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CONQUEST OF AN URBAN ISLAND

*Integration of La Rotonda de la Virgen in planning of open public
spaces in Managua*

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Diplomarbeit

CONQUEST OF AN URBAN ISLAND

Integration of La Rotonda de la Virgen in planning of
open public spaces in Managua

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ABSTRACT

The urban face of the big cities of Latin America has changed in recent decades. City migration has caused numbers of social, cultural, economic and environmental problems. Economic developments, technology development and globalization trends have displaced the public space, resulting in the transformation and decline of green areas, parks and recreational places. Historically, central public space in Central America has been located in front of the cathedral and city hall surrounded by a park. It has been a place of social, political and cultural gatherings. With the earthquake of 1972, in Managua, this colonial structure was destroyed. The city lost its centre, which was never recovered. Until now, Managua is characterized by a huge deficit of well conditioned public space. From this need for recreation, many phenomena appeared. The focus of this work has been set on a spatial phenomenon in the middle island of the biggest roundabout in the city which was transformed into a park, officially in December 2007.

The phenomenon which occurred in *la Rotonda de la Virgen*, is the result of a need of nearby residents, for accessing an open, clear space. It is a process that has already taken place in Latin America, transforming the wasted space and morphology of the city and adapting it to a specific activity like commerce or sport.

Why do people go to the roundabout? Which are the actors of it? What do they do? How often do they do it? Why prefer that place to another in their neighbourhood? Does the roundabout seem like a safe place?

The answers to these questions will help to determine the strategic approach which seeks to consolidate this space or on the contrary, to strengthen and regenerate public spaces within neighbourhoods.

The goal of this work is to find a solution to make the roundabout a safer and more attractive place and to make rules which could be used for further planning of public space in Managua.

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INTRODUCTION

Motivation

The motivation for my second Master Studies appeared when I moved to Vienna, while searching for a job and trying to integrate in Austrian culture. Meeting the local experts, exchanging experiences with other students and gaining new knowledge seemed like the best solution. In the first year of my studies at Vienna University of Technology I participated on a Modul *“International Urbanization”* which main focus was urban development in developing countries. During it I strongly expressed an interest for Latin America and two years later, while searching for the topic for my final work, I was given an opportunity to do a scientific research in Latin America, precisely Nicaragua. Reading first information about it I have found many similarities with country where I come from (Serbia). I narrowed my research field on public space in the capital, Managua.

Why public space?

In the past, public space was playing an important role on shaping of publics and public culture. Central public spaces were main cultural and political scenes. *“What was happening in them and how they were structured - shaped civic conduct and politics in general”* (Amin 2008:5). Streets, sidewalks and shopping malls are only dedicated for walking and shopping; parks for recreation and festivals; concerts for social activities. A rational and functionalistic approach to design of urban space created different spaces for different types of activities. Functional approach like this, although used all around the world, in most cases failed, because it didn't consider the alternating activity patterns of life in the cities. Life is a continuing process in which contrasting activities inspire each other and interact and monofunctional places reduce the vitality and vibrancy of it. (Gehl 1998:193). On the other hand, a very commercial and rational approach is used in the North and South America (Gehl 1998:194). Public space is in general *“eroding”* from privatization, which decreases the number of public facilities, brings danger to the streets and moves the middle classes into gated communities (Mitchell, 2003; Smith, 1996; Low and Smith, 2006). Private interests purchase public space in many ways. City streets are dedicated to car traffic; pedestrians are

barely seen on the streets. They are relocated to privately owned shopping malls. And again these spaces are likely to be monofunctional, meant for certain activities, walking and shopping, with few benches and with the huge area for eating. Therefore, variety of urban recreation and social activities isn't planned and can't mingle safely in these entirely commercial creations (Gehl 1998:194). Even worse, shopping malls aren't inclusive and prohibit the access to the certain social groups.

"If this trend continues, it will eradicate the last remaining spaces for democratic practices, places where a wide variety of people from different gender, class, culture, nationality and ethnicity intermingle peacefully".

[Low, The Erosion of Public Space
and the Public Realm 2006]

Totally different approach for public space is used in Europe. 30-40 years ago, there was also a threat that the traffic will occupy the streets and that the public life will disappear. The car traffic and the aggressive commercial development trends were expelled and the streets and squares became again people's places. In last decade, people oriented concept has been rapidly expanding in Europe and many examples can be seen in Spain, France and Germany (Gehl 1998:194). Extraordinary example is Copenhagen where the public

spaces are multifunctional; they are used by passive and active users at the same time. In the past, the city centre was used only for passive activities, commerce or leisure. Nowadays, it accommodates more cultural activities. Street musicians, all types of vendors and many others are participating in this space which triggered new types of city gatherings like festivals, theatre, art, jazz etc (Gehl 1998:195).

"When public spaces are successful [...] they will increase opportunities to participate in communal activity. This fellowship in the open nurtures the growth of public life, which is stunted by the social isolation of ghettos and suburbs. In the parks, plazas, markets, waterfronts, and natural areas of our cities, people from different cultural groups can come together in a supportive context of mutual enjoyment. As these experiences are repeated, public spaces become vessels to carry positive communal meanings".

[Carr, S, Francis, M. and Stone, A. Public Space,
Cambridge University Press 1992]

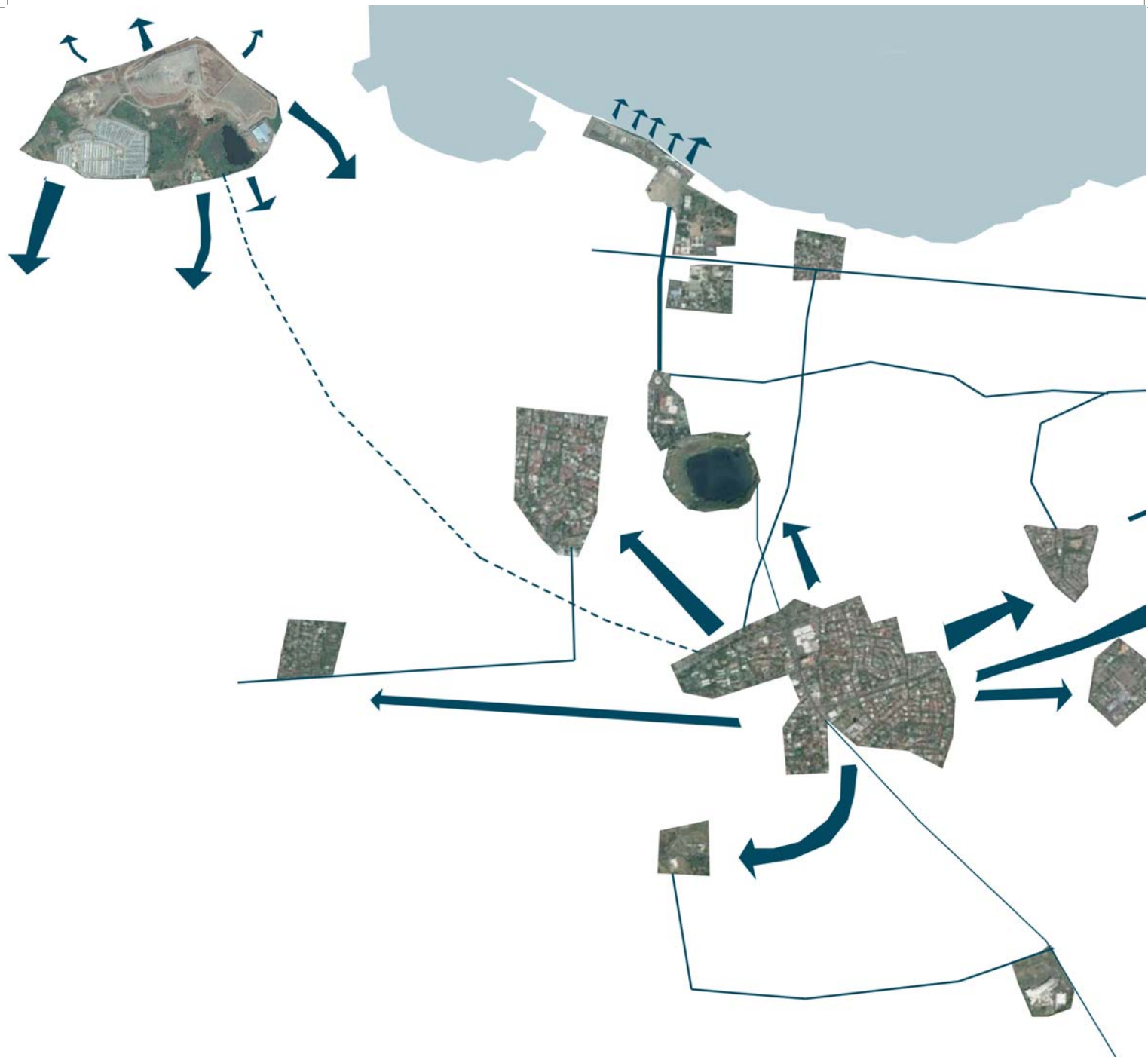
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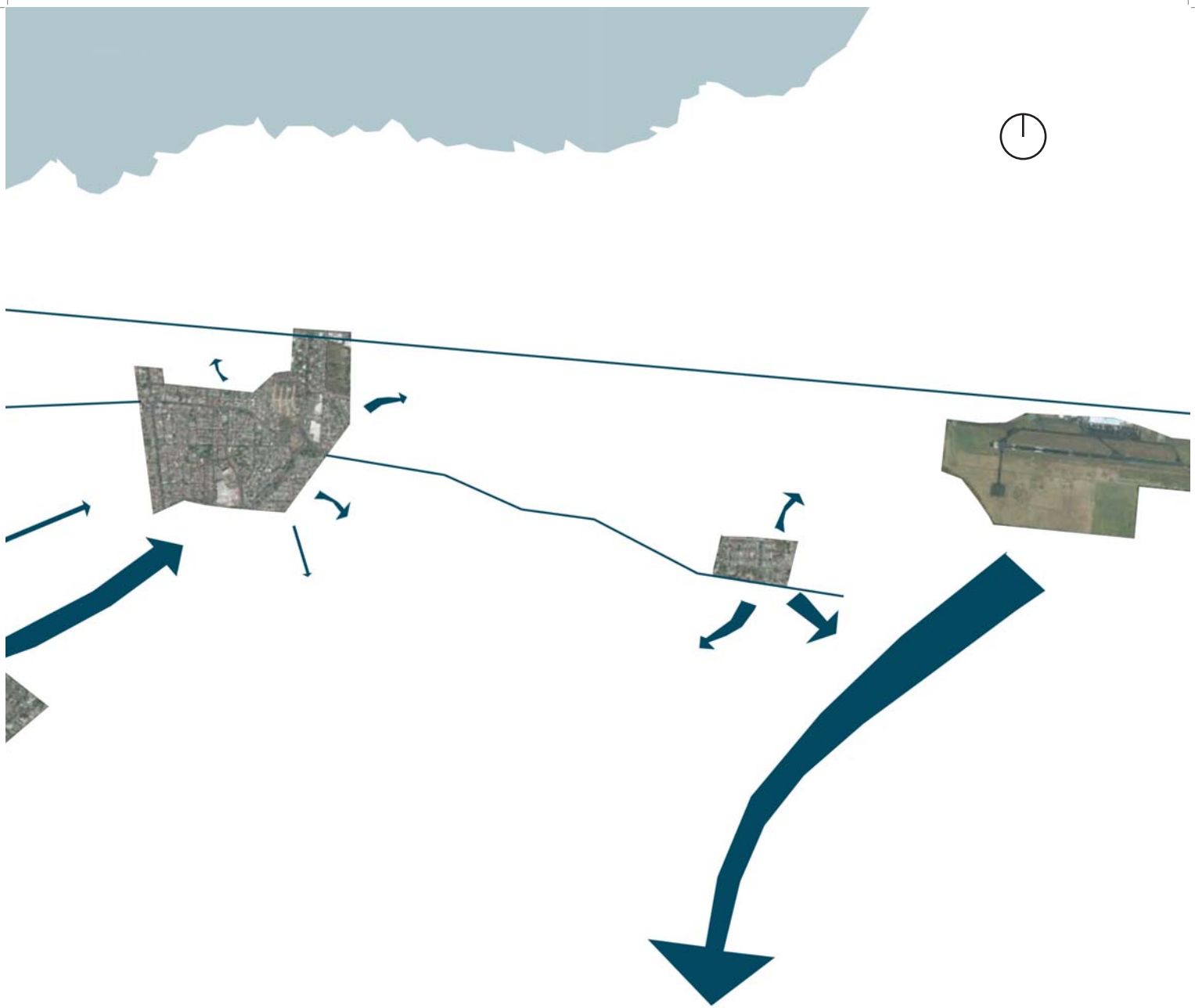
MY PERCEPTION OF CITY OF MANAGUA

I have spent three months, from April until July 2013 in Managua. My trip began with a group of students and teachers from the Vienna University of Technology. While participating on the Urban Design Laboratory, during the first two weeks I have tried to figure out the spirit and energy of my surrounding, to understand the basic rules and to make first impressions. Everything was very new, since I had have never visited Latin America before. I started immediately to document everything, scenes, motion, sounds around me and that was the moment when I started to draw a mind map [figure 01]. I felt like Gy Debord and Asger Jorn, the Danish and French artists, who were wandering around the city of Paris and drawing their map of Naked City, making their own city map which consisted of precisely chosen islands, creating unexpected zones of motion.

Walking through the city I noticed huge contrasts between poor and rich, devastated and new, loud and deserted, dense and empty, lots of cars, poor public transport and only few pedestrians. The only pedestrians that I encountered were street vendors on few traffic lights or in the areas of markets, bus stations, in front of the entrance of fenced parks or along the lake shore. It looked like so little was happening in the public space, or that it is behind a fence, a wall, until I discovered the roundabout in the east part of the city and in it phenomenon, which later became the subject of my research.

During my stay in Managua I met many wonderful people, who helped me compete successfully this research by sharing their experience and knowledge, by having long discussions and participating and accompanying me in interviews.





[figure 01] Mind map of Managua

|figure 2| Satellite image of Managua City



1.0. PORTRAIT OF NICARAGUA AND MANAGUA

1.1. PORTRAIT NICARAGUA

Facts and Information

GEOGRAPHY

Total area | 130.375 km²;
destructive earthquakes | volcanoes | landslides |
extremely susceptible to hurricanes | significant
volcanic activity

PEOPLE AND SOCIETY

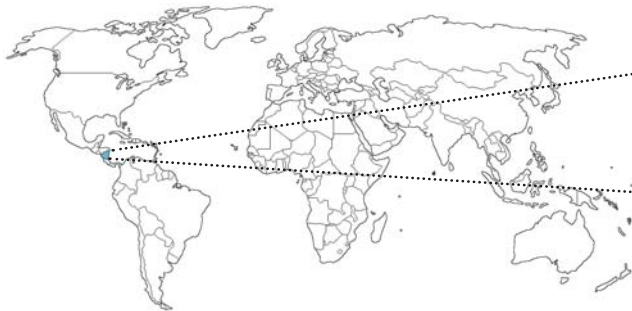
Ethnic groups | 69% Mestizo | rest white, black,
indigenous
Languages | Spanish, Miskito, English
Religions | Roman Catholic 58.5% | Protestant 23.2%
Jehovah's Witnesses 0.9% | other 1.6% | none 15.7%
Population | approx. 6 Million inhabitants
Median age | 24.2 years
Population growth rate | 1.02%
Density | 51 inh. /km²
Literacy rate | 78%

GOVERNMENT

Country name | Democratic Republic
Capital | Managua with 1.028.808 inhabitants
Administrative division | 15 departments and 2
autonomous regions
Independence | 1821 from Spain
President | Daniel Ortega since 2007

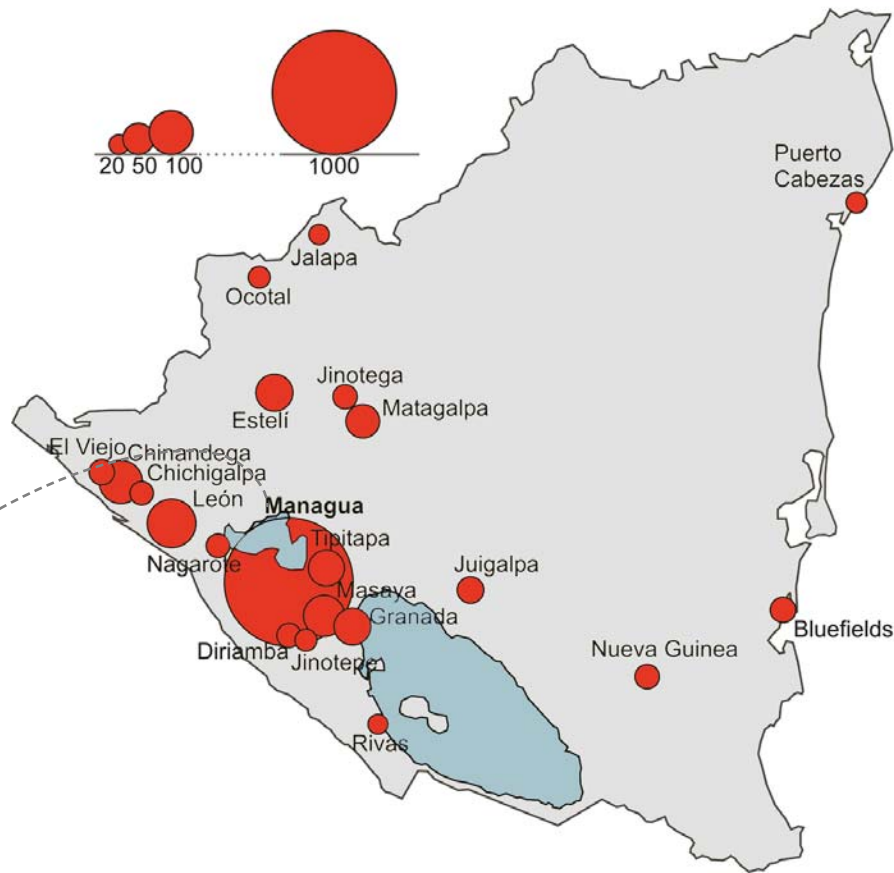
ECONOMY

GDP per capita | 4.500\$ (2014)
Labour force 3.039 Million (2013)
agriculture | 31%
industry | 18%
service sector | 50%
Population below poverty line | 42.5% (2009)
Roadways
total | 23.897 km
unpaved | 20.615 km (2012)

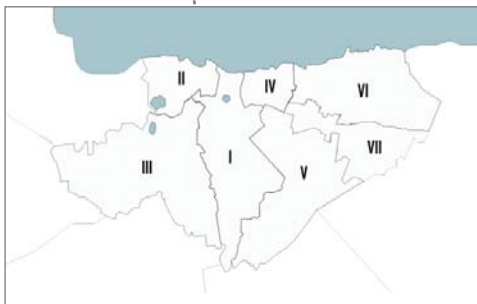


[figure 03] Nicaragua and neighbour countries





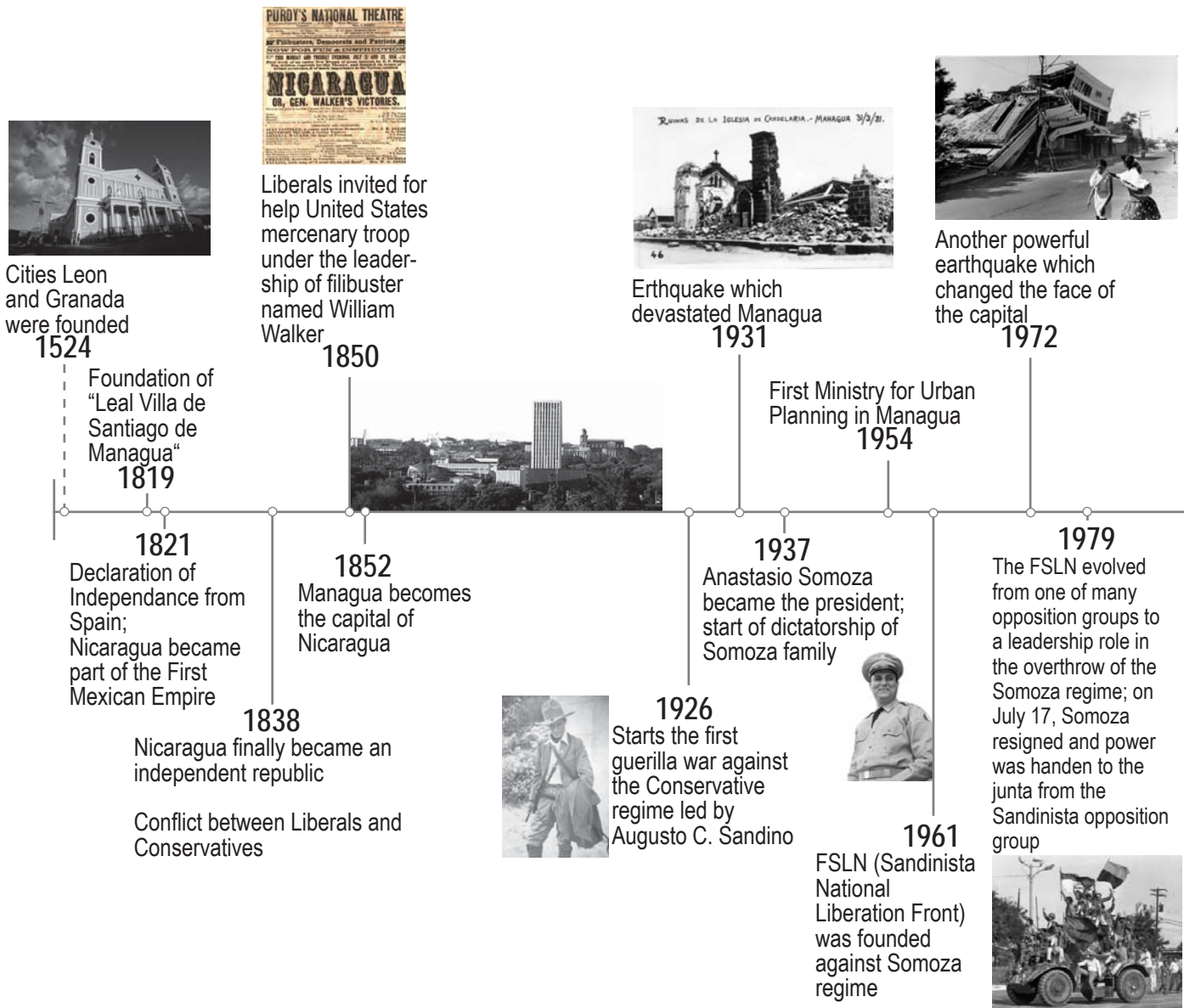
[figure 05] Major cities in Nicaragua
Cities over 20.000 inh.



[figure 04] Districts of Managua

1.2. PORTRAIT MANAGUA

Timeline of politics and historical development of Managua



[figure 06] Timeline Managua



Daniel Ortega became elected president and the United States refused to recognize the elections

1984

USA begun a destabilization against the Sandinista government

1981

Arnoldo Aleman was Managua Mayor

1990-1995

Total embargo on U.S. trade with Nicaragua

1985

Construction of 10 roundabouts

Arnoldo Aleman won presidential elections and destroyed murals and monuments of the former regime

1997-2002



Contract between mayor's office and private company Unicomer for the transformation of the park in "Rotonda de la Virgen"

2007-2009

Reconstruction of the roads; Major ones were widen and traffic lights were replaced with roundabouts

2000



Discussion on "The art of creating spaces for rural and urban communities - Examples from Nicaragua and Palestine", APPEAR

2014

Ortega won again the elections with large protrusion

2011

1982-1990

Civil war (contra revolution) between FSLN and Cotras who operated out of camps in the neighboring countries of Honduras and Costa Rica

1998

Hurricane Mitch



1990

FSLN lost the elections against Violeta Chamorro who brought Nicaragua again under the influence of U.S. The end of contra revolution and embargo



2008

Six months long occupation of 8 roundabouts because of the religious protest; installation of 13 decorative Christmas trees



2007

Daniel Ortega won again the election and run a program to reduce poverty in rural areas

2012-2014

Project Urban Managua



1.3. URBAN DEVELOPMENT MANAGUA

1.3.1. Until the earthquake in 1972

Initially, the city of Managua was built on the banks of *Lake Xolotlan (Lake Managua)* and has developed out of a compact structure, characteristic of the colonial city (EDUM 1988).

In 1852 Managua was made the capital of the Republic, as a compromise between the politically leftist Leon and the conservative Granada, who were in constant rivalry with each other (Rogers 2008b:6)

Around 1893 Managua was hit by a liberal revolution, which caused a major shift in the dominant colonial structure. Constitutional division and separation of church and state demanded a new, neoclassical architectural style. New emerging middle class should offer recreational facilities such as theatres and markets, but that was interrupted by the earthquake in 1931, which destroyed a large part of the first modern buildings (Brown 2011: 1-5).

At the beginning of the Dictatorship of Somoza's Family in the early decades of the 20th century many investments went to the city which marked the beginning of concentration of important functions in Managua (Wall 1996:47).

In the 40s the number of inhabitants in the city increased by more than 20.000 migrants and the city extended from 220ha to 510ha (EDUM 1988). This was the first migratory wave caused by stagnation in coffee production, which made people move out the agricultural zones to Managua (Foroohar).

50s were characterized by the economic "*Cotton boom*".

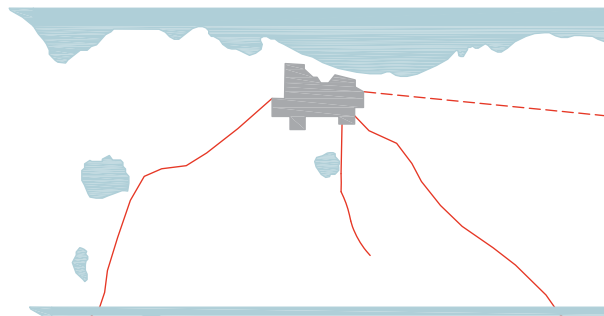
The coffee plantations were replaced by cotton and although the production was mechanized, another migration wave to urban areas happened (Foroohar). This demographic growth caused many problems such as conflicts in land use, pollution of Lake Managua due to industries located on its banks and traffic jams in the city centre (EDUM 1988).

Population continued to grow, especially in the 60s, during the process of industrialization (Foroohar). However, there were not enough working places for the large number of migrants and they started to settle towards the outskirts, to the east along the *Pan-American Highway* and to the south along the highway to Masaya where the living conditions were without basic facilities (Bähr 1980:8). On the other side, also along the highway to Masaya new residential quarters for the wealthy started to appear as well as new opened bars, clubs and cinemas. The so called "Salsa city" became the attraction for the rich citizens and tourists (Rogers 2008b: 104-105).

These booming years experienced a big shock when the horrifying earthquake hit the city in 1972. It killed 20.000 from almost 450.000 people, destroyed 75% of the city's housing and 90% of commercial buildings, leaving 30.000 people homeless (Rogers 2008a: 8).

This crucial moment in Managua's history permanently distorted development of the city.

1931

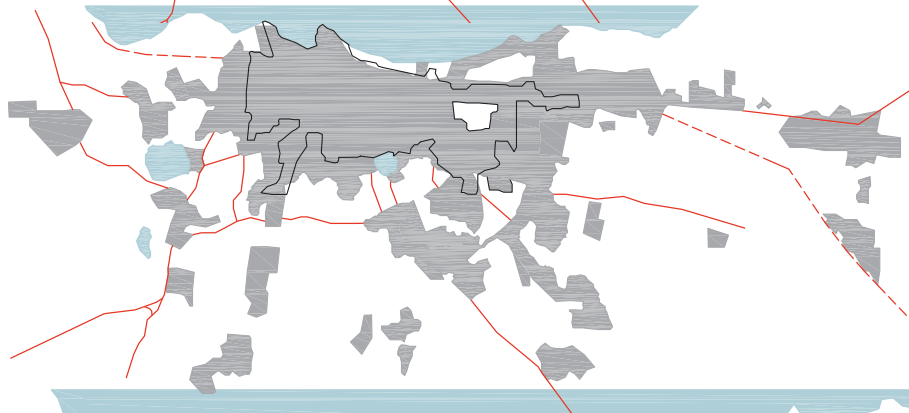


- main roads
- - - planned roads
- water
- consolidated urban area

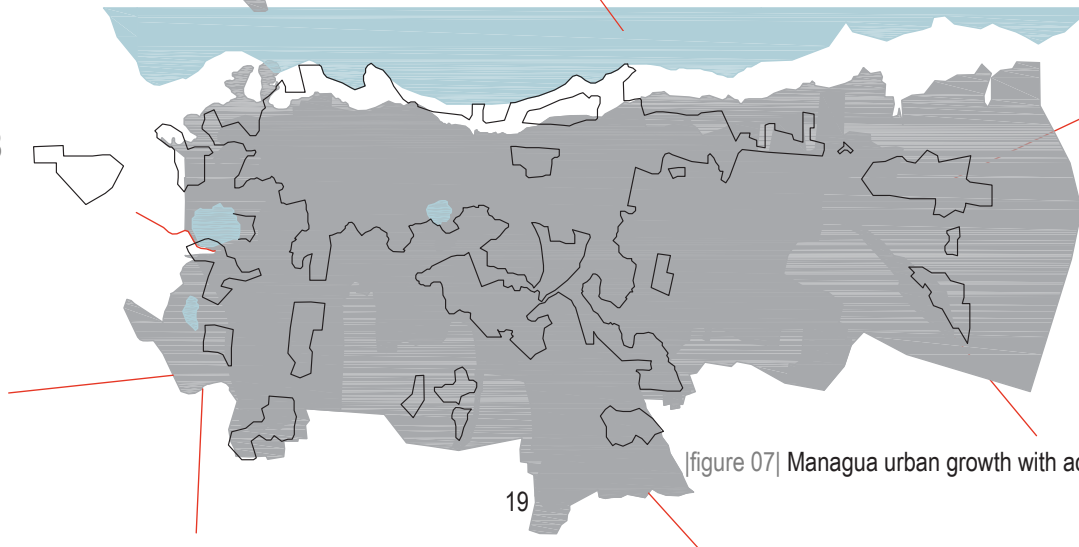
1954



1972



2013



[figure 07] Managua urban growth with accent on 1972

1.3.2. After the earthquake in 1972 with special focus on land ownership and development of public space and transportation

Managua old centre was almost completely destroyed and then washed away after the dictator ordered its demolition (Envio 1988) [figure 08]. Although many international funds flowed into Nicaragua, systematic reconstruction never occurred (Rogers 2008a:6). The city centre was banned from any construction and many poor neighbourhoods appeared in the east undeveloped part close to the Pan-American Highway. In those neighbourhoods, people were struggling with lack of basic infrastructure (Envio 1988). The city expanded strongly and created greater distances for the citizens, impossible to exceed (Wall 1996:48). On the other hand, many developments took place in the south and east part of the city which were in ownership of Anastasio Somoza, the son of the first dictator. He took all the funds leaving the destroyed city centre in ruins. Corrupted regime together with high inflation, low wages and rising taxes resulted in stirred up resistance against the dictator (Rogers 2008b:105-107). The people started to offer more and more resistance against the practices of Somoza which led to a revolution. Finally, FSLN, *Frente Sandinista de Liberación Nacional*, took over the power in June 1979. Although facing many problems at the beginning, their priority was to provide the accommodation for the poor.



[figure 08] Erased old city centre of Managua, 1977

Ninette Morales, director of HABITAR saw it like this:

“After the earthquake 1972 until 1980 there were many empty lots all around the city without usage. This space was in private ownership, but at the same time there was a huge need for housing, so the new government wanted to intervene and give a response to the needs of population. The land belonged to the aristocrats who weren’t willing to sell it for the good of the poor and as they have been forced to do so, many of them moved to U.S. 72, 5% of the population lived informally. After that happened, the government started to reorganize these settlements. However, other people were still simply taking the land, because there was no sufficient space for everyone. Taking the land and creating informal settlements was always an issue in Managua, except that sometimes it was more numerous.”

The situation in Managua was critical in the early 80s. Informal settlements began to sprout again when many people migrated to the city due to the war, but also because of better access to social services, like education and health. There was a lack of housing and something had to be done (Envio 1988). The Ministry of Housing, MINVAH and the Municipal Government, Alcaldia tried to give an answer to the demands of the poor by relocating them into minimal housing plans, known as “progressive urbanizations” [figure 10]. The concept was that the local inhabitants could improve their shelters over time. Another model called “plan techo” was later also adapted since the first one wasn’t so efficient. This model was basically only the shell of the house, roof and walls, leaving the rest to the

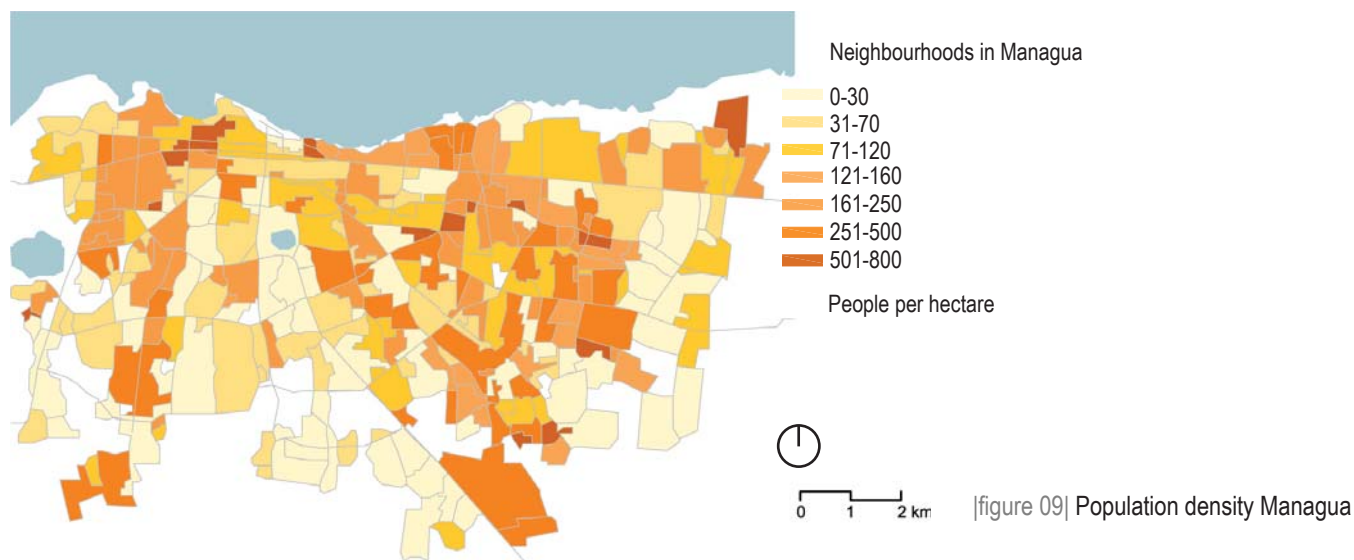
owners so that as many people as possible had a roof over their heads (Envio 1988).

Many constructions couldn’t be implemented due to the embargo of the U.S. and the war against Contra rebels which also caused a new migration wave to the capital and thereby establishment of new informal settlements (Rogers 2008b:108).

“In the 80s informal settlements were the majority of the city. The new Sandinista government worked on progressive development, they made plans, but the problem was the quality of construction. There were still big problems with infrastructure, electricity, with access to safe water, lack of sewage system, while the huge part of the capital went to fight the war against the U.S. Under the sanctions the government was lacking the money for more social interventions and neighbourhoods started to perish.”
“In the plans there were also public spaces, but in reality it was not much different than before, the land was being only distributed to the people; there was still lack of everything. There were lots of problems with public and private space.”

Architect Ninette Morales, HABITAR
Interview, 17.04.2013

After the end of the contra revolution and with the new president *Violetta Chamorro* not much changed in the capital. Many Nicaraguans who left the country and went to U.S. during the revolution in 1979 came back and that was the start of new development trends (Rogers 2008b:109).



Managua's city centre was still undeveloped and the whole city was impregnate with alternating densely and sparsely populated neighbourhoods. High density areas were the ones in the southeast and west along the new constructed road, while the Highway to Masaya was an area which attracted the city's elite (Brown & Bornstein 2006:10) [figure 09].

