

# LOS POZOS

2022

## COLOPHON

Publication of the summer internship ‘Global Development Project in the South’:

Developing strategies for urban resilience for vulnerable neighborhoods -the ‘old Los Pozos’ & ‘old La Ramada’ marketsectors in SantaCruz de laSierra, Bolivia

The project is supported by the research group ‘Urban Projects, Collective Spaces and Local Identities’

(<http://www.collectivespaceskuleuven.be/>) of KU Leuven faculty of Architecture campus Sint-Lucas for the elective course ‘Participation to an International Project’ within the masters.

## AUTHORS

Jora van Baarle, Marika Gross,  
Mélanie Lembregts, Anne Kalthöner

## PROMOTORS

Yves Schoonjans (KU Leuven, Belgium)  
Victor Hugo Limpiaz (UPSA, Bolivia)  
(c) 2022



## A B S T R A C T

In the 20th century, the development of the oil and agriculture industries made Santa Cruz de la Sierra the economic center of Bolivia, attracting many migrants to the city. Migration made the city grow exponentially in a few years. Even though the municipal government developed many plans to manage the city's urban growth, they could not keep it under control. Migration and rapid urbanization are the processes that shaped the city as it is today. In the 80s, the country could not provide enough formal employment to the population after political reforms. Migrants turned to informal economic activities to survive. The most visible informal activities are markets. Santa Cruz counts many open-air markets. Among them is the Los Pozos market, the market analyzed in the framework of this analysis and design strategies proposal. The fieldwork comprised a typology study and interviews with the vendors to better understand the market's issues, observations, and develop relevant design strategies to improve it.

## S Y N O P S I S

The urban growth of Santa Cruz de la Sierra in Bolivia is very high. The population has grown from 900000 to 2000000 today. It has a current growth rate of 40000 persons per year. The area of the city has grown from 8500 ha in 1992 to 106000 ha in 2017, making it a very large urban area. This growth and modernization put enormous pressure on the local urban and rural fabric.

The 'Old Los Pozos' & 'Old La Ramada' are old market towns in the city center of Santa Cruz de la Sierra, Bolivia. They are hectic places of formal and informal trade. The United Nations, UN Habitat, the Inter Development Bank, ... underline the importance of the informal sector for employment and sustainability. An active, well-supported and dynamic informal sector can be a powerful tool to reduce poverty and generate more inclusive growth ([includeplatform.net](http://includeplatform.net)). It creates livelihood opportunities, contributes to poverty alleviation and acts as a buffer between employment and unemployment (<https://www.leapco.co.za/does-the-informal-sector-add-value/>). At the same time, it gives an important street life in several neighborhoods of downtown Santa Cruz.

This is important as urban life is shifting to

suburban shopping centers. Finally, they are also very multicultural places where different groups come together. In 2018, Santa's City Council wanted to close the old markets and move them to the outskirts of town. The reason was that those old markets are difficult to control, unsanitary and full of informal activities.

The move (Traslado de Mercados) of the oldstreet market of Los Pozos has placed several blocks in the center of Santa Cruz in real danger of decay of the buildings or gentrification, affecting the entire NE neighborhood of downtown Santa Cruz.

Another area with similar problems is the area around the 'Old La Ramada' (Mercado la Ramada) marketplace. In both cases, informal street vendors were forced to relocate to the outskirts of the city (New Los Pozos and New La Ramada or Mayorista), emptying dozens of originally fully used streets.

Over the past years, several newspaper articles have appeared about the problems and the battle for the exit continues. They are now 'living' problems. It is important which strategies can be developed to ensure healthy revitalization and positive transformation of those areas.

Although their origins are similar, the particularities of each location in the urban fabric pose different problems today and we expect different solutions for the future.

Main goals: Participate in Analysis of the neighborhood, its urban and architectural structure and its relation to the place. understanding the dynamics, conflicts and opportunities facing Santa Cruz de la Sierra through international comparative case studies. Development of (alternative) mapping strategies for spatial and social elements of the place. Formulating design proposals and strategies aimed at sustainable and resilient development. Visiting the areas included in the research proposal. Collect data, develop insights and design strategies. Develop alternative mapping strategies and map the defined case studies at different levels. The results will be presented to UPSA and local stakeholders to contribute to the local development.

