

Medellin - Metrocables,
Library Parks, Escalators
COLLECTIVE URBAN FORM

01 Overview

01 Medellin

“San Lorenzo de Aburrá”

“Villa de Nuestra Señora de la Candelaria de Medellín”



Municipality of Medellín - Capital of Antioquia, Colombia



Area
380.64 km²

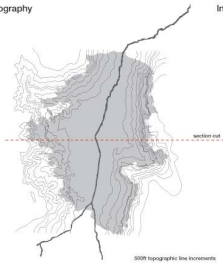


Population
2,508,452



Language
Colombian Spanish

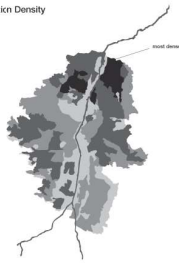
Topography



Infrastructure and Accessibility



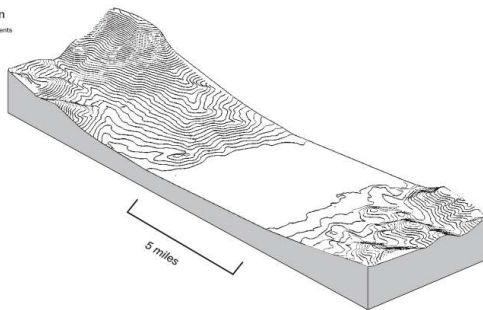
Population Density



Wealth Distribution



Topography Axon
75ft topographic line increments



1,300 feet

elevation increase from the city center to the city limits



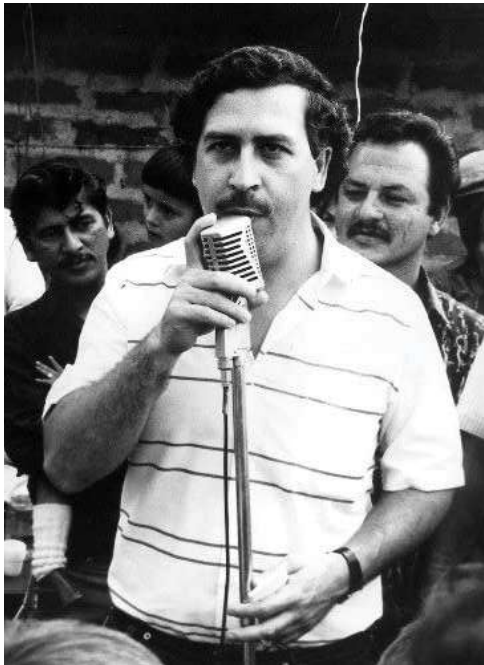
16 comunas (districts), 5 corregimientos (townships), and 271 barrios (neighborhoods)

Sources : <https://www.medellincolombia.co/general-information/medellin-factfile/#:~:text=History%20of%20Medellin&text=However%20Medellin%20was%20not%20founded,were%20fleeing%20from%20the%20Inquisition>
<https://www.medellincolombia.co/medellin-sightseeing/medellin-neighborhoods-overview/>
<https://guttlab.wordpress.com/guttlab-01-minnesota-usa/2-informal-settlements-analysis/>

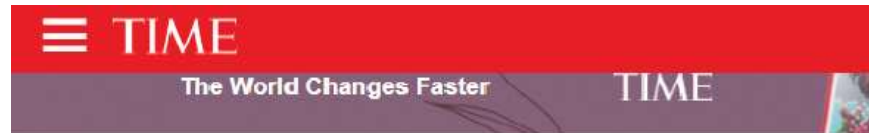
02 Context

02 Violence In The City

The City became Victim of Terror caused by the Violence



Throughout the 1980s-1990s, Medellin had struggled with violence amongst the city between drug traffickers and paramilitary groups with poverty increasing in large segments of the community



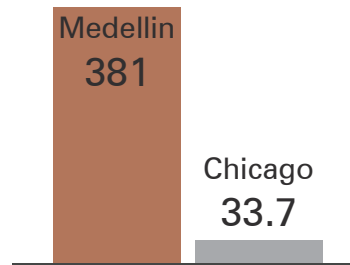
Colombia the Most Dangerous City

Welcome to Medellin, coke capital of the world

By John Borrell/Medellin | Monday, Mar. 21, 1988

“Medellin was named the most dangerous city in the world by Time Magazine 1988”

homicides
per 100,000 inhabitants in 1991



Inhabitants (3,125)



Homicide
(Hundreds)



Sources : <https://www.pri.org/stories/2012-12-27/new-feat-colombia-s-urban-innovator-slum-escalators>
<https://medellinliving.com/history-of-medellin/>
<http://content.time.com/time/subscriber/article/0,33009,967029-1,00.html>

02 Comuna 13 - Settlement and Authority

San Javier - Labeled as the Most Dangerous Community due to its Homicide Rates and Foced Displacement



> 1,500

families settled in Comuna 13

“ They were discriminated against by the older settlers and deemed as “invaders” which disrupted the integration in the entire Comuna 13”

Started as an illegal settlement above Medellin. - The government didn't recognize these residences as legal so, the community was left **without basic infrastructure and no support from police.**

Neglect

Displacement

Stigmatism

Socioeconomic **D**isparity



Comuna 13 is an area that has been **plagued with violence** for guerrillas and drug traffickers because of its location on the edge of the city and barrio transit points.