Together with wealthy emigrants also arrived global franchises like *McDonald's*, *Subway*, *Pizza Hut* etc which created new social conflicts and spatial polarization which immediately increased the insecurity on the streets (Rogers 2008b:110). During the mandate of the Mayor Arnoldo Aleman the city transformed a lot. With strategy called "*beautify*" the capital he concentrated on creating the metropolis attractive to private investors and in general

for the urban elite. Many landmarks were built like the huge roundabout with a big fountain in front of the shopping mall *Metrocentro*, the construction of the new cathedral and the restoration of the lakeside, which he also continued doing during his presidency since 1996 (Rogers 2008b:110-111). [figure 12-13] On the contrary, situation looked "slightly" different for the poor. Rogers explains it:

"...by the time I first visited barrio Luis Fanor Hernández in 1996, the majority of houses were falling apart, and the neighbourhood infrastructure was highly deteriorated. Public spaces had been converted into rubbish dumps, cracks and potholes blemished roads and paths, and drains were blocked and no longer working. Many houses in the neighbourhood remained unchanged compared to five years



[figure 10] FSLN first social housing in Nicaragua



[figure 11] Low income barrio La Candelaria

previously, and moreover neither roads nor drains had been improved, public spaces continued to be rubbish dumps, and public lighting was still non-existent”(Rogers 2005:3-4) [figure 11].

However, for the wealthy shopping malls, gated communities were not attractive enough because the insecurity and crime on the streets were rising. The number of crimes rose to 460% during 90s until 2003, according to Nicaraguan police statistics (Rogers 2004:116). That is why more drastic measures were taken, the development of private security and the improvement of Managua’s transport infrastructure. Social segregation was evident, where the rich were behind the walls and the poor left on the streets. The constant danger of carjacking at traffic lights, traffic jams and busy intersections were good reasons for transformation of the city’s transportation. In 1998 the highways

were restored and the intersections and traffic lights were replaced with roundabouts (Rogers 2004:119-121). The zones where rich citizens were living interconnected with these fast roads, were completely isolated from the city as a whole (Rogers 2004:114). The whole network was created; the people would go out from their gated properties, use the fast-moving roads to reach their work or commerce, recreational and leisure centres. Poor were excluded from these places and also the street life completely disappeared. The reason was the construction of the new roads without thought to pedestrians. Many more vehicles appeared on the streets making them difficult and dangerous to move on. This had as a consequence an increase in the number of cars; therefore the pedestrian mobility became more restricted and dangerous (Rogers 2004:120-122).



[figure 12] New cathedral in Managua

"Fortified enclaves" according to Rogers "are disconnected worlds that are the antithesis of public space, in that they constitute a withdrawal from the fabric of the city, leading to its fragmentation" (Rogers 2004:123).

In 2006, Daniel Ortega was re-elected with the same focus as after the revolution in 1979 and until 2012 many improvements happened in Managua, especially in social housing. 313 *Viviendas de Intereses Sociales* were erected. Also, many improvements were made in public space in the old centre of the capital and from several years ago there is a program by the government for the revitalization of public spaces across the city (La Voz del Sandinismo 2012, Alcaldia Managua).



[figure 13] Fountain on the roundabout in front of mall *Metrocentro*

However, despite all these projects, the destroyed city centre is not yet fully restored; it is permeated with empty lots. More and more gated communities and recreational centres are popping up and on the other hand many open public spaces are not used.



2.0. TYPOLOGY OF PUBLIC SPACE IN MANAGUA

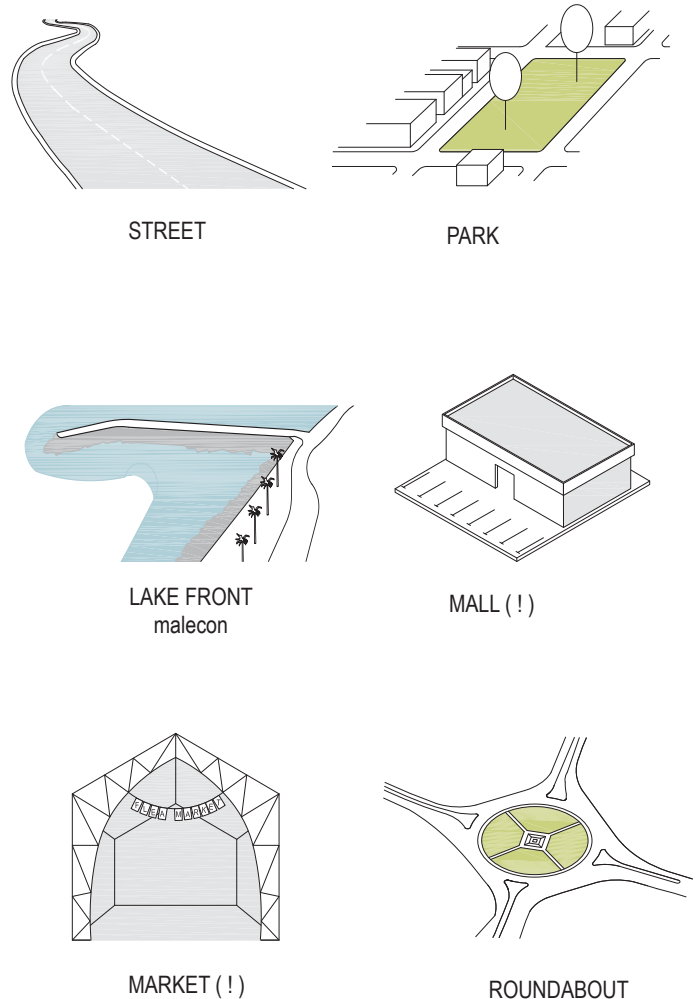
2.1. DEFINITION OF PUBLIC SPACE AND THE CASE OF MANAGUA

“Public spaces are where everyone comes together, providing a place for everyone to relax, learn and recreate, and open so that we have places where interpersonal and intergroup cooperation and conflict can be worked out in a safe and public forum (Low 2006:47).”

[Low, The Erosion of Public Space and the Public Realm 2006]

It is a process of social production which includes social, economic and ideological factors that result, in the physical creation of the material setting (Low and Smith 2006:5). Public space is a street, sidewalk, square, park, bus station, market, university etc. It is a place of encounter, open discourse, important space of intersection in the city, the space of movement and the most important communication base of the urban. It is the setting for the expression of complaint, of protest.

This chapter will introduce 6 different types of public space in Managua [figure 15]. Attention will be also drawn to living conditions, informality and insecurity, essential for the transformation of the public space in the capital. Focus will be given to the evaluation of roundabouts and phenomena that occur in some of them.



[figure 15] Different types of public space in Managua

(!) privately owned public space

Today, public space in Managua is often repressive and privatized as shopping centres, supermarkets or big fenced recreational areas. Privatization represents degradation of the quality of public space. Therefore there is huge pressure on the few functioning one. It is undesirable to be seen in public. Boyer (1996:9) wrote that the 'public' has become a negative concept, in contrast to the 'private' which has been refurbished with an exalted 'image' [figure 16-17].

The city has lost the qualitative space of all social classes and space of various functions, not including the ones located in private space. Wealthy people draw themselves back from the public space; move only in their cars, on their routes. They are completely absent in the public space, because they don't need it and because it is dangerous. On the other hand, due to the lack of alternatives low social class groups have occupied the public space.



[figure 16] Revitalized park in barrio Los Robles without use

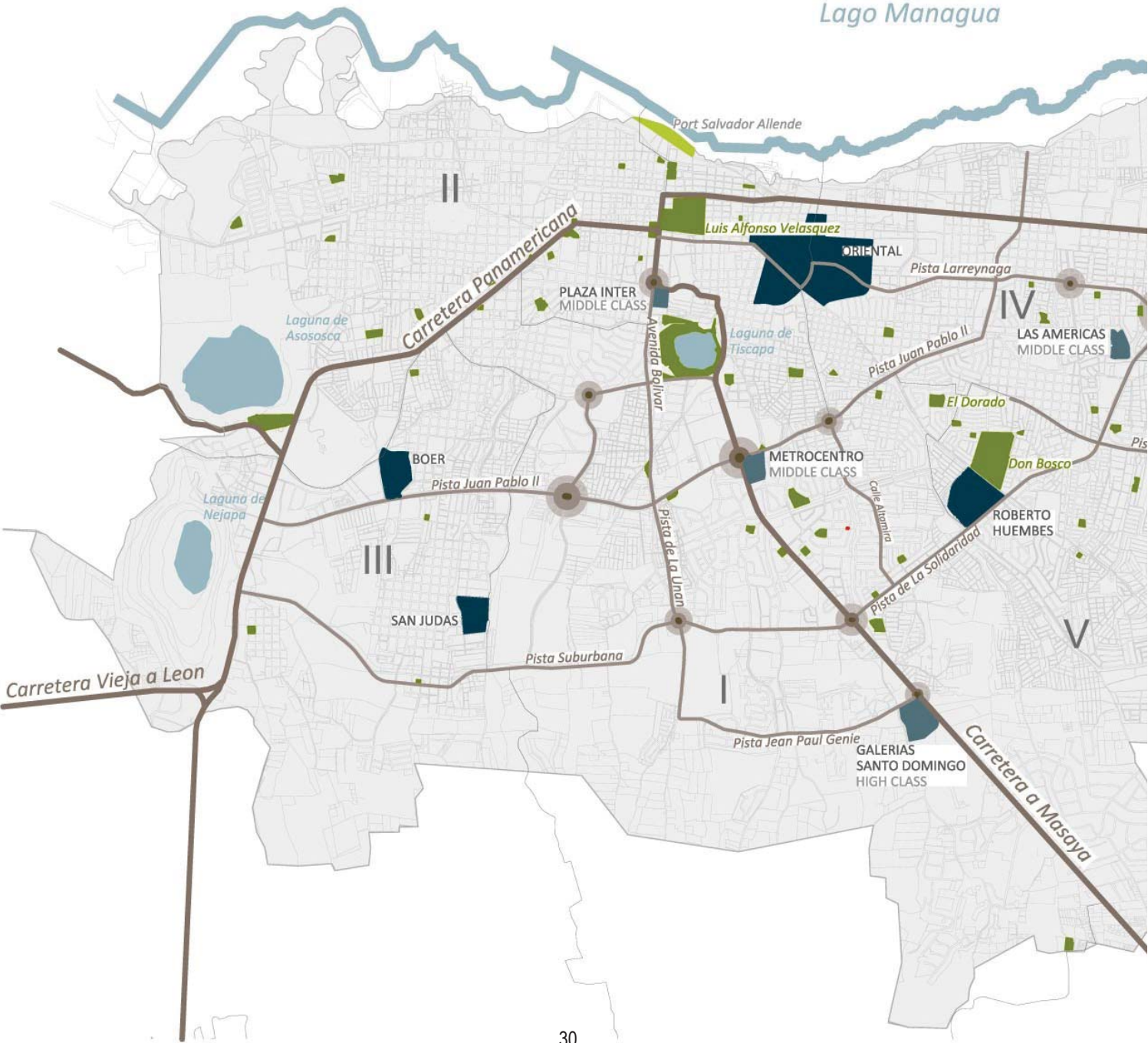
"Public space is feared. It is neither a protective nor a protected space. In some cases, it has not been planned to offer security but is designed for certain functions like traffic circulation or parking, or it may simply be residual space between buildings and roads. In other cases, it has been occupied by the dangerous classes of society —immigrants, the poor or the socially-excluded— because agoraphobia seems to be the kind of infirmity that exempts those who live in the city because it is the only way to survive. Even though they are frequently its main victims, they cannot do without public space."

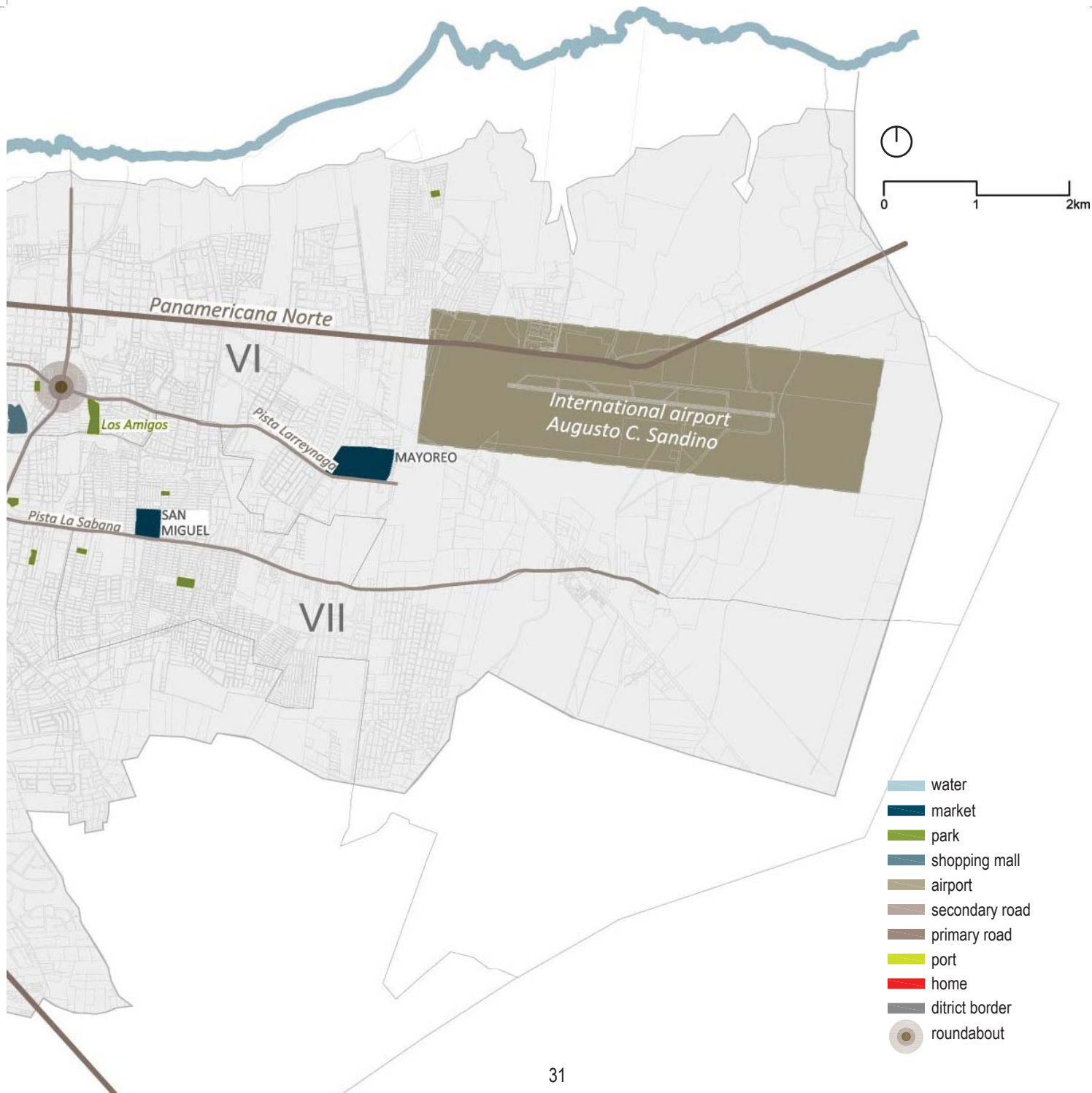
[Borja,Citizenship and Public Space 1998]



[figure 17] Mall Metrocentro, concert in the middle hall

[figure 18] Managua typology of public space





There is no respect for public space and all improvements which have been done in past years were partially or completely ruined. In low-income peripheral neighbourhoods public space represents marginalization of the community. However, some residents appropriated and learnt to value these spaces and in few cases this led to protection and improvements of the public space in the neighbourhood.

Near Managua old city centre, inhabitants of middle low-income neighbourhood El Dorado [figure 19] have defended their 100x120m big park from constructions of new dwellings. Since the public space was not maintained and used, city developers saw the opportunity and tried to occupy this space in order to build new houses. Fortunately, the inhabitants organized themselves and with help from local NGO Habitar managed to save their park. Since then, it has been in use, one baseball court was built and many other improvements have been made.



[figure 19] Orthophoto park *El Dorado*

It is no wonder why people cannot identify themselves with the public space, since it excludes socially and is dangerous. As mentioned in the last chapter, new development trends of the government aren't including the majority of the Nicaraguan society- the low income social class. New constructed public spaces are usually gated, therefore characterized by miscarriage of use.

2.1.1. Streets

Streets no longer represent social space. In the past few decades primary and secondary streets and roundabouts were constructed and renovated. However, traffic doesn't have a good flow, mainly because no measures have been taken to improve tertiary roads but also because there are many improperly parked vehicles as an additional obstacle. The level of importance represents also availability and quality of other facilities. Primary roads are the ones which connect important parts of the city like airport and residential areas of rich, or Managua with other cities, like Masaya; secondary are links between primary roads and the rest are more like rural roads inside neighbourhoods [figure 18]. The neighbourhoods that are far away from these roads don't have any benefit from this development. On the contrary, due to it and poor public transportation the distances are hard to overcome. The number of vehicles is rising and there is almost no public life except people passing through and street vendors.

Vendedores or street vendors are informal traders who are selling CDs, mobile gadgets, clothes, shoes, food and drinks usually without a stand or using some easy foldable structure. They occupy sidewalks, bus stations, block the entrances in front of universities, visit recreational areas

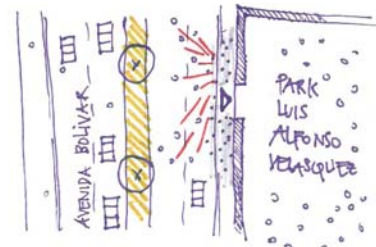
or malls, leaving behind destroyed land and infrastructure; they are also the main “attraction” on the traffic lights and roundabouts [figure 20-21]. On the streets there are different situations to recognize [figure 22].



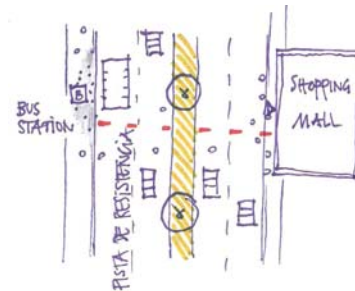
[figure 20] Street vendor-traffic light on highway to Masaya



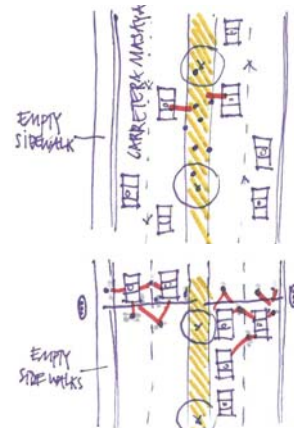
[figure 21] Street vendor in front of Metrocentro shopping mall



a) vendors blocking the entrance



b) vendors around the bus station



c) vendors on traffic lights

[figure 22] Mapping different situations on streets

2.1.2. Parks

Park are important and integral components of the city. Planning of parks hasn't been strength of Managua city planning. All consequences of the natural disasters and revolutions are very visible in planning and monitoring of the parks. There are approximately 40 parks [figure 17] in the entire city, which cannot be fully used because of the lack of maintenance, poor accessibility, lack of facilities for intensive use and lack of security.

Design department of city planning office is working for the last three years on revitalization of public space in Managua. Still there are not many improvements in use of these areas. On the contrary, recreational spaces that are in use are overcrowded, especially during weekends. Unfortunately for a lot of people these sites are far from their houses, causing the spontaneous usage of some spaces which were originally not designed for it.

"The main target of the project for the revitalization of public spaces in Managua is safety, but also commerce. The problem of public space lies also in our culture. We don't have the knowledge how to use it. The parks we design are fenced with security guards. There are also park rangers who are teaching people how to behave in it (for example, recycling of garbage)."

Architect Manolo, design department of
city planning office; Interview, 15.05.2013

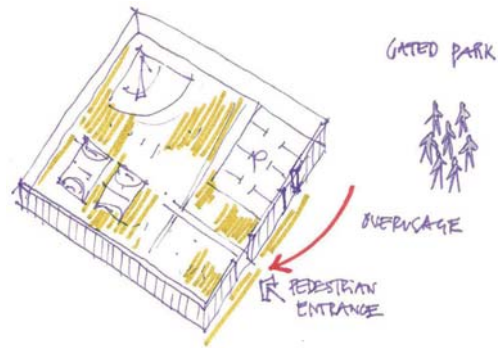
Different situations in usage of parks are going to be shown on these three examples [figure 23]:

- a| Park Luis Alfonso Velasquez, overuse
- b| La Candelaria, neighbourhood park, no use
- c| La Rotonda de la Virgen, phenomenon

The City planning office for the past few years has been working on the reconstruction of the park in the old city centre which was demolished in the earthquake 1972. It represents 14 *manzanas* big recreational and cultural complex with 3 football, 4 basketball, 5 tennis courts and 1 baseball court, 4 playgrounds for children, 1 cafeteria and podium for cultural activities. This park is intensively used and due to great demand for recreational space during weekends over 30.000 people come to visit it.

The park is located in the low income neighbourhood with the same name. Park La Candelaria, in District I of Managua, is a "nest" of offenders, homeless and drug users. Near the park is the public school and children use this is only as a passage to their homes, once they finish the classes. Park inside of a neighbourhood like La Candelaria requires a series of actions, so that it becomes a reputable and attractive place.

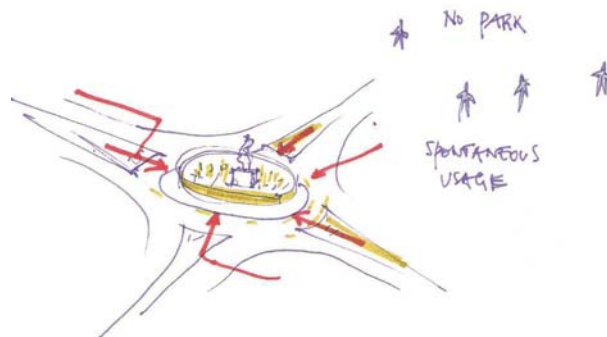
As shown in first two examples, the situation in parks is rather extreme and there is still a huge deficit of parks in Managua. That was the reason why a phenomenon, like the one in the middle island of a roundabout de la Virgen, appeared. In 1999, when the roundabout was constructed, nearby residents started to use the middle island as a recreational area and over time due to citizens' participations the place has been transformed into a park.



Park Luis Alfonso Velasquez, overuse



Park La Candelaria, low usage



Park La Rotonda de la Virgen, phenomenon

2.1.3. Malecon - lakeshore

Lake Managua is the main natural element and the north border of the city. However, the capital was never orientated to it and it has never been put to good use. The lake is very contaminated by industrial waste and sewage, which was part of the policy from '50s. Also main electricity cables run along it, obstructing a direct relation between the water front and the city.

Since 90s, municipal government together with Nicaraguan Institute of Tourism and National Port Enterprise has been working on reconstruction of *malecon- port Salvador Allende* [figure 24-25]. It has been developed into an attractive touristic complex; open every day from 9h until 23h with bars, restaurants, clubs, playgrounds for children, huge parking spaces and promenade. There is a small entrance

and parking fee; some boat trips around the lake are also organized. This complex, 1, 4 km along the lake, located in the old city centre is of huge importance and one of the most visited places in Managua. It attracts people from all around the country and it is heavily used on weekends.



[figure 24] Malecon



[figure 25] Puerto Salvador Allende

2.1.4. Malls

Malls are places where consumption converges with poor quality public space. They represent closed spaces with no connection to the city. Four malls were built in Managua since 1990 until 2006 to attract the middle and high class citizens and tourists, while 50% of city population lives in absolute poverty. *Plaza Inter, Centro Comercial Metrocentro, Galerías Santo Domingo* and *Multicentro Las Americas* all include brand-name stores, as well as multiplex cinemas and large fast-food courts (Rogers 2004:8) [figure 26]. The first three are located on the main axe of the city, *Carretera a Masaya*, in a highly commercial and gated area of the elite and the fourth on the secondary road- *Pista de la Solidaridad*, in the east park of the city. These fast roads lead citizens straight from their fortified homes to desired places.

However, it is quite facile to understand why malls have become the preferred places for leisure and casual encounters in Managua.

“The reason why malls are more used as public spaces comparing the other open ones is because they are secure, air-conditioned, beautiful, maintained spaces. They represent an alternative to the unmaintained and dangerous public space like parks. However, they aren’t civic places, but places to shop.”

Architect Ninette Morales, HABITAR
Interview, 15.05.2013



[figure 26] Fast-food court in *Metrocentro*



2.1.5. Markets

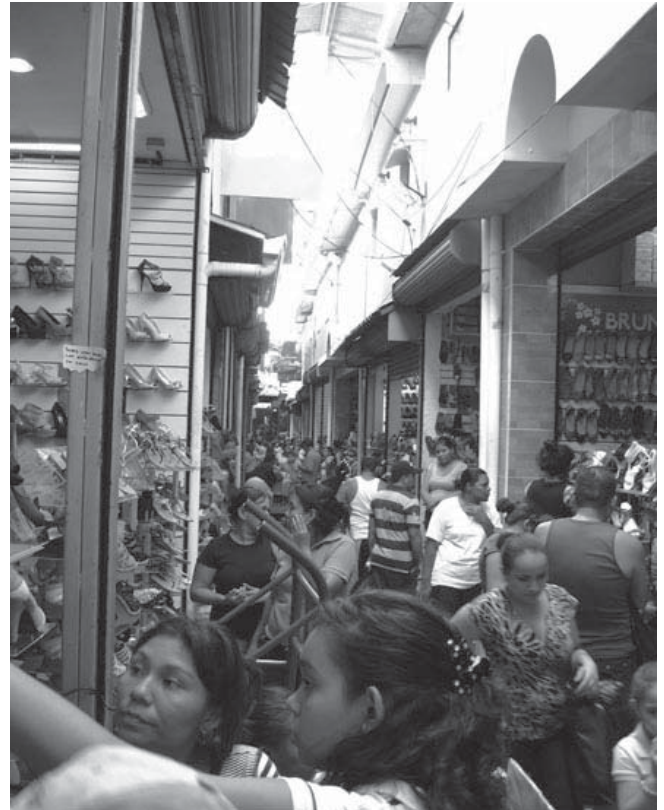
Markets are very important social hubs, places of interconnections and social interaction. They can vary in different spatial form, outdoor and indoor but also in terms of the range of products and their size (Watson; Studdert 2006:3).

In Managua there are 8 markets, of which 6 [map 06] are in the urban area and will be shown in this typology. They are places where the Nicaraguan tradition is kept (clothes, food and music). Before the earthquake in 1972, the city had three main markets Boer in the west part, San Miguel in the east and Central in the old city centre. After the natural disaster changed the face of the city, markets were completely out of focus of the government. Lack of maintenance led to the disappearance of existing markets and the appearance of a new one, Mercado Oriental. The size of one block market was the only one which existed in 1973. Located in the ruined city centre, it grew over time and became an unstoppable phenomenon and the biggest market in Central America [figure 27]. Its borders are hard to define, because of its ongoing chaotic development. Every day there is less space to move and more insecurity [figure 28]. The majority of citizens are directly or indirectly involved in this market due to selling, supplying or buying and everything can be found there (food and drinks, clothes, household goods, electro domestics etc). The 80s markets Boer, San Miguel and Carlos Roberto Huembes have been reconstructed and markets San Judas and Mayoreo were built. Mayoreo, like its name says (mayoreo=wholesale), was a wholesale food market, but as the number of traders increased it was transformed into a flea market.

[figure 27] *Mercado Oriental* ortho photo

In the past few decades, lack of administration and maintenance, parallel with population growth caused uncontrollable growth and informal development of all markets.

On the contrary, since 2000 many supermarkets have been built and seriously jeopardize markets. Many people stopped frequenting them, because supermarkets offer greater safety, better hygiene, quality and similar prices to flea markets.




[figure 28] One passage in *Mercado Oriental*

2.1.6. Roundabouts


Roundabout is an intersection with a circular shape and a central island. Since 1998 13 roundabouts were built in Managua, of which 10 in urban area [figure 31]. As spoken in the last chapter, new road network together with roundabouts were designed to speed up traffic, avoid carjacking on traffic lights and reduce congestion. There were constructed with no thought to pedestrians. Answers to this and to the lack of public space in general were spatial phenomena that occurred in these traffic elements. Roundabout was no longer place only for cars, but it also represented a place of protest, square for celebrating national holidays or recreational area [figure 30].

2.2. EVALUATION OF ROUNDABOUTS IN MANAGUA


The motivation and the purpose of this evaluation was discovered spatial phenomenon in the central island of the roundabout *La Rotonda de la Virgen*. It was transformed and adapted by athletes to sport and later leisure activity. Therefore, different parameters are going to be used for evaluation of all 10 roundabouts. The aim is to determine the reason why the phenomenon occurred only on one of them. Parameters:




diameter
(m)



distance from
reference point
(km)



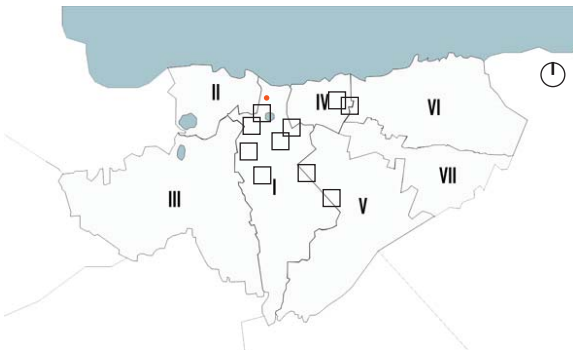
facilities
(monument,
fountain etc.)



usage (no
use, use,
overuse)

- of the central island of a roundabout (size-diameter, distance from the old city centre (reference point), facility-monuments, installations and usage of the middle island)
- of the surrounded area of a roundabout (mapping the direct surrounding and 2nd block surrounding – housing, commerce, culture, services, streets according to the hierarchy which are shaping the roundabouts and density of the nearby neighbourhoods - low, middle, high)
- other relevant parameters (location - district)

For this evaluation were used: direct observation and mapping of the parameters on the site, plans from Municipal Government and OpenStreetMap.

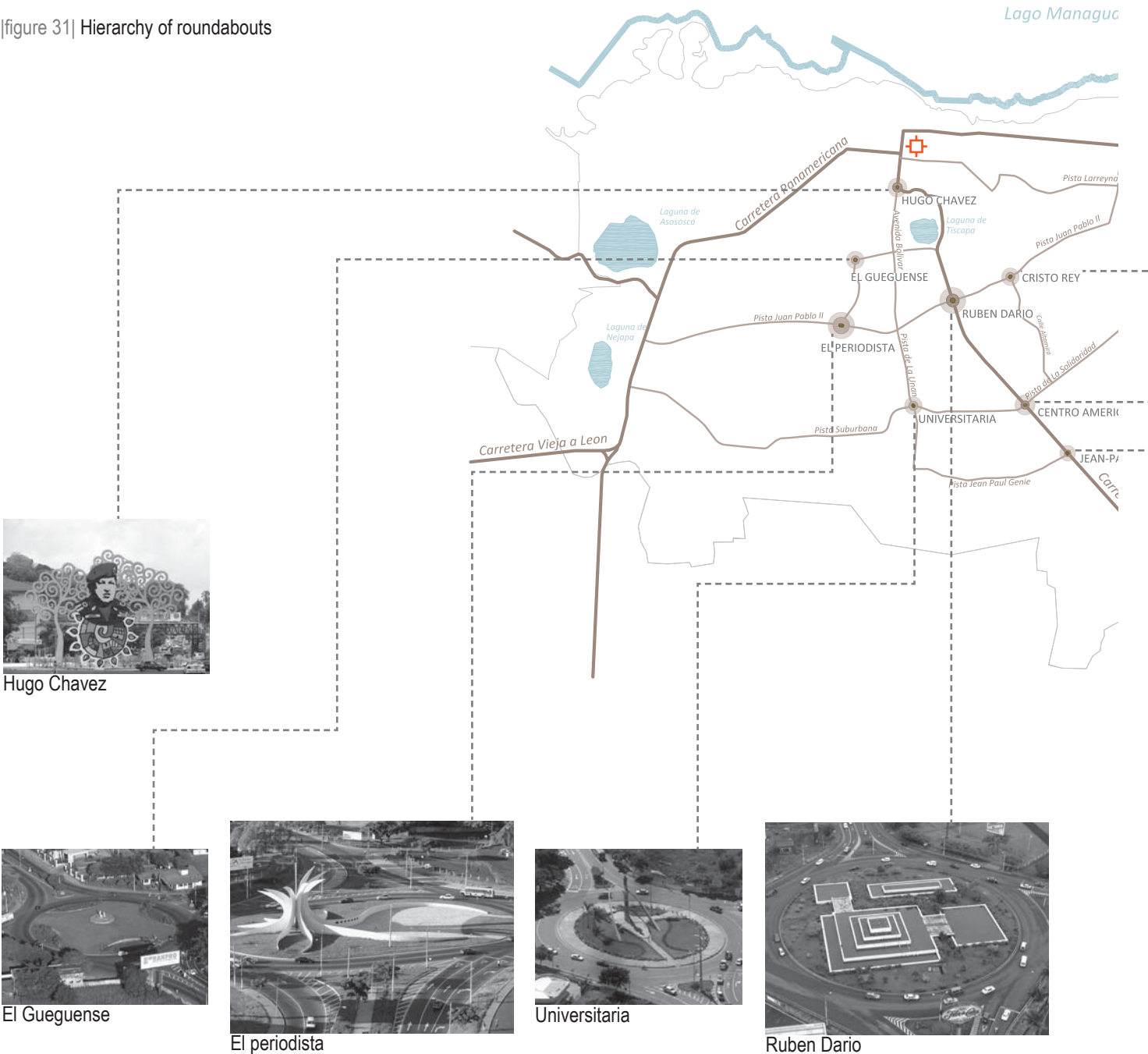


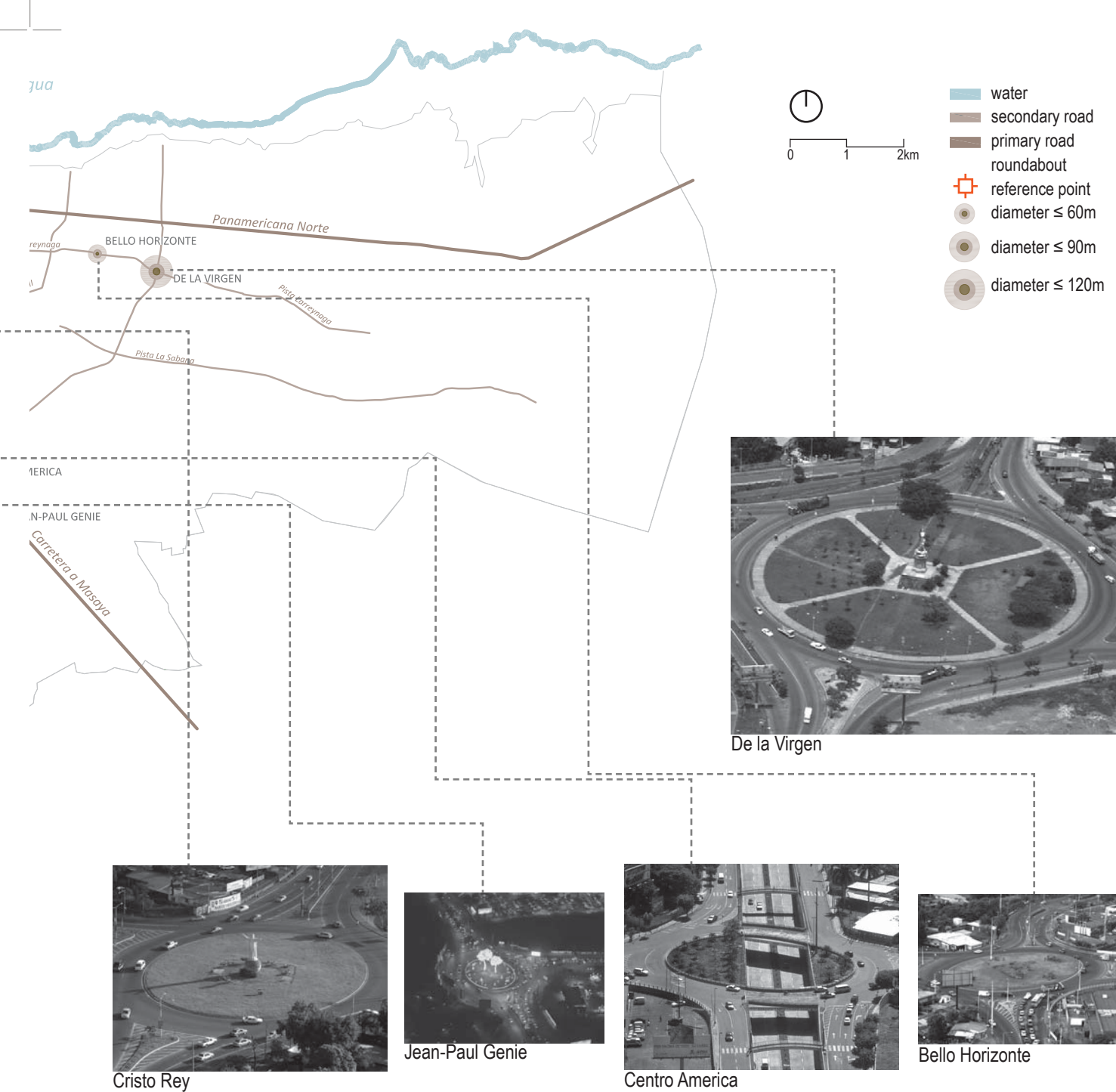
[figure 29] Managua schematic with districts and roundabouts