This project was organized in the framework of the research group ‘Urban Projects, Collective Spaces and Local Identities’ (<http://www.collectivespaceskuleuven.be>). It is an interdisciplinary research group at the Department/

Faculty of Architecture of KU Leuven. It gathers researchers from different disciplines (architecture, urban design, heritage practice, history & theory of architecture and urban design, anthropology, digital spatial mapping, ...). The aim is to initiate and develop research into the creation and use of collective spaces in urban projects in relation to theoretical approaches and discourses. The different research projects investigate how people and buildings relate to each other, how space is appropriated and local identities are formed and how it contributes to the built and social environment of urban life.

Some of the projects focus especially on multicultural places and the diversity of appropriation. The research group Urban Projects, Collective Spaces and Local Identities seeks to study this balance of parallel mechanisms of space production in different contexts and test the outcomes through real life and hands-on projects, considering the local neighbors, stakeholders, the protagonists and main beneficiaries. Furthermore, we aim to disseminate our research findings also to practitioners in urban design and architecture, and to local governments and decision-makers.



# Table of Contents

---

8

**Introduction**

13

**Bolivia**

Geography, Economy ,Trade

19

**Santa Cruz de la Sierra**

Geography , Climate , Population, History, Economy, Migration, Urban Growth

35

**The Markets of Santa Cruz**

Market Infrastructure, Urban Renewal

43

**Los Pozos Market**

Development (Historically, Spacially)

47

**Fieldwork**

Typologies , Observations, Streetscapes, Interviews

127

**The Issues**

147

**The Future of Los Pozos**

Case Studies, Design Strategies

164

**Bibliography**

## METHODOLOGY

The project is part of an initiative from the KUL in collaboration with the Universidad Privada de Santa Cruz de la Sierra (UPSA) to send students to the Global South to understand issues related to the informal sector. We collaborated with the Municipality of Santa Cruz de la Sierra and Prof Victor Hugo Limpas Ortiz, dean of the Faculty of Architecture from UPSA. In addition to their input, we joined *Mesas de Trabajo*, organized by the Municipality. They were conferences and open discussions with the citizens of Santa Cruz about several issues the city faces. During our stay, we were put in contact by the Municipality of Santa Cruz with SUPERWIEN, an architecture and urbanism office. We were mainly in touch with Nicolas Kersting, who invited us to participate in a workshop organized by SUPERWIEN about the improvement of the historic center of the city. The workshop allowed us to connect with Roland Krebs and Theresa Koenig from the same office. They gave feedback about our work and advised us on some fieldwork methods.