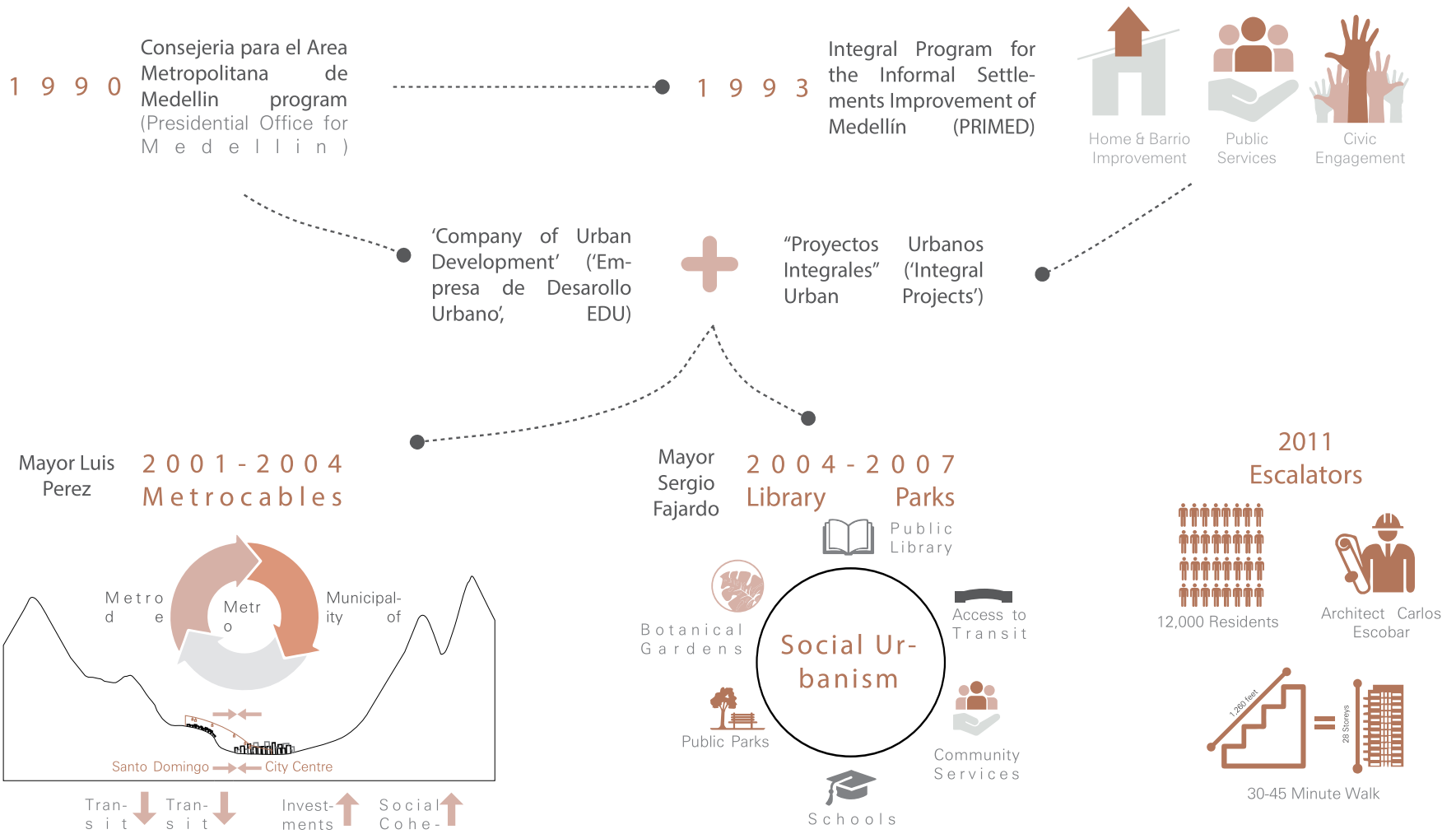


Between **1980s-1990s**, the neighbourhood was controlled by groups loyal to Pablo Escobar due to the neglect from the local government which became a **national problem.**

“ It was not until 2002 when Alvaro Uribe got elected as president of Colombia and decided to intervene in Comuna 13 along with the support and encouragement of the then Mayor of Medellin Luis Perez.”

Sources : <https://www.travellifex.com/comuna-13-how-colombias-notorious-neighbourhood-reinvented/>
<https://brookearoundtown.com/things-to-know-about-comuna-13-medellin-why-you-really-need-to-visit>
<https://medellindaytrips.com/comuna-13-in-medellin-history-and-present/>
<http://www.informalsettlementsresearch.com/2011/03/spatial-conditions-of-violence-in-city.html>

02 Policies towards Urban Development



Sources : 01. <https://healthymedellin.weebly.com/history.htm> 02. <https://www.medellinabrazasuhistoria.com/creation-of-the-presidential-office-for-medellin/?lang=en>
 03. <https://labgov.city/theurbanmedialab/on-the-medellin-miracle-and-the-social-urbanism-model/> 04. <https://globalurban.org/GUDMag07Vol3Iss1/Betancur%20PDF.pdf>

03 Design Context

03 Integration

Metrocables

Social transformation in informal settlements through mobility innovation



Medellín, Colombia's Metrocable aerial cable car system helps connect residents of the city's informal settlements to jobs and opportunities in the urban core.

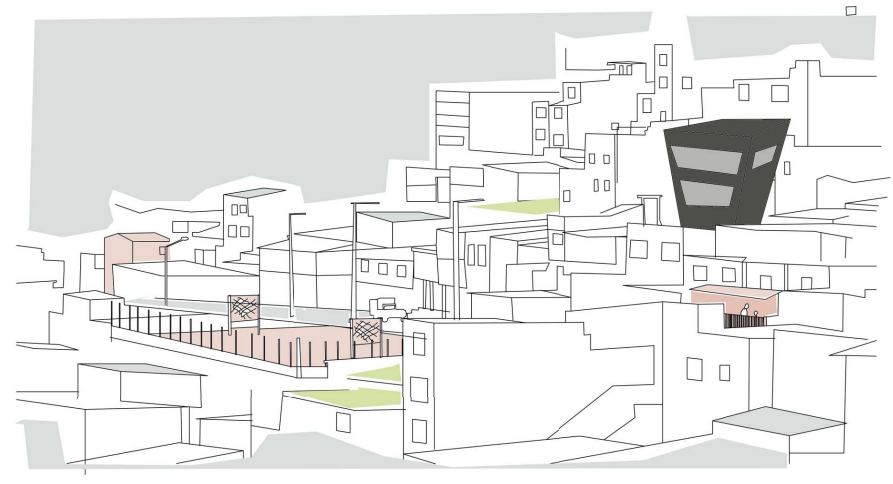
By integrating the design of the system with other forms of mass transit and improving access for pedestrians, the city's Metrocable system has helped connect low-income residents to their city and put urban mobility at the heart of equity.

Sources : 01. <https://www.smartcitiesdive.com/ex/sustainablecitiescollective/mobility-solutions-marginalized-communities-urban-cable-car/1040726/>

03 Agenda

Metrocables

- Upgrading infrastructure and services for these neighbourhoods, Moreover,
- The government is reducing the marginalization of these communities
- The project has provided for investments in a public library, kindergartens, public space and sports facilities.



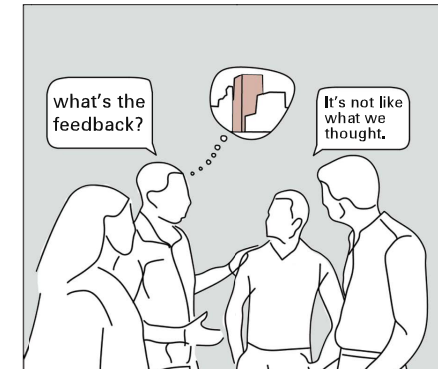
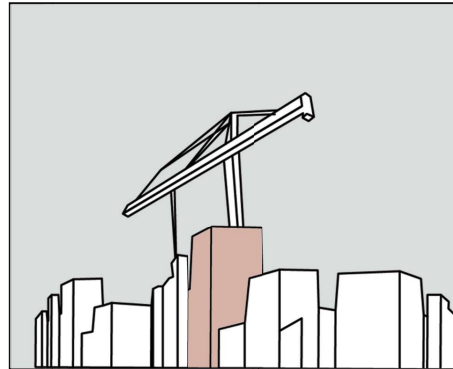
03 Issues

Metrocables



Community members were informed about the changes that would happen. But actual feedback from the community did not happen

As a dual-purpose commuter and visitor route, Line K has a steady stream of users throughout the day. Careful planning and diagnostics also led to choices for station locations that disrupted the drug trade.