[figure 30] Roundabout Hugo Chavez



[figure 31] Hierarchy of roundabouts





HUGO CHAVEZ



55

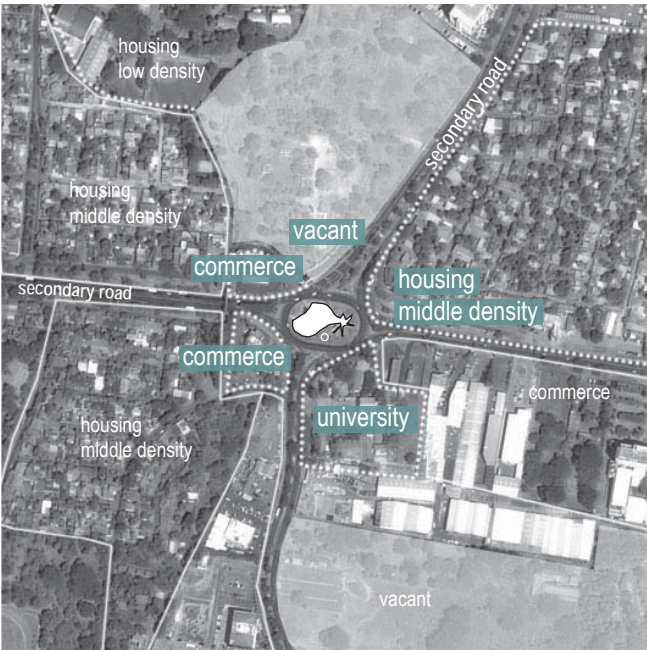
0.7km



monument,
taking photos,
decorative trees meeting point

Position: north
District: I

EL PERIODISTA



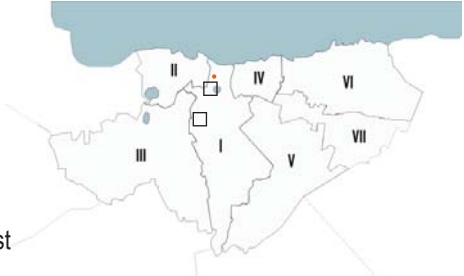
85

3.0km

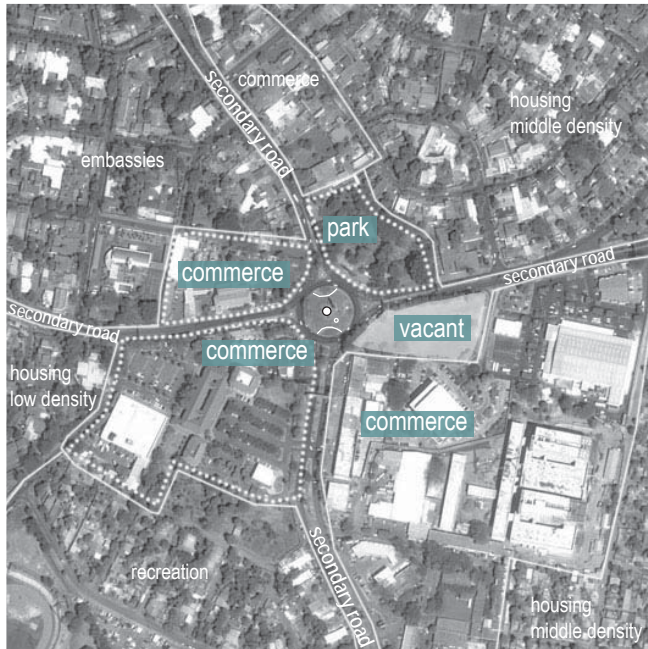


monument,
Christmas tree
gathering
for national
holidays

Position: south-west
District: I



EL GUEGUENSE



60

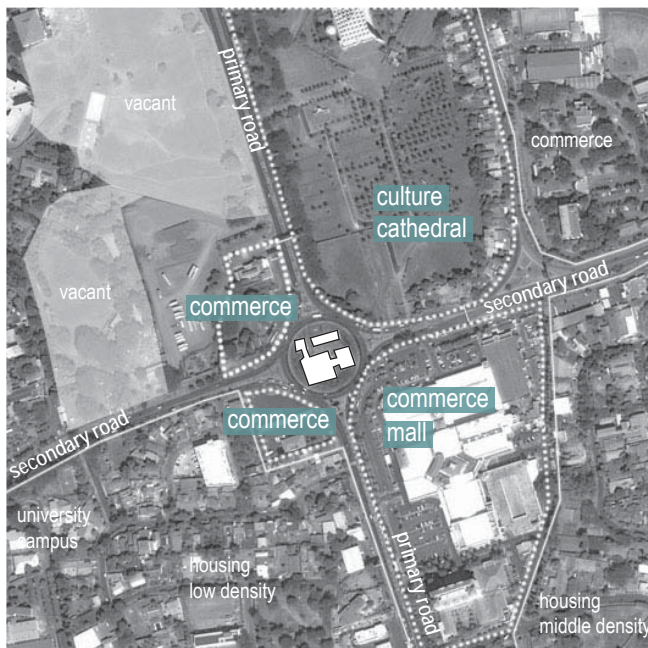
2.6km



monument,
Christmas tree

Position: west
District: I

RUBEN DARIO



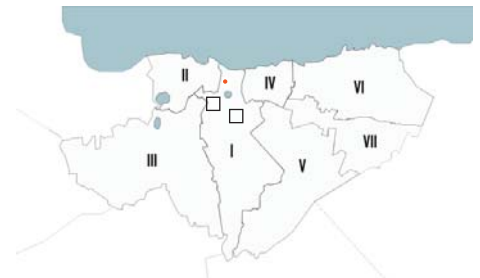
84

2.6km

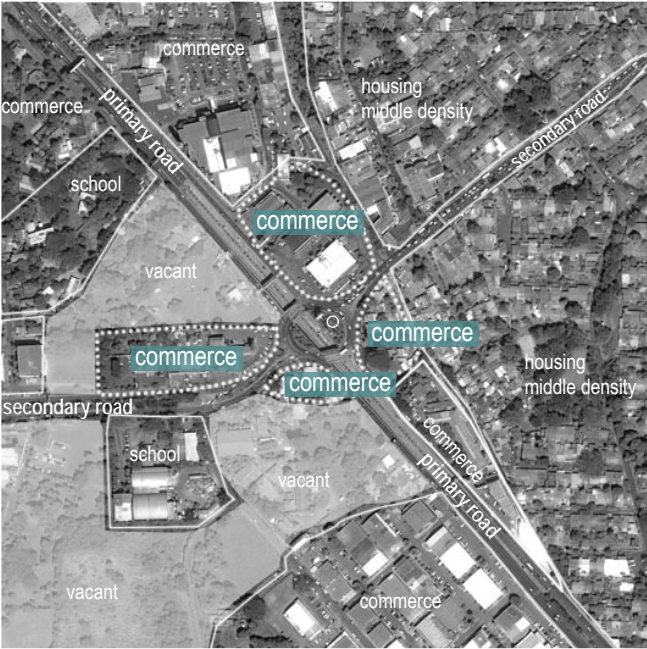


fountain,
Christmas tree

Position: central
District: I



CENTRO AMERICA



65

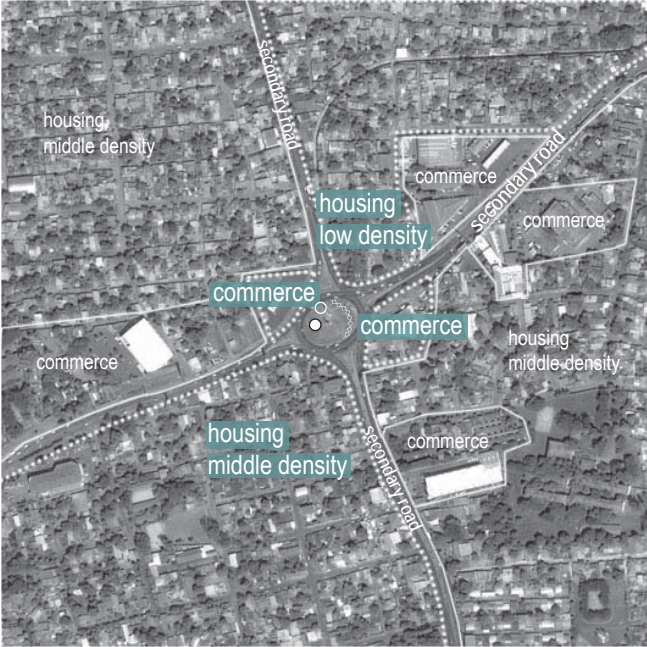
4.7km



Christmas tree

Position: south
District: I. V

CRISTO REY



68

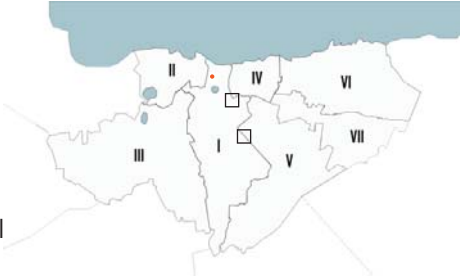
2.8km



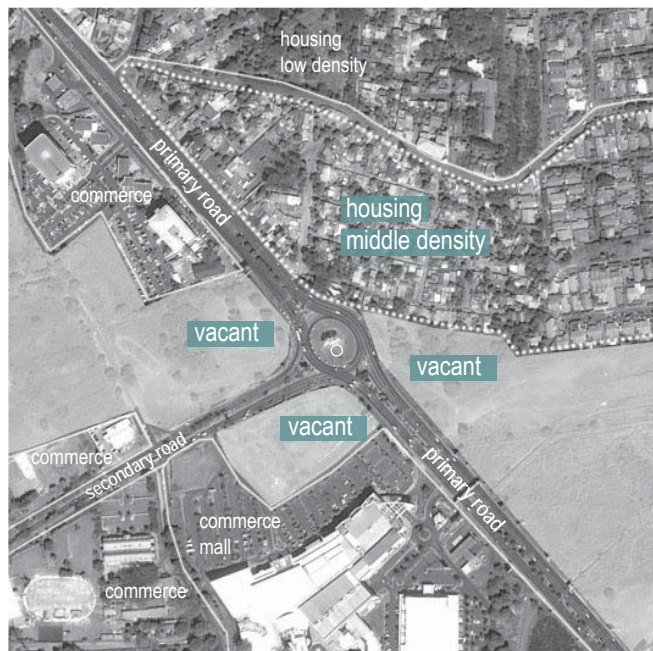
monument,
Christmas tree,
prototypes of
social housing

protest

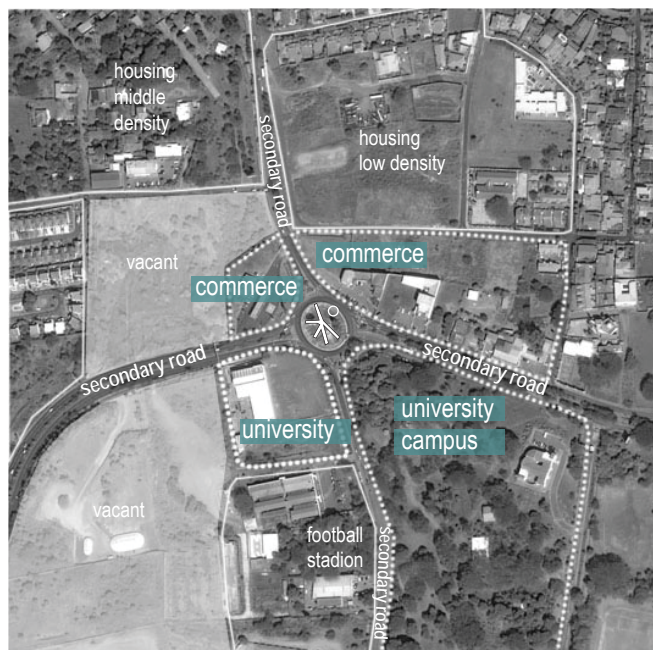
Position: central
District: I, IV



JEAN-PAUL GENIE



UNIVERSITARIA



2 Christmas
trees



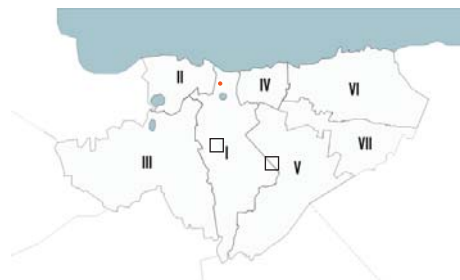
Position: south-east
District: I, V



monument,
Christmas tree



Position: south
District: I



BELLO HORIZONTE



45

4.5km



light installations,
Christmas tree

mariachi
playing music

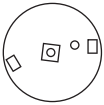
Position: north-east
District: IV

DE LA VIRGEN



116

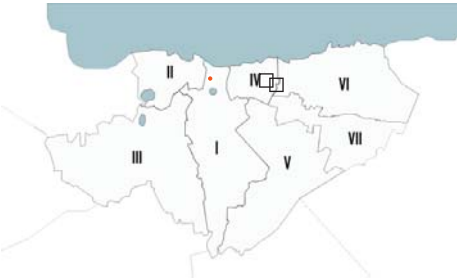
5.5km



monument, 2
fritangas,
Christmas tree

running, doing
exercises, walking,
eating, playing,
sitting, talking,
relaxing

Position: north-east
District: IV, VI



Evaluation report

La Rotonda de la Virgen has undoubtedly the biggest central island of all roundabouts. With 5.5 km from the old city centre, the main recreational area in the city, it is the one of two most distant ones. The residents in its surrounding aren't able to visit the old city centre very often due to the lack and low quality of public transport. Therefore, there is a huge need for closer open recreational area. As mapped, almost all central islands have some kind of facility, but characteristic for *La Rotonda de la Virgen* is the religious monument of the Virgin Mary, a very strong symbol and one of the most important celebration of all religions. *Cristo Rey* roundabout is the other one with the similar identity. Eight roundabouts are located in the first district, low dense district, commercial centre along the *Carreterra a Masaya*. Bello Horizonte and de la Virgen roundabouts are the only ones in the east part of the city, on the border between the

fourth and the sixth district. It is high dense populated area with almost no public space in use. The roundabout *de la Virgen* is the only one surrounded from three sides by housing and in its indirect surrounding there are middle and high dense neighbourhoods as well. The activities in this central island are many and it is used on daily bases, comparing to the others which even if there is usage, it is occasionally. Important factors are also streets which are shaping the central island. People need to cross them in order to access the central area. Roundabouts were built either on intersection of a primary and secondary road or of two secondary roads. *La Rotonda de la Virgen* is the second case and therefore less dangerous. This evaluation proofs the unique situation of the roundabout de la Virgen. This is the motivation for the further analysis and development of the project.

[figure 32] Evaluation of 10 roundabouts and their direct surrounding



|figure 33| La Rotonda de la Virgen





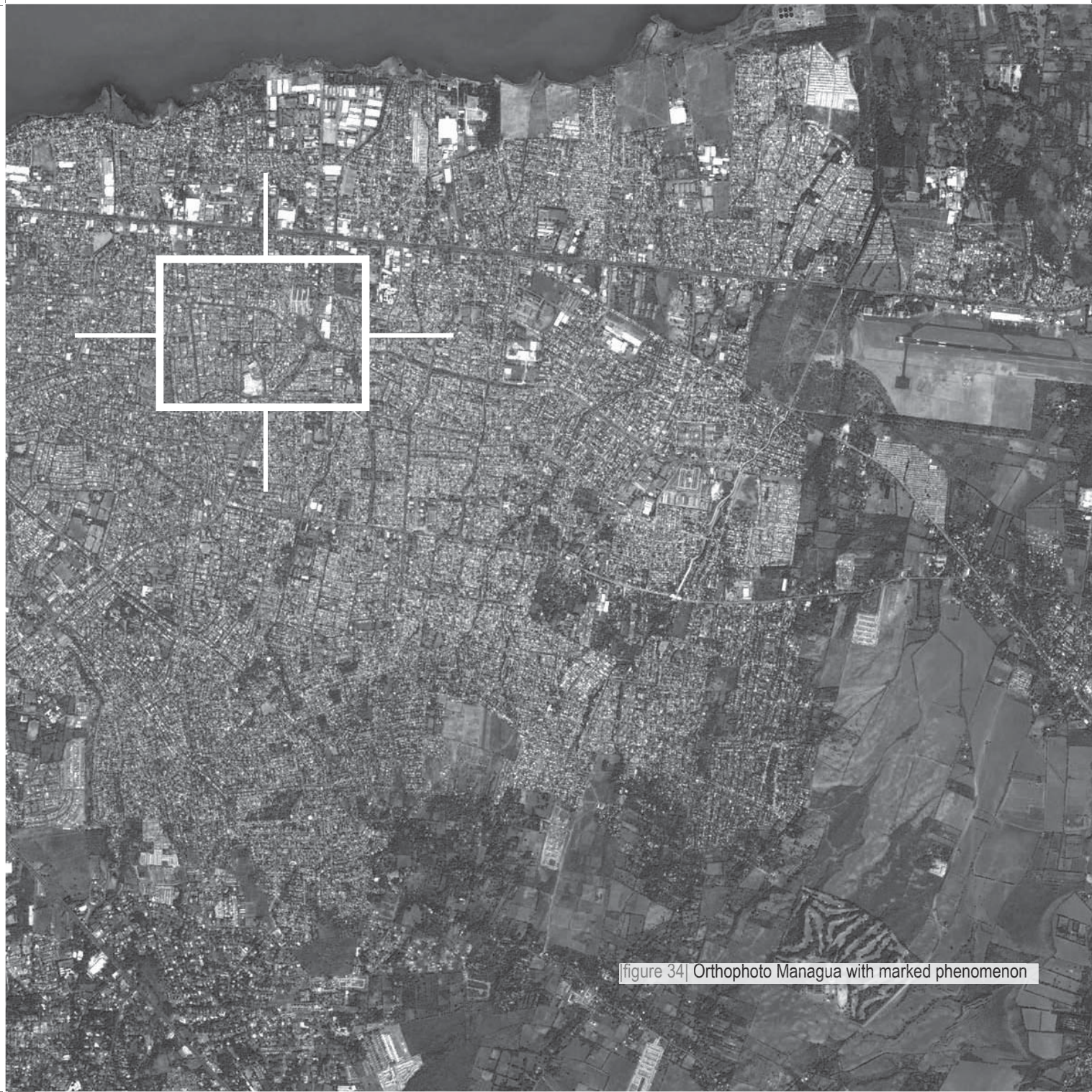
3.0. PHENOMENON LA ROTONDA DE LA VIRGEN

An aerial photograph of a city, likely Managua, showing a dense urban grid. A large, dark, circular area in the center represents a park or roundabout. The surrounding area is filled with buildings and streets. The image is in black and white, with some color highlights in the park area.

3.1. MAPPING THE PHENOMENON

As shown in the last chapter, *La Rotonda de la Virgen* is the largest roundabout in the north-east part of the city, on the border between two districts, IV and VI. It is formed by three vehicular lanes. The central island where the park is located is 116 m in diameter. In its centre is placed the statue of the Virgin, which was installed in December 1999 and gave the name to the roundabout, which was also known as *Larreynaga* roundabout.

The following two pages will show in which context it is situated. The schematic view presents the main actors and activities of the phenomenon and intensity of the usage, as well as the character of the surrounding: neighbourhoods, a second smaller roundabout on the west, a shopping mall south from the roundabout, main streets and green areas. The Park in the roundabout is located in the north-east of Managua, on the edge of the districts IV and VI. In its direct surrounding are neighbourhoods *Nueva Libia*, *Jaime Mendoza*, *Santa Rosa*, *Colonia Xolotlan*, *Villa Progreso* and residential *Bello Horizonte*, but also the commercial sector, the company *La Curacao*, located north-east from the roundabout, commercial activities along the street *Larreynaga* until the roundabout *Bello Horizonte* and shopping mall *Multicentro Las Americas* [figure 35]. Roads that go to the roundabout are highly congested, especially the road *de la Solidaridad* and *Potrezuelo* which links the Masaya Highway with the northern Highway.

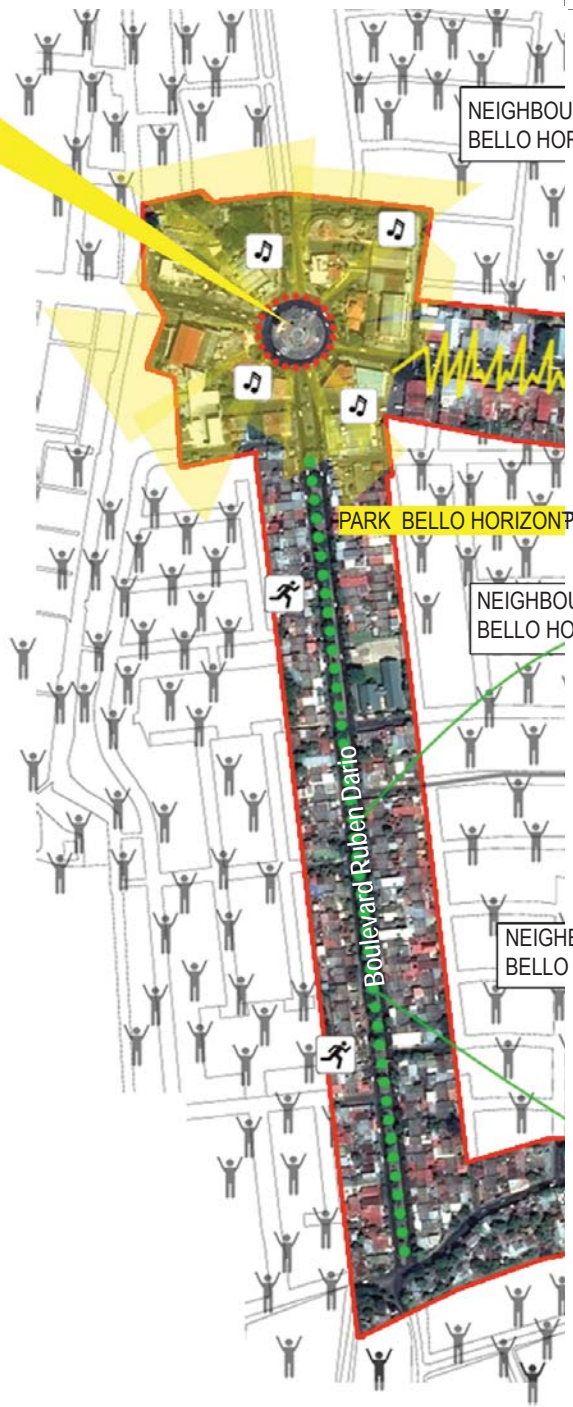


[figure 34] Orthophoto Managua with marked phenomenon

PHENOMENON LA ROTONDA DE LA VIRGEN

-  BUS STATION
-  COMMERCE
-  SECURITY
-  MUSIC
-  SPORT
-  LEISURE
-  BUS STATION
-  GAS STATION
-  NEIGHBOURHOODS
-  RECREATION AREA WITHOUT USAGE
-  STREET AS RECREATION AREA

ROUNDAABOUT
BELLO HORIZONTE



3.1.1. Characteristics of the districts IV and VI

In 1989 the municipality of Managua created districts, in order to decentralize local government, strengthen the implementation of plans, programs and control of urban development.

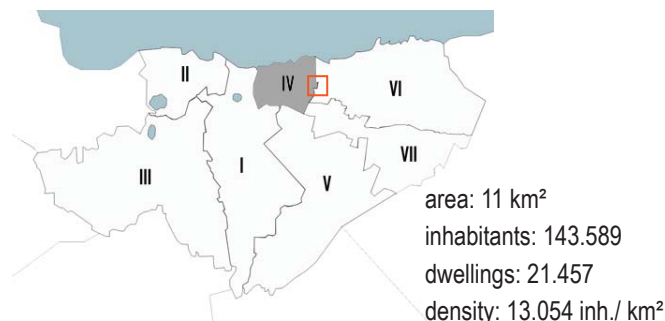
In 2009, the current seven districts were created to provide better service to the population.

The roundabout de la Virgen is located on the border between districts IV and VI.

General characteristics of the district IV

The district covers an area of 11 km², equivalent to 4% of the total area of the municipality which is 267 km². It is the district with the smallest territory, located in the northern part of the city, on the shores of Lake Managua. The district consists of 58 neighbourhoods. On the northern outskirts of the district is a strong commercial and industrial activity, called *Portezuelo*. In this area is also located market *Oriental*, classified as city and neighbourhood market. The market Oriental is the main shopping area of Nicaragua, characterized with a huge influx of merchants and consumers coming daily from across the country; at an average 200.000 people daily are served, in season this number reaches even 500.000.

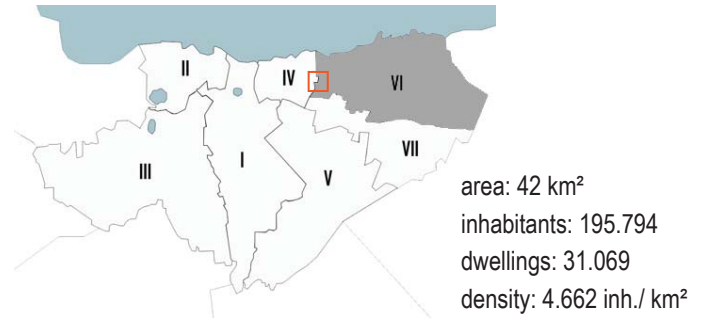
The territory of the district is traversed from north to south by two tectonic plates. It has been valued that 60% of the district's population and 73% of households are highly vulnerable and at risk.



Roundabout *de la Virgen* and *Bello Horizonte* are located in this district.

The population of the district IV represents 11% of the total number of inhabitants, with 143.589 inhabitants in 58 neighbourhoods and is the district with the smallest population. It has a very high population density of 13.054 inhabitants per km², is a fully urbanized district, and has no areas or zones of horizontal growth. It is also the district with the highest flow of people due to the presence of the market Oriental. 28.2% of the population lives in poverty, 14.9% of those in extreme poverty. In the district there are 21.457 dwellings in all neighbourhoods, most built from bad quality materials.

The control of the district is represented by four different departments, Department for Social Programs, Municipal Services, Environment and Planning and Department for Fundraising.



General characteristics of the district VI

District covers an area of 42 km², equivalent to 16% of the total area of the municipality. Although the largest district in the municipality, this sector is underdeveloped mainly because of restrictions of International Airport. Here are located important industrial, commercial and service activities. *La Carretera Norte* (Pan-American Highway), a very congested road, is the main axis and it connects the district with the rest of the city. Important industries, factories and shops are located here; this district is a generator for employment in the capital. The population of the district VI represents 16% of the total number of inhabitants, with 195.794 inhabitants in 37 neighbourhoods, 29 informal settlements and 12 undefined zones.

In 2005 it was estimated, according to INIDE (Nicaragua National Institute of Information Development) to have 31.069 private dwellings, of which more than 40% were

considered unsuitable because of the materials they were made of or because of lack of the basic services. Since the last Census the number of houses decreased due to the high commercialization of the surrounding area. As in the district IV, the control of the district is represented by four different departments, Department for Social Programs, Municipal Services, Environment and Planning and Department for Fundraising.

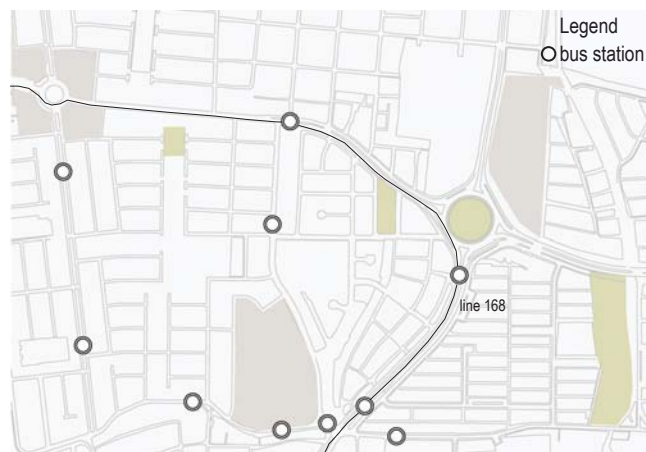
3.1.2. Road network and public transportation

Main roads which converge in the roundabout *de la Virgen* are street *Larreynaga*, *Portozuelo* and *La Solidaridad*. These roads are very congested and around the roundabout there are no traffic lights.

34 different bus lines operate in the capital. There is no timetable and plan with all stops, so unless someone knows where the route is heading, it is hard to move with the public transportation. One ride costs 2.5 *córdobas* (equivalent to 0.07Euro).

Through the map published in *La Prensa* newspaper users are able to have a closer idea of the routes that exist in the capital [figure 37].

From 34 routes, 3 operate through the roundabout *de la Virgen*, but there is only one stop close to it, 80 meters to the south. This route number 168 starts close to the roundabout *Universitaria* in the south-west part of the city, stops at the shopping mall *Metrocentro*, passes next to the market *Oriental* going to roundabout *Bello Horizonte, de la Virgen* and shopping mall *Mulitcentro Las Americas*; finishes somewhere in the east of the city. Other stations are at least half a kilometre far away from the park, which makes it difficult for the users of the park, especially in the evening when streets become more dangerous [figure 36].



[figure 36] Bus stations near *La Rotonda de la Virgen*



3.2. DEVELOPMENT OF THE ROUNDABOUT

From intersection until park (1999-2013)

Literature that was used for creating this section is based on a thesis made by architect Mirco Schroeder who did research of the roundabout until its inauguration as a park, personal interviews with first users of the roundabout as well as with experts; direct observation and measuring, newspaper columns.

Before 1999 the roundabout didn't exist. Instead, there was an intersection on the same place. The area was unsightly and dangerous, a meeting point for delinquents. In the same year, Mayor Arnoldo Aleman replaced a few intersections in the city with roundabouts [figure 38].

"There was nothing, no streets until market Mayoreo or other street Larreynaga. After the new mayor came and built the roads and roundabouts..."

Architect Hector Cortedano
Interview, 24.05.2013

La Rotonda de la Virgen was built with the monument of the Virgin Mary in the middle of the central island.

"The installation of the monument meant the beginning of the new ideological epoch. This roundabout was constructed like any other in the city, during the government of the Mayor Arnoldo Aleman who later became the president of Nicaragua. He undertook a systematic assault on the symbols of Sandinismo by destroying the revolutionary murals."

Architect Ninette Morales, HABITAR
Interview, 15.05.2013



[figure 38] New constructed roundabout, 2002



[figure 39] Changing the monument, inauguration of the park

The revolutionary symbols were changed with a new type of symbols, religious ones. Although the symbol of Virgin Mary comes from Catholic religion, people from different religions are devoted to celebrate the *Purísima* [figure 39]. At that time first activity was registered on the roundabout. First users, athletes moved from more dangerous places, like streets to this one which for them was more central and safe. However this place was still unsafe without illumination or maintenance. Three years after the athletes started to run around the central island, they organized and required first improvements from the municipality. Their participation was supported by the private company La Curacao [figure 40] was responsible for installation of illumination system and enlargement of the outside platform. These improvements weren't enough and some of the athletes were still assaulted in the early morning hours. In order to change that, security guards were brought which also brought many other people and gave more comfortable feeling and safety. In 2007, the users gathered again and collected signatures in order to get the playgrounds and more facilities in the roundabout. The leader of the athletes was Melvin, fitness and yoga instructor. He is also one of the first people who ever did exercises on the roundabout. The social interaction was established through the sport. There was a link between the individuals and competent leader. The people started to identify themselves as “we”. The private company La Curacao and municipality

supported the athletes; this was the second cooperation between these two. Mutual interest brought them together to invest in the reconstruction of the whole park in order to get a new character of the space. The monument of the Virgin was remodelled, irrigation system installed; playgrounds, more lights as well. This was the first example of a park made by public (Alcaldia) and private sector (La Curacao).

“For the construction of the monument of the Virgin Mary, the city hired a very good sculptor to create an impressive sculpture, so people could admire it and identify themselves with it. This monument helped a lot to create this environment in the roundabout.”

Architect Ninette Morales, HABITAR
Interview, 15.05.2013





[figure 40] Private company *La Curacao*

Content of the park in the roundabout:

1. 2 rule boards (not allowed) [figure 41]
2. 4 boards with opening hours; from 5a.m. to 10p.m.
3. 2 trash cans
4. 4 street lightings
5. 3 benches on each side of the walking path
6. 1 place with portable water
7. Underground irrigation system
8. Two guards watching 24 hours
9. Two pedestrian bridges which are enabling the only safe access

The athletes were using the roundabout daily in the early morning hours and in the afternoon. Very soon after the transformation, other people started to come, other type of users, passive users, one parent with children or whole families, couples etc. In order to meet the needs of the users, vendors started to appear by selling different goods, usually drinks and food.

Both, public and private sector had their own responsibilities in this process. *La Curacao* was in charge of maintenance of irrigation system and any other works related to consume of water, but also of maintenance in the case of damage and robberies. Its duty was to clean the park every 15 days. On the other hand, the municipality was running the works, planting trees and taking care of the garbage.

Not allowed:

- people under drugs
- drug trafficking
- driving bicycles
- possession of guns
- dogs without mouth protection
- lying on the benches
- making graffiti
- vendors in general
- demolition of installations



[figure 41] Board with rules

This place was still lacking on access and parking space. Therefore, in 2008 La Curacao built two pedestrian bridges, on north-east and another one south-west, which were used also for their advertisement. Parking in front of La Curacao was big enough to accommodate vehicles of the users as well. This never happened. The relationship between these two was ruined in the beginning of 2009, because of heavy demonstrations which took place in all roundabouts for almost 8 months, day and night. They were part of presidential political campaign to prevent opposition protests [figure 42]. After the protestors left the roundabouts, public infrastructure of all of them was demolished; roundabout de la Virgen suffered lots of damage and the costs of it were high. La Curacao stopped any communication with municipality and also their maintenance of the park. The contract between them expired few months later and until today wasn't renewed.

“Sewage and illumination systems were damaged, drinking water spots and grass were destroyed. Some lights were missing and drug dealers and prostitutes appeared. Existence of the park was under question.

This place is of much importance, especially for poor people with greater health problems due to bad housing conditions and poor nutrition.”

Architect Ninette Morales, HABITAR
Interview, 17.04.2013

3.2.1. Informal development of the park

June 2009 was the beginning of informal development of the park. It belonged only to the municipality, who didn't take over duties from La Curacao. Degradation of the park started; there wasn't enough maintenance and control. Written rules were ignored, which was a great base for vendors, who started to settle and occupy randomly the space. In 2011, two fritangas were built inside from solid material, than in 2012 other two mobile ones appeared outside of the park, on the side islands [figure 43].