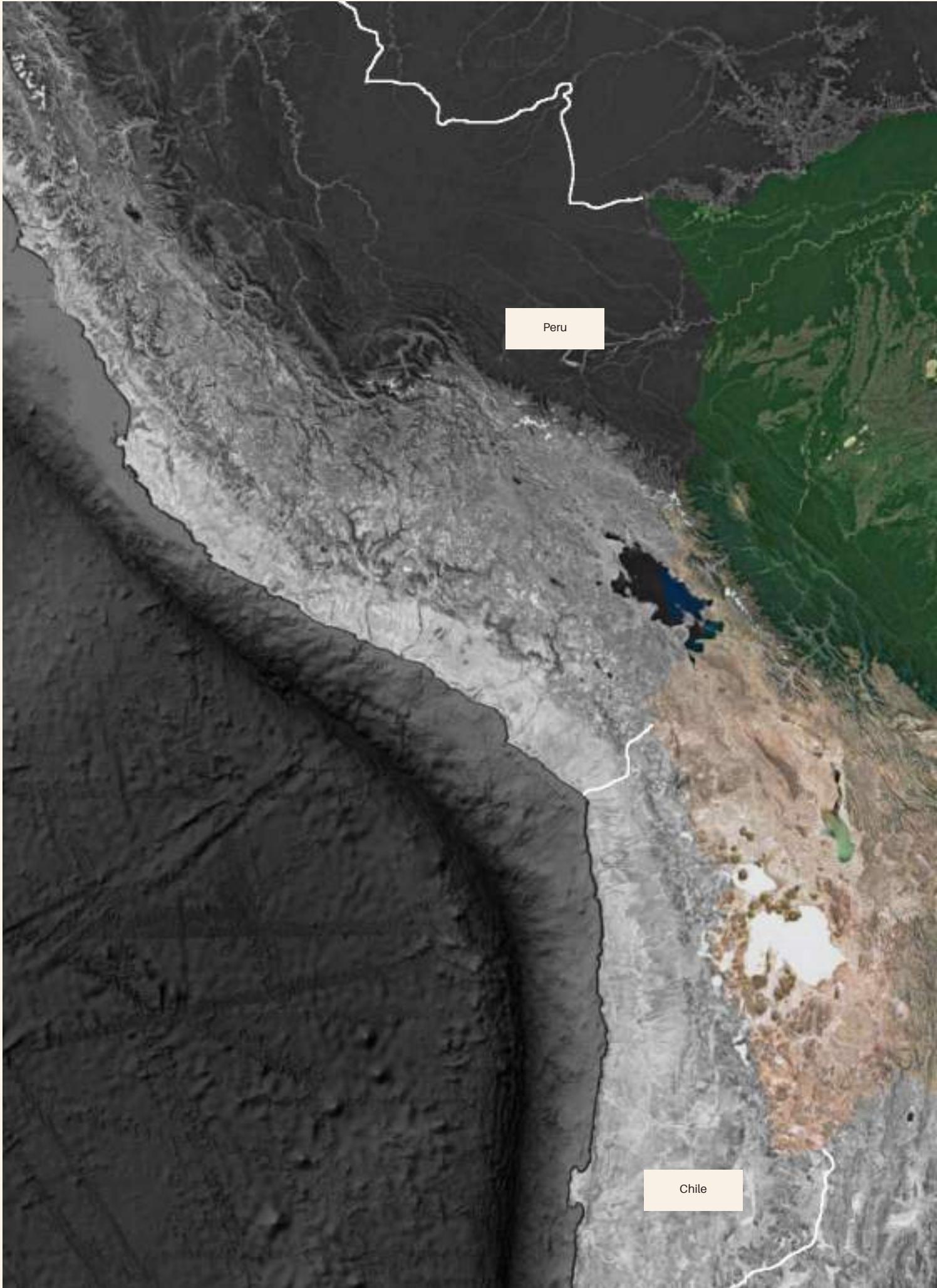
They sent us a participatory urban design manual describing several strategies for doing participatory fieldwork in planning processes.

It is noteworthy to mention that our fieldwork is about our perception of the market, probably influenced by our backgrounds and biases. Therefore experiencing the market as much as possible and understanding the vendors, their daily lives, and their opinions about the market was crucial in developing adequate design strategies. During our stay, we sometimes felt uncomfortable because we stood out, were not always able to read our environment correctly, and were not accustomed to the environment we were working in. The city center, where the Los Pozos market is situated, sometimes felt unsafe, especially at night. We were also advised to be particularly cautious in places like Parque Arenales. Finally, we have kept the Spanish terms to refer to specific things, such as *comedor* (cafeteria) or *alojamiento* (motel/hotel).

## A C K N O W L E D G E M E N T

It is also a good occasion to thank the people who have helped us during our stay. Thank you to Katherine de Bruun from UPSA, helping us find a place to stay and taking care of administrative matters. To Victor Hugo Limpias Ortiz guiding us through the project and taking time to provide his knowledge as an expertise about Santa Cruz de la Sierra. To Jimmy Toledo, Mariana Daga Mérida and Marlene Muriel Rivas Reyes for providing data, connecting and giving insight into their planning processes. To Nicolas Kersting, Theresa Koenig and Roland Krebs from SUPERWIEN for supporting our research and to Yves Schoonjans from KU Leuven for organizing the project. Finally, thank you to our families and friends for making a journey like this possible and enjoyable.