03 Context

Escalators



Sources : 01. https://www.tripadvisor.ca/ShowUserReviews-g297478-d2203325-r254799561-Medellin_Metrocable-Medellin_Antioquia_Department.html

03 Intention

Escalators

To get home, many residents here used to climb the equivalent of a 28-story building.

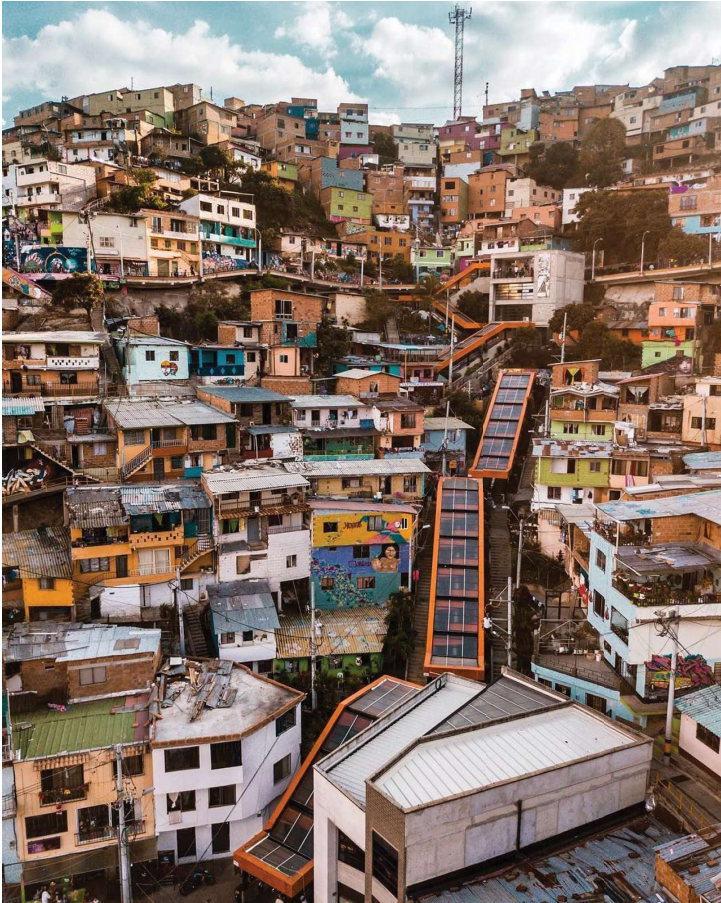


The complex topography of this comuna made it historically prone to squatting and self-help construction but also appealing to violent actors. Until 2002, large areas of Comuna 13 were off-limits to the police.

the aim is to increase mobility for a secluded population

03 Issues

Escalators



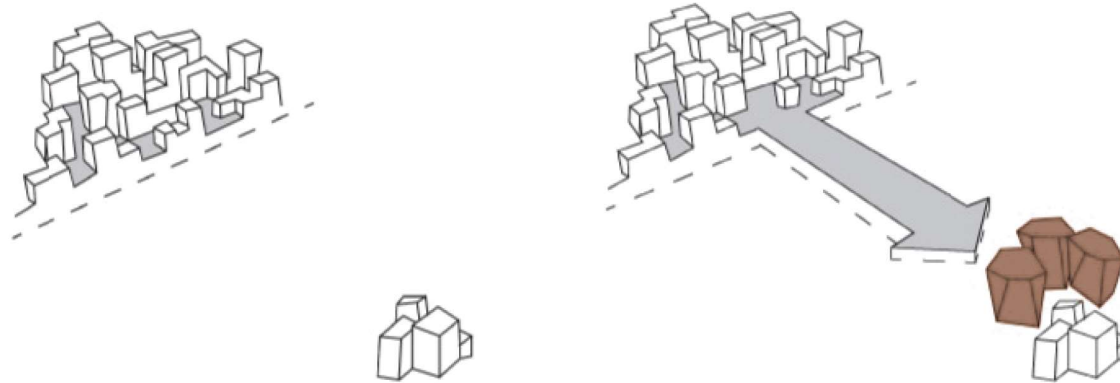
Medellin officials installed a \$7 million outdoor escalator — the first ever designed for a slum. The ride to the top now takes five minutes.

many residents question the \$5 million price tag for something that only serves part of Comuna 13's large population.

Sources : 01. <https://www.pri.org/stories/2012-12-27/new-feat-colombia-s-urban-innovator-slum-escalators>
02. https://www.tripadvisor.ca/ShowUserReviews-g297478-d2203325-r254799561-Medellin_Metrocable-Medellin_Antioquia_Department.html

03 Social Inclusion

LIBRARY PARKS



DISCONNECT

BETWEEN CITY AND SLUM

SOCIAL INCLUSION

VIA LIBRARY PARK

“People who say that a **beautiful building** doesn’t improve education don’t understand something critical...The first step toward quality education is the **dignity** of the space. When the **poorest kid** in Medellín arrives in the best classroom in the city, there is a powerful message of **social inclusion.**”

Sources : 1. <https://guttlab.wordpress.com/guttlab-01-minnesota-usa/2-informal-settlements-analysis/>
2. https://www.redalyc.org/jatsRepo/748/74855211015/html/index.html#redalyc_74855211015_ref39