"The process how public space occurs is always the same in Managua. There are some people who inhabit the space informally, then the informal vendors arrive to satisfy other needs of the users. Vendors attract other actors (families, singles, couples...); then business expands outside the place to satisfy needs of more people (for example drivers). These places are the answer to the greatest need of population- to earn money by selling, usually drinks and food. It means that everywhere where is a strong activity, there are also informal sellers. The number and variety of users is always rising. Under these circumstances many conflicts appear between users, especially because of the lack of organization, control and maintenance." [figure 44]

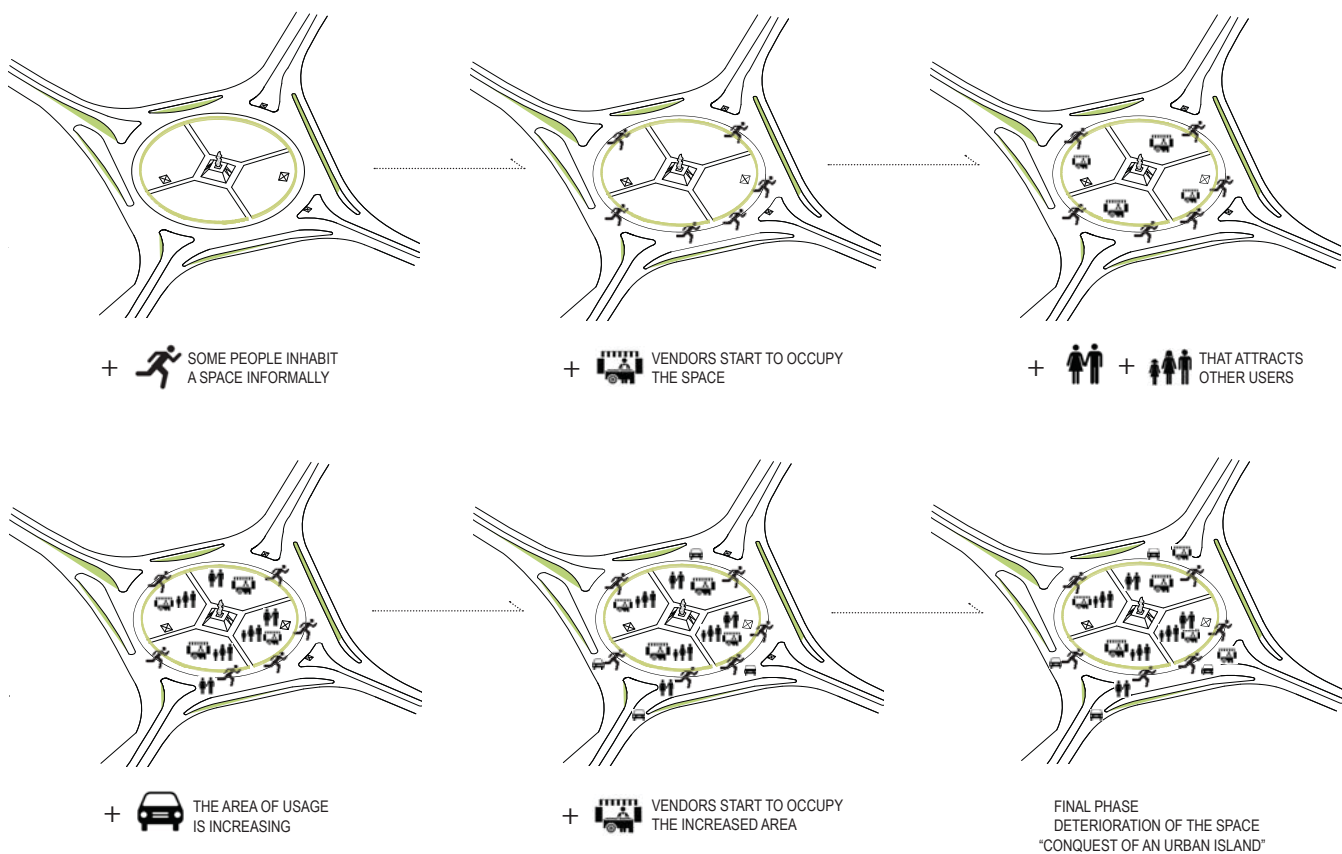
Architect Manolo, Alcaldia
Interview, 15.05.2013



[figure 42] Protest on roundabout Cristo Rey

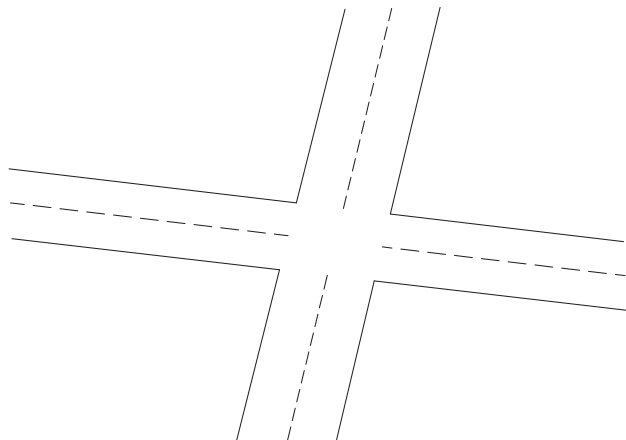


[figure 43] Fritanga on a splitter island of the roundabout de la Virgen

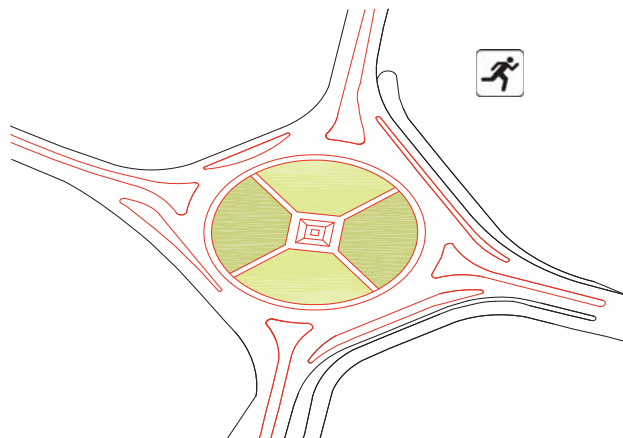


[figure 44] Public space - informal development process

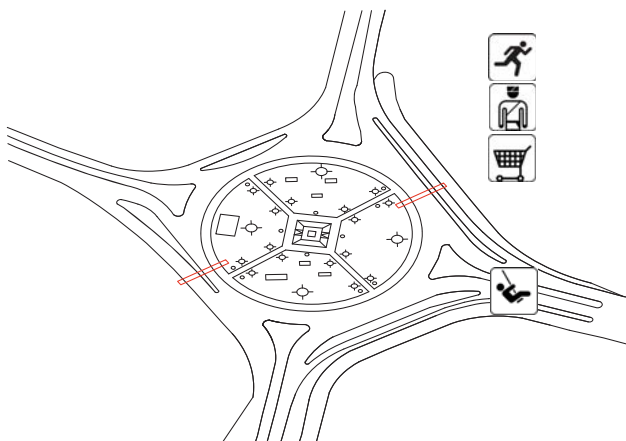
PHENOMENON LA ROTONDA DE LA VIRGEN



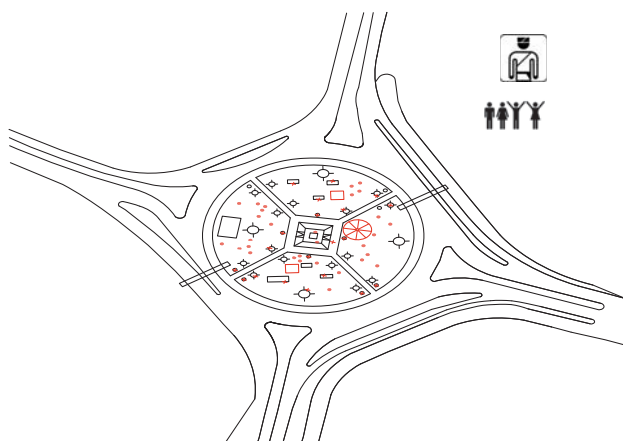
BEFORE 1999
WAS ONLY AN INTERSECTION



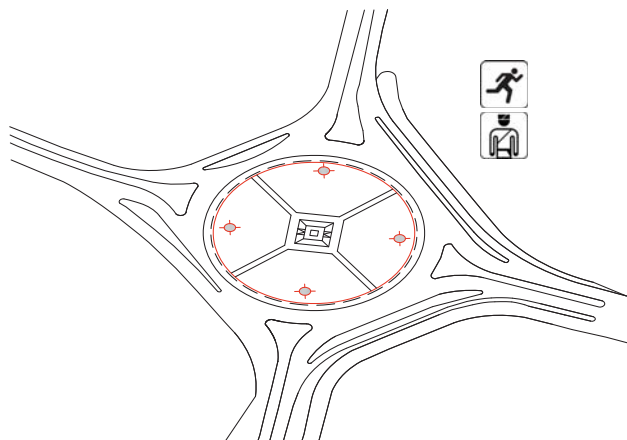
1999
INTERSECTION WAS REPLACED BY THE
ROUNDBABOUTS AND STATUE WAS INSTALLED;
FIRST USAGE BY ATHLETES



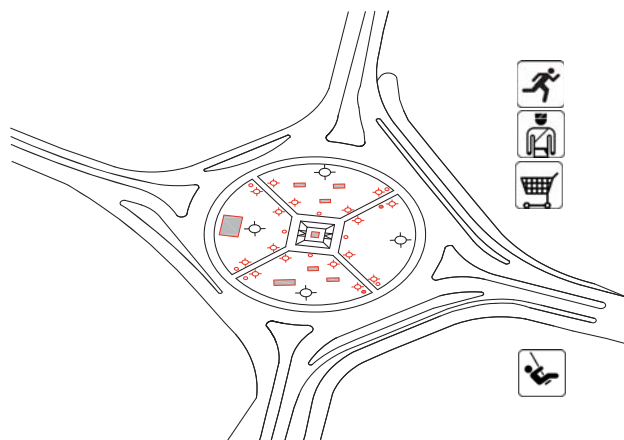
2008
CONSTRUCTION OF TWO PEDESTRIAN BRIDGES
TO ENABLE THE SAFE ACCESS FOR THE USERS



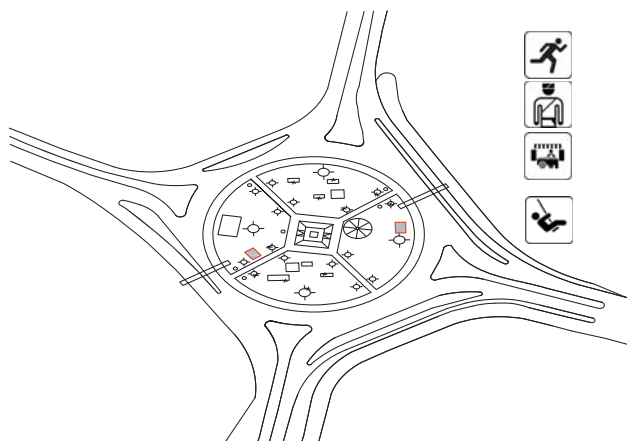
2009
BEGINNING OF THE CONSTRUCTION OF NEW
PLAYGROUNDS - NEVER BEEN FINISHED;
INSTALLTION OF CHRISTMAS TREE;
PROTEST WHICH LASTED SIX MONTHS;
RESULT - DEMOLITION AND DEGRADATION OF PARK



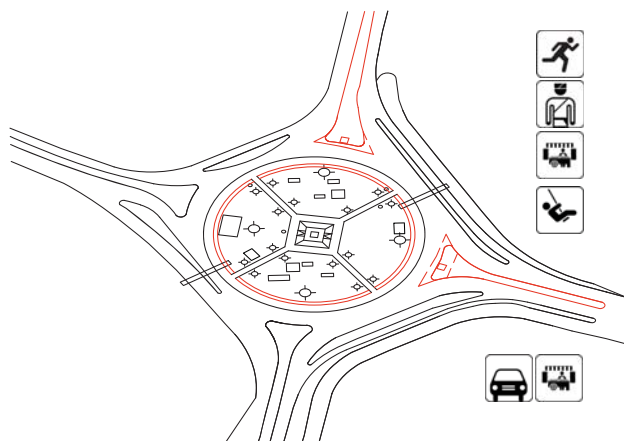
2002
BROADENING THE OUTSIDE PLATFORM
AND INSTALLATION OF ILLUMINATION SYSTEM;
SECURITY



2007
INSTALLATION OF IRRIGATION, SEWAGE SYSTEM,
BENCHES, PLAYGROUNDS; RULES; NEW
MONUMENT; INAUGURATION OF THE PARK



2011
CONSTRUCTION OF TWO *FRITANGAS* INSIDE THE
PARK FROM SOLID MATERIAL



2012
INSTALLATION OF TWO *FRITANGAS* ON SPLITTER
ISLANDS, ONE MOBILE AND ANOTHER ONE
DURING THE WEEKENDS; PARKING IS ALONG
THE STREET; GREEN HEDGE AROUND THE PARK

[figure 45] Phases of transformation of the roundabout

3.3. CURRENT SITUATION (JUNE 2013)

Next sections are exclusively based on my research, interviews with experts and users, collaboration with authorities, different observation and measuring techniques.

Only six years after the inauguration, infrastructure of the park in the central island of the roundabout de la Virgen is in very bad condition or it doesn't exist. The irrigation system doesn't work, there is no drinking water, all garbage cans and benches are damaged, some lights are missing, playground installations are corroded and most of them are out of use. No one respects anymore the rules written in the park; guards' only duty is to take care of the property of municipality, nothing else. People are barely using pedestrian bridges, because they are arriving from other directions or because they are afraid to be assaulted. Lack of monitoring, variety of users (active, passive, vendors) and activities caused many conflicts. Improperly parked vehicles around the central island and vendors on side islands impede the regular flow of traffic.

The parks is used early in the morning, from 5 a.m. until 9 a.m. and late in the afternoon from 6 p.m. until 10 p.m. In between there is no use, because of the very warm climate and because that is the time when the majority is economically active. Morning users are athletes; there are organized yoga and fitness classes from 6.30 a.m. until 9 a.m. In the evenings, the situation is very different. There is higher number of users (active and passive), many different activities and many conflicts [figure 46].

Still, this park is the only used open public space this size in the city and the only one in this, highly dense residential area. It was made by a small organized group of athletes, who put the public and private sector together. Despite all conflicts, athletes remained faithful to their park. Evening users are coming here as a consequence to the park and because of other users.

[figure 46] Current situation

5 a.m. - 9 a.m.



garbage can



athletes



pedestrian bridge



parking on the street



board with rules



neighbourhoods



playground



vendor 1

5 p.m. - 10 p.m.



vendor 2



vendor 3



guard



benches



La Curacao

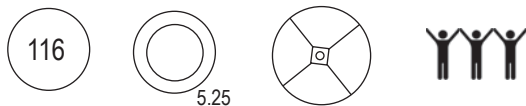


monument of the Virgin Mary

3.3.1. Physical characteristics of la Rotonda de la Virgen

Roundabout *de la Virgen* with the inner diameter of 116m is the biggest one in the city of Managua. It is 10500m² in total (with irrigation system, monument). It consists of central island and 8 splitter islands. The outside platform is 5.25m wide. The park is divided into 4 equal parts and between each two there is one entrance. For each entrance there is one walking path which leads to the monument. Two quarts are playgrounds for children and adults and other two are green areas with facilities like irrigation system, restaurants, and light installations. The playground for adults is separated with the monument from the one for children, to avoid demolition; it is made from more resistant material. The monument of the Virgin Mary is reachable by two stairs (one on west and the other one on the east) and the face of the Virgin is orientated to the west [figure 47]. Central island is accessible with two pedestrian bridges, one on the north-east and another one on the south-west of the roundabout. There is no parking; therefore users park their vehicles on the street, along the splitter islands.

USERS ARE ENTERING THE PARK MOSTLY FROM NORTH, EAST AND SOUTH AND THEY ARE MORE LIKELY TO OCCUPY THE OUTSIDE PLATFORM AND SPACE AROUND THE MONUMENT

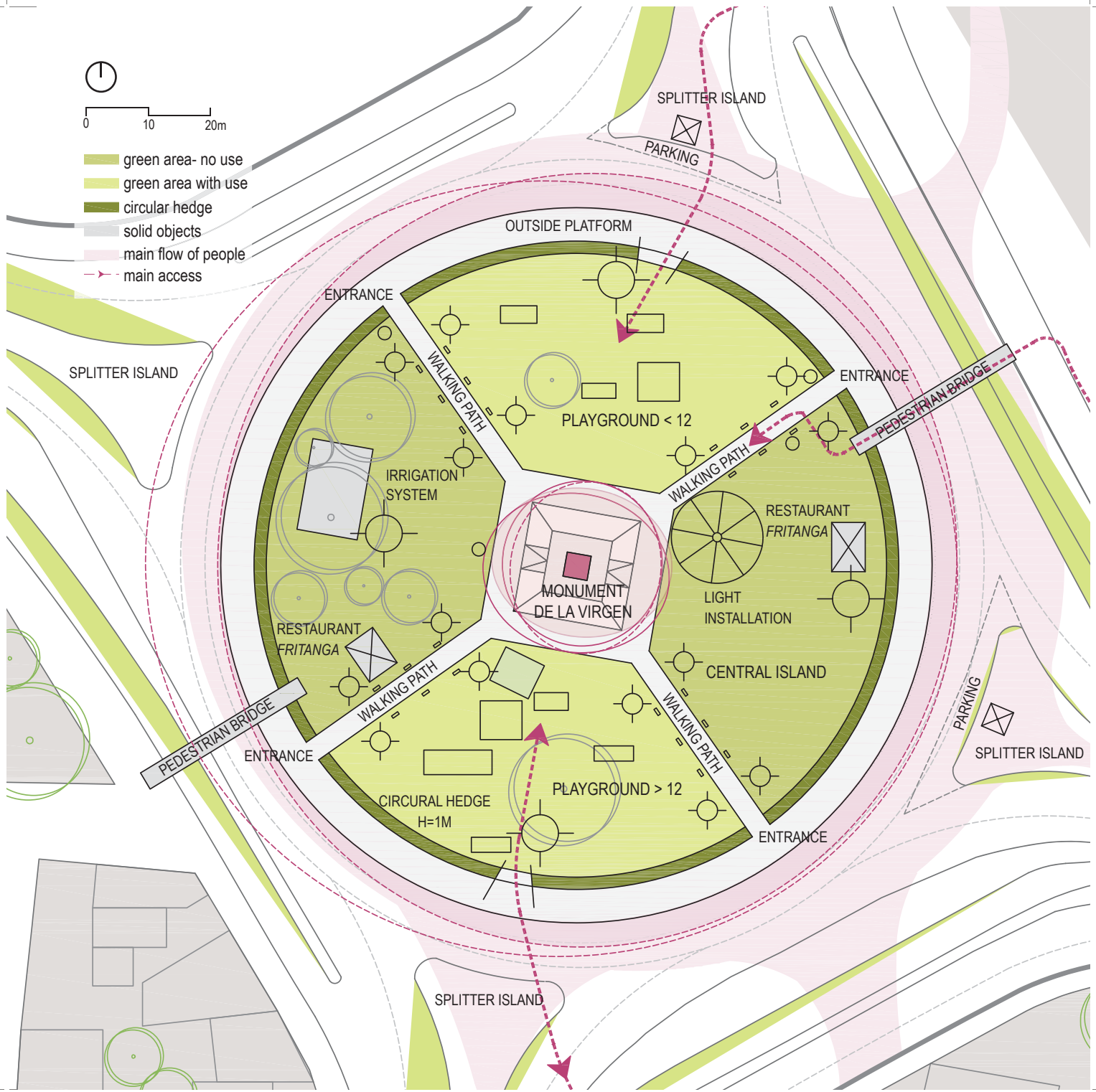


[figure 47] Elements of the phenomenon La Rotonda de la Virgen



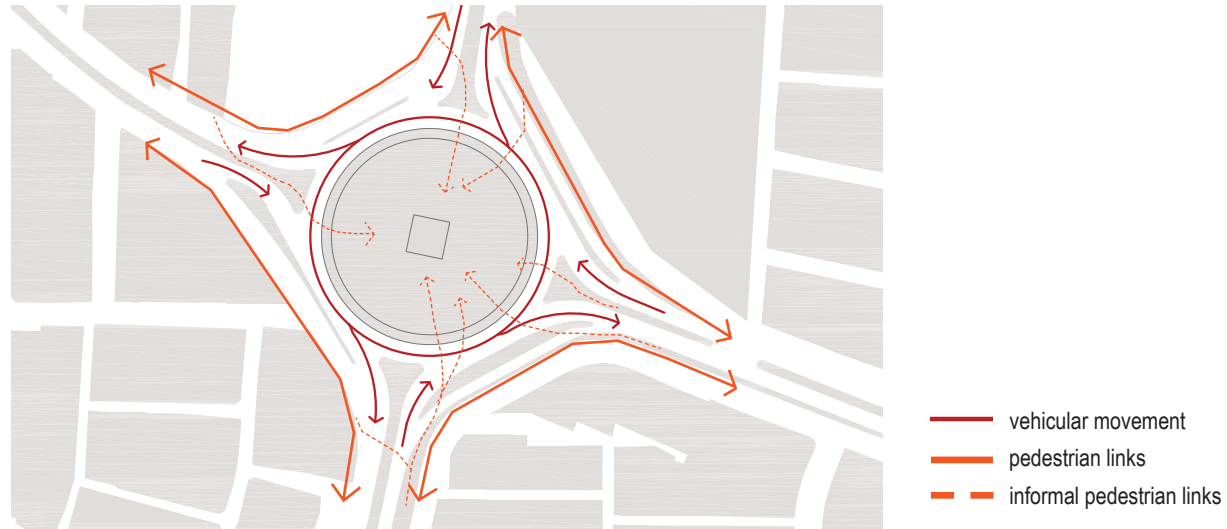
0 10 20m

- green area- no use
- green area with use
- circular hedge
- solid objects
- main flow of people
- main access



3.3.2. Contextual analyses of the study area

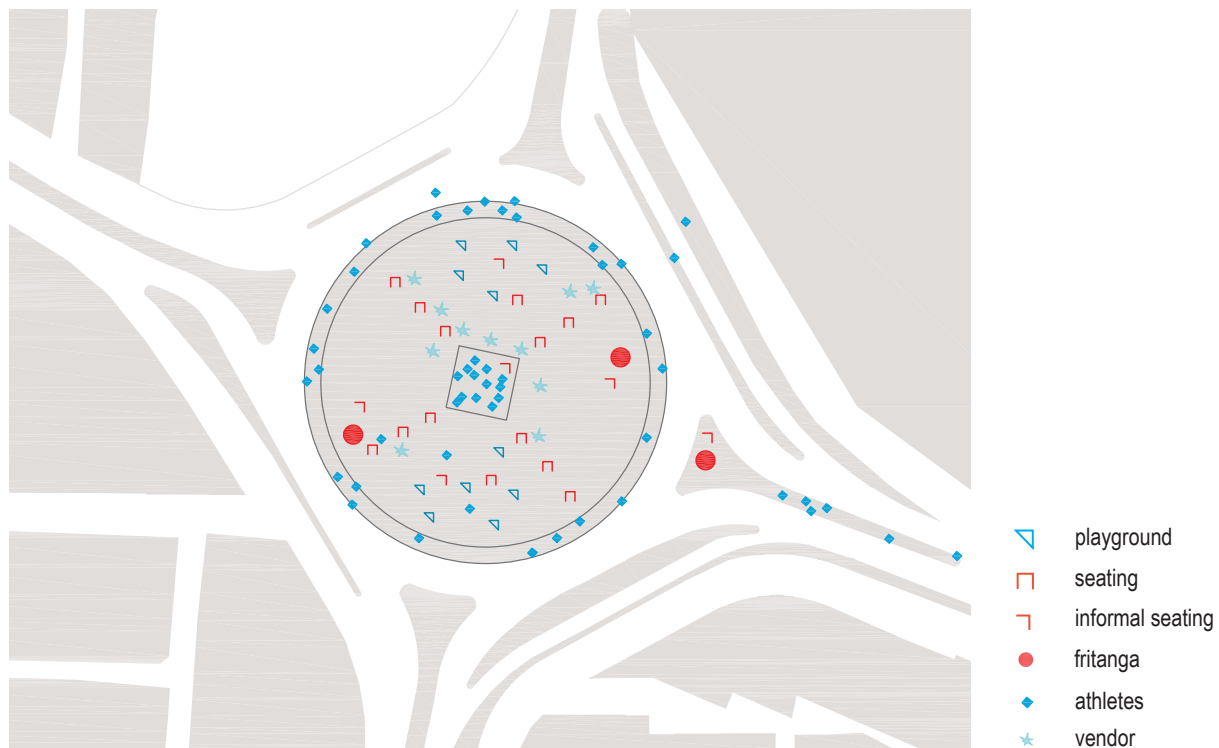
MOVEMENT



GREEN



SOCIAL INFRASTRUCTURE



[figure 48] Contextual analyses of the study area; Movement, green and social infrastructure

3.4. EVALUATION OF THE INTERVIEWS



13 interviewees



Meybi Molina Rodriguez and Raquel Lazo

Palmira Vado

Miriam Campos

Vlas Rivas



Jose Dolores Castro with children

Christian Robledo



Heidi

Jerald



Javier



Miriam

Dona Valeria



Javier Gomez



Juan Diego

The following interviews are important to measure people's perceptions, preferences, ideas and motivations that cannot be recorded only by observing their behavior. In creating the interview different methods have been used in order to gain different types of results. It is structured from a guided interview and questionnaire. The guided part consists of a series of questions, but it is still very flexible, open-ended and the interviewer can give additional information about a special topic that he/she is familiar with. On the other hand, a questionnaire consists of structured questions with multi choice offered answers [figure 49].

The interviews were given in two stages, in the morning and in the evening, during the week, on weekends and national holidays because of the diversity and intensity of activities. With help of a student from UCA, Adriana, professor from the same university- architect Fitzgerald Gutierrez, landscape architect Rene Hayashi and local architect Hector Cortedano, between May and July 2013, 13 interviews were conducted, from which 4 in the morning and 9 in the afternoon/evening.



Name:

Age:

Gender:

Neighborhood:

Occupation:

Since when do you come to the roundabout? (since 6 months, 1 year, 2 years, more)

How often do you use the park in the roundabout?

When? What time of the day?

How long do you stay in the roundabout?

How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...)

What entrance do you usually use?

Do you use pedestrian bridges? Which one?

With whom do you visit the roundabout?

Which kind of activities do you do there?

Are there any other similar spaces close to? Which?

Do you use the other places close to? (Metrocentro Las Americas, Bello Horizonte, La Curacao...)

Do you buy something from vendors on the roundabout?

Why you like the park in the roundabout?

Why you don't like the park in the roundabout?

Do you think that the traffic influences your health?

Are you afraid to suffer an accident from the vehicles here in the park?

Why do you prefer this park and not some other one?

How does your house look like? Is there a garden? How many people are living in it?

[figure 49] Sample: Interview

* All given interviews are attached in the annex of the thesis

As a result, many differences were identified between the morning and evening behaviour. Morning usage takes place between 5 a.m. until 8 a.m. and evening between 5 p.m. until 10 p.m. when the park closes. Also, the evening users were less interested and afraid for participating in an interview unlike the morning ones, who seemed more motivated and better organized.

MORNING

Morning actors, athletes were the first users of the park and as their participation was the initiative for the establishment of the park, they still strongly identify themselves with the place, despite its deterioration. All sport activities are organized by them, like: yoga and fitness classes, 6 km long humanitarian marathon, occasionally on Sundays, between the roundabout until the market Mayoreo and back. Greatest activity is registered on the outside platform and on the base of the monument. 3 of 4 interviewers visit the park on regular basis, 3 to 5 times a week and they don't use other spaces for the same activities. They usually come alone by walking or running and they never use pedestrian bridges, because there is no need at that time of the day. On the other hand, they all agreed that the biggest deficit of the park is lack of drinking water and toilets. Also, lack of protection between the outside platform of the central island and the street makes this place extremely dangerous for the runners and walkers. They don't have any interest in buying from vendors. Therefore, that activity is not registered in the morning hours [figure 50].



5 AM - 8 AM



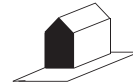
INTERVIEWEES



2 SMALL HOUSE
WITH SMALL PATIO



1 SMALL HOUSE
WITHOUT PATIO



1 BIG HOUSE
WITH BIG PATIO



ACTIVITY

26 - 58
AGE

3 - 5
TIMES PER WEEK
FREQUENCY



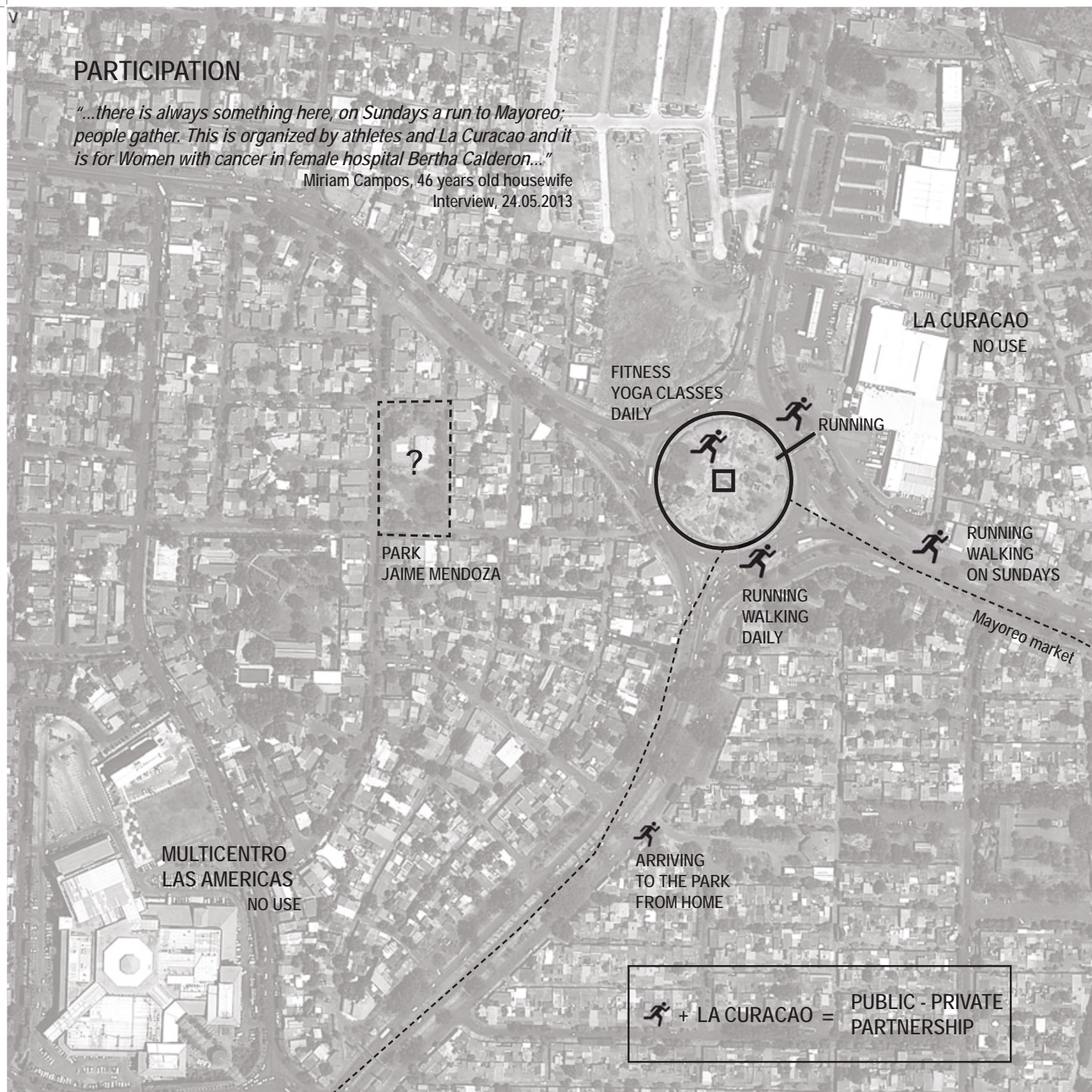
USE OF ONE

[figure 50] Evaluation of the interviews - morning

PARTICIPATION

"...there is always something here, on Sundays a run to Mayoreo; people gather. This is organized by athletes and La Curacao and it is for Women with cancer in female hospital Bertha Calderon..."

Miriam Campos, 46 years old housewife
Interview, 24.05.2013



EVENING

Evening actors (active and passive users) are: athletes, families, couples, friends, singles, vendors, fritangas, and observers. Activities are: walking, running, doing exercises, driving rollerblades, leisure, playing, selling, shopping, eating, and drinking.

They started to use this place after the constitution of the park. Many of them visit the park occasionally and mostly on weekends and the majority of them are families or one parent with children. Greatest activity is registered on the base of the monument and around it, on the playground for children, along the walking paths and around *fritanga* on the east. Also, the street becomes the part of the park and northern and eastern splitter island as well. At that time of the day, almost no one comes on foot, rather by vehicle or public transportation. First challenge results from this, since there is no planned parking for the users. They park their vehicles on the street east from the central island of the roundabout and hinder the flow of the traffic [figure 51]. The accesses provided by two pedestrian bridges aren't adequate and are disabled because of many reasons and they don't provide safety. The users compare this park with the biggest recreational area in the city, park *Luis Alfonso Velasques Flores* and with port *Salvador Allende*, both located in the old city centre (see section PARKS). They also visit other places in the surrounding, shop *La Curacao*, mall *Multicentro Las Americas* etc. Small neighbourhood parks aren't visited, because they are dangerous, therefore this park is for the majority the only option. They also agreed that the biggest deficit of the park is lack of drinking water and toilets, but also lack of parking, dangerous access, expensive vendors and of course no control and maintenance.



5 PM - 10 PM



INTERVIEWEES



8 SMALL HOUSE
WITH SMALL PATIO



1 BIG HOUSE
WITH BIG PATIO



ACTIVITY

19 - 55
AGE

IRREGULARLY / ON WEEKENDS
FREQUENCY



USE OF ONE

[figure 51] Evaluation of the interviews - evening

NO PARTICIPATION

"...there is a lack of maintenance; vendors are charging too much for the games for children and more than anything there are couples who behave inappropriate; they should go to some other place, because this is supposed to be a park for children..."