Bolivia



Peru

Chile



Bolivia

Brasil

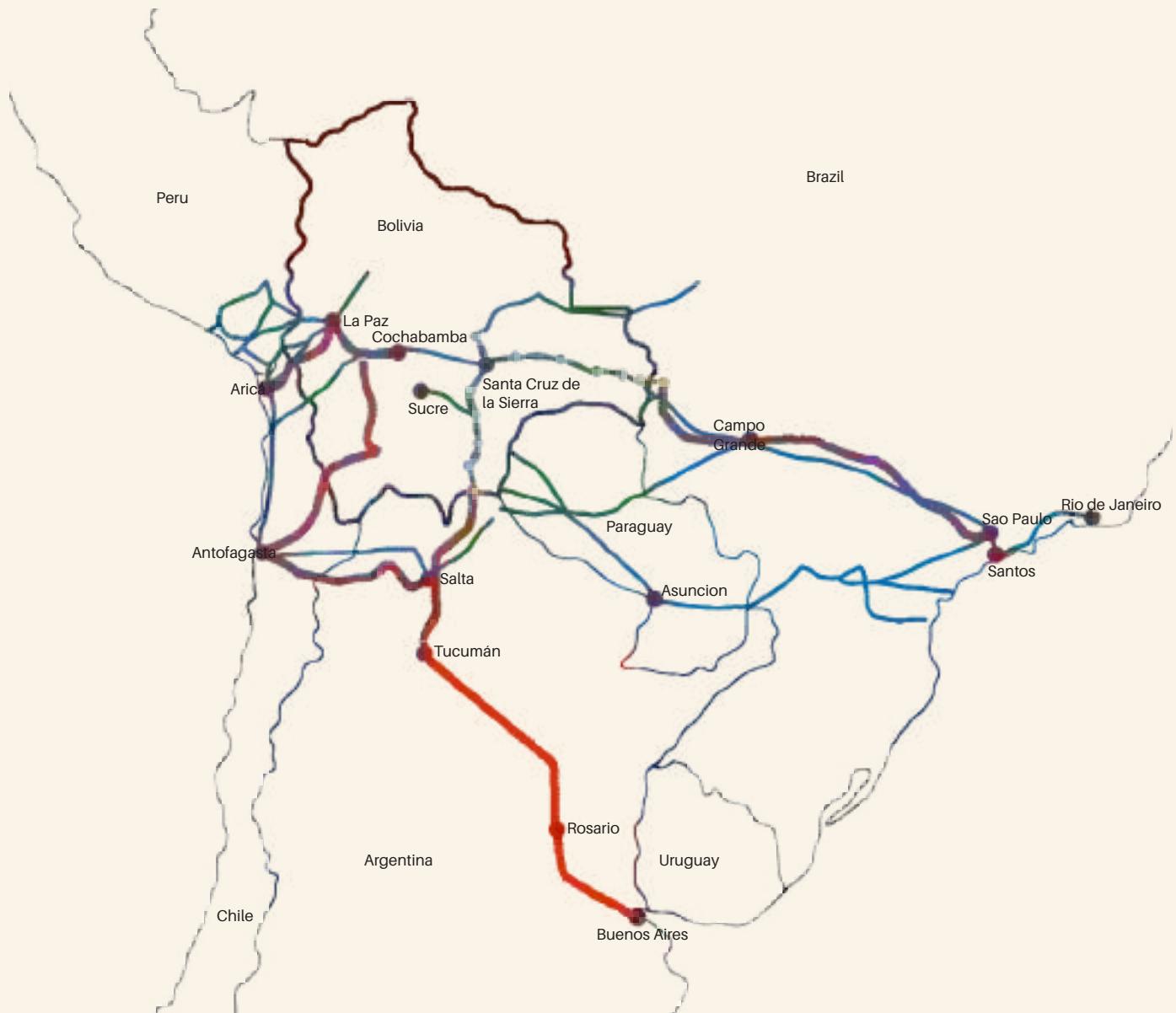
Bolivia

Paraguay



# Bolivia

Bolivia is a landlocked country in South America. It shares borders with Argentina, Brazil, Peru, Chile, and Paraguay. It is one of the poorest countries in South America but the quality of life has improved a lot in the last few years. The economy of Bolivia is mainly based on the export of products (agriculture and oil). Bolivia is a very diverse country both in its geography and population. The country is separated into the western part, characterized by high mountains with a dry climate whereas the eastern part is characterized by lowlands and a tropical climate. It is constituted of nine departments divided into provinces (Encyclopædia Britannica, n.d.).



Transcontinental railway

Transcountry railway

Main routes of transportation

## TRADE

Trade and informality are intimately intertwined in Bolivia. The country's landlocked location and heterogeneous geographical landscape have imposed the need for agreements with the surrounding nations to facilitate Bolivian economic growth. With the consecutive predicaments Bolivia has had to weather, starting with the 1952 revolution and then being replaced by the financial crisis. The rural community continues to migrate towards urban areas in search of better opportunities. Bolivia's attempt to stimulate growth through liberalizing capital flows has been ineffective in its aim for poverty reduction.