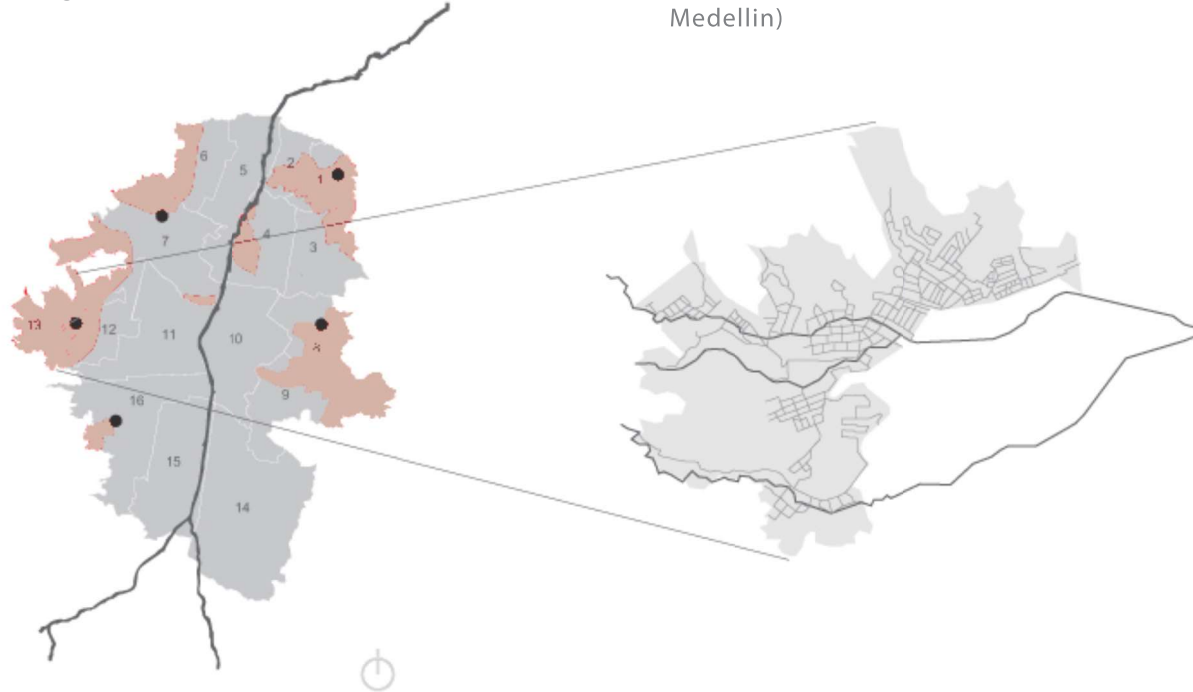
03 Designer and its Agenda

LIBRARY PARKS

TACTICAL AND TECHNICAL CONSIDERATION

Projects in least educated, poorest, and most dangerous areas

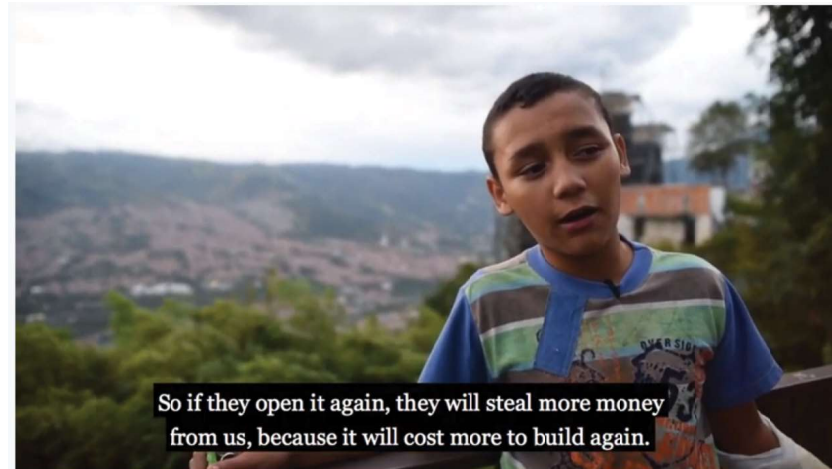
Comuna 13
(most notorious area of Medellin)



Sources : <https://guttalab.wordpress.com/guttalab-01-minnesota-usa/2-informal-settlements-analysis/>

03 The struggles

LIBRARY PARKS



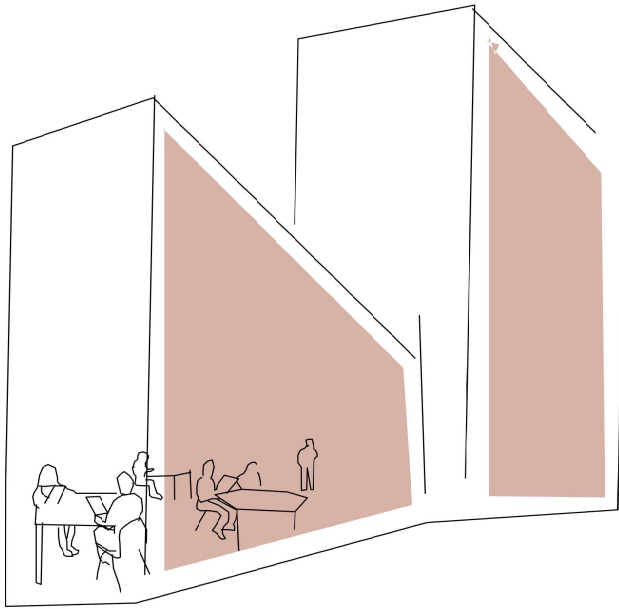
“The España library changed our conception of ourselves,” Mateo Gómez added. **“Before, we felt a stigma. But we’re still missing cultural spaces, the library closes too early, the situation is still very uncertain.**



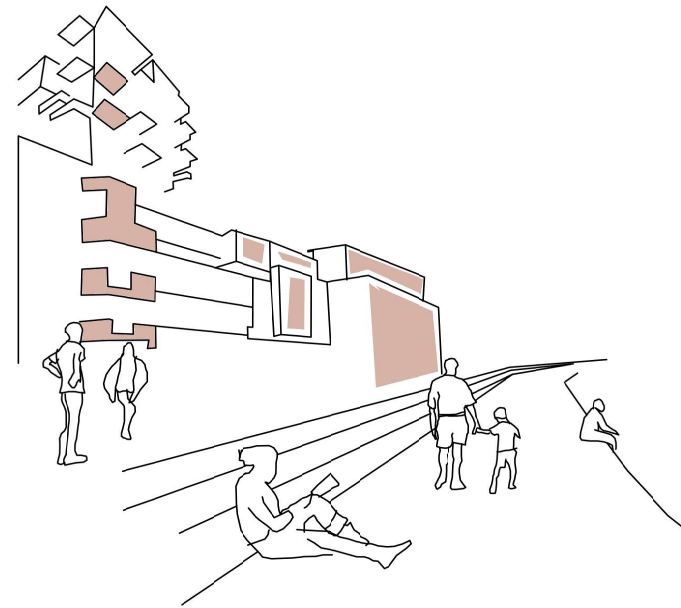
03 The struggles

LIBRARY PARKS

CO-INHABITATION IN A LIBRARY VS CO-INHABITATION IN A PUBLIC SPACE ?



ARCHITECTURAL SPACE



URBAN SPACE

Co-inhabitation that is expected to happen in the libraries is fundamentally different from the one that happens naturally in public spaces of those informal contexts, since the former is housed by architectural space instead of urban space

04 Disciplinary Context

04 Urban Acupuncture

Urban area can be entirely affected by small, but precise, operations in very specific locations

Urban and social upgrading in Medellín through

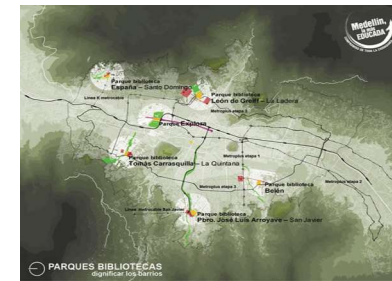
A. Social Urbanism



1. transport strategy- implementation of the 'Metrocables'



2.the construction of social housing projects in the same neighbourhoods.



3.public libraries of 'great architectural impact' were built (namely the Library-Parks Project), which offered a wide range of services to the surrounding communities.