Christian Robled, 35 years old taxi driver
Interview, 26.04.2013



EVENING USERS
USUALLY COME
BY VEHICLE

PLAYGROUND
FOR CHILDREN



LA CURACAO
USE WHEN
PROMOTIONS

INFORMAL VENDOR ON
THE CENTRAL ISLAND



BUS STATION
500 M FROM
THE PARK



VENDOR ON THE
SPLITTER ISLAND



PLAYGROUND
FOR ADULTS



BUS STATION
80 M FROM THE
PARK



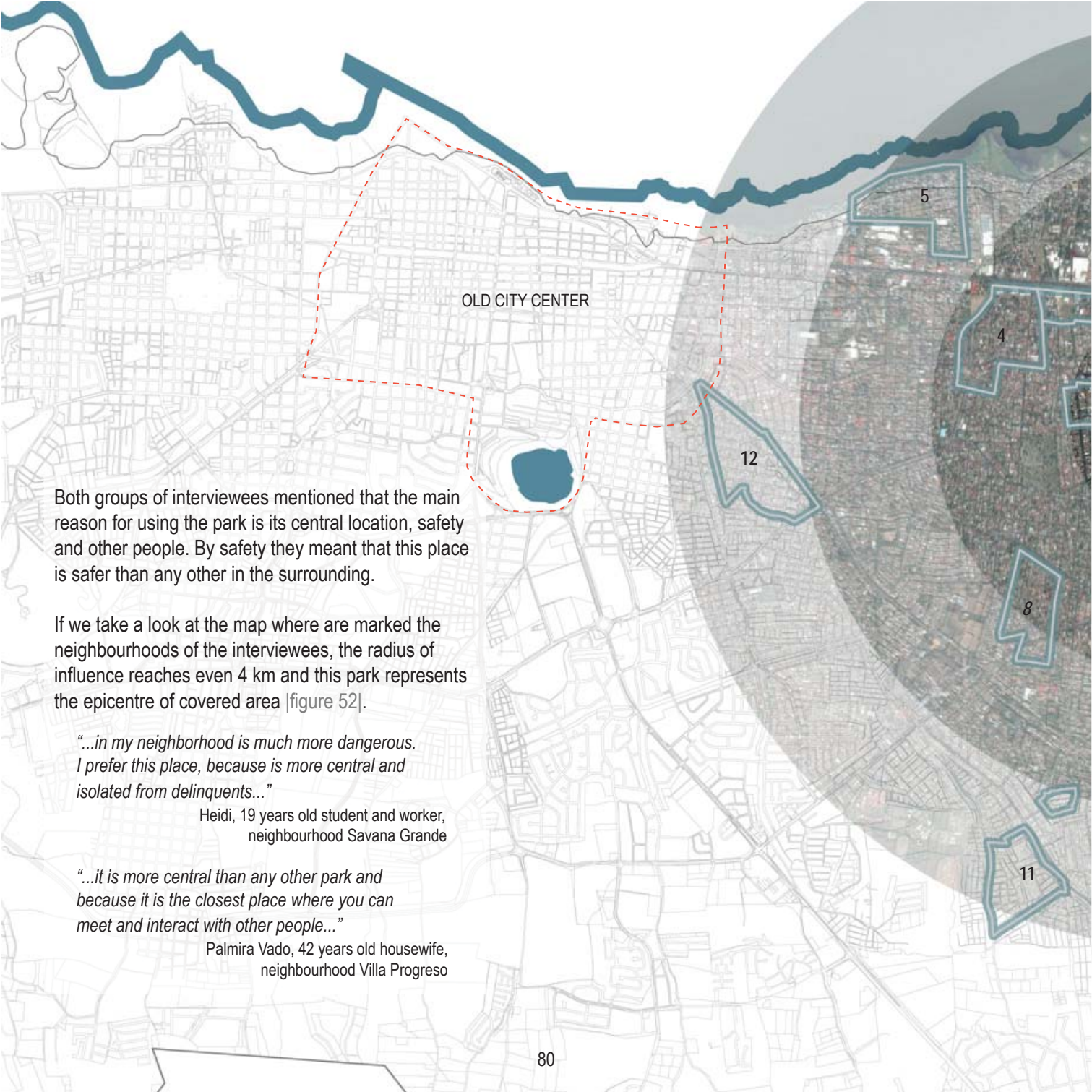
MULTICENTRO
LAS AMERICAS

WALKING, SHOPPING,
DRINKING, EATING

BUS STATION
500 M FROM
THE PARK



NO MONITORING - NO IDENTITY - CONFLICTS
DISORGANIZATION - NO PARTICIPATION



OLD CITY CENTER

Both groups of interviewees mentioned that the main reason for using the park is its central location, safety and other people. By safety they meant that this place is safer than any other in the surrounding.

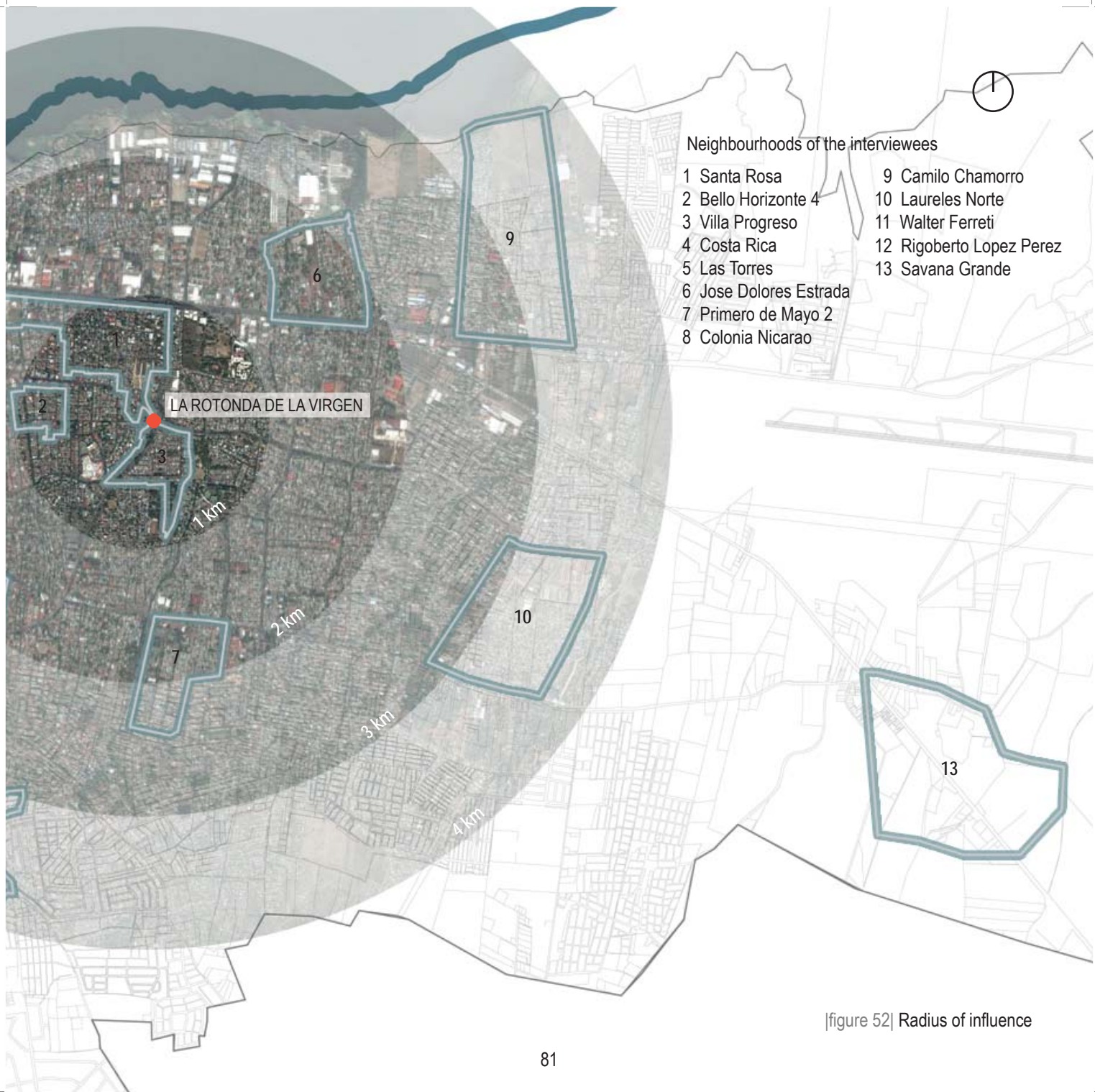
If we take a look at the map where are marked the neighbourhoods of the interviewees, the radius of influence reaches even 4 km and this park represents the epicentre of covered area [figure 52].

"...in my neighborhood is much more dangerous. I prefer this place, because is more central and isolated from delinquents..."

Heidi, 19 years old student and worker,
neighbourhood Savana Grande

"...it is more central than any other park and because it is the closest place where you can meet and interact with other people..."

Palmira Vado, 42 years old housewife,
neighbourhood Villa Progreso

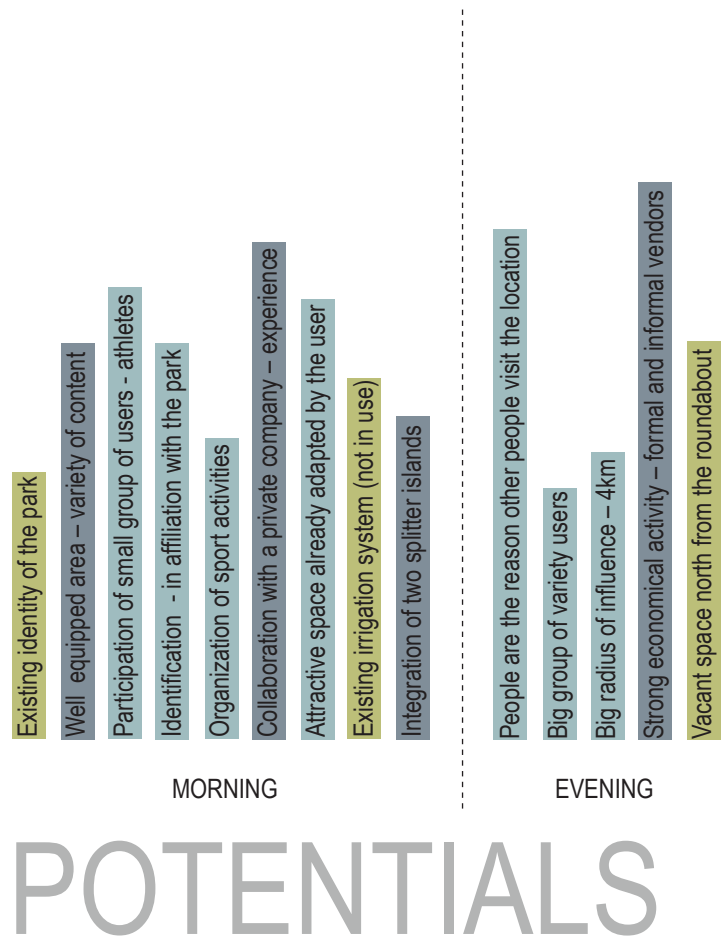


[figure 52] Radius of influence

3.4.1. Potentials and deficits

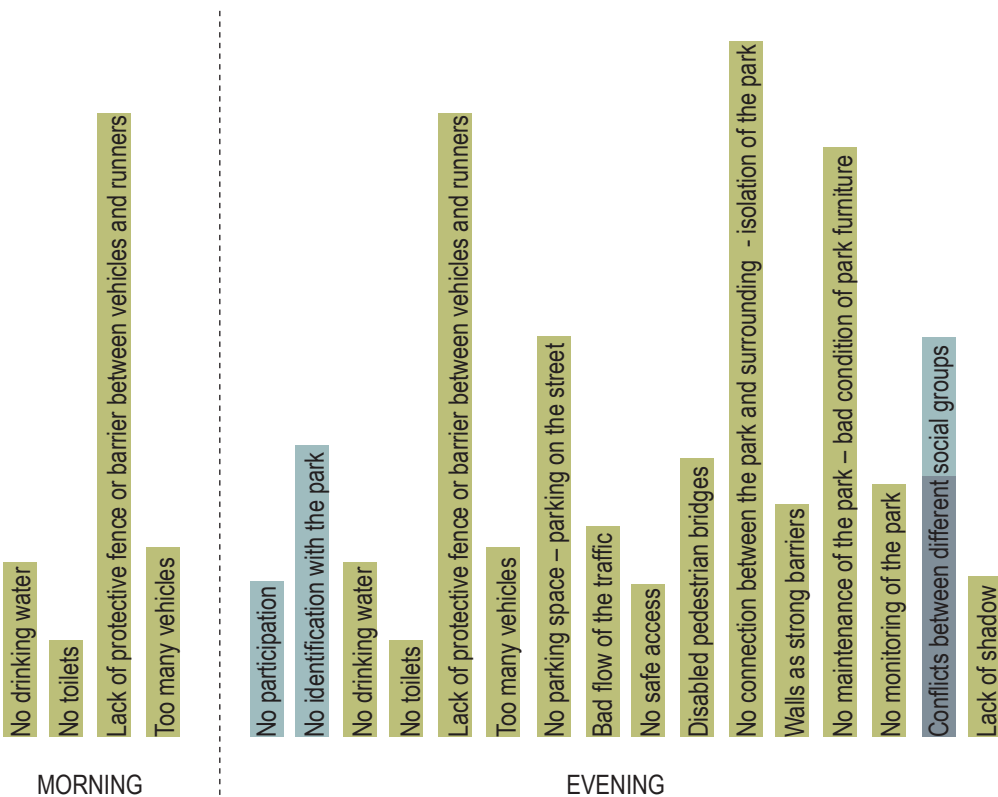
Here listed potentials and deficits are the result of thorough research conducted from April to June last year [figure 53]. Colorful graphic presentation was chosen in order to show the difference between morning and evening traits. In the morning is noticed a greater numbers and variety of potentials, while in the evening the situation is reversed. In the evening, when the activity of the park is greater, next to several social potentials, dominate the physical and social deficits. After only seven years since it was established and renovated, the park is in a very poor physical condition and completely inaccessible and isolated from its environment. Despite all this, people still visit it and mostly because of other people.

All findings and conclusions will be used for creation of a project that has the aim to find solutions to make the park in the central island of the roundabout de la Virgen a safer and more attractive place and to make rules which could be used for further planning of public space in Managua.



[figure 53] List of potentials and deficits

DEFICITS



PHYSICAL



SOCIAL



ECONOMIC

3.5. REFERENCE PROJECTS

3.5.1. Place making and the future of cities UN-HABITAT and PPS

In 2011, UN-HABITAT and Project for Public Spaces (PPS) signed the five-year cooperative agreement, Transforming Cities through Placemaking & Public Spaces, to hitch the power of public space for the common good.

The aims: The agreement is multifaceted and the main aims are to raise international awareness of the importance of public space, to foster a lively exchange of ideas among partners and to educate a new generation of planners, designers, community activists, and other civic leaders about the benefits of the Placemaking methodology. UN-Habitat has developed a vision for public space which was a starting point of PPS. The vision has been expanded to incorporate case studies in many cities throughout the Global South. The goal is to bring Placemaking process in the development of public space on a global scale.

The challenge: One of the greatest challenges is to create public spaces which include people from all walks of life. When no one group dominates, it is sure that the space is safe and welcoming for all. Opposing, where public space is inadequate, poorly designed, or privatized, the city becomes increasingly segregated. Another challenge is public participation. It is necessary to make these places come into life. Design of public spaces isn't only matter for planners and architects to decide in a void. Public Participants also bring awareness of local customs which must be considered. To make better public spaces there is the Placemaking process which identifies and catalyzes local leadership, funding, and other resources. It is a skill that is transferred either formally or informally; a bottom-up approach that motivates and involves people in ways that

traditional planning processes don't. This approach has as a result a place where the community feels ownership and engagement, and where design serves function.

Practice: The cooperation between UN-HABITAT and PPS produced a guide with 10 best practices for public space projects. It is a tool for municipal leaders in future public space projects. One of these 10 facets of the Placemaking approach is The Power of 10, the concept which offers an easy framework and motivates residents and stakeholders. With this many big improvement can be accomplished.

[Project for Public Spaces, 2012]



[figure 54] Making a roundabout outdoor gathering spot, Halifax



[figure 55] Public participation, Halifax

“The core principle is the importance of offering a variety of things to do in one spot — making a place more than the sum of its parts. A park is good. A park with a fountain, playground, and food vendor is better. If there’s a library across the street, that’s better still, even more so if they feature storytelling hours for kids and exhibits on local history. If there’s a sidewalk café nearby, a bus stop, a bike path, and an ice cream stand, then you have what most people would consider a great place.”

[Project for Public Spaces, 2012]



[figure 56] Making a roundabout outdoor gathering spot, Halifax



[figure 57] A great destination has at least 10 places within it, City of Portland

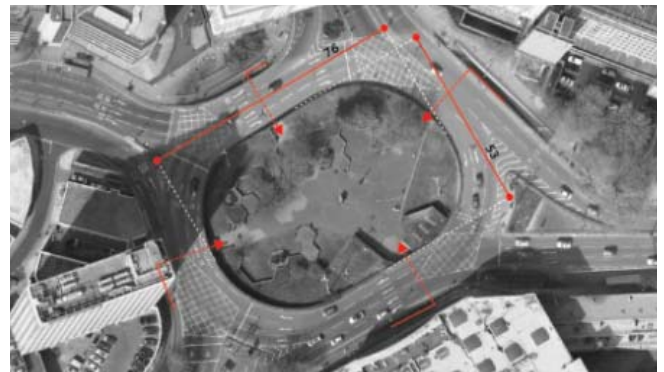
3.5.2. BEARPIT - St James Barton roundabout, Bristol

Story of B.I.G.: The B.I.G., Bearpit Improvement Group was formed with the support of the Bristol Civic Society, the neighborhood association People's Republic of Stokes Croft and representatives of other local associations, representatives of the police and the council. The group is responsible for implement ideas and prospects for the improvement of St James Barton roundabout, known as Bearpit.

St James Barton roundabout: The sunken roundabout in Bristol was constructed in 1971, as a part of post-war reconstruction. The St James Barton roundabout is in the neighborhood of the same name located east of the city center and less than 600 meters from the University of Bristol. Furthermore, in a study led by the University of Bristol on the areas of the city that associate people with insecurity, The Bearpit appeared as one of the most unsafe places for respondents.

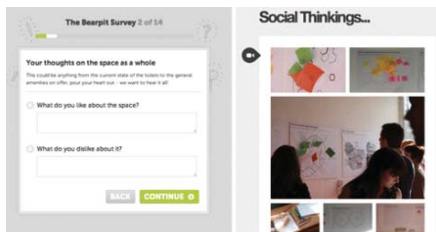
The aims: As a short term goal was to transform the "Bearpit" into a space that is welcoming, safe, diverse and inclusive. The first initiative was to establish general objectives to change the inside of the roundabout by improving the environment for users and people who use the roundabout as a transit, reducing the feeling of insecurity in underground passages, improving existing public space into a multifunctional space to attract more users and making public spaces as galleries for local artists. As a long term intention was to bring many groups of actors, who would take an active part in the organization of activities, maintenance, etc., so that in the future the development of the roundabout wouldn't depend on BIG.

Results and development: At the beginning the project was brought forward by a small group of volunteers. The coordination team had greater commitment to maintain order and efficiency of the work as more groups, collectives and volunteers were joining the project. So far the initiatives like cleaning up the square, fixing the pavement, organizing a flea market, enabling outdoor games facilities etc. were undertaken. They have brought significant improvements in the way users perceive and use the site, but the physical structure hasn't been changed. One of the biggest problems was trying to solve the problem of insecurity caused by underground accesses and therefore, further development included a more physical reform, providing two accesses from the street level.

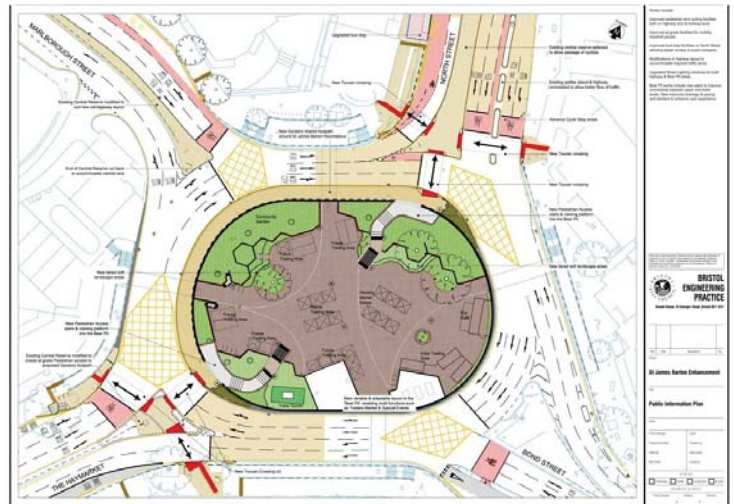


[figure 58] Bearpit roundabout, Bristol

Conclusion: This is an ongoing project of a social value which depends heavily on the intervention strategies of many, not on a single person. It demonstrates that the best incentive to attract social participation is to achieve short-term results.



[figure 59] Info campaigns for the project



[figure 60] Proposal for the roundabout



[figure 61] Event and underground passage



[figure 62] A photomontage of the proposal

REFERENCE PROJECTS

3.5.3. "1DIAMERCADO" Workshop in La Candelaria, Managua

"1DIAMERCADO", one day workshop organized in the last week of June 2013 in Managua.

The aims: It was aimed to motivate the local population of poor neighbourhood La Candelaria through the exchange. As the majority of the population is engaged in trade, I had the idea with this workshop to create everyday situation, where instead of money, women from this neighbourhood would provide information and their opinion regarding public space (park La Candelaria) in exchange for clothes.

Participants: planner (me), women's leader, local population, students from UCA and volunteers.

Process: The workshop was divided into three parts, where the first was the exchange of information for clothes for mothers, girls and children, where they were offered a choice of six different examples for the improvement of the

park. The mothers have mostly opted for passive interventions such as illustrations on the streets and installation of comfortable seating. Girls, as the majority chose the other four examples, while the youngest opted for entertaining playgrounds. The second part was learning new social games with young and third as drawing workshop for the youngest. Both, second and third ended unexpectedly, since the target group changed; the mothers wanted to draw and to jump over elastic band as well.

Conclusion: This workshop is a highly motivating process with the high social value which would be well to repeat in order to gain easily social participation.



[figure 63] Collected clothes for exchange of knowledge



[figure 64] Concept of the workshop



[figure 65] Decision support



[figure 66] Developing discussion

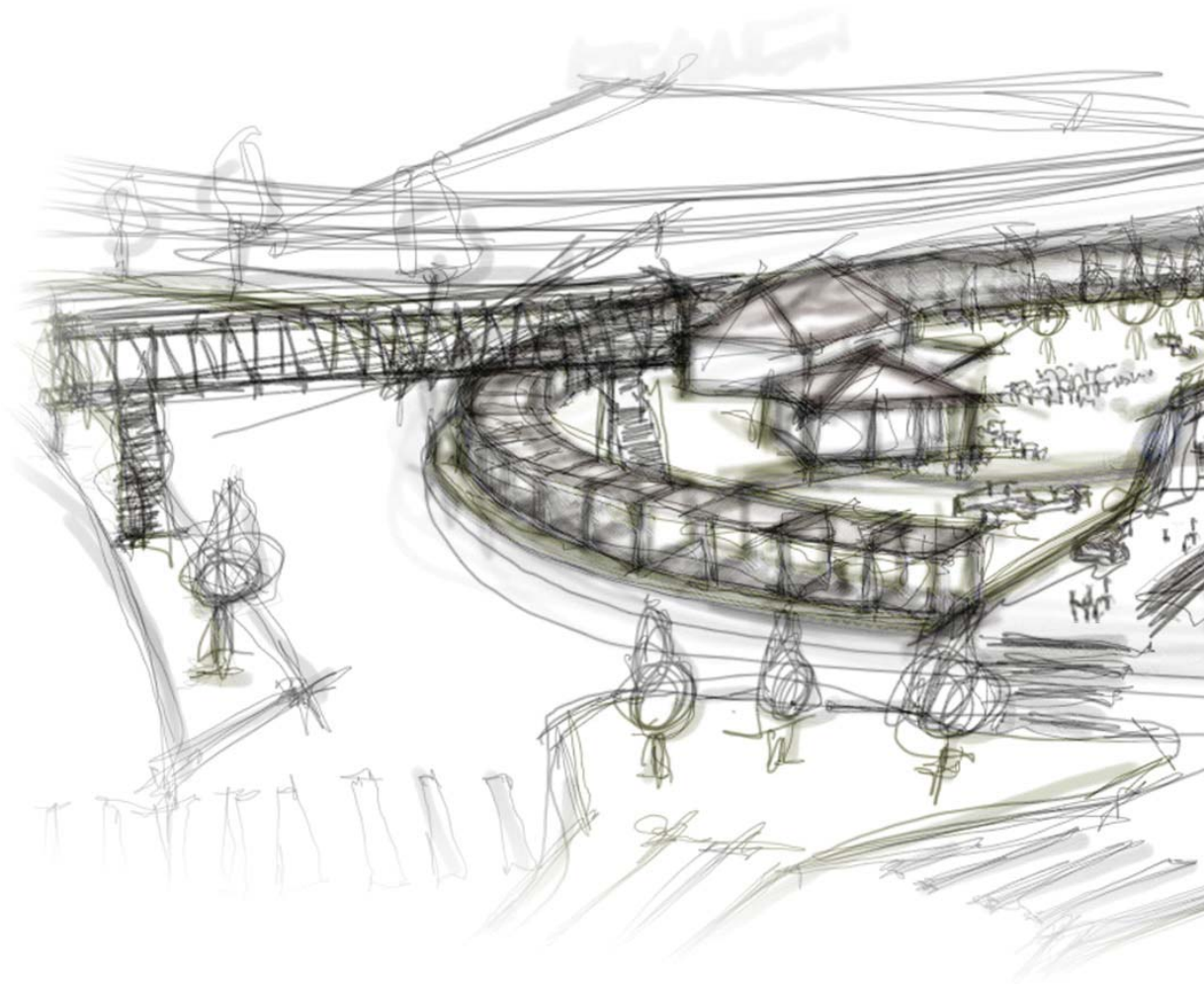


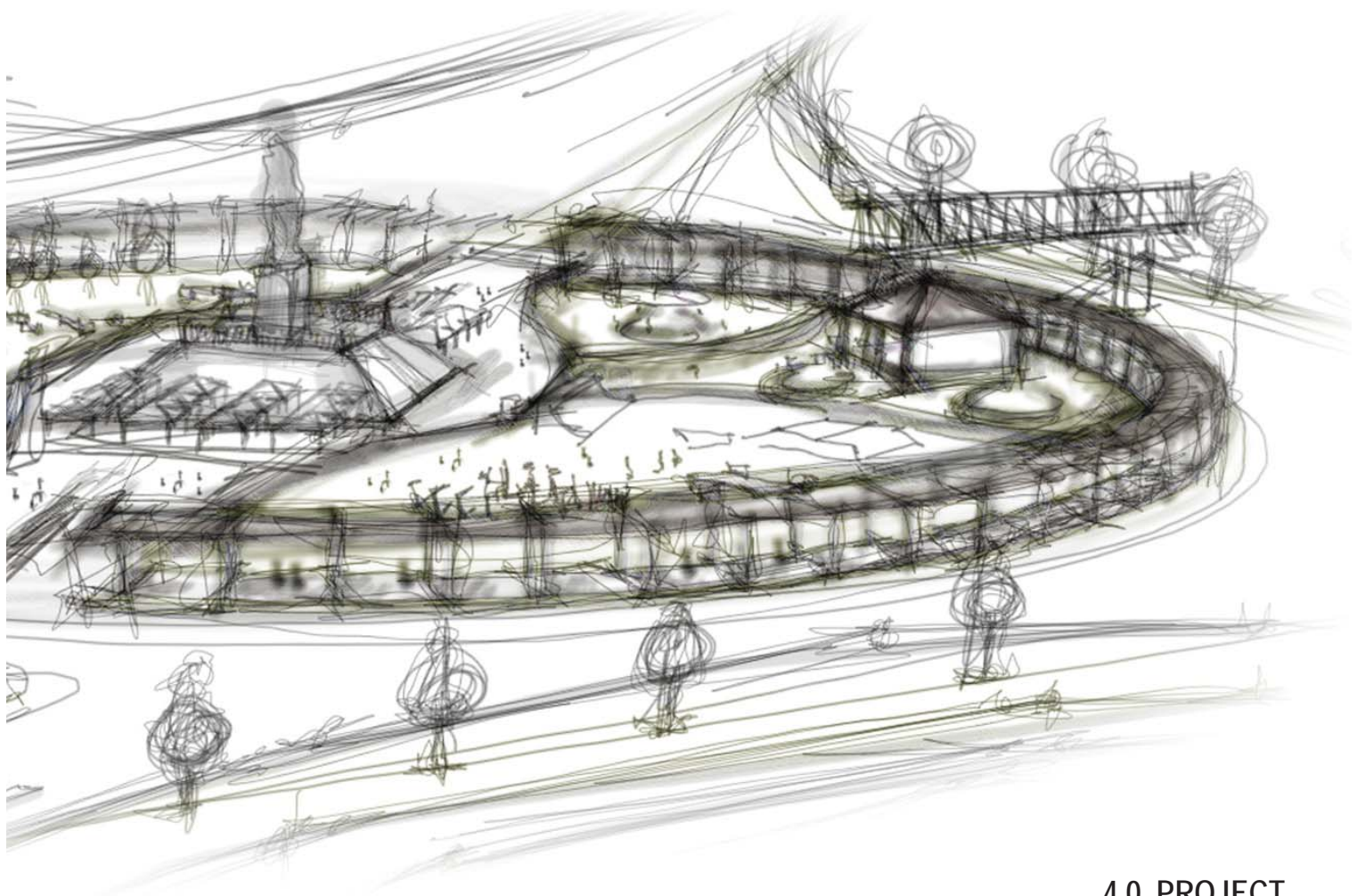
[figure 67] The drawing workshop



[figure 68] Learning new social games

[figure 69] Concept sketch





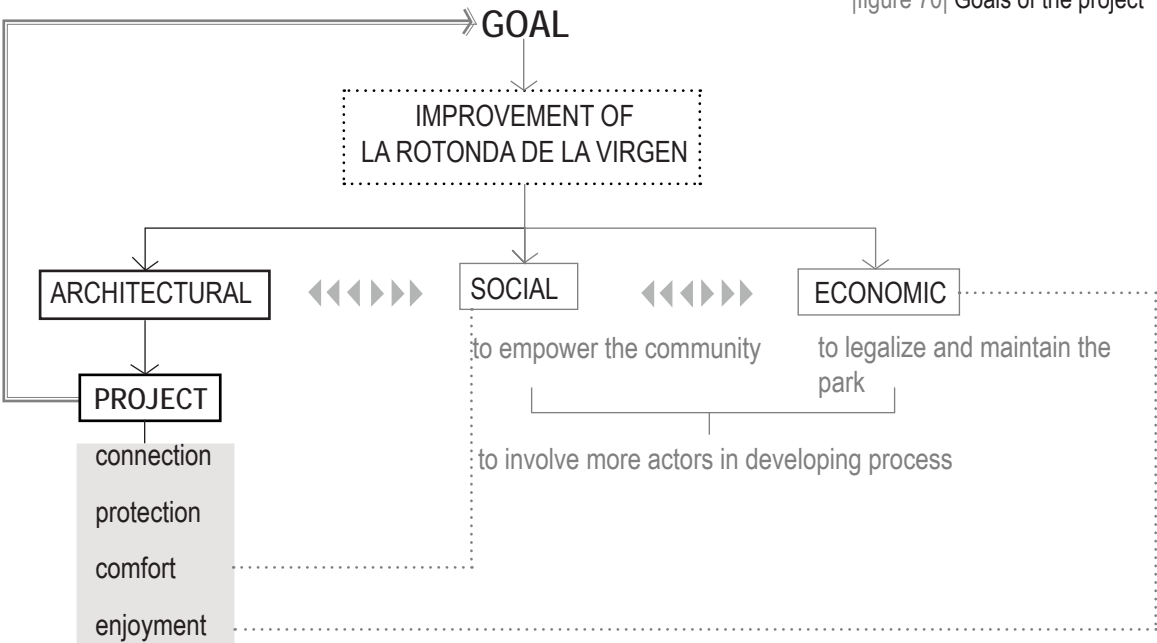
4.0. PROJECT TRANSFORMATION OF *LA ROTONDA DE LA VIRGEN*

4.1. SITUATION AND GOALS OF THE PROJECT

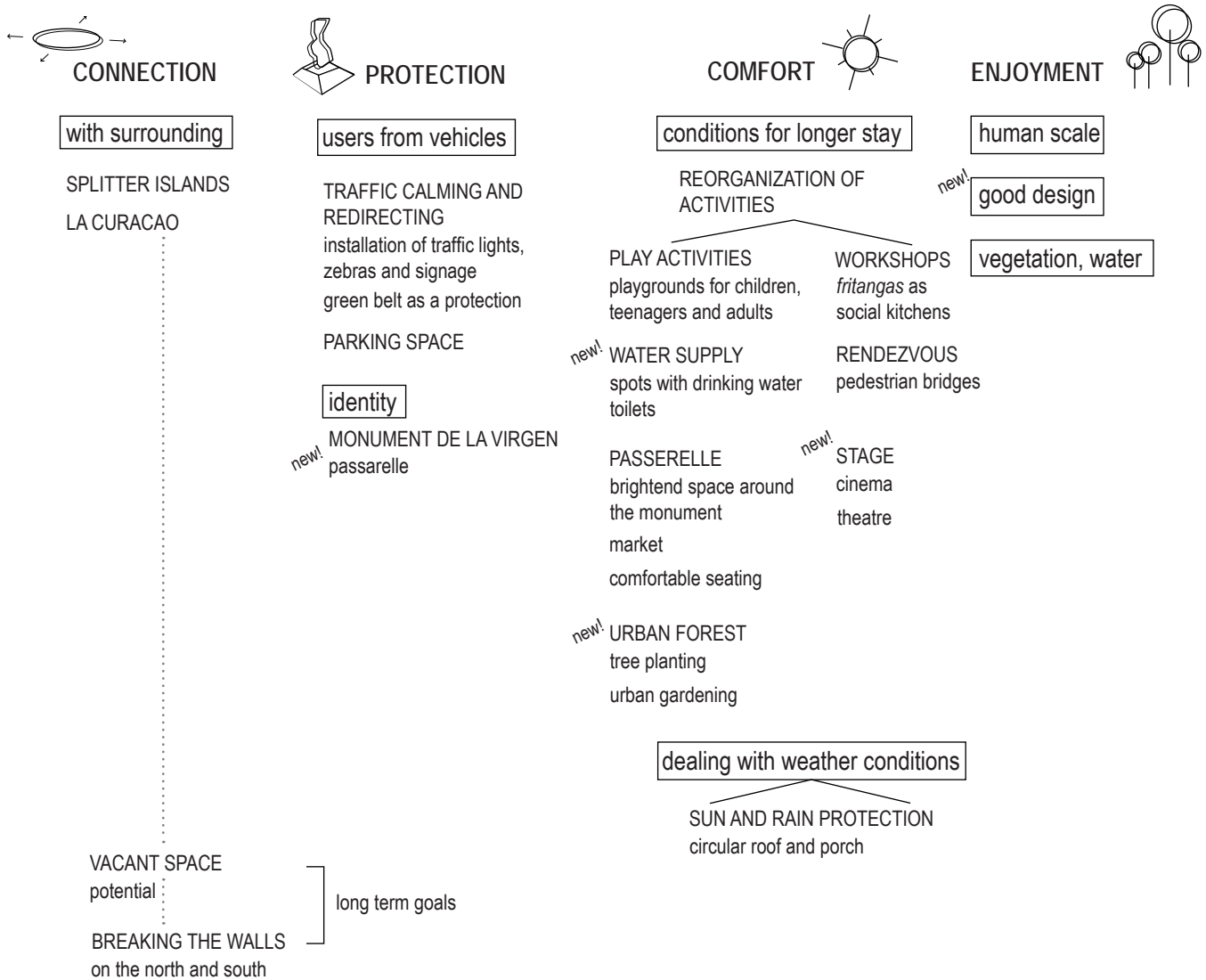
SITUATION: The previous chapter explains the development and features of the park in the roundabout de la Virgen and it indicates that there are many physical deficits and social potentials at the location. Therewithal, there is a development process undertaken by the city planning office, which consolidates other public spaces, as a direct danger of the disappearance of this unusual park in the middle of the roundabout de la Virgen. Despite all social qualities of the place and the history of public-private partnership, this park is an isolated place with no safe access, no parking space and sanitation, with no appropriate spatial organization of activities and bad conditions of the existing park furniture. These are all the reasons for social conflicts between users and it is consequently to point out that not all the deficits can be solved with an architectural intervention.

GOALS: Set of goals will be processed in order to ensure the existence of the park, to make it safer and more attractive for its present and future users. Working on the spatial improvement of the park will solve the social conflicts between different types of users. To make the project feasible, small interventions are going to be used as transformation tool. After the planners have been involved, both groups of users, active and passive, should be motivated to participate in decision making for the creation of a sustainable project. Long term goal is to involve the authorities in order to legalize the park de la Virgen and to maintain it. Also, it is desirable to apply this process to the parks without use in its surrounding.

