be higher density and high-rise housing and, and those renewal interventions on the urban fabric that, with an integrated model with the existing fabric, proposes lower density housing.





SELECTIVE URBAN REPAIR - *Improving the quality of life. From eradication to settlement.*





## URBAN AND ENVIRONMENTAL SUSTAINABILITY - *Improving green and nature*

The incorporation in the three proposals of the concepts of urban sustainability and environmental sustainability, goes hand in hand with the above strategies.

For example, public transportation systems aim to achieve a more efficient mobility that reduces displacement in private vehicles, and reduce the use of energy.

The continuity of public spaces encourages alternatives to pedestrian mobility.

The housing relocation proposal aim to establish an order for the development of urban land that permits to revert the extensive process of occupation of the neighborhoods, which has led to the deterioration of the natural environment.

This reversion allows recovering natural areas, habitats, ecosystems, and environmental and ecological corridors with a clear commitment to environmental sustainability and “building” more value.

This strategy of relocation, allows the densification of neighborhoods at specific points, especially in the centrality areas. Thus, in addition to getting land for environmental issues, intensification is achieved with reasonable densities in strategic locations.

Finally it should be noted the typological variety and diversity of the interventions proposed in the different neighborhoods. This variety helps integration, inclusion and diversity in the profiles of the population living in the neighborhood, which helps social sustainability.



## MAKING URBANISM - *Planning for no improvising*

The concept of urbanism and urbanity in these projects is not only implemented in the form of plans and urban projects, but it is realized primarily through citizen participation processes.

The change in the *modus operandi*, shifting from eradication to settlement, gives citizens a greater sense of belonging to the community and involves them as an active part in the planning process of neighborhoods.

Participation, which is essential for the development of social inclusion processes, aims to democratize the enjoyment of urbanity, making it accessible to all the citizens. In order to integrate the neighborhood residents, participation encourages and strengthens community relationships and uniting for a specific purpose, which may be urban, developing community activities such as workshops, or the consolidation of spaces dedicated to recreation and exchange.

In this sense the three projects have launched initiatives that want to encourage the participation of the community, as it is essential that the community take part in the decision-making process since it is the community that meets their real needs. Likewise, participation is one of the trigger elements for change, since residents are involved in the whole process that goes from the diagnostic phase to the execution of the works.

The involvement of citizens in determining the centralities, opportunity areas, strategies, identification of problems, and different actions to be implemented, does become aware of the need to anticipate and plan projects and actions and not to improvise them, preventing the informal development of neighborhoods.





## CONCLUSIONS

Despite the fact that the recovery of informal neighborhoods is often tackled through generic answers, these three proposals suggest that tactical transformations and social inclusion can be achieved through the basic principles of New Urbanism in relation with mobility, public spaces, facilities and sustainability, the essential elements of the urban structure.

The improvement of these neighborhoods and the recycling of the existing urban fabric, requires a new tactical approach from urbanism rather than from eradication, increasing the social capital invested and promoting local identity.

Thus, we can say that the principles of New Urbanism, are extensible, applicable, and strategic for any context, place, environment, city or territory and are a powerful and very valuable tools for the recovery and improvement of neighborhoods in poverty contexts.

## REFERENCES

### Books:

BALBO, Marcello; JORDÁN, Ricardo; SIMIONI, Daniella. (2003): *"La Ciudad Inclusiva"* (The inclusive city). United Nations, Santiago de Chile. ISBN 92-1-322259-9

FERNÁNDEZ CASTRO Javier and others (2010): *"Barrio 31 Carlos Mugica. Posibilidades y límites del proyecto urbano en contextos de pobreza"*. Institut of the human especiality, Buenos Aires. ISBN: 978-987-05-9779-7

HERNÁNDEZ, Felipe; KELLET, Peter; ALLEN, Lea K. (2010): *"Rethinking the informal city. Critical perspectives from Latin America"* Berghahn Books. ISBN 978-1-84545-582-8

MAGALHÃES, Fernanda; Di VILLAROSA, Francesco (2012): *"Urbanización de favelas. Lecciones aprendidas en Brasil"* (Slum upgrading. Lessons learned from Brazil) Fernanda Magalhães-Francesco di Villarosa, Editores. ISBN 978-1-59782-164-3

SMOLKA, Martim O.; MULLAHY, Laura (2007): *"Perspectivas urbanas. Temas críticos en políticas de suelo en America Latina"* San Salvador: Universidad Centroamericana José Simeón Cañas. ISBN 978-1-55844-163-7

### Articles and researches:

FERNÁNDEZ CASTRO, Javier. *"Anteproyecto Urbano Barrio 31 Carlos Mugica"*. IEHu | FADU | UBA Institut of the human especiality, Architecture and urban design faculty, Buenos Aires University.

FERNÁNDEZ CASTRO, Javier. *"Posibilidades y límites del proyecto urbano como herramienta de inclusión socioespacial"*. Vocesenelfenix.com

HERNÁNDEZ CORREA, Cesa Augusto (2006): *"Proyecto urbano integral en la zona nororiental de Medellín. un modelo de transformación de ciudad"* (Integral Urban Project in northeastern Medellín. A model of city transformation). International conference on human development, Madrid

MARIO RODRÍGUEZ, Carlos. *"La transformación de Medellín, una acción social"* (Medellin's transformation, a social accion). Document of the Medellin Mayoralty

RODRIGUEZ HERRERA, Carolina (2012): *"Análisis de los procesos de inclusión social a partir de los programas de mejoramiento urbanístico. Estudio de caso línea J Metrocable. (2007-2010)"*. (Analysis of the processes of social inclusion from urban improvement programs. Case Study J Metrocable line) Political Science and Government Faculty, University College Nuestra Señora del Rosario, Bogotá.

URB-AL III (2011): *"Desarrollo urbano sostenible en Latinoamérica"*. Ciudad de Stuttgart, Departamento de Protección Ambiental, Alemania.

Unit settlements and housing development planning administrative department. *"Programa de mejoramiento integral de barrios"* (Program Upgrading Informal Settlements). Document of the Medellin Mayoralty, 2007

Graduate Program Update. Habitat and urban poverty in Latin America. School of Architecture and Urban Design, National University of Buenos Aires.



**Web:**

<http://31carlosmugica.com.ar/>  
[www.jauregui.arq.br/broken\\_city](http://www.jauregui.arq.br/broken_city)  
[www.sebastianmiguel.com.ar](http://www.sebastianmiguel.com.ar)  
[www.cafedelasciudades.com.ar](http://www.cafedelasciudades.com.ar)  
[desarrollourbano.caf.com](http://desarrollourbano.caf.com)  
[www.rj.gov.br/web/seobras/principal](http://www.rj.gov.br/web/seobras/principal)  
[www.edu.gov.co](http://www.edu.gov.co)  
[www.medellin.gov.co](http://www.medellin.gov.co)  
[proyectosurbanosintegrales.blogspot.com.es](http://proyectosurbanosintegrales.blogspot.com.es)  
<http://informalsettlements.blogspot.com.es/>