B. Urban Renewal

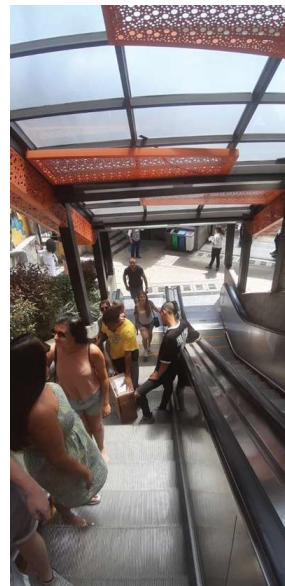
The programme of urban upgrade included the renovation of schools and other public facilities

C. Inclusivity

urban public space renovation, connecting all projects so as to expose the integration of investments.

Sources : 1. <https://favelissues.com/2010/02/21/library-parks-as-urban-catalysts/> 02. <https://onresilientsettlement.wordpress.com/2012/10/21/urban-acupuncture-in-medellin-colombia/>

04 Sense of Participation



“This displaced population didn’t feel like they were part of the city,” said Laura Isaza.”

“These people used to say: ‘I live in this neighborhood and I don’t live in Medellín.’”



It results in gaining their confidence and to make them feel that they are part of the city.

Greater Sense of Participation

04 Outcome

What are the main issues that both the residents and the designer(s) decided to tackle?

what sectors are ignored? how these three urban projects impact other sectors?



- Transportation advantages in terms of:
- Public space,
 - Easy of mobility and
 - Heightened security, and also
 - A symbol of the transformation of the city
 - A local, national and international tourist attraction



Street vendors in Colombia are often targeted for extortion

“ The flashy new projects have distracted people’s attention from lingering issues. ”

“ Gangs still control the city slums where they sell drugs and extort businesses. City officials, he said, “are sweeping those problems under the rug.” ”

04 How Did It Influence Other Projects?

Cities like Brazil's Rio de Janeiro and Bolivia's La Paz have followed CABLE CARS— although its success hasn't always been replicated

“ In Medellin, cable cars transformed slums— in Rio, they made them worse. ”

“ They had no basic sanitation, they had no housing - but they had a cable car ”



Sources : 01. <https://www.businessinsider.com/medellin-cable-cars-what-like-to-use-transformed-city-colombia-2019-10#since-medellin-introduced-its-cable-cars-cities-like-brazils-rio-de-janeiro-and-bolivas-la-paz-have-followed-suit-although-its-success-hasnt-always-been-replicated-24>

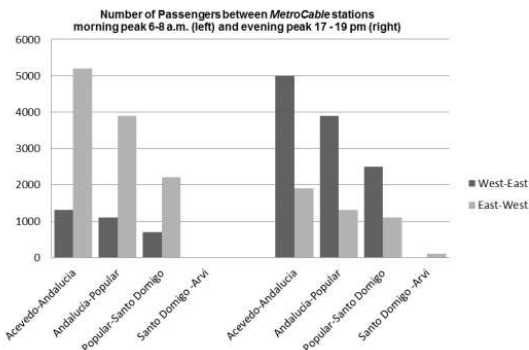
05 General Assessment

05 Metro Cables

Integrating the city's low-income residents living the poorest neighbourhoods

“Medellin pioneered the use of cable cars as a transit alternative in low-income informal settlements in hilly areas, **moving 3,000 passengers per hour per direction**. The city transformed violence and despair into hope and opportunity, using sustainable transport as one of the key levers to drive change.”

“The Metrocable brought us security, it brought us the police, it brought us employment, it brought us together,” Rosalba Restrepo, president of the Community Neighborhood Committee, told WRI. “The Metrocable was a blessing from God for this neighborhood.”



reaches around 230,000 inhabitants in 12 localities

halved average travel time from barrios to the centre from 2.5 hrs to 1hr

doubled number of opportunities

Starting in 2004, it carried up to 30,000 people daily but now, it carries more than 650,000 people each day (26% of the population).



“The urban interventions featured the use of local labor and included participatory budgeting, allowing local communities to collectively determine how to use 5% of the municipal budget designated for investment in these areas.”

Sources : <https://blog.iese.edu/cities-challenges-and-management/2018/10/26/medellin-a-story-of-transformation/#:~:text=However%2C%20in%20only%20two%20decades,Prize%20in%202016%2C%20for%20its>
<https://cityspeak.org/2014/04/04/medellin-colombia-a-city-transformed/>
<https://thecityfix.com/blog/medellin-metrocable-improves-mobility-informal-settlements-low-income-accessibility-equity-development-coby-joseph/>
<https://www.centreforpublicimpact.org/case-study/urban-cable-car-medillincolombia/>

Medellin's White Elephant

The Indefinite Closure of Biblioteca España

After having spent \$15 billion pesos on its construction, the library was opened in 2007 with the promise of rejuvenating the neighbourhood it was gifted to. Seven years later, however, significant structural defects were noted in the building's foundations and it was closed in October 2015.



What was to be a powerful symbol of Medellín's transformation—and connected two other crucial investments in Parque Arví and the cable car—had now become Medellín's white elephant.

Sources : Sources: <https://thebogotapost.com/medellins-doomed-library-the-indefinite-closure-of-biblioteca-espana/32435/>
<https://colombiareports.com/biblioteca-de-espana/>

05 Private Reinvestment into the Community

Public Art



Comuna 13 is an ongoing project for street artists to illustrate their artistic ideas and monumental murals on walls surrounding the local community.

“The local government has been actively involved in the recruitment of artists to paint murals in comuna 13 as well as various other locations across the city. The legal walls have been a big hit with local artists who are eager to create and share their passion with the rest of the city. The local government continues to actively search for new areas throughout the city for displaying public art. In addition, the local government has sponsored artists by providing them with the monetary funds to complete various projects throughout the city.

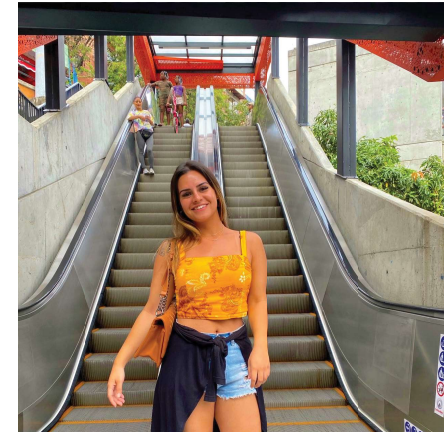
Residents of the community decided to take ownership in improving their communities, seeking justice and promoting a bright and hopeful future.

“Art serves multiple purposes. It allows local artists to share their passion for art with the local community. It's a positive influence for younger troubled kids who have limited opportunities in Colombia. Many are discriminated against solely because of the notorious barrio they live in. The public art also serves as a historical record with many of the murals documenting Medellín's violent past. Recently, several home-owners along the tour have approached me with an invitation to paint a mural on their walls to help improve the reputation of their community.