[figure 70] Goals of the project

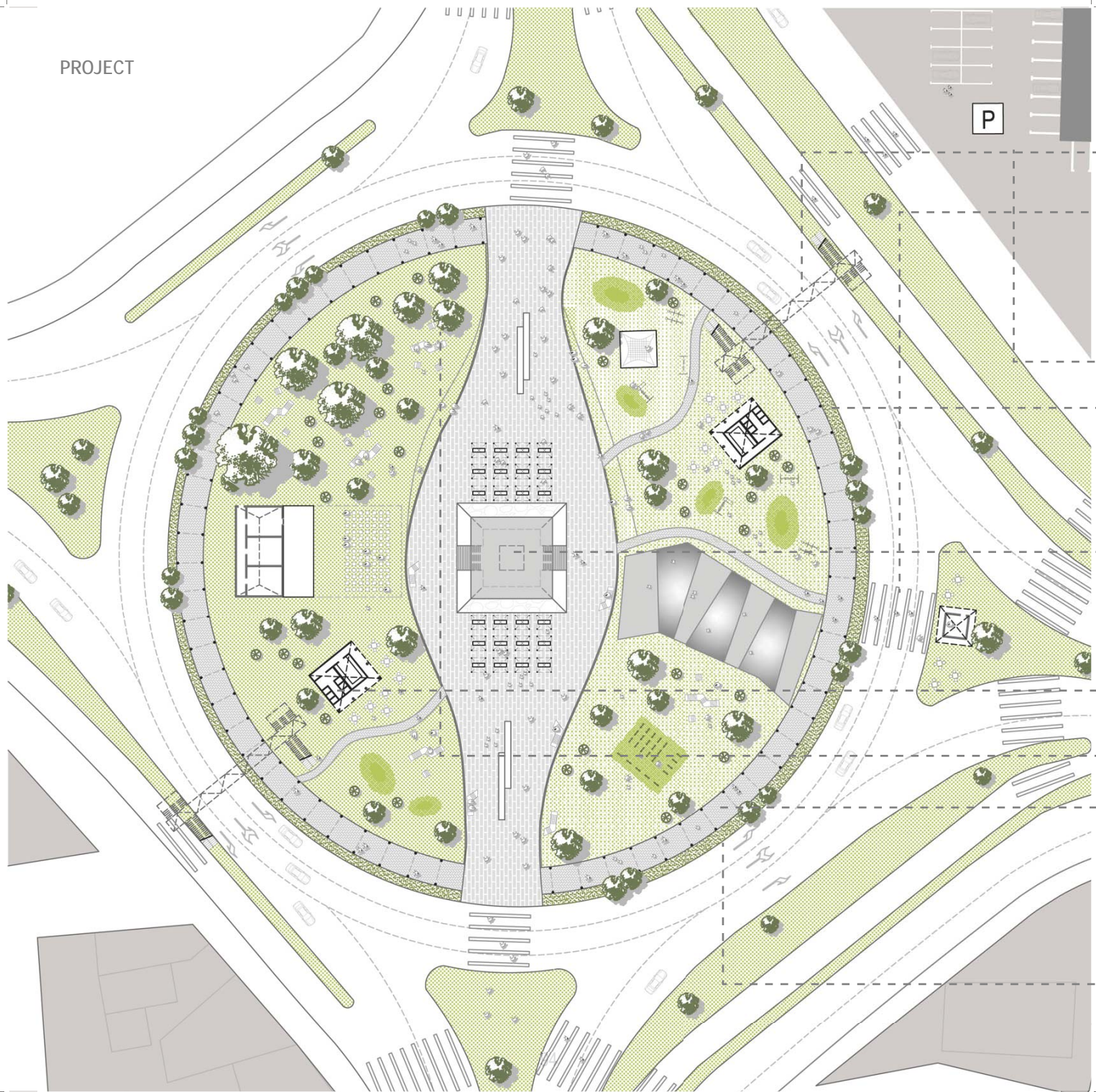


PARK LA ROTONDA DE LA VIRGEN

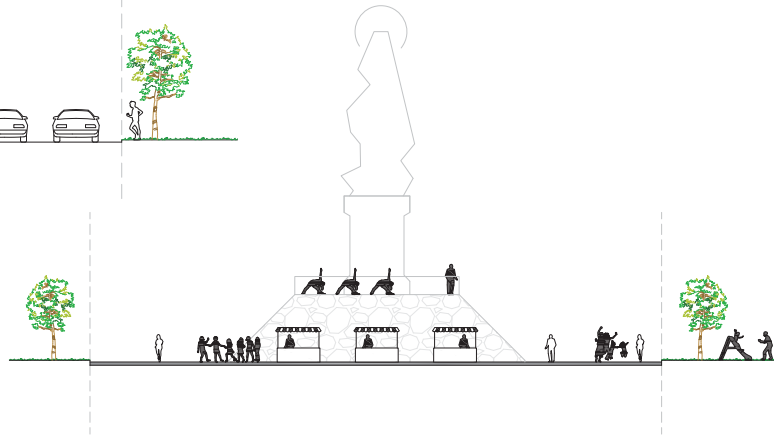
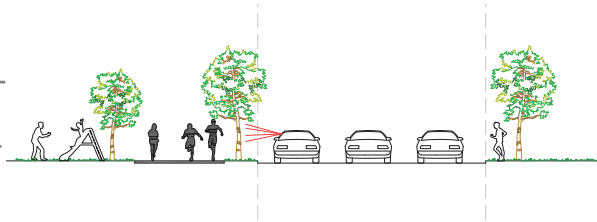
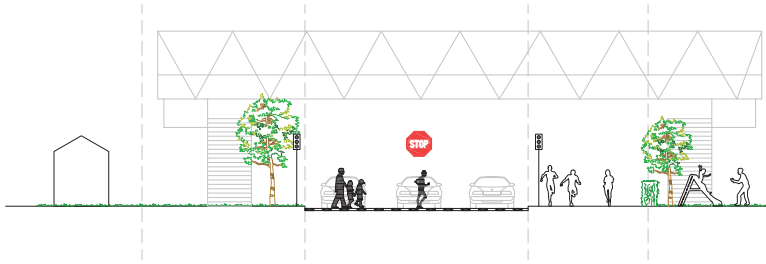


[figure 71] Program of the project

PROJECT

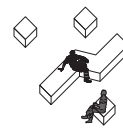
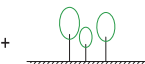
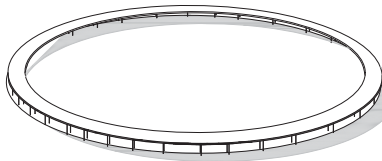
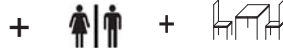
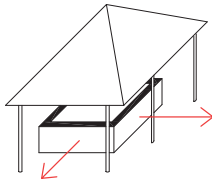


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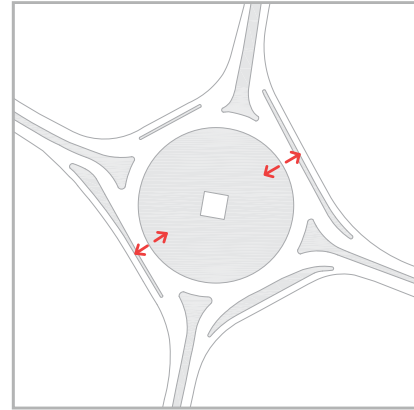
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[figure 72] Project overview

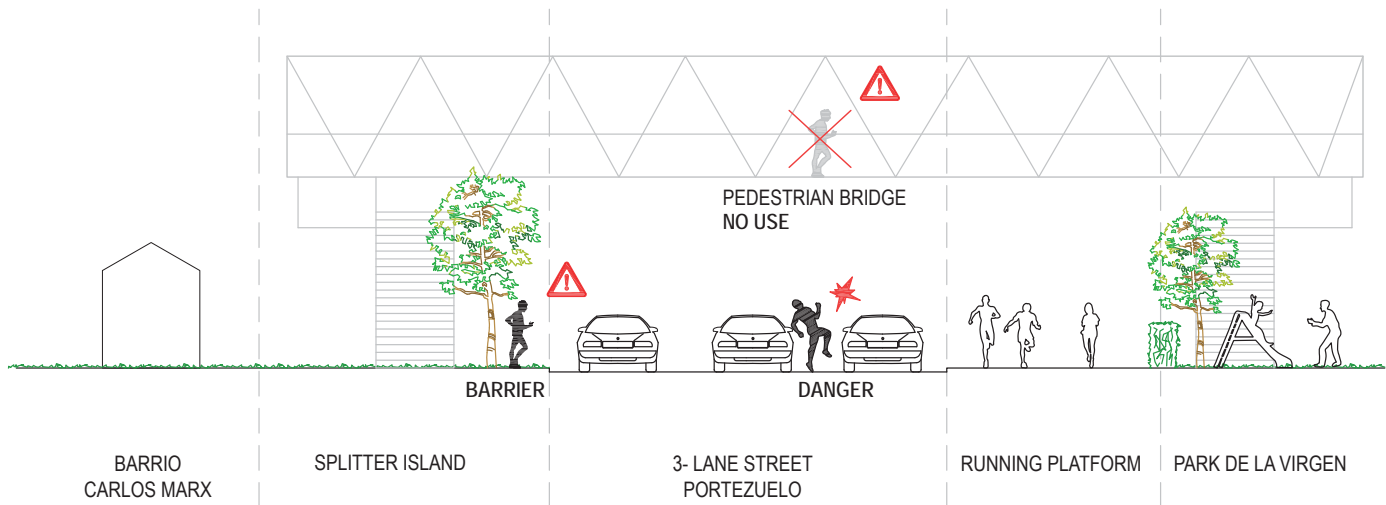
4.1.1. CONNECTION

Middle island with surrounding

According to previous analyses shown in the last chapter, the park is totally isolated and hardly reachable. Therefore, there is a need to connect it to its direct surrounding, respecting the main axes which represent the main directions from which people are coming [figure 73]. In Managua vehicles have the priority over pedestrians and that needs to be changed, because of the nature of this place. It is important to find a solution which is beneficial for both, users of the park and vehicles.

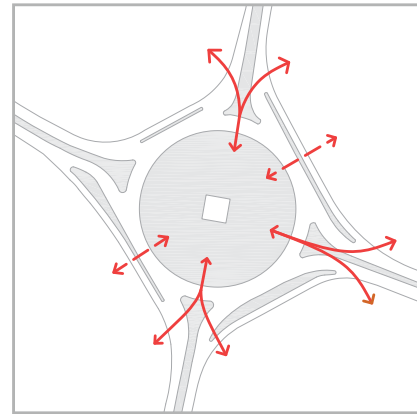


challenge



[figure 73] Connecting the park with surrounding

Because of the lack of safe access to the central island of the roundabout, it is of great importance to provide it and to regulate the flow of the traffic. This will be solved by using traffic signage, crossing zebras and traffic lights and providing three entrances, from the north, east and south splitter islands [figure 74].



intervention



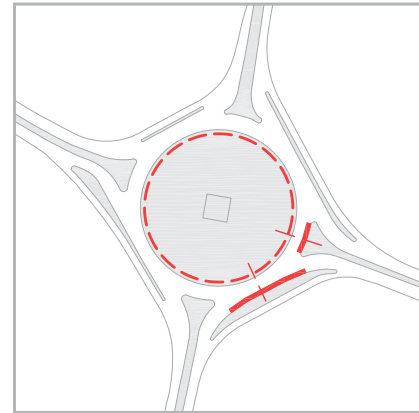
[figure 74] Installation of traffic signage

4.1.2. PROTECTION

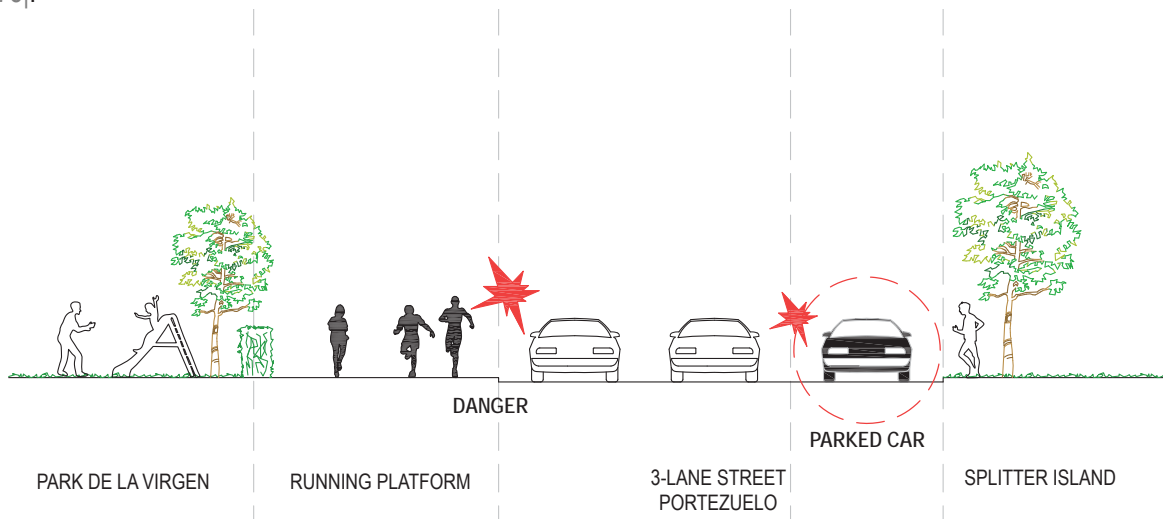


Users from vehicles

The outside running platform of the park was constructed with no protection from the traffic. Instead, 1m high circular hedge is protecting the rest of the park from accidents. There is a need of protection between runners and vehicles, but still the import factor is to keep the visibility between them. The reason for that are security and the fact that people in Managua visit this park in order to be seen. The efficient and transparent solution is a green area with trees which frames the park. Other problem is improperly parked cars along the east and south splitter islands due to the lack of parking. They enable normal flow of traffic and are dangerous for the people who want to arrive at the park. [figure 75].



challenge

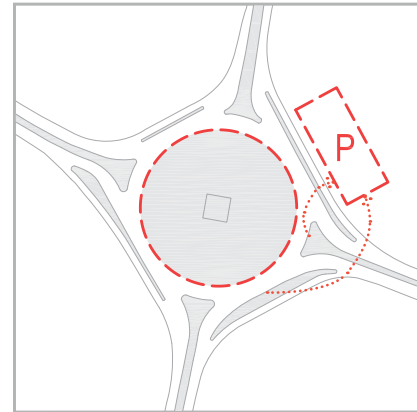


[figure 75] Shifting of the outside platform and relocation of improperly parked cars

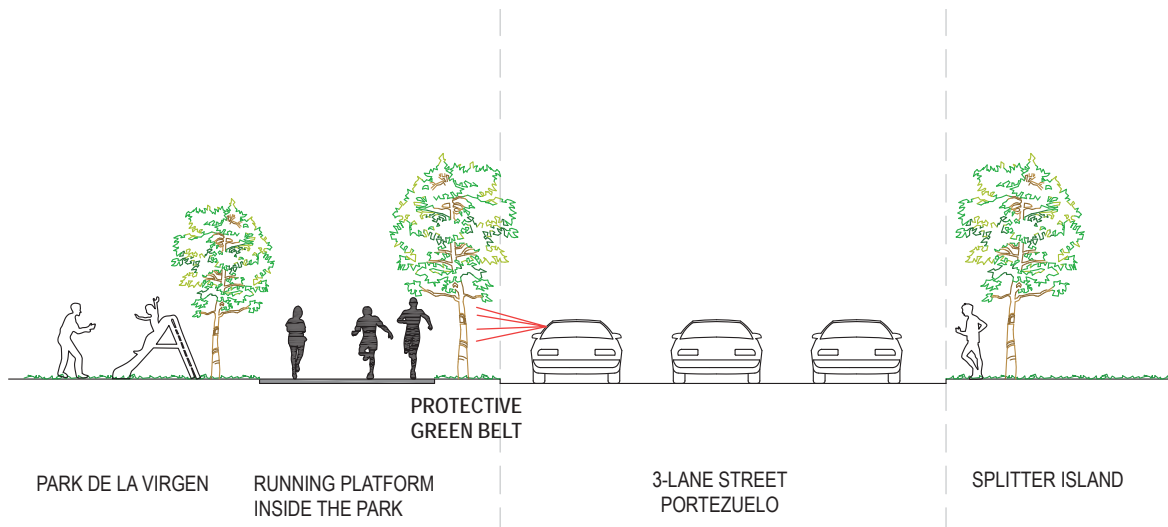
On the nearby lot of the private company La Curacao, there is a big parking space, now only for the employers of the company but also it can supply enough space for both, employers of the company and users of the park [figure 76].

“Good internal space should be visible from the street; the street and its surroundings should be highly visible from it; and between the two physically and psychologically, the connections should be easy and inviting.”

*“The social life of small urban spaces“
William H. Whyte*



intervention



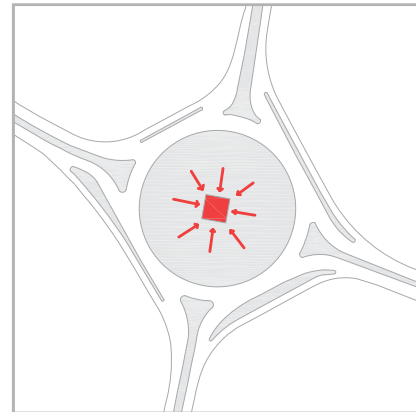
[figure 76] Protection between athletes and vehicles and parking on a private lot

PROJECT

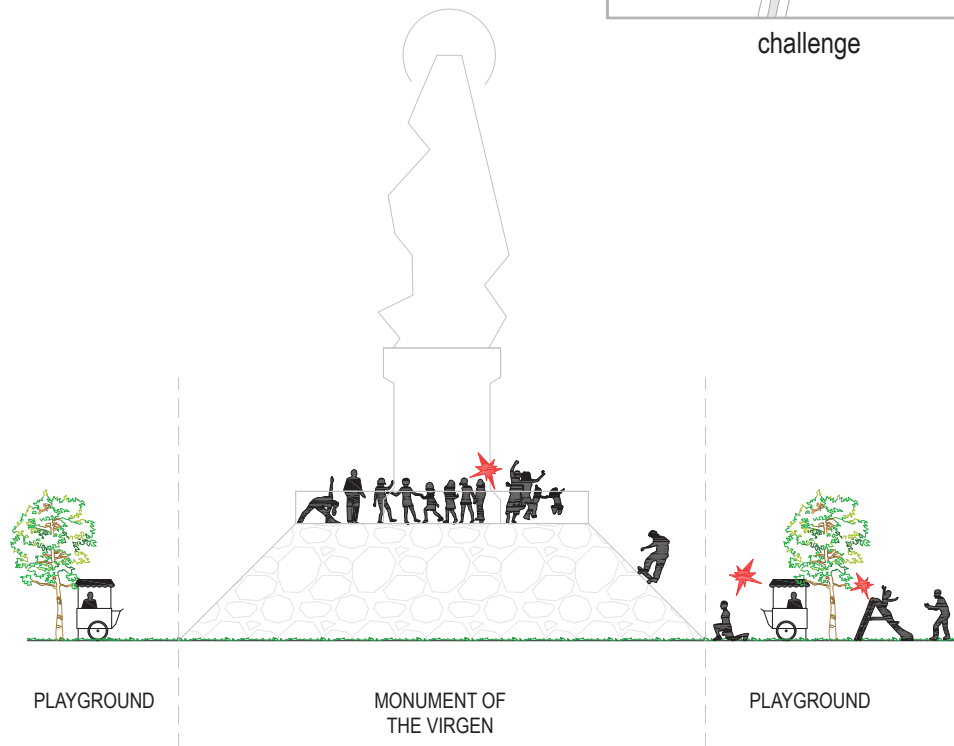
Identity - monument

"The installation of the monument meant the beginning of the new ideological epoch. This roundabout was constructed like any other in the city, during the government of the Mayor Arnoldo Aleman who later became the president of Nicaragua. He undertook a systematic assault on the symbols of Sandinismo by destroying the revolutionary murals."

Architect Ninette Morales, HABITAR
Interview, 15.05.2013

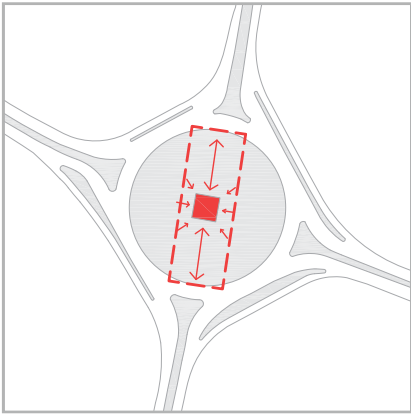


challenge

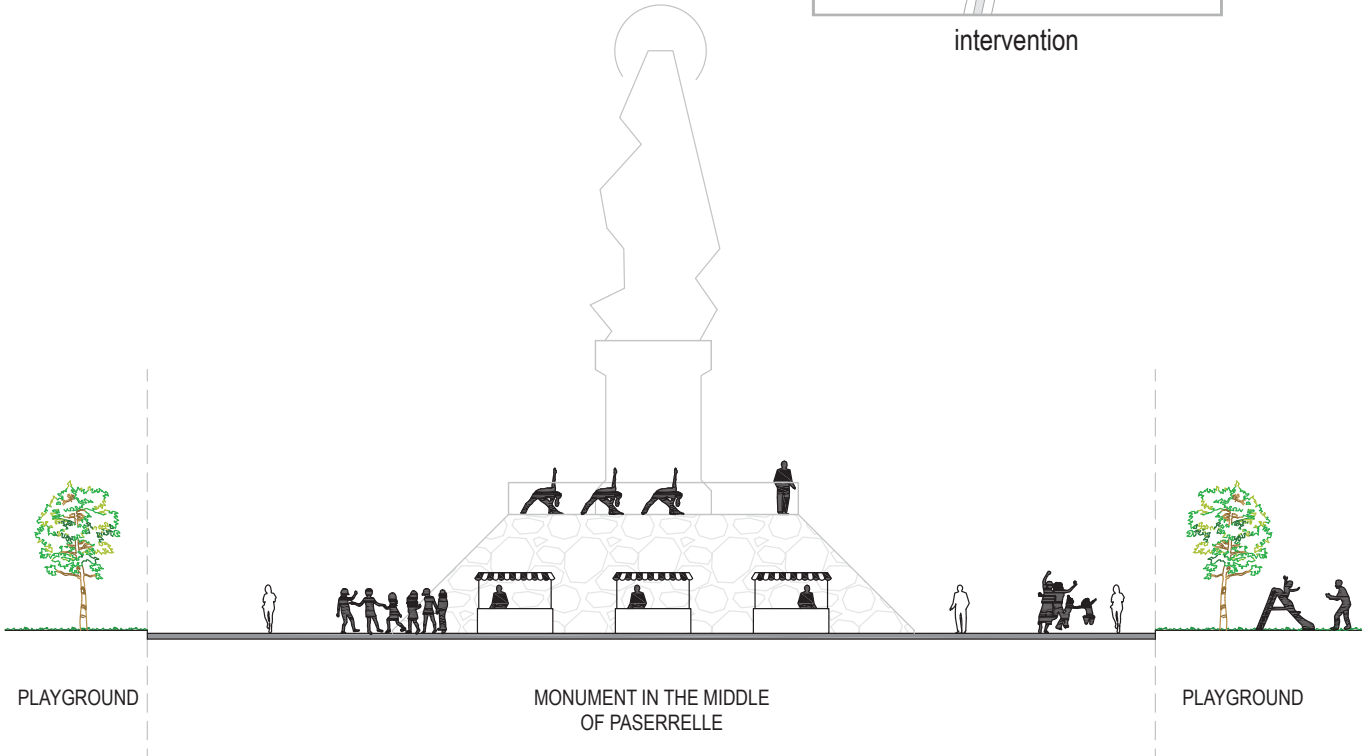


[figure 77] Widening the space around the monument

The podest and direct surrounding of the monument are still the most used parts of the island, but also the places of social conflict between different types of users. Therefore, it is recommended to expand the space around the monument and to create a multifunctional passerelle which would accommodate all different uses. [figure 77 - 78].



intervention

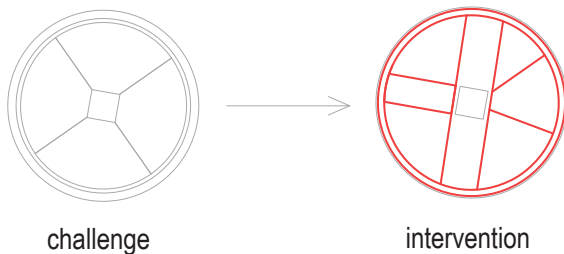


[figure 78] Creating enough space for great number of users

4.1.3. COMFORT



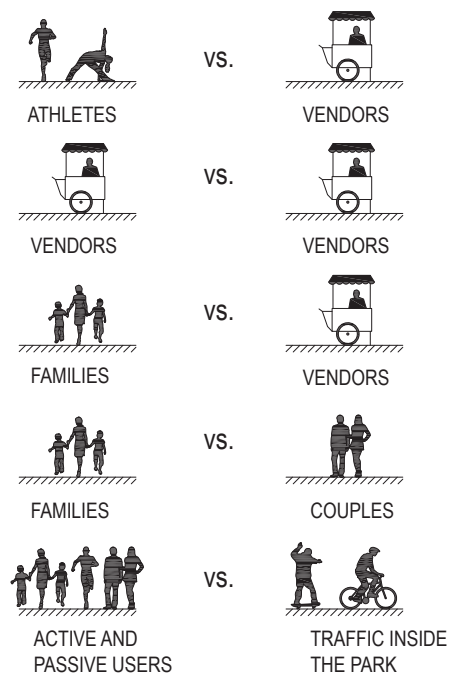
Providing conditions for longer stay



The majority of public spaces in Managua are made inhospitable to certain groups of people, like street vendors, poor people, etc. There is no activity for the people coming from low class neighbourhoods, not even a cinema. The poor need space where they can be without spending any or very little money.

On the other hand, park la Rotonda de la Virgen is an open public space which doesn't exclude any social group. It is the multifunctional space for both passive and active recreation.

However, the park is characterized with the lack of sanitation, bad condition of the park furniture and improper organization of activities which generate many social conflicts [figure 79].



[figure 79] Social conflicts between different types of users

“Public space, if organized properly, offers the potential for social communion by allowing us to lift our gaze from the daily grind, and as a result, increase our disposition towards the other.”

[Carr, S. Francis, M. and Stone, A. Public Space, Cambridge University Press 1992]

Comfort section provides solutions which deal with conditions for longer stay in the place and also motivate people and strengthen communities.

The existing elements, physical and social, are going to be preserved and adopted with the new ones. The old and new activities will be reorganized, bringing new rhythms, atmospheres and landscapes.

The following figure shows the set of interventions which is going to be done to solve conflicts and to make the park more attractive and to attract visitors from all parts of the city.

conditions for longer stay

REORGANIZATION OF ACTIVITIES

PLAY ACTIVITIES

playgrounds for children,
teenagers and adults

WORKSHOPS

fritangas as social
kitchens

new!

WATER SUPPLY

spots with drinking water
toilets

RENDEZVOUS

pedestrian bridges

PASSERELLE

brightend space around the
monument

new!

STAGE

cinema
theatre

market

comfortable seating

new!

URBAN FOREST

tree planting

urban gardening

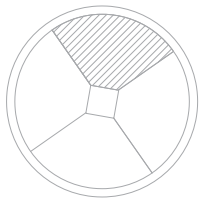
dealing with weather conditions

SUN AND RAIN PROTECTION

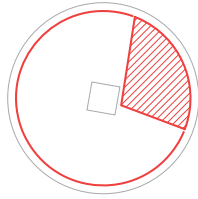
circular roof and porch

PROJECT

Playground for children



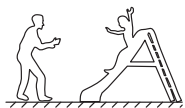
challenge



intervention

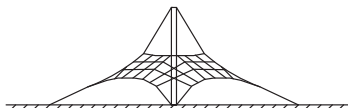
The children playground is separated by the monument from the playground for adults, according to the analysis of the current situation of the park. The old park furniture is in very bad condition, therefore needs to be renovated. Also, new kinds of games will be added to existing and the terrain will

be slightly remodelled making the park more dynamic and entertaining. The playground will be relocated to the east part of the island and combined with the existing restaurant to accommodate the parents of the children at the same time [figure 80].



CURRENT PLAYGROUND
FURNITURE

+



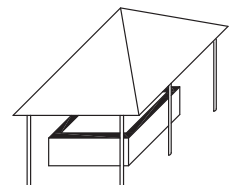
MODERN PLAYGROUND
POLYGONAL SPACENET

+



REMODELING TERRAIN

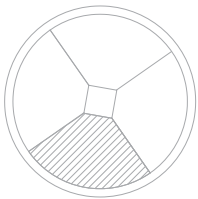
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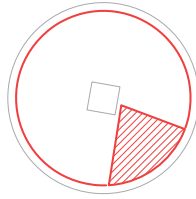
DEVELOPING NEW
GAMES

[figure 80] Process of implementation - children playground

Playground for teenagers and adults



challenge



intervention

The playground installations need to be replaced, because they are the same form and bigger than the ones for children, but not appropriate for teenagers and adults. The project offers the outdoor gym and Skate Park, as well as comfortable seating groups instead of linear seating [figure 81].



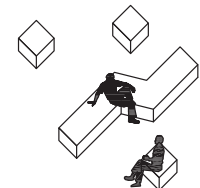
OUTDOOR GYM

+



SKATE PARK

+



GROUP SEATING



[figure 82] Skaters gather on la Rotonda de la Virgen

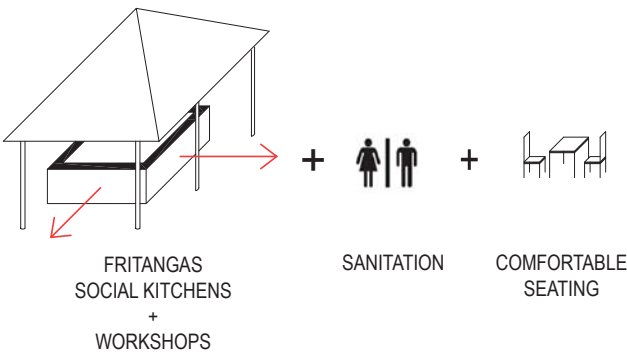
[figure 81] Replacement of old park furniture with new ones - playground for teenagers and adults

PROJECT

Fritangas - workshops



The two existing fritangas are going to be preserved and extended in order to accommodate more people. Currently, they are in use occasionally which will be changed into the place where communities can meet and strengthen. They will offer sanitation as well [figure 83].



[figure 83] Enlargement of existing fritangas and implementation of sanitation system and comfortable seating

Fritangas - sanitation



DEVELOPING NEW GAMES



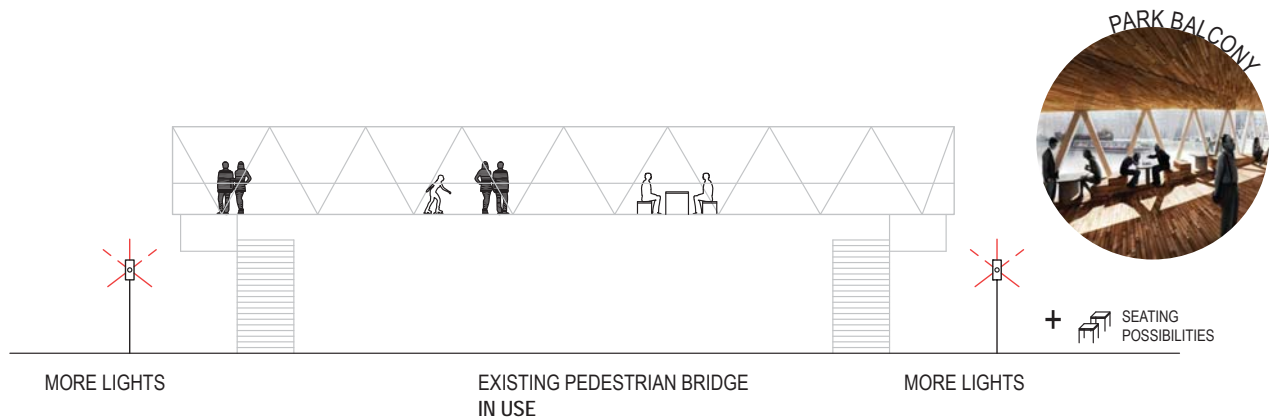
Pedestrian bridges - rendezvous



According to analysis, pedestrian bridges in Managua are not used because they offer a long and slow way and they are dangerous. People prefer crossing the street rather than risk being robbed.

The pedestrian bridges are ugly elements, where aesthetics are never a part of the design; they can be turned into an attractive and inviting element.

The new-design bridges feature wide lanes that can comfortably accommodate seating places for couples and have a function of a park balcony [figure 84]. More light is also recommended on and around the bridges to reduce insecurity in those areas.



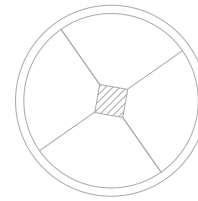
[figure 84] Adding new purpose to existing bridges and improving illumination

PROJECT

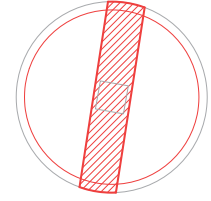
Passerelle^{new!}

Paved space around the monument is going to be extended and will create a multifunctional space in the shape of passerelle which spreads from north to south of the park.

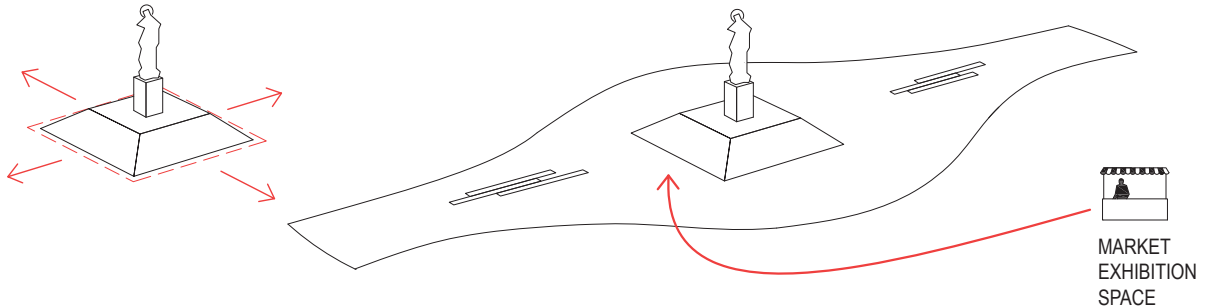
It will include space for exhibiting, market and comfortable edge seating, standing possibilities [figure 85].



challenge



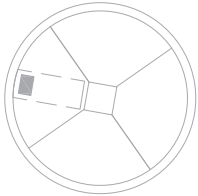
intervention



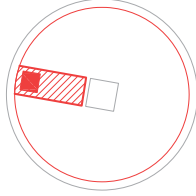
Columbus roundabout, NYC

[figure 85] Creating an exhibition space on new passerelle around the monument

Stage - cinema and theatre ^{new!}

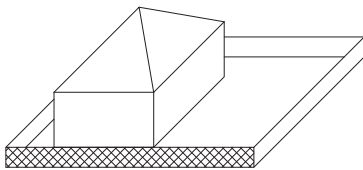


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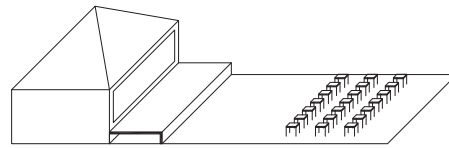
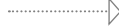


intervention

The west part of the park is barely used, partly because of the fenced building of the public entity responsible for the water and sewage, but also partly because of the great amount of trees. The intervention offers the possibility to use one wall of the building and create a small stage for cultural events like open air cinema and theatre. Part of the building will be used as storage.

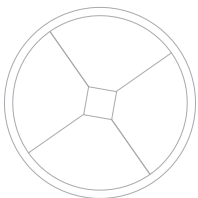


FENCED AREA - ACCESS NOT ALLOWED

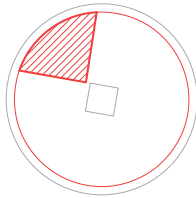


OPEN AIR CINEMA / STAGE

Urban forest ^{new!}

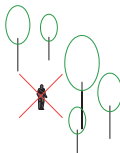


challenge

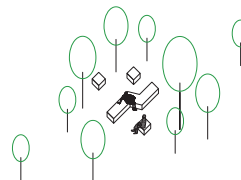


intervention

Space covered by trees, currently without use, will offer a great shadow and privacy, but also more landscape lightning, comfortable seating and security.