Bolivia

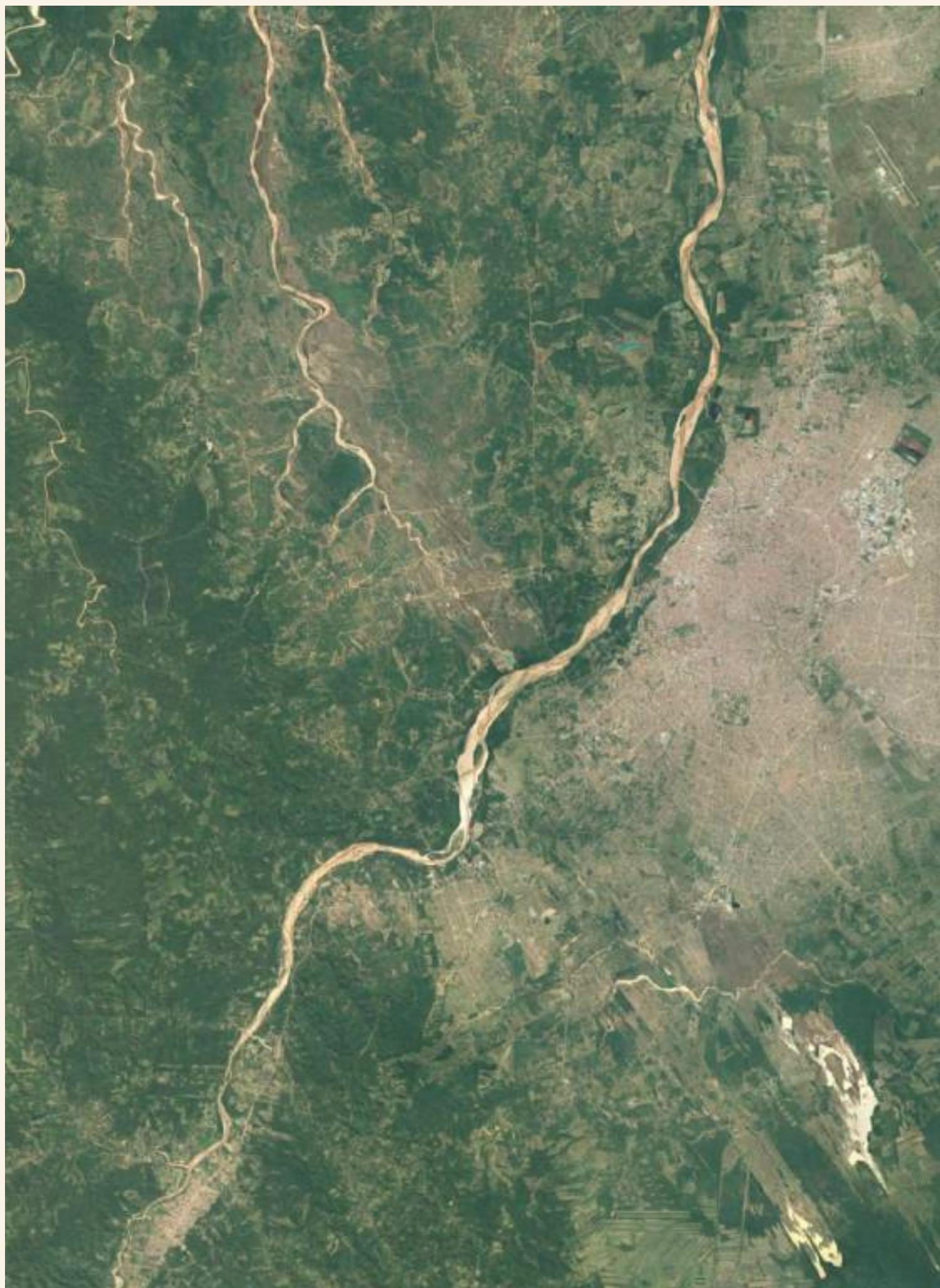