Sources : <https://www.theguardian.com/artanddesign/gallery/2017/nov/21/street-art-in-medellin-colombia-in-pictures>
<https://www.aboveusonlyskies.com/street-art-comuna-13-medellin/>
<https://www.brooklynstreetart.com/2015/01/17/community-murals-and-the-violent-history-of-comuna-13-in-medellin/>

Tourism-Economy Booster

“Tourists now come to slums to ride the escalator and cable cars. Property values in Comuna 13 and other barrios are on the rise. What’s more, Colombian and foreign investors have shown new interest in Medellín”



Sources : <https://www.businessinsider.com/medellin-cable-cars-what-like-to-use-transformed-city-colombia-2019-10#since-medellin-introduced-its-cable-cars-cities-like-brazils-rio-de-janeiro-and-bolivas-la-paz-have-followed-suit-although-its-success-hasnt-always-been-replicated-24>

Unthoughtful Urban Planning

“ We’re still not thoughtful in terms of social housing, mixed neighborhoods,” agreed Verónica Ortiz Murcia



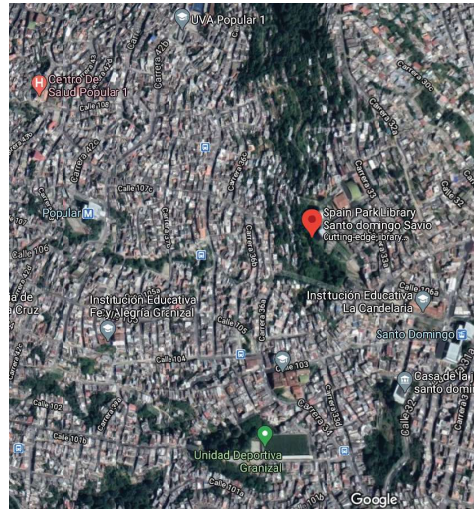
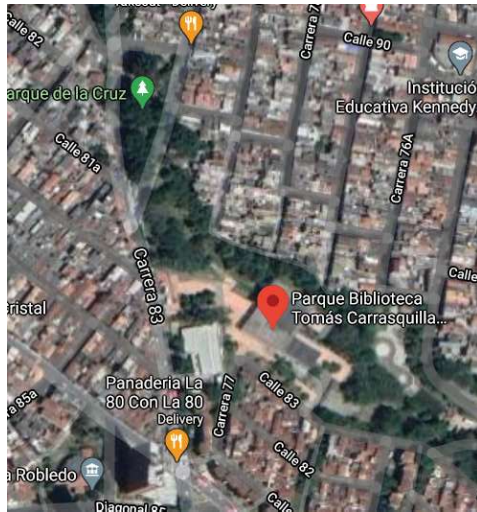
The authorities have lately been moving residents from the unsafe landfill next door to new housing on the city's periphery, which is understandable but a striking case of thoughtless urban planning.

Sources : <https://www.nytimes.com/2012/05/20/arts/design/fighting-crime-with-architecture-in-medellin-colombia.html>
https://www.tripadvisor.ca/ShowUserReviews-g297478-d2203325-r254799561-Medellin_Metrocable-Medellin_Antioquia_Department.html