NO USE



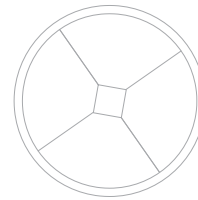
MORE TREES AND SEATING

4.1.3. COMFORT

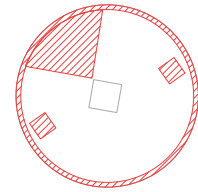


Dealing with weather conditions

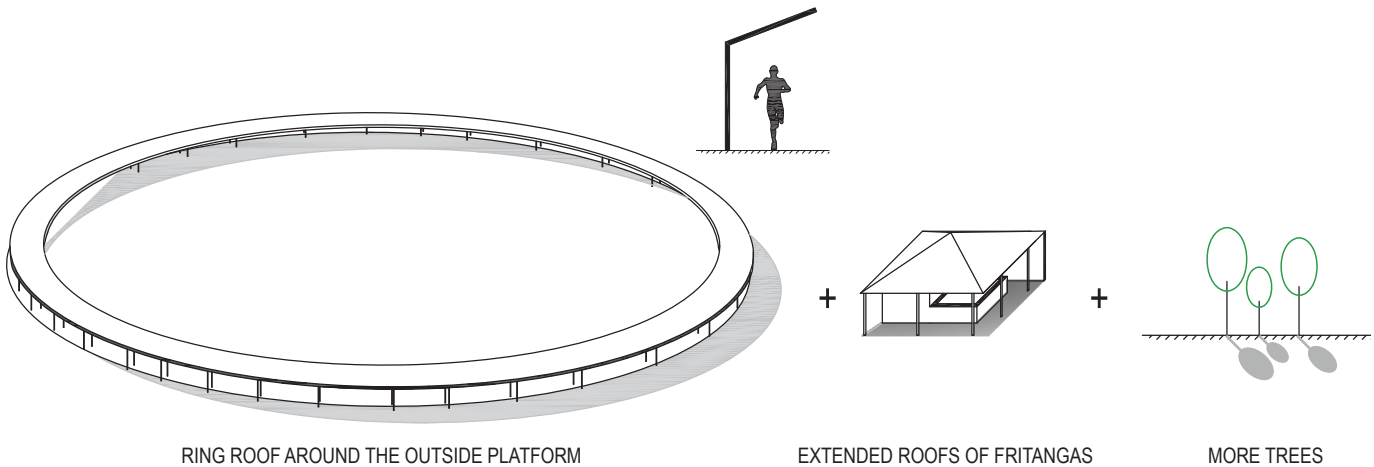
It is vital that the outdoor spaces are comfortable and that they can be used at any time of the day and year. Adapting the park de la Virgen to the tropical Nicaraguan climate means creating sun and rain protection. Initially, three elements will be made, ring roof above the outside running platform, providing the shade for everyday users - athletes, than the already mentioned fritangas which will be extended and planting more trees [figure 86].



challenge

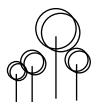


intervention

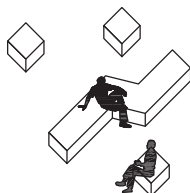


[figure 86] Elements creating shadow in the park

4.1.4. ENJOYMENT



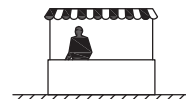
LINEAR SEATING



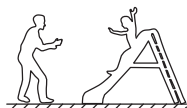
CIRCULAR SEATING



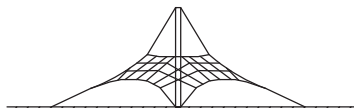
INFORMAL VENDORS



FORMAL MARKET



PLAYGROUND FURNITURE



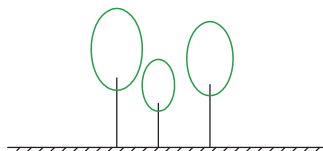
NEW GAMES



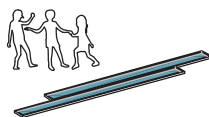
OUTDOOR GYM



SKATE PARK



PLANTING NEW TREES



WATER ELEMENTS

Enjoyment covers the experience of the artistic quality of the design of the place, including quality of materials used. It is of a great importance to create city space on a human scale, with fine details, good materials and good street furniture [figure 87]. It must also provide opportunities to enjoy the positive aspects of the local climate (Gemzoe 2006:1).

[figure 87] Elements improving the quality of the park

PROJECT

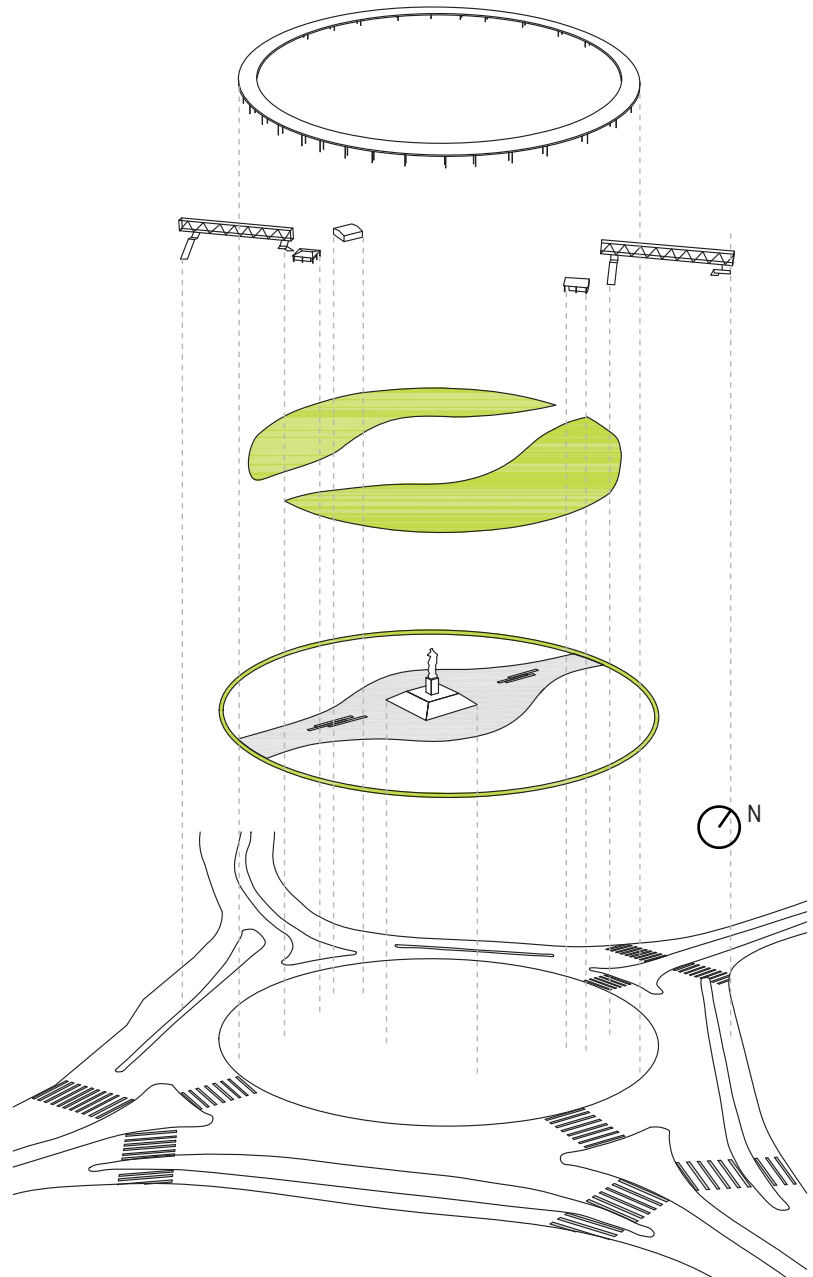
WOODEN RING ROOF COVERING THE RUNNING PLATFORM, FRAMING THE PARK AND PROVIDING SHADOW

FRITANGAS AS COMMUNITY KITCHENS - WORKSHOPS;
WATER SUPPLY BUILDING AS A BILLBOARD OR THEATRE
STAGE;
PEDESTRIAN BRIDGES ARE KEPT AND REINFORCED
USE AS PARK BALCONIES AND MEETING PLACES FOR
COUPLES

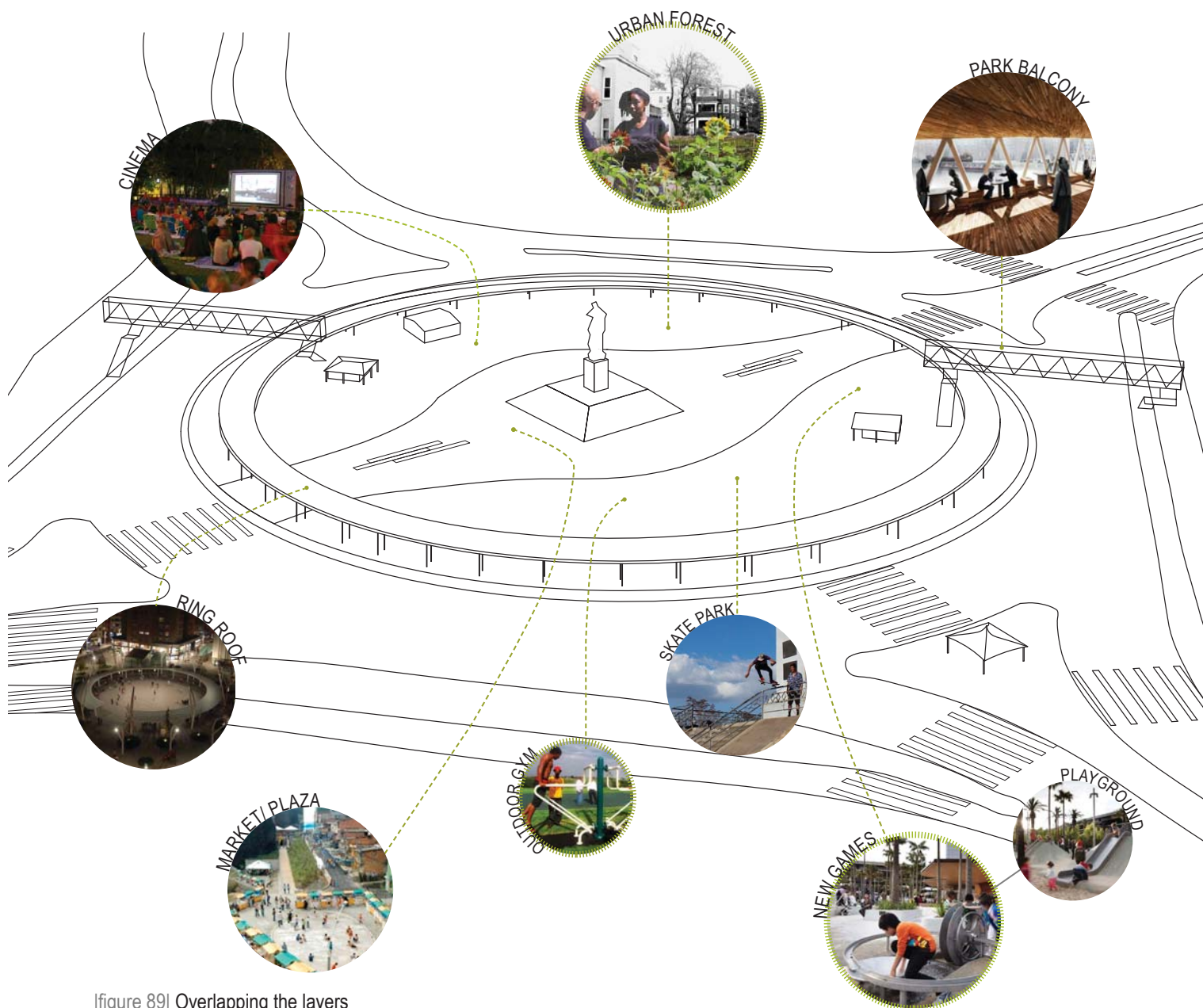
PROPER ORGANIZATION OF THE GREEN AREAS;
TWO PLAYGROUNDS ARE KEPT AND THE REST GOT
ANOTHER PURPOSE

PAVED PASSERELLE IN THE MIDDLE OF THE ISLAND
WITH MONUMENT; POTENTIAL MULTIFUNCTIONAL
SPACE FOR EXHIBITION AND MARKET;
GREEN BELT DIVIDES THE ROAD FROM THE RUNNING
PLATFORM

SLOW DOWN TRAFFIC BY ZEBRA CROSSINGS AND
TRAFFIC LIGHTS IN ORDER TO CONNECT THE PARK
WITH SURROUNDING AND TO ALLOW SAFE ACCESS
AND SAFE USE OF THE PARK DE LA VIRGEN



[figure 88] Sequence of interventions by layers



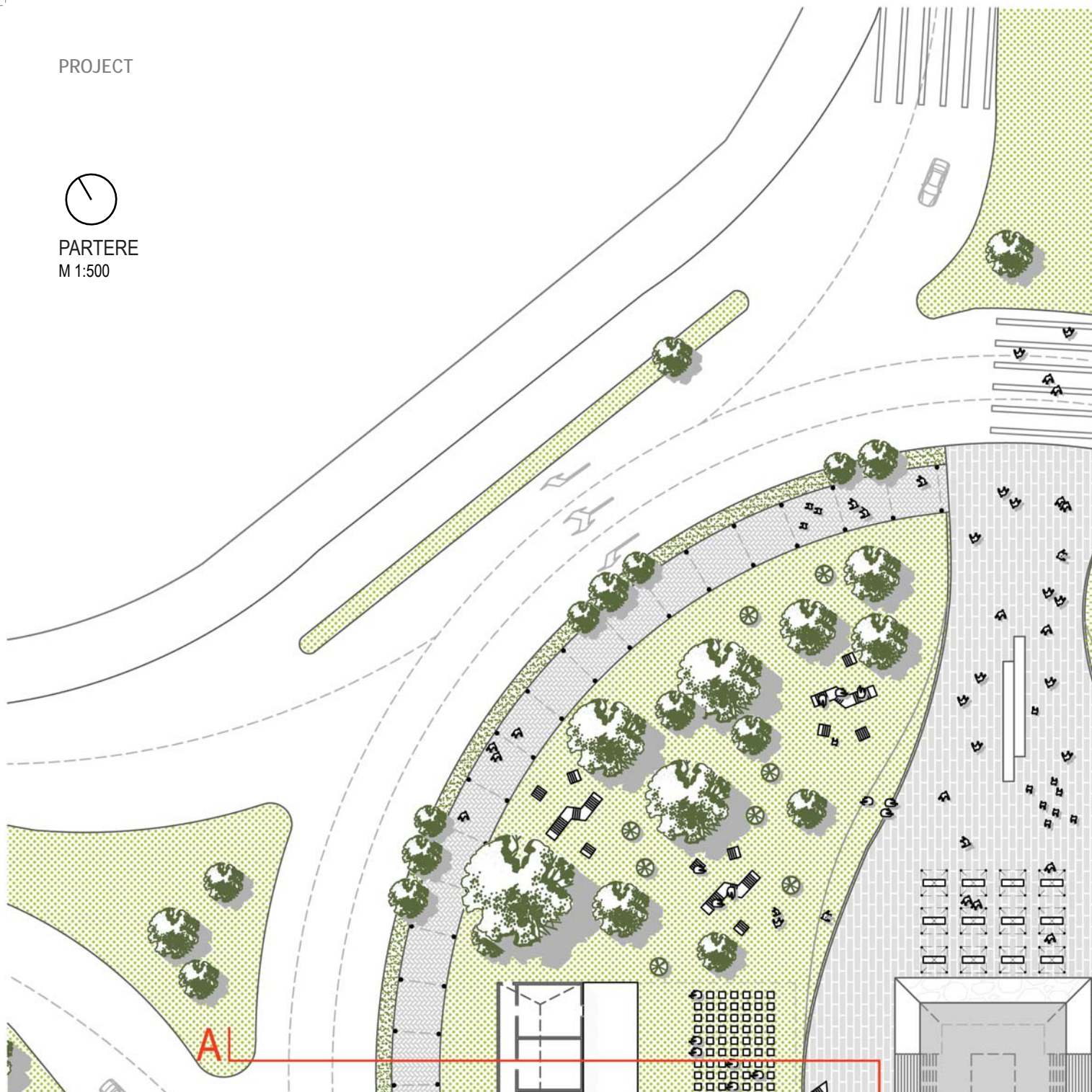
[figure 89] Overlapping the layers

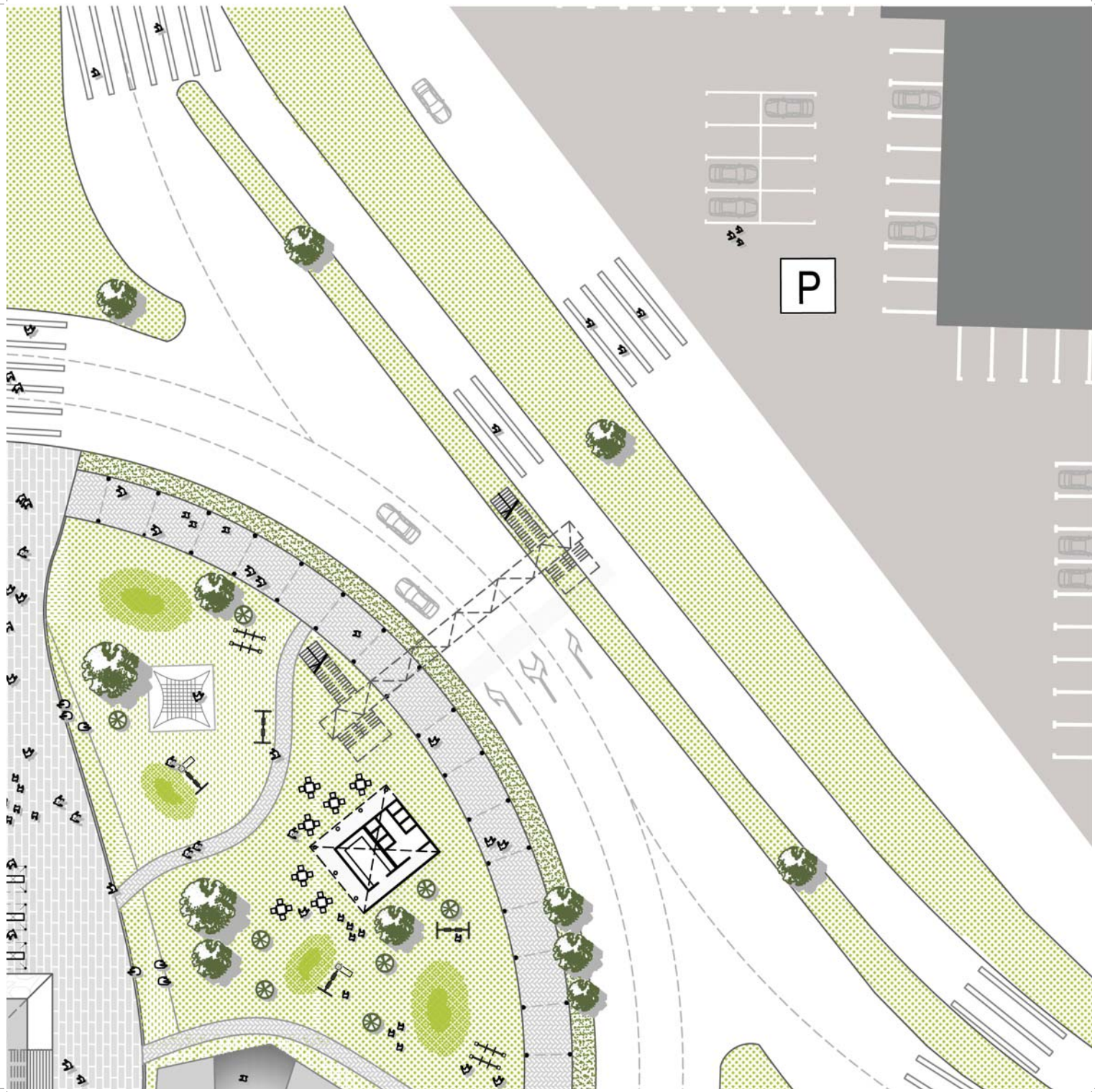
4.2. PARTERE, SECTIONS AND ELEVATIONS

PROJECT

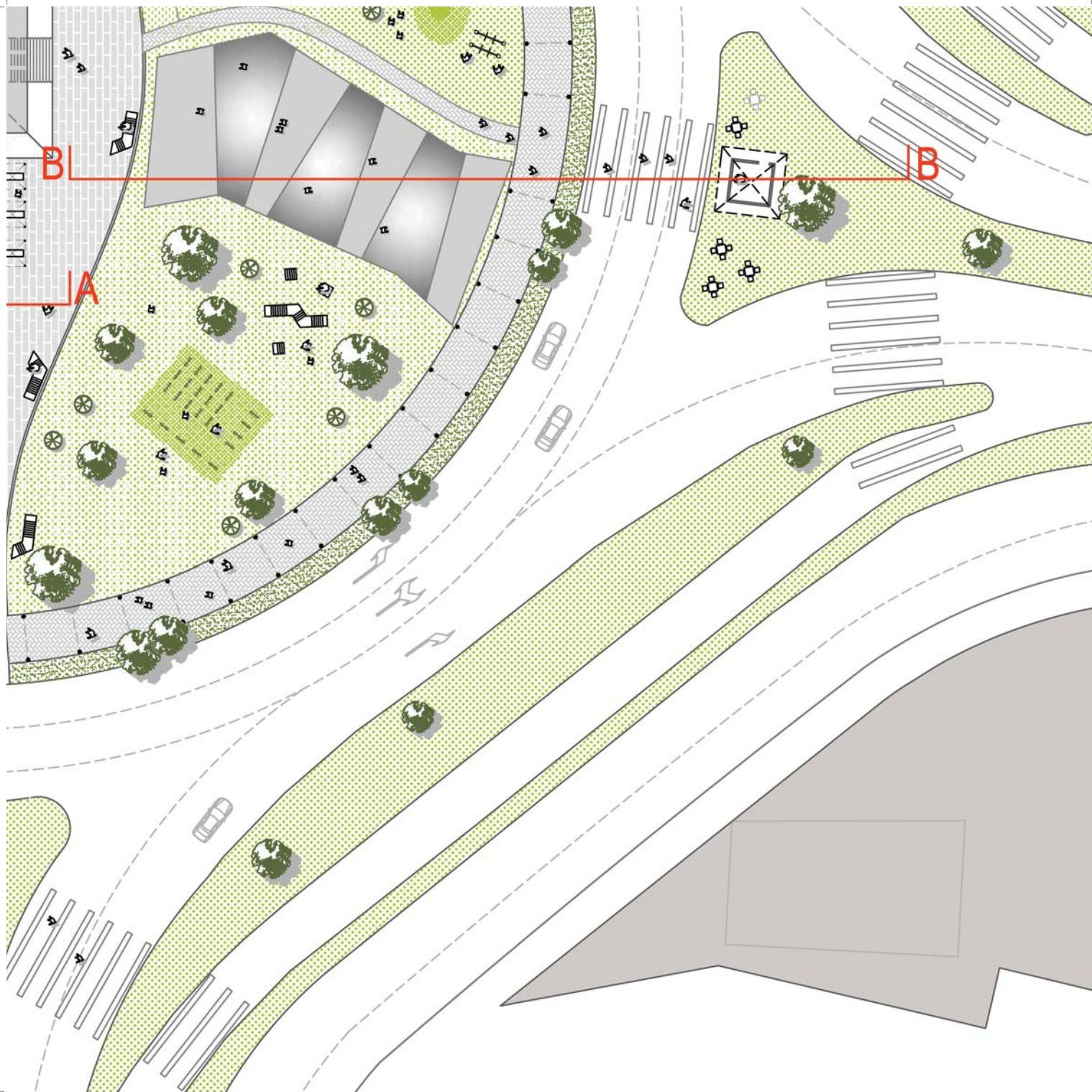


PARTERE
M 1:500



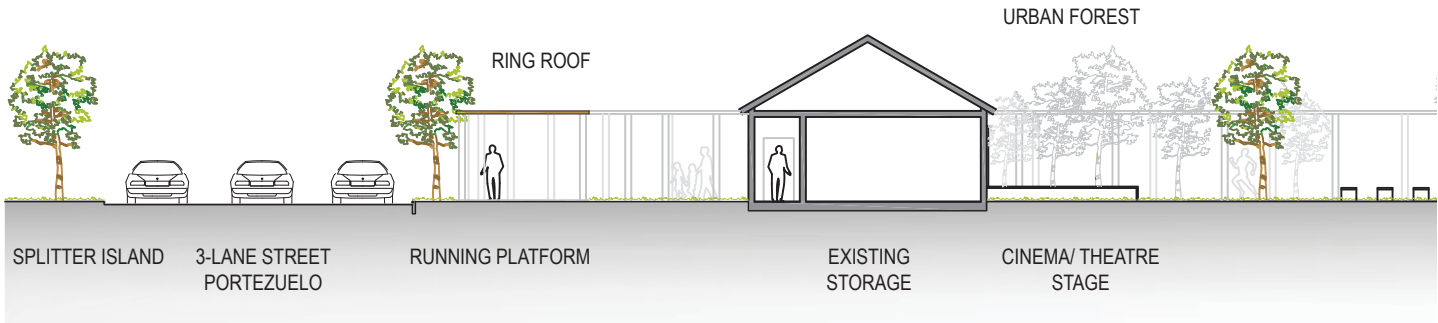




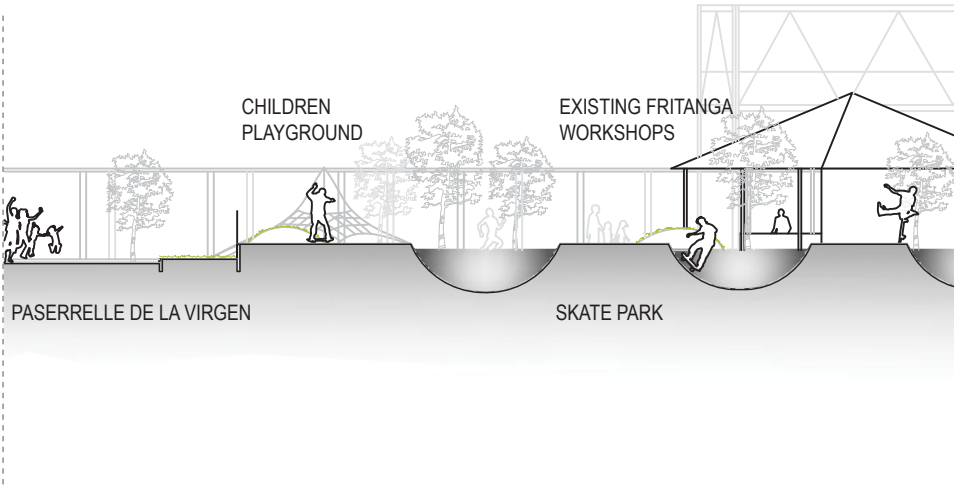


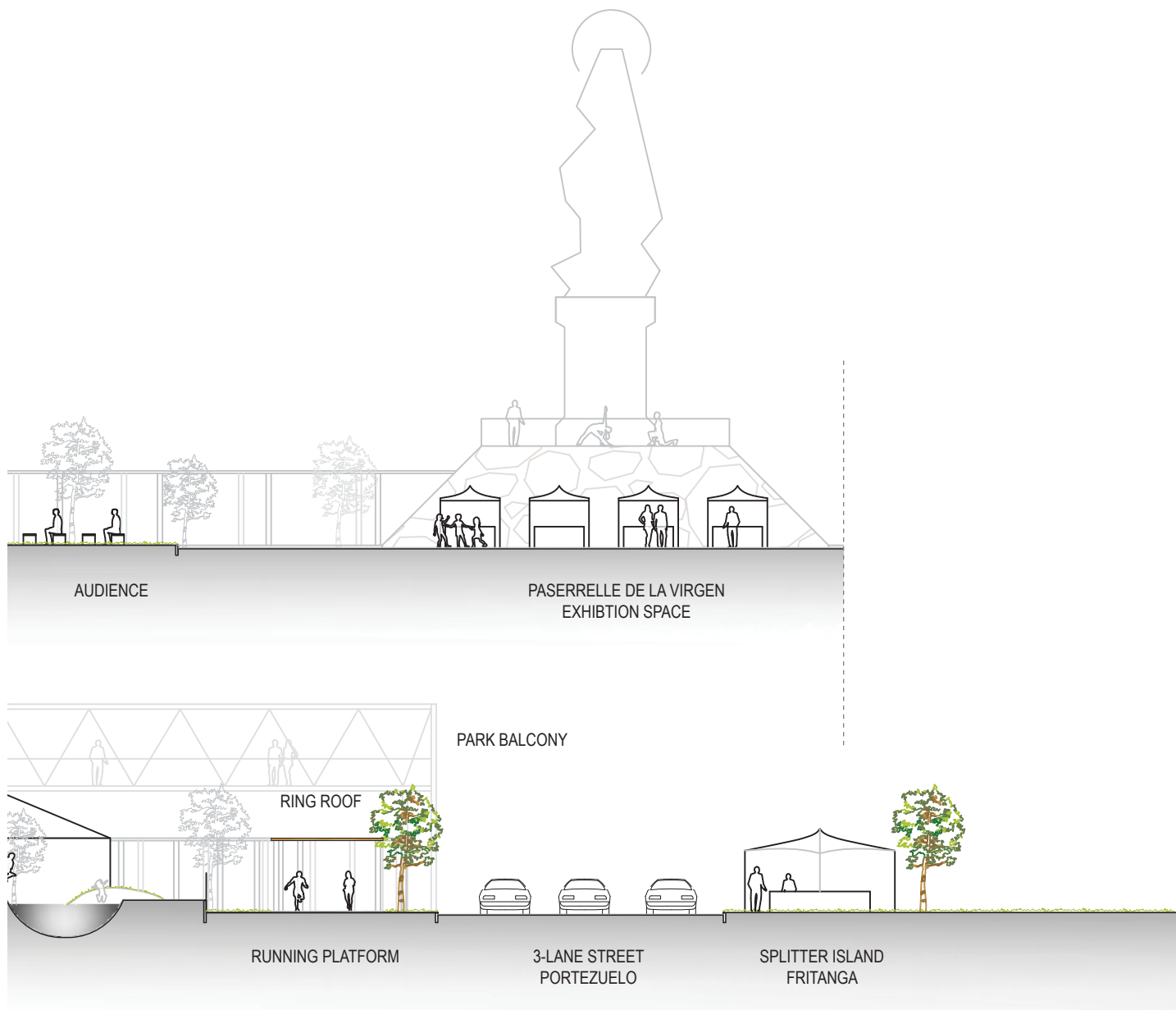
PROJECT

SECTION “A-A”
M 1:250



SECTION “B-B”
M 1:250





PROJECT

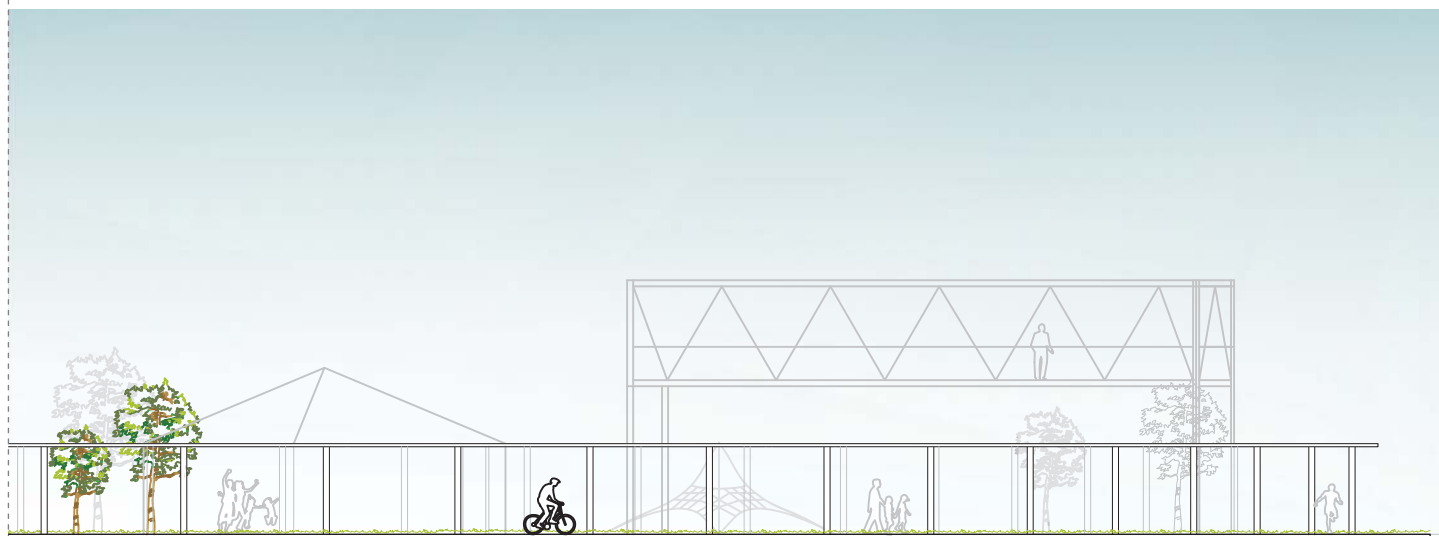
SOUTH ELEVATION
M 1:250

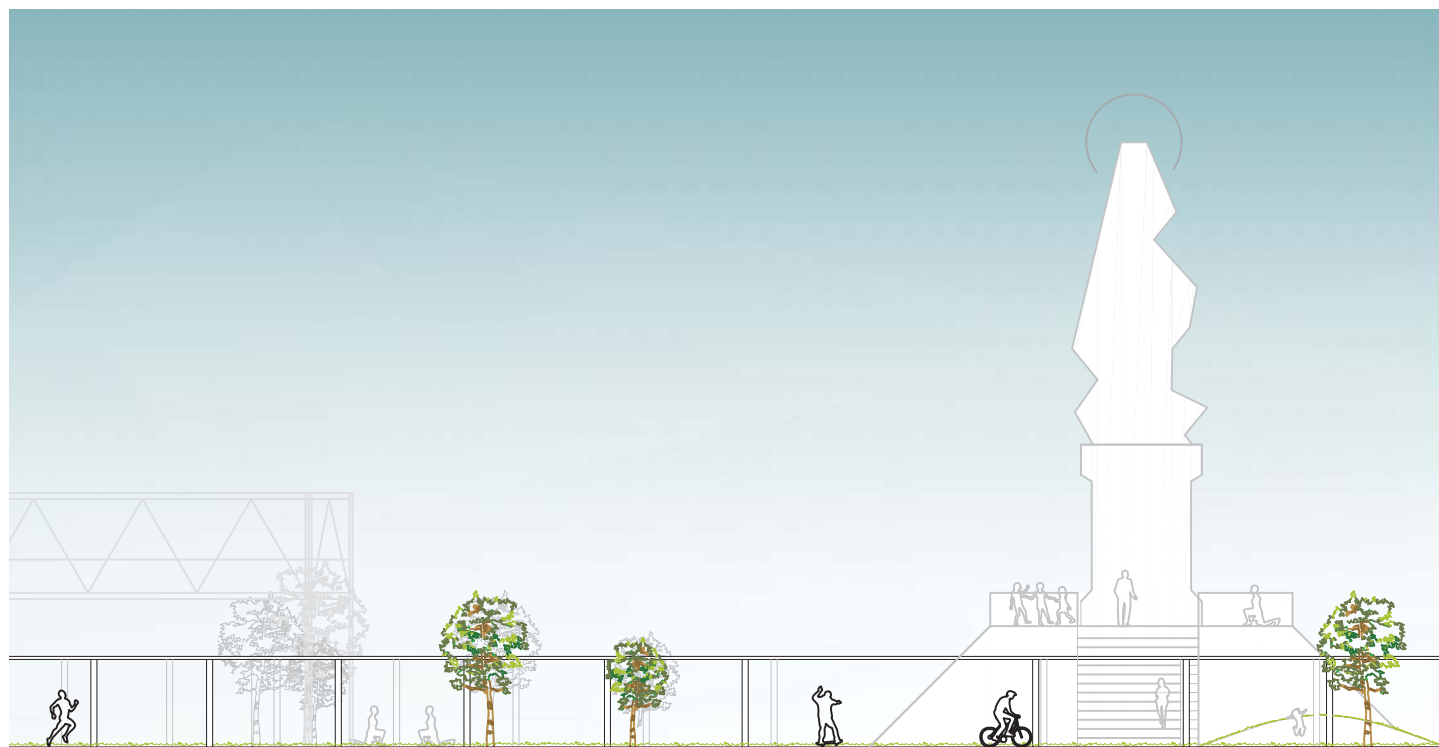




PROJECT

EAST ELEVATION
M 1:250





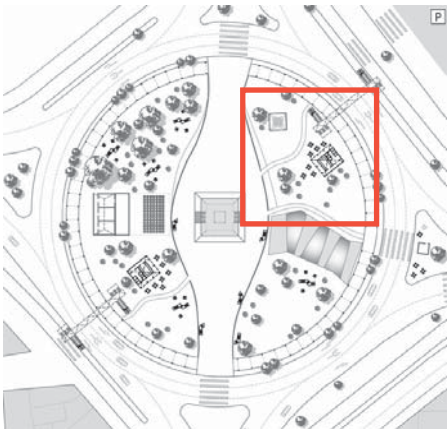




4.2.1. CHILDREN PLAYGROUND



PLAN
M 1:250



CHILDREN PLAYGROUND	700 m2
SOCIAL KITCHEN - WORKSHOPS	840 m2
OUTSIDE PLATFORM WITH GREEN BELT AS PROTECTION	1500 m2
	<hr/> 3040 m2