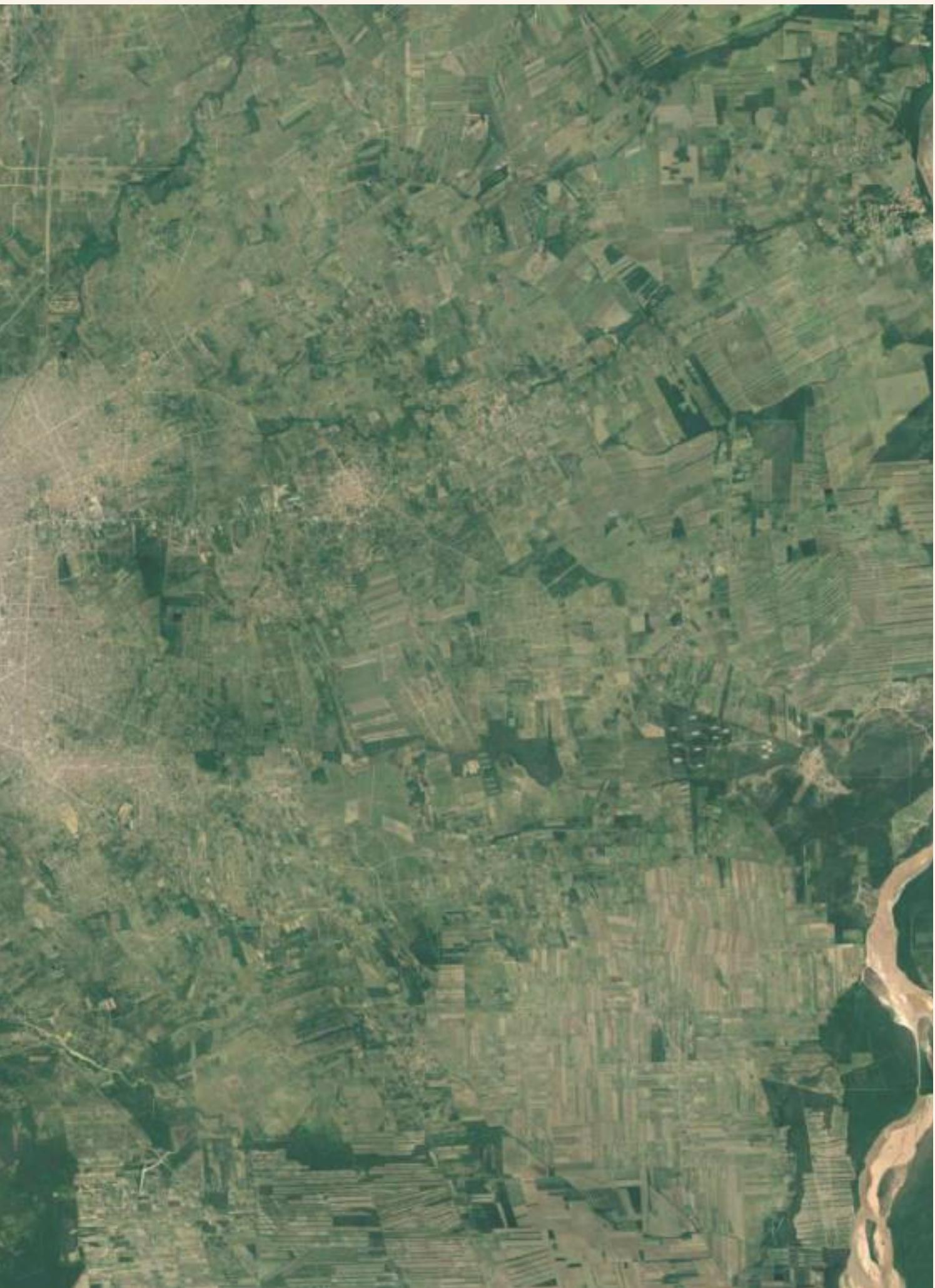
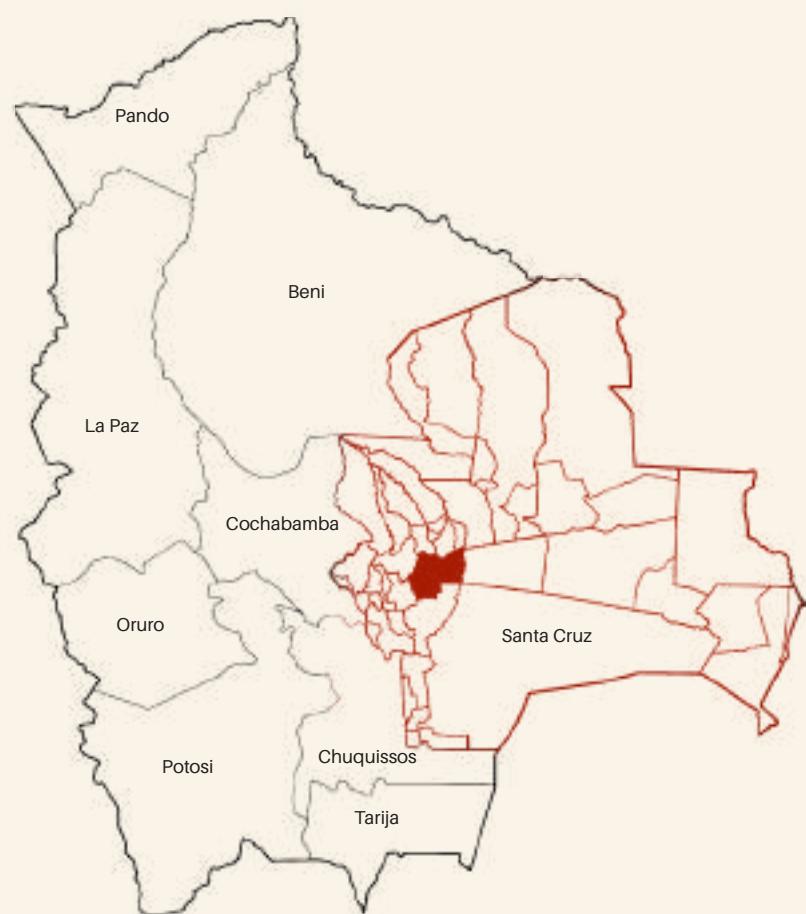


Image 4: Santa Cruz & Metropolitan Area, Google Maps (2022)



Bolivia



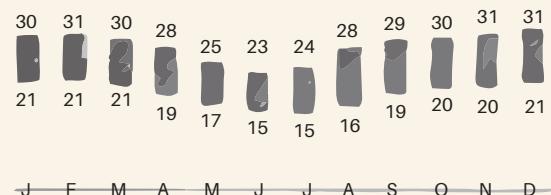


# Santa Cruz de la Sierra

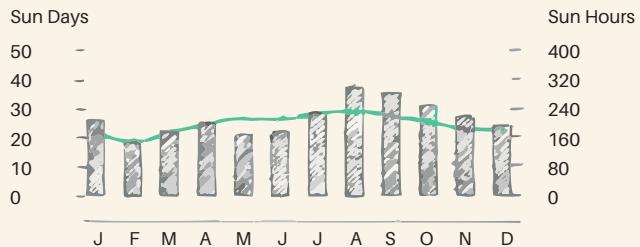
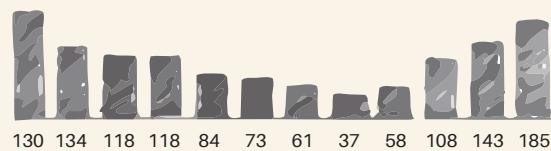
Santa Cruz de la Sierra is Bolivia's largest city as it is its main economic center. The city has been shaped by migration and rapid urban growth. It is also the capital of the department of Santa Cruz.

### Santa Cruz de la Sierra

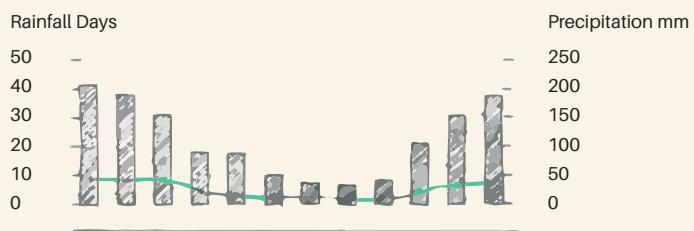
Temperature in °C



Rainfall in mm



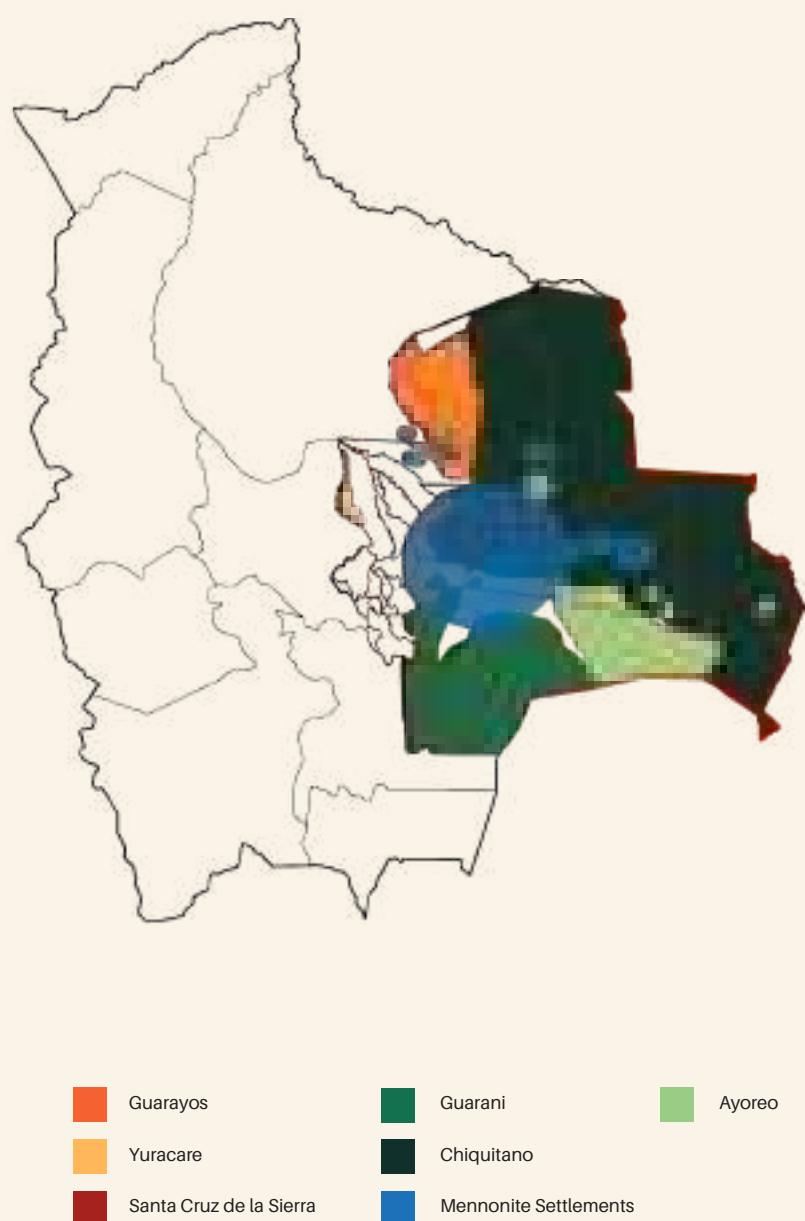
Santa Cruz: Monthly Average Sun Hours and Days



Santa Cruz: Monthly Average Rainfall

## G E O G R A P H Y / C L I M A T E

Santa Cruz is situated in the lowlands of the country, in the western part. It is characterized by a tropical climate, hot and humid in the summer with sometimes heavy rains in short period of time in the winter. Winters remain quite hot (Mazoni, M., 2005, p.137). Climate change is felt through the heavier rains in shorter periods which results in the overflow of the rivers in addition to the limited absorption rate of the soil, causing floods.

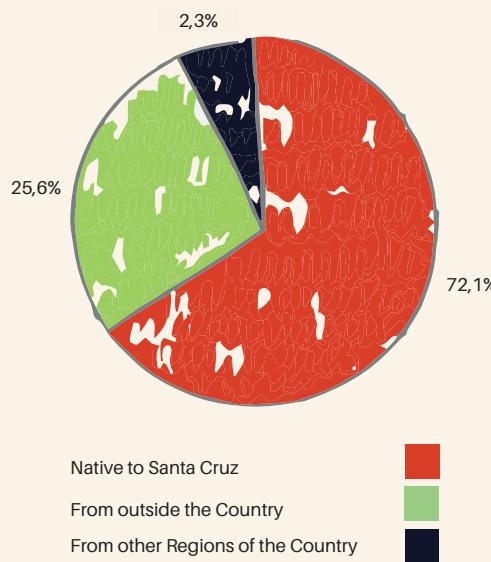


Graphic 7: Bolivia: Indigenous Population, Mennonite Settlements,  
Joshuaproject.net, biobol.org (01.11.2022)



## P O P U L A T I O N

The population of the city is mostly composed of *mestizos*<sup>1</sup>, and various indigenous groups such as the Aymara, Quechua, and Guaraní. Amid its population, there are also people with Japanese origins since there was a lot of migration from Japan to Bolivia after WWII. There are also Mennonites, a very conservative group that lives traditionally in small communities across the eastern part of the country.



Graphic 8: Population Provenance Bolivia,  
Plan Territorial de Desarrollo Integral (2022)

---

<sup>1</sup> people with Spanish and indigenous backgrounds

Santa Cruz de la Sierra