Precedents-
Library Parks
and Escalator

Precedents - Library

Parque Biblioteca Tomás Carrasquilla, Medellín



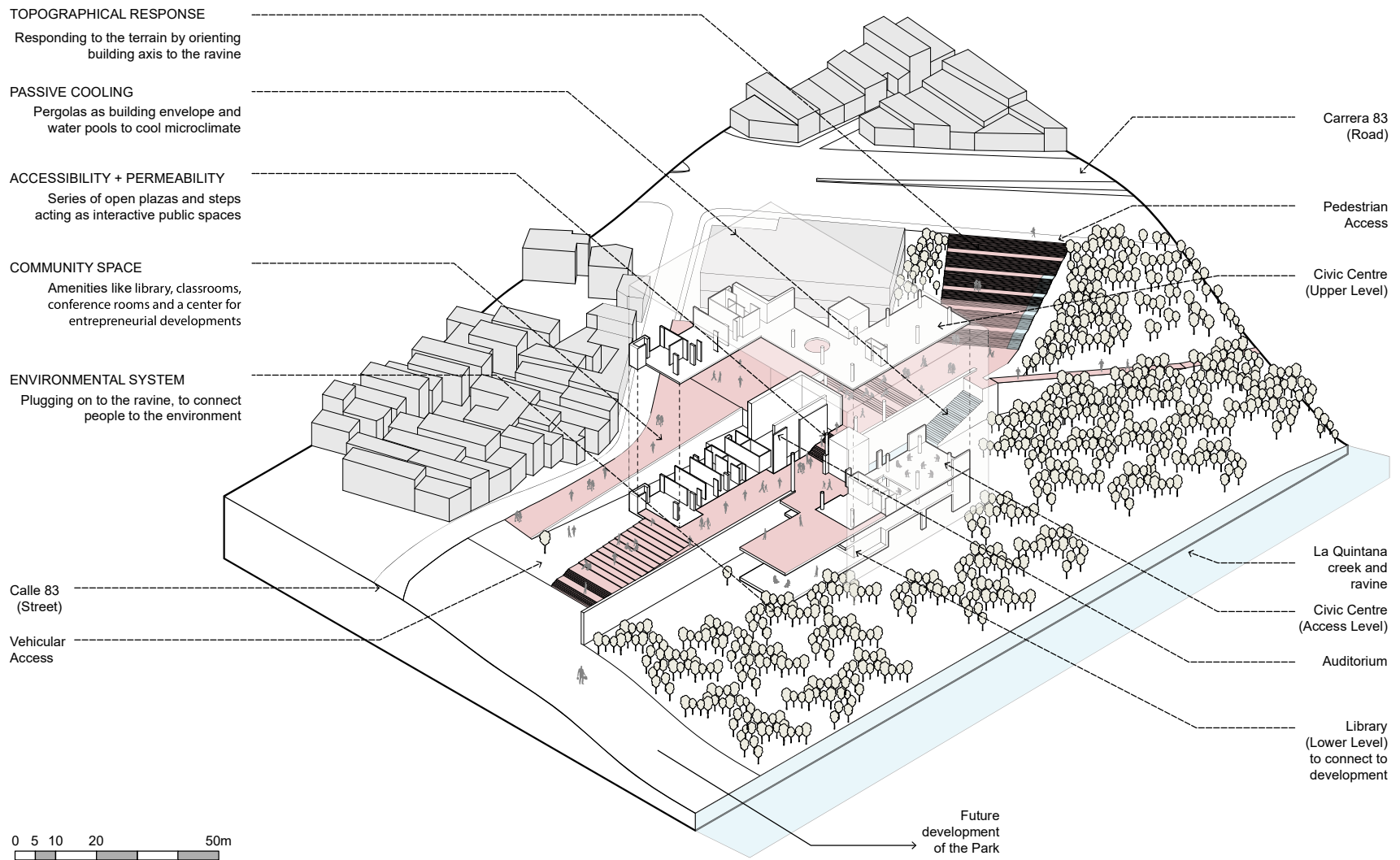
La Quintana Library Park



Spain Library Park



Leon de Greiff Library

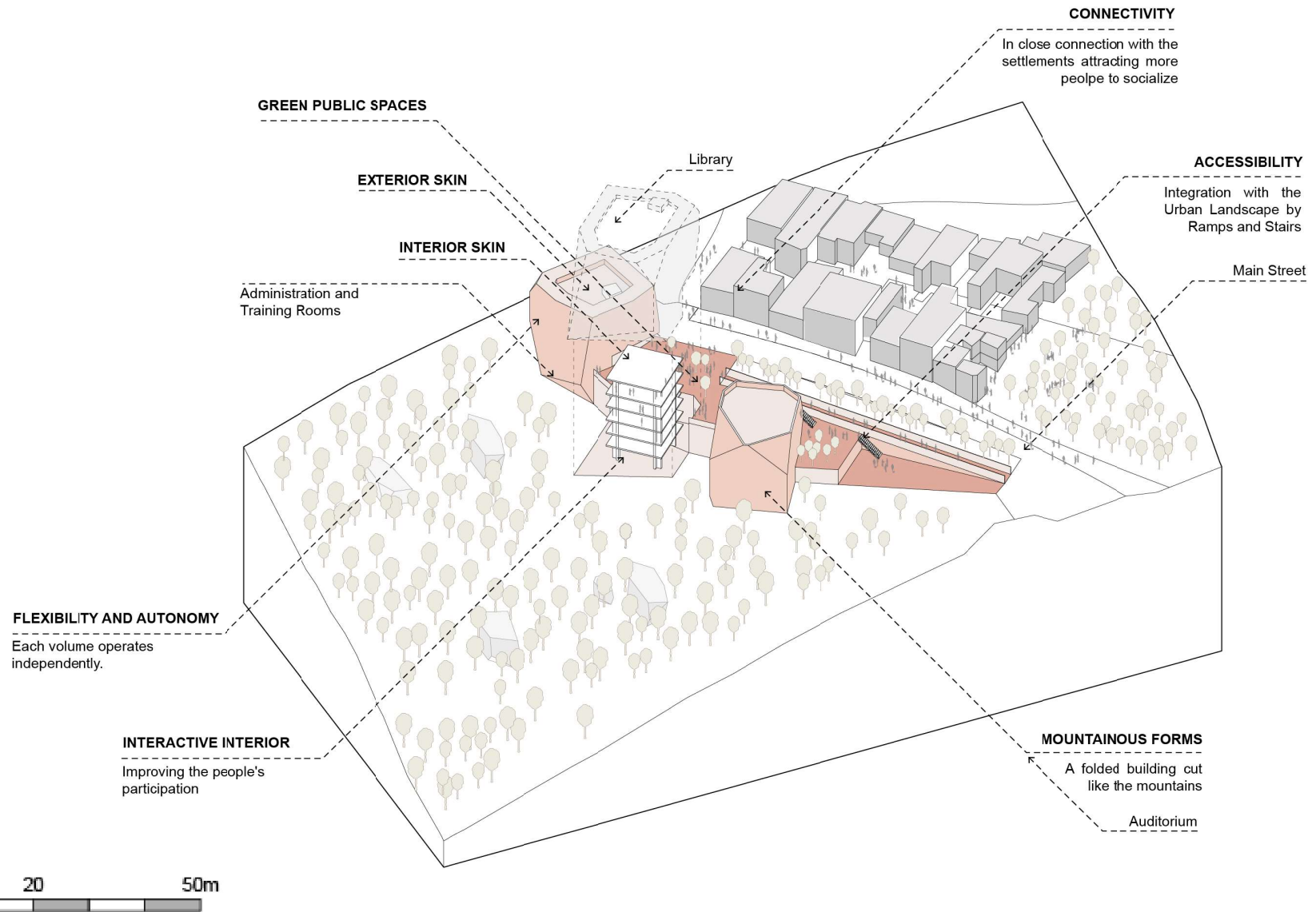


La Quintana Library Park

Ricardo La Rotta, La Rotta Arquitectos | Medellin | 2005

Amini, Golbarg - Dang, Whitney - Gupta, Mitali - Mahajan, Pradnya

This drawing depicts the library as a connector and a transition space; between the different levels of the terrain, between the city and the environment, and most importantly, an space for its people to connect. A seamless pedestrian connection. The exploded isometric attempts to convey the permeability and openness of the design and the contrast between the dense urban form and the environment.