CHILDREN
PLAYGROUND

OUTSIDE
PLATFORM

SOCIAL KITCHEN
SANITATION

PASSERELLE





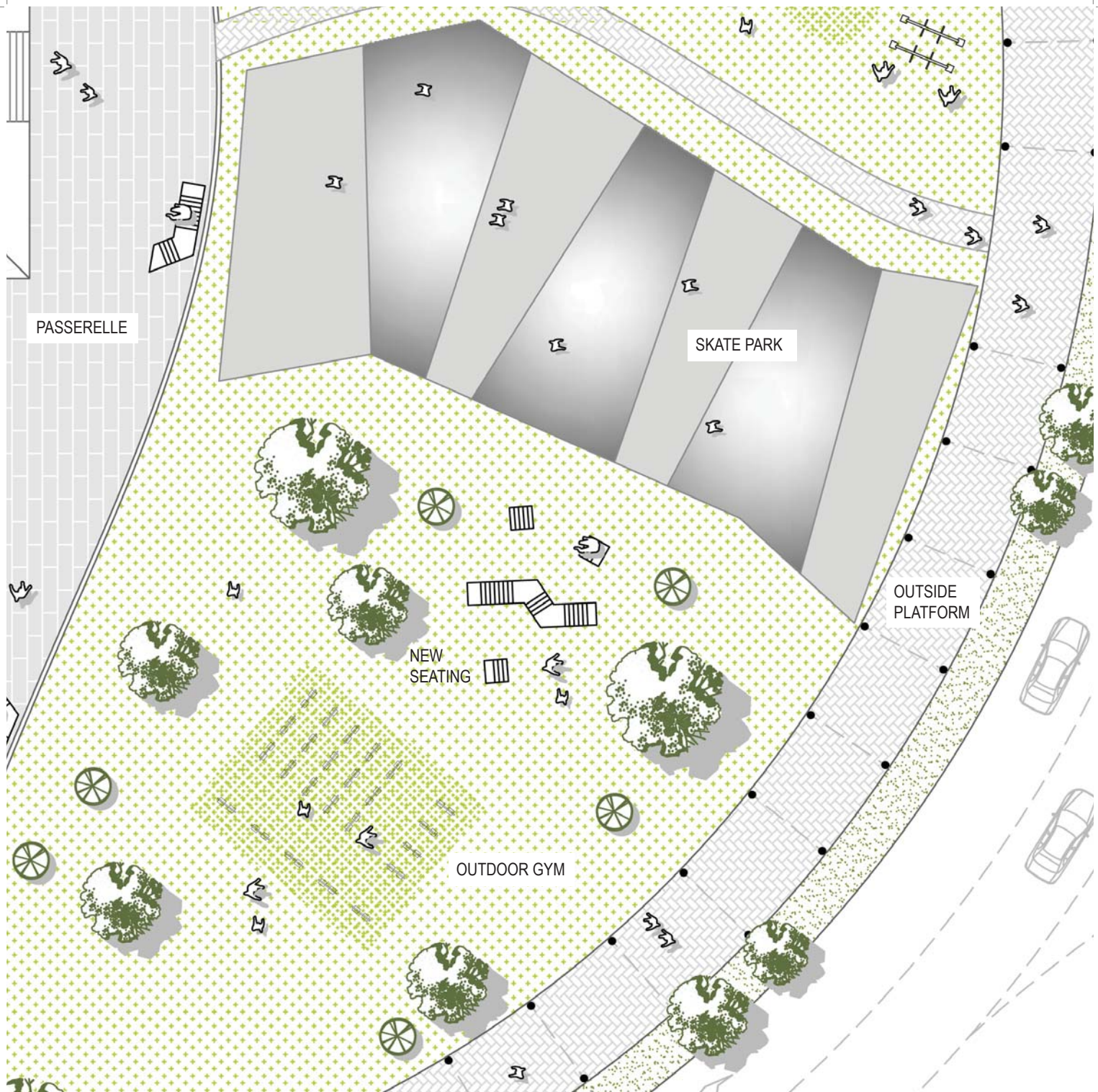
4.2.2. PLAYGROUNDS FOR TEENAGERS AND ADULTS



PLAN
M 1:250



PLAYGROUND - AUDLTS	1460 m2
OUTSIDE PLATFORM WITH GREEN BELT AS PROTECTION	1500 m2
	<hr/> 2960 m2







4.2.3. FRITANGA WORKSHOP



PLAN
M 1:250



PASSERELLE WITH THE VIRGEN IN THE MIDDLE	2500 m2
SOCIAL KITCHEN - WORKSHOPS	1250 m2
OUTSIDE PLATFORM WITH GREEN BELT AS PROTECTION	1500 m2
	<hr/> 5250 m2

SOCIAL KITCHEN
SANITATION

EXHIBITION SPACE

PASSERELLE

NEW
SEATING

OUTSIDE
PLATFORM

ENTRANCE

0 2m



4.2.4. URBAN FOREST



PLAN
M 1:250



STAGE	700 m2
URBAN FOREST	1050 m2
OUTSIDE PLATFORM WITH GREEN BELT AS PROTECTION	1500 m2
	<hr/> 3250 m2



OUTSIDE
PLATFORM

STORAGE

STAGE

CINEMA
THEATRE

MORE TREES

URBAN FOREST

NEW
SEATING

PASSERELLE

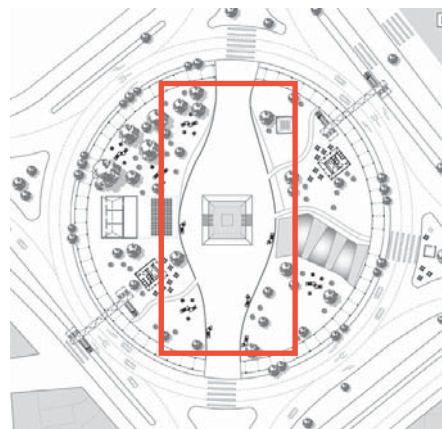


PROJECT

4.2.5. PASSERELLE



PLAN
M 1:250



PASSERELLE - EXHIBITION SPACE 2500 m²

2500 m²

CHILDREN
PLAYGROUND

EXHIBITION SPACE

MORE TREES

URBAN FOREST



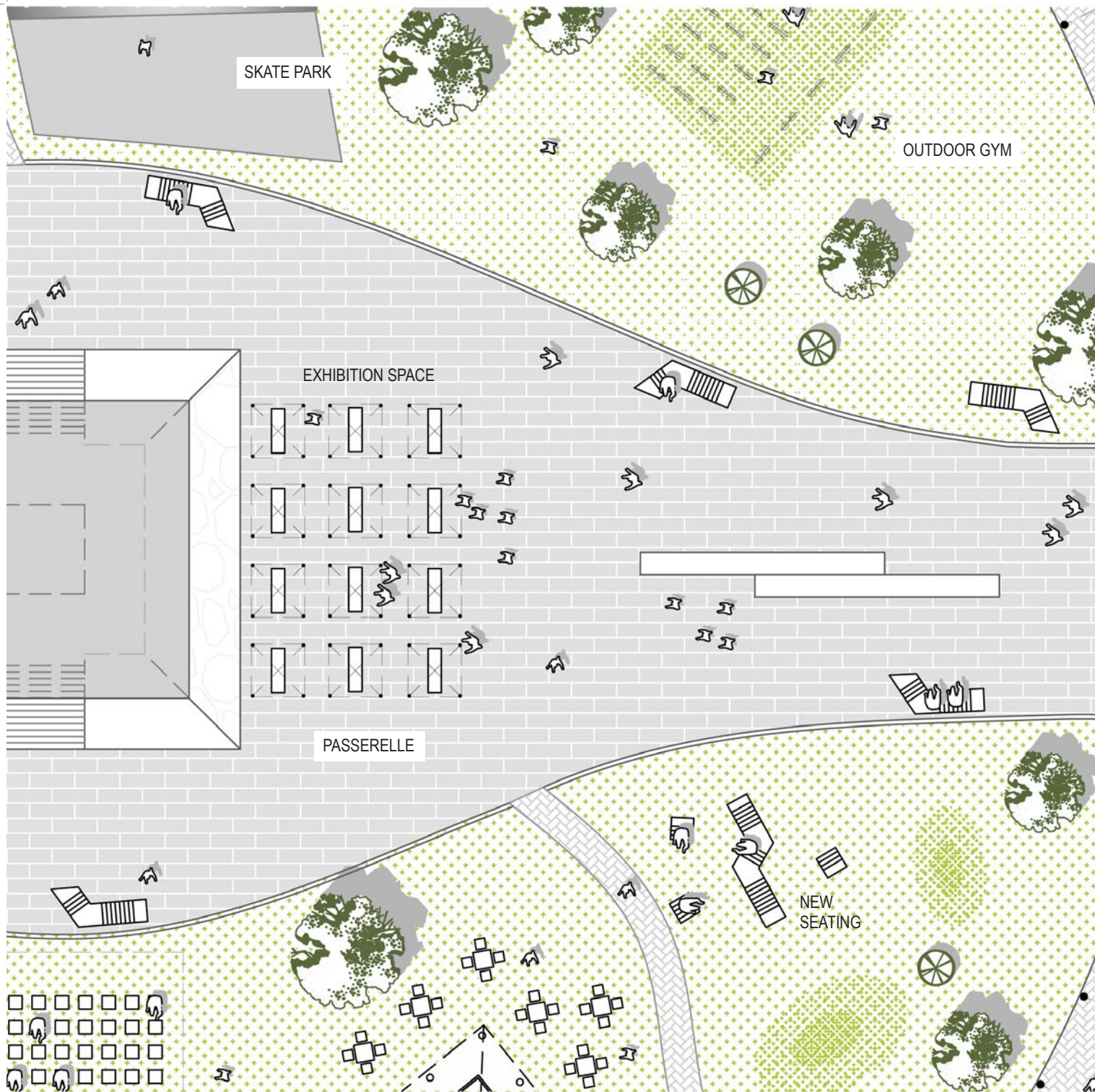
SKATE PARK

OUTDOOR GYM

EXHIBITION SPACE

PASSERELLE

NEW
SEATING







4.3. LONG TERM GOALS

Participation of passive users

In this area there was marked participatory work before. The group of active users, athletes, was participating in cooperation with the enterprise La Curacao and Municipality in petition to transform roundabout de la Virgen into a park. The users have become developers through spontaneous appropriation, maintenance and the organization of activities. It is necessary to motivate and involve the passive users as well.



Participative active users - athletes

+



Private company La Curacao

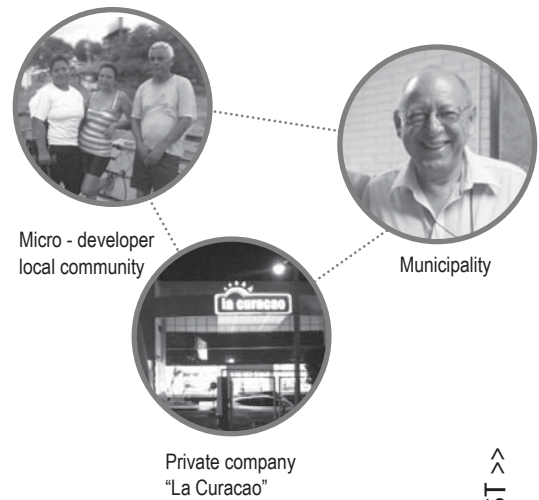
PAST >>



[figure 90] Motivation of the users with focus on passive users

Maintenance of the park

In order to get a successful public space, it is necessary to have a forecast within the project considering long time maintenance. The city, as well as planners, NGOs, private developers and users need to participate in this process and also to offer specific solutions to make feasible and to reduce costs of future maintenance.



[figure 91] Micro policies for the public space, Managua

GLOSSARY

la Rotonda de la Virgen

the roundabout of the Virgin Mary

FSLN Frente Sandinista de Liberacion National

the Sandinista National Liberation Front

la Candelaria

historic neighbourhood in the city centre; today, informal settlement

viviendas de Intereses Sociales

social housing

barrio los Robles

middle class neighbourhood

vendedores

vendors

malecon Salvador Allende

lake shore

la Carreterra a Masaya

Highway to Masaya

la Carreterra Norte

Northern Highway

fritanga

traditional restaurant

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ANNEX: QUALITATIVE AND QUANTITATIVE INTERVIEWS

The interview questions are structured from a guided interview and questionnaire, which was developed to be used during the project. The guided part consists of a series of questions, but it is still very flexible, open-ended and the interviewer can give additional information about a special topic that he/she is familiar with. On the other hand, a questionnaire consists of structured questions with multi-choice offered answers. Total of 13 interviews were conducted between May and July 2013, from which 4 in the morning and 9 in the afternoon/evening.

Name:

Age:

Gender:

Neighborhood:

Occupation:

Since when do you come to the roundabout? (since 6 months, 1 year, 2 years, more)

How often do you use the park in the roundabout?

When? What time of the day?

How long do you stay in the roundabout?

How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...)

What entrance do you usually use?

Do you use pedestrian bridges? Which one?

With whom do you visit the roundabout?

Which kind of activities do you do there?

Are there any other similar spaces close to? Which?

Do you use the other places close to? (Metrocentro Las Americas, Bello Horizonte, La Curacao...)

Do you buy something from vendors on the roundabout?

Why you like the park in the roundabout?

Why you don't like the park in the roundabout?

Do you think that the traffic influences your health?

Are you afraid to suffer an accident from the vehicles here in the park?

Why do you prefer this park and not some other one?

How does your house look like? Is there a garden? How many people are living in it?

Sample: Interview

MORNING INTERVIEWS

Name: Meybi Molina Rodriguez with help from Raquel Lazo

Age: 26 years old

Gender: female

Neighborhood: Bello Horizonte

Occupation: student

1. Since when do you come to the roundabout? Since one year.
2. How often do you use the park in the roundabout? Daily.
3. When? What time of the day? 5:30 – 7:00a.m.
4. How long do you stay in the roundabout? 2-3 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By walk, because they live close.
6. What entrance do you usually use? I come from north-west.
7. Do you use pedestrian bridges? No, because the streets are empty at that time.
8. With whom do you visit the roundabout? With friends, cousins.
9. Which kind of activities do you do there? Jogging, walking, doing exercises.
10. Are there any other similar spaces close to? Which? Yes, but here close gyms in Bello Horizonte and Rubenia (neighborhoods).
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? Multicentro las Americas on Sundays for walking, eating or doing shopping.
12. Do you buy something from vendors on the roundabout? No, we don't trust the vendors and we don't want to eat tacos when we do exercises (smiles).
13. Why do you like the park in the roundabout? Doing exercises, to relax, there is a park; we don't believe there is any other roundabout like this. But also there are no places like this here close to. We also like its central position and it is quite safe because there are a lot of people.
14. Why you don't like the park in the roundabout? There is lots of smoke from cars in the evening. We prefer the morning, because it is much cleaner. Also, there is really big problem of traffic, no parking area, no access to the park la Virgen, which doesn't make much problem for us exercising in the morning hours, but in the evening.
15. Do you think that the traffic influences your health? Yes, of course.
16. Are you afraid to suffer an accident from the vehicles here in the park? I don't know about any very bad accident, but I am afraid that the cars will cross to the platform, because there is no protection (no fence).
17. Why do you prefer this park and not some other one? The park is very exciting, the atmosphere is emotional. In my neighborhood there is a baseball court, but it is not maintained and very dirty and dark in the evenings, so less secure.
18. How does your house look like? Is there a garden? How many people are living in it? I have a house with small patio with land (no grass) and where many people live together. I visit roundabout, because it is close by, it is a meeting point for everyone. There are people who are coming jogging from other neighborhoods, from Mayoreo. Also competitions take place here, on Sundays, from the park until the traffic light of Mayoreo and back (route is approx. 6 km long). It is a place of reunion for other neighborhoods. People arrive in cars, park somewhere and start to run, to do exercises or they use the gym equipment. In a case of irregularly parked cars, police doesn't do anything in the morning, but in the evening when the vendors arrive yes, because they interfere with sale. Vendors start appearing around 5, 6 p.m.

Name: Palmira Vado
Age: 42 years old
Gender: female
Neighborhood: Villa Progreso
Occupation: housewife

1. Since when do you come to the roundabout? Since 10 years.
2. How often do you use the park in the roundabout? Daily, from Monday to Friday.
3. When? What time of the day? 5a.m.
4. How long do you stay in the roundabout? 2 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By walk, because she lives close.
6. What entrance do you usually use? South or east.
7. Do you use pedestrian bridges? No, no, no. In the evening of course, but in the morning no.
8. With whom do you visit the roundabout? Alone. I know other people here.
9. Which kind of activities do you do there? I run, walk or do yoga. There is an instructor coming every morning at 6a.m.
10. Are there any other similar spaces close to? Which? A lot of people jog or walk along the sidewalk from Bello Horizonte to here.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? No, i don't have money.
12. Do you buy something from vendors on the roundabout? Sometimes in the evening, but in the morning there are no vendors. Evenings there are other type of users.
13. Why do you like the park in the roundabout? Because of its security, central location, I can run here, do exercises.
14. Why you don't like the park in the roundabout? There is no tap water and to buy it is too expensive.
15. Do you think that the traffic influences your health? Yes.
16. Are you afraid to suffer an accident from the vehicles here in the park? There have been a lot of assaults before in the roundabout, but not it is better. Anyway, about some car accident I never heard.
17. Why do you prefer this park and not some other one? Because it is more central than any other park and because it is the closest place where you can meet and interact with other people.
18. How does your house look like? Is there a garden? How many people are living in it? I live in a small house with a small patio.

Name: Miriam Campos
Age: 46 years old
Gender: female
Neighborhood: Primero de Mayo 2 (1.5km far away from roundabout)
Occupation: housewife

1. Since when do you come to the roundabout? Since 2 years.
2. How often do you use the park in the roundabout? 3 times a week.
3. When? What time of the day? 5 a.m.
4. How long do you stay in the roundabout? 2 hours and I need 1 hour more there and back home.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) Running 1.5 km to here and than running back home.
6. What entrance do you usually use?
7. Do you use pedestrian bridges? No, there is no need in the morning. People use them for doing exercises.
8. With whom do you visit the roundabout? Alone.
9. Which kind of activities do you do there? All kind of recreational (sport) activities.
10. Are there any other similar spaces close to? Which? Not that I know or use.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? Multicentro when there are promotions.
12. Do you buy something from vendors on the roundabout? No.
13. Why do you like the park in the roundabout? Because of its central location, I can run here, do exercises.
14. Why you don't like the park in the roundabout? No maintenance. Someone makes it, others destroy it.
15. Do you think that the traffic influences your health? Yes.
16. Are you afraid to suffer an accident from the vehicles here in the park? No.
17. Why do you prefer this park and not some other one? Because there is always something here, there is a run to Mayoreo, people gather. This is organized by athletes and La Curacao and it is for Women with cancer in female hospital Bertha Calderon. It is always on Sundays and usually there are approx. 300 participants.
18. How does your house look like? Is there a garden? How many people are living in it? I have a big house with big patio where I sometimes do exercises as well, but here I come because I can meet other people.

Name: Vlas Rivas
Age: 58 years old
Gender: male
Neighborhood: Carretera Masaya
Occupation: civil engineer

1. Since when do you come to the roundabout? Once in a while (occasionally).
2. How often do you use the park in the roundabout? Once a week.
3. When? What time of the day? In the morning.
4. How long do you stay in the roundabout? 2 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) It is on my way to work, so I do exercises before going to work.
6. What entrance do you usually use? East, because I park my car from that side.
7. Do you use pedestrian bridges? No.
8. With whom do you visit the roundabout? Alone.
9. Which kind of activities do you do there? I run.
10. Are there any other similar spaces close to? Which? Don Bosco, but it is not close to and not the same type of activity.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? La Curacao or Multicentro sometimes only for a walk.
12. Do you buy something from vendors on the roundabout? No. There are people, couples, coming in the evening to eat here.
13. Why do you like the park in the roundabout? Because it is very close to the place where I work.
14. Why you don't like the park in the roundabout? There is no toilette, no water. Also, there is no protection for the runners, physical border from the road.
15. Do you think that the traffic influences your health? Yes.
16. Are you afraid to suffer an accident from the vehicles here in the park? No.
17. Why do you prefer this park and not some other one? There are no other open air places for sport activities close, but also there are no much places like this in Managua.
18. How does your house look like? Is there a garden? How many people are living in it? My house is small without patio.

EVENING INTERVIEWS

Name: Jose Dolores Castro with children
Age: 40 years old
Gender: male
Neighborhood: Costa Rica
Occupation: merchant

1. Since when do you come to the roundabout? Since 3 years.
2. How often do you use the park in the roundabout? Once a week, on weekends.
3. When? What time of the day? At 6 p.m.
4. How long do you stay in the roundabout? 2-3 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By car and I park it in from of the roundabout.
6. What entrance do you usually use? East when I arrive by car or north one when I arrive by walk.
7. Do you use pedestrian bridges? Once in a while yes, but it is very long. If you are afraid to cross the street with children, it is better to use the bridge. But people are lazy and always cross the street.
8. With whom do you visit the roundabout? With family and children.
9. Which kind of activities do you do there? I come here to relax. While the children are playing I am spending time to clear my mind from the busy day.
10. Are there any other similar spaces close to? Which? There are other parks, but they don't have what this one has. On other days I go with children to other places, like Malecon, so they can be somewhere else and do some other activities. Sometimes we go to Luis Alfonso Velasquez on Sundays, but it is very far away and as I am working as a merchant, my shop is opened every day and if I close it, I lose money. So, I prefer coming here for few hours.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? Yes, for example we go to Multicentro Las Americas for shopping or for a walk, but there are also the games for children. Sometimes we go to Bello Horizonte to listen to the music.
12. Do you buy something from vendors on the roundabout? Yes, sweets for the children, ice cream.
13. Why do you like the park in the roundabout? It is a secure place, cleaner than other parks.
14. Why you don't like the park in the roundabout? There is no toilette, lack of maintenance of the playgrounds for children. It is very risky to play on them, because they are completely destroyed.
15. Do you think that the traffic influences your health? Yes, the cars are continuously circulating. Cars and air pollution.
16. Are you afraid to suffer an accident from the vehicles here in the park? Yes, we walk carefully, we also hear about accidents in the news.
17. Why do you prefer this park and not some other one? This one, because it is very close and there are no delinquents.
18. How does your house look like? Is there a garden? How many people are living in it? I have a small house with small patio in which live 4 people.

Name: Christian Robledo
Age: 35 years old
Gender: male
Neighborhood: Colonia Nicarao
Occupation: taxi driver

1. Since when do you come to the roundabout? I came here 2, 3 times.
2. How often do you use the park in the roundabout? /
3. When? What time of the day? In the evening.
4. How long do you stay in the roundabout? 2 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By car and parks it around the middle island.
6. What entrance do you usually use? I arrive from east, from the side of La Curacao.
7. Do you use pedestrian bridges? Yes, when I need to.
8. With whom do you visit the roundabout? With children.
9. Which kind of activities do you do there? I come here only because of the children. I take them after work and we come here so they can play a bit and see other children.
10. Are there any other similar spaces close to? Which? Close to no, but I bring my children to the park Luis Alfonso Velasquez, it is better conditioned, more secure and beautiful. Actually I come here only because it is very close to where I live, only one kilometer by car and in the case of the other park, I need much more time to arrive because of the traffic.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? I am in this zone usually because of my work (taxi).
12. Do you buy something from vendors on the roundabout? Yes, sometimes some sweets for the children.
13. Why do you like the park in the roundabout? Only its location. It is close to where I live.
14. Why you don't like the park in the roundabout? There is no security, no maintenance; vendors are charging too much for the games for children and more than anything there are couples who are behaving inappropriate; they should go to some other place, because this is supposed to be a park for children. There is too much traffic in this area.
15. Do you think that the traffic influences your health? Here inside I don't think so, but outside where the people are running yes.
16. Are you afraid to suffer an accident from the vehicles here in the park? Yes, some crazy car driver could kill someone.
17. Why do you prefer this park and not some other one? There is no park in my neighborhood.
18. How does your house look like? Is there a garden? How many people are living in it? I have a big house with patio and we live in 4 people.

Name: Heidi
Age: 19 years old
Gender: female
Neighborhood: Savana Grande
Occupation: student and worker in Metrocentro

1. Since when do you come to the roundabout? Since 1 year.
2. How often do you use the park in the roundabout? Irregularly.
3. When? What time of the day? During the night.
4. How long do you stay in the roundabout? Approx. 3 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By public transportation.
6. What entrance do you usually use? The bus station is in front of the Metrocentro and then I arrive from south.
7. Do you use pedestrian bridges? Yes, always.
8. With whom do you visit the roundabout? Alone or with her partner.
9. Which kind of activities do you do there? Leisure.
10. Are there any other similar spaces close to? Which? Other parks sometimes.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? Multucentro for shopping, eating, walking.
12. Do you buy something from vendors on the roundabout? Not always, but sometimes ice cream.
13. Why do you like the park in the roundabout? It is peaceful, secure.
14. Why you don't like the park in the roundabout? Traffic, bad connection to where I live, so to arrive here is very difficult. I am working in Metrocentro and I stopped here on my way home.
15. Do you think that the traffic influences your health? Yes.
16. Are you afraid to suffer an accident from the vehicles here in the park? I am but I have never heard about any accident in this area.
17. Why do you prefer this park and not some other one? In my neighborhood is much more dangerous. I prefer this place, because is more central and isolated from delinquents.
18. How does your house look like? Is there a garden? How many people are living in it? I live in a house with 9 other people with a small patio.

Name: Jerald
Age: 20 years old
Gender: male
Neighborhood: Camilo Chamorro
Occupation: worker between Metrocentro and Galerías

1. Since when do you come to the roundabout? Since 7 years.
2. How often do you use the park in the roundabout? In the past years daily, but now that I work, not every day.
3. When? What time of the day? During the night, after the school or work.
4. How long do you stay in the roundabout? 3 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By walk or bicycle.
6. What entrance do you usually use? When I come from work, I access it from the south, but I come often from home. In that case I use the east entrance.
7. Do you use pedestrian bridges? No, when I started to come here there were no bridges so I was always crossing the streets and now still. Nothing changed.
8. With whom do you visit the roundabout? With family, cousins, partner.
9. Which kind of activities do you do there? For a walk, to play or ride a bicycle.
10. Are there any other similar spaces close to? Which? Multicentro las Americas.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? For shopping, eating.
12. Do you buy something from vendors on the roundabout? Actually no, because they were also not here when we started to come. It was forbidden to sell here, but also to ride a bicycle. It is slowly losing what it had before.
13. Why do you like the park in the roundabout? Security more or less, there is much security when there are more people, for instance on weekends. I like seeing other people here.
14. Why you don't like the park in the roundabout? Maintenance, security.
15. Do you think that the traffic influences your health? Yes, especially the people who are running on the outside platform.
16. Are you afraid to suffer an accident from the vehicles here in the park? I am afraid of traffic, but honestly I was so many times here and never happened anything to me or to any other that I know. I am careful.
17. Why do you prefer this park and not some other one? It is the closest one. We arrived from work here. There is Multicentro but it is far away.
18. How does your house look like? Is there a garden? How many people are living in it? I live in a big house with a big patio in 3 people.

Name: Javier
Age: 25 years old
Gender: male
Neighborhood: Santa Rosa
Occupation: mayor consultant

1. Since when do you come to the roundabout? Since less than 6 months.
2. How often do you use the park in the roundabout? Once a week (during the weekend).
3. When? What time of the day? At night.
4. How long do you stay in the roundabout? 3-4 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By walk.
6. What entrance do you usually use? I am coming from north so I don't use any of 4 entrances.
7. Do you use pedestrian bridges? Yes, always.
8. With whom do you visit the roundabout? Alone or with friends.
9. Which kind of activities do you do there? Leisure or walk.
10. Are there any other similar spaces close to? Which? No.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? Multicentro when I have time, but not always.
12. Do you buy something from vendors on the roundabout? No.
13. Why do you like the park in the roundabout? There is a lots of people, it is educational to see other people making sport.
14. Why you don't like the park in the roundabout? There is no water or toilette.
15. Do you think that the traffic influences your health? Not at all, because I come here very rare.
16. Are you afraid to suffer an accident from the vehicles here in the park? Yes of course.
17. Why do you prefer this park and not some other one? The closest one.
18. How does your house look like? Is there a garden? How many people are living in it? I had a small patio, but then I extended my house and lost it. I live there alone.

Name: Miriam
Age: 31 years old
Gender: female
Neighborhood: Las Torres
Occupation: vendor

1. Since when do you come to the roundabout? Since more than 2 years.
2. How often do you use the park in the roundabout? Daily.
3. When? What time of the day? At night.
4. How long do you stay in the roundabout? Only 2 hours. It is very dangerous to come late at night home.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By walk.
6. What entrance do you usually use? I use the one that is facing the monument (west).
7. Do you use pedestrian bridges? No, because I arrive from other direction.
8. With whom do you visit the roundabout? Alone, working on my way.
9. Which kind of activities do you do there? I just sit and sell here, sometimes I meet other lady and we are working and selling together.
10. Are there any other similar spaces close to? Which? Malecon.
11. Do you use the other places close to? (Multicentro Las Americas, Bello Horizonte...)? I walk everywhere and sell.
12. Do you buy something from vendors on the roundabout? Yes, because I want to help my colleagues.
13. Why do you like the park in the roundabout? Because there are people from all around the city, it attracts the people; it is safer inside of the roundabout than outside.
14. Why you don't like the park in the roundabout? There is no water, lack of maintenance; there are guys with bicycles which are danger for the children. Before it was not allowed, but now nobody respects the rules.
15. Do you think that the traffic influences your health? Yes.
16. Are you afraid to suffer an accident from the vehicles here in the park? Yes, especially when I cross the highway, but it never happened anything to me. It is more risky at night.
17. Why do you prefer this park and not some other one? My route is starting in the neighborhoods and finishes here. Where I go, it is sometimes very dangerous, but in 12 years that I am doing this work I never experienced any accident.
18. How does your house look like? Is there a garden? How many people are living in it? I live in a very small house with a small patio with 5 other people.

Name: Javier Gomez

Age: 45

Gender: male

Neighborhood: Jose Dolores Estrada

Occupation: worker on a construction site

1. Since when do you come to the roundabout? Since 1 year.
2. How often do you use the park in the roundabout? Once or maximum two times a week.
3. When? What time of the day? In the late afternoon, evening.
4. How long do you stay in the roundabout? Approx. for 2 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By walk and sometimes by car.
6. What entrance do you usually use? Almost always from La Curacao.
7. Do you use pedestrian bridges? Sometimes, because of the children.
8. With whom do you visit the roundabout? With children.
9. Which kind of activities do you do there? I am watching out for my children, while they are playing.
10. Are there any other similar spaces close to? Which? Actually no. Not so big and with so many people.
11. Do you use the other places close to? (Metrocentro Las Americas, Bello Horizonte...) I go sometimes to Bello Horizonte because of the music.
12. Do you buy something from vendors on the roundabout? Only something small for the children.
13. Why do you like the park in the roundabout? Because it is big, very close and there are so many people and there are no thieves.
14. Why you don't like the park in the roundabout? There is no water or toilette and I don't know where to park the car. Also, the installations in the playground are destroyed, so you have to be careful when you let your kids play.
15. Do you think that the traffic influences your health? Well yes, but we don't come so often. So,...
16. Are you afraid to suffer an accident from the vehicles here in the park? I am, especially because I am with children so I have to pay a lot of attention.
17. Why do you prefer this park and not some other one? There aren't places like this. Maybe Luis Alfonso, but it is so far away and on weekends is too chaotic.
18. How does your house look like? Is there a garden? How many people are living in it? I have small house with very small patio, because I built one extra room when we got a third child. We live in 5 people.

Name: Dona Valeria

Age: 55

Gender: female

Neighborhood: Walter Ferreti

Occupation: owner of fritanga (traditional Nicaraguan restaurant)

1. Since when do you come to the roundabout? Since 1, 5 year.
2. How often do you use the park in the roundabout? Daily.
3. When? What time of the day? From 6 p.m. until 3.30 a.m.
4. How long do you stay in the roundabout? 9 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By truck, because I need to bring everything for my work.
6. What entrance do you usually use? I don't enter the park. I stay on this island and sell the food.
7. Do you use pedestrian bridges? No.
8. With whom do you visit the roundabout? /
9. Which kind of activities do you do there? I sell food and sometimes I talk with guest.
10. Are there any other similar spaces close to? Which? This is very special space and I don't think there is similar one.
11. Do you use the other places close to? (Metrocentro Las Americas, Bello Horizonte...) No. I don't have time.
12. Do you buy something from vendors on the roundabout? Actually not.
13. Why do you like the park in the roundabout? There is always something happening here and there are so many people. We sell also when the park closes, until 3.30, it is good for business.
14. Why you don't like the park in the roundabout? There is a big problem with a toilette.
15. Do you think that the traffic influences your health? Yes.
16. Are you afraid to suffer an accident from the vehicles here in the park? No. I never saw any.
17. Why do you prefer this park and not some other one? I work here.
18. How does your house look like? Is there a garden? How many people are living in it? We have small house and we are in 4 people without patio.

Name: Juan Diego

Age: 38

Gender: male

Neighborhood: Rigoberto Lopez Perez

Occupation: guard

1. Since when do you come to the roundabout? I work here since one month.
2. How often do you use the park in the roundabout? 3-4 times per week.
3. When? What time of the day? All day long.
4. How long do you stay in the roundabout? 24 hours.
5. How do you arrive to the roundabout? (by walk, by bicycle, car, public transportation...) By bus.
6. What entrance do you usually use? I arrive from west.
7. Do you use pedestrian bridges? No.
8. With whom do you visit the roundabout? Alone.
9. Which kind of activities do you do there? I take care that nothing which is in property of Alcaldia disappears. I am not responsible if There is some robbery.
10. Are there any other similar spaces close to? Which? I don't know, but I don't think so.
11. Do you use the other places close to? (Metrocentro Las Americas, Bello Horizonte...) Sometimes I go to Metrocentro for a walk or a dinner.
12. Do you buy something from vendors on the roundabout? I eat sometimes in this fritanga inside of the park.
13. Why do you like the park in the roundabout? There are so many people.
14. Why you don't like the park in the roundabout? Chaos. It isn't easy to have an overview of everyone and everything. There are many things happening here and many different people entering the park with bicycles, motor bikes, but that is not my duty to take care of that. It is not so safe. On the other hand there is no toilette or water and when you need to spend so much time here you just get thirsty.
15. Do you think that the traffic influences your health? Yes, I think.
16. Are you afraid to suffer an accident from the vehicles here in the park? No. inside is safe.
17. Why do you prefer this park and not some other one? /
18. How does your house look like? Is there a garden? How many people are living in it? I live in a normal house with my mother and one child and we have a small patio.