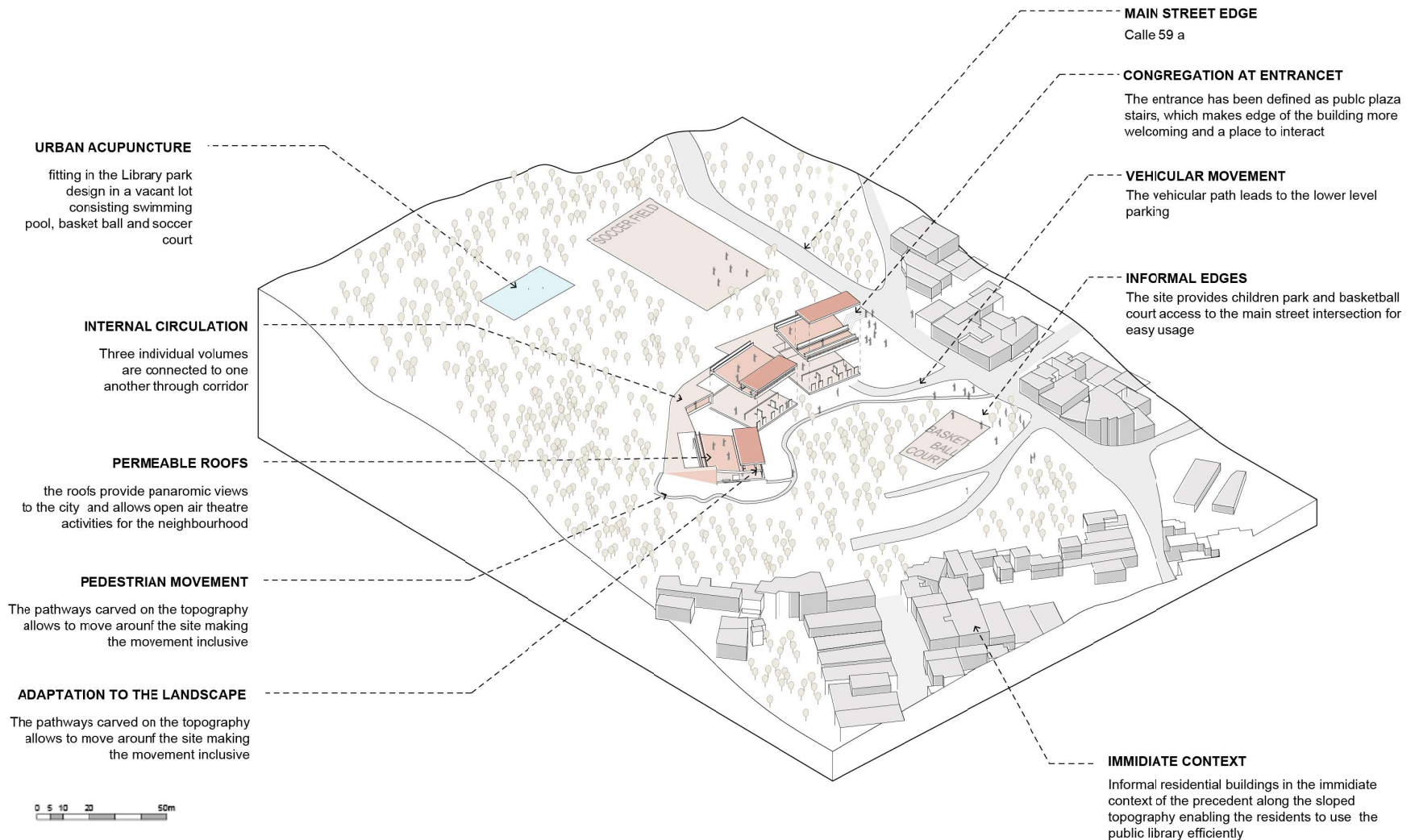


THE SPAIN LIBRARY PARK

Giancarlo Mazzanti | Medellín, Colombia | (2005)

Amini, Golbarg - Dang, Whitney - Gupta, Mitali - Mahajan, Pradnya

The drawing is demonstrating the most distinct spatial elements in Spain Library Park. The concept of park has been addressed by designing the open spaces between three separated volumes. The mountainous topography of this neighbourhood results in providing different types of accessibility like ramps and stairs. The mountain-shaped folded planes in the exterior skins is also inspired by this topography. This project is placed close to the settlements so that improves the people participation.



Parque Biblioteca Leon de Grieff

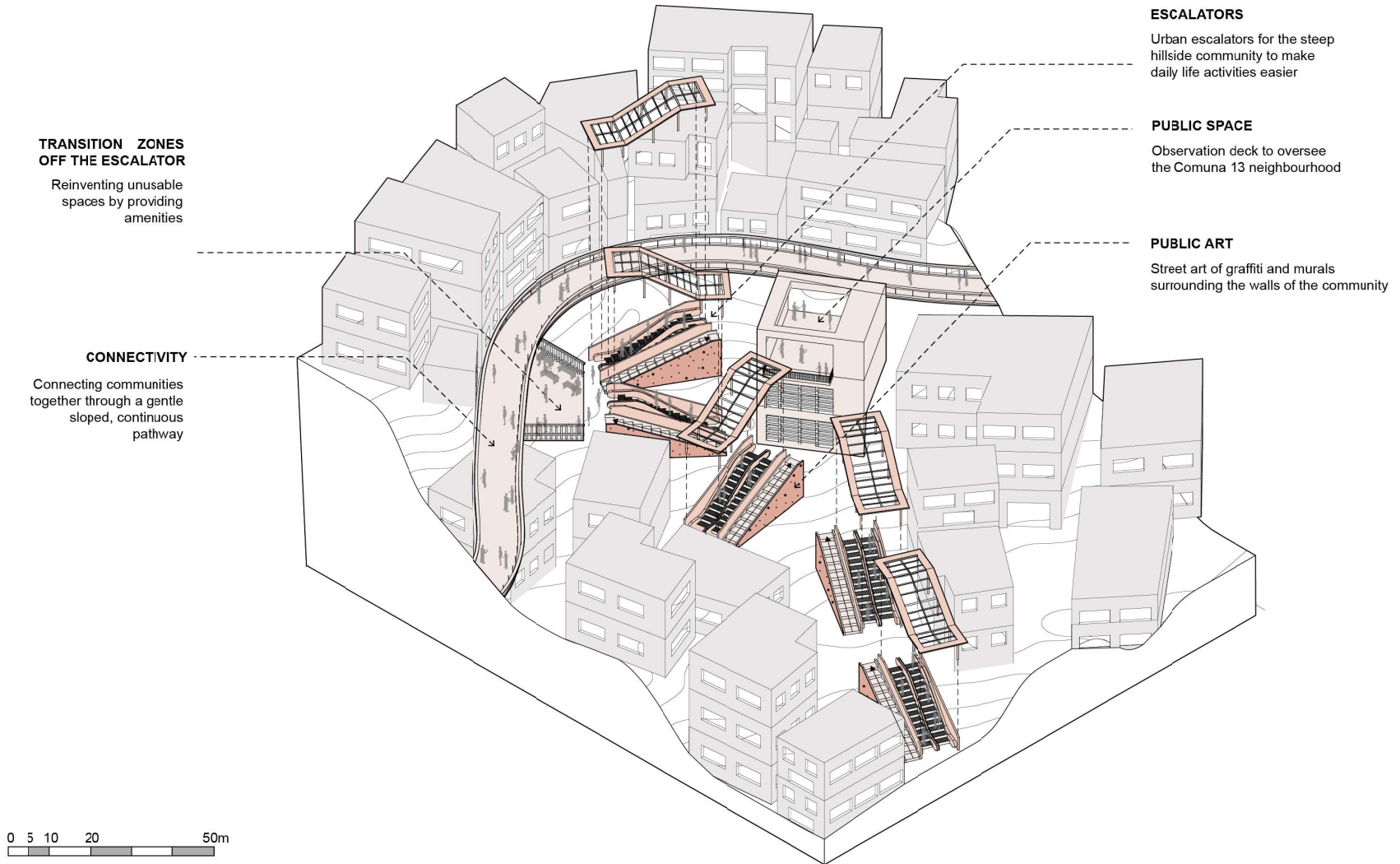
Giancarlo Mazzanti | Medellin | (2007)

Amini, Golbarg - Dang, Whitney - Gupta, Mitali - Mahajan, Pradnya

The above precedent aims to achieve an urban transformation through creating a public place as an integral centre for development and social culture of the city. The building design is a response to topography providing multilevel connections and various public spaces within itself. The permeable roof provides open air theatre and panoramic views of the city from deck. It is an exemplary design of Urban Acupuncture to use an existing vacant lot with pre existing sport fields while offering other wide range of services to surrounding communities.

Escalators and Public Spaces





Escalators and Public Spaces

Carlos Escobar | Medellín, Colombia | (2011)

Amini, Golbarg - Dang, Whitney - Gupta, Mitali - Mahajan, Pradnya

This drawing demonstrates the spatial elements between the escalators and formation of public spaces in the Comuna 13 neighbourhood of Medellín, Colombia. Not only were escalators created but, the transition zones and public space integration on and off those escalators were formed. This includes outdoor public amenities within the spaces on and off the escalators, an observation deck of the Comuna 13 community and local reinvestment such as street art of monumental murals on walls surrounding the neighbourhood. This drawing illustrates the evolution of the escalators in the steep hillside community, as well as, how the public spaces are being used to reconnect the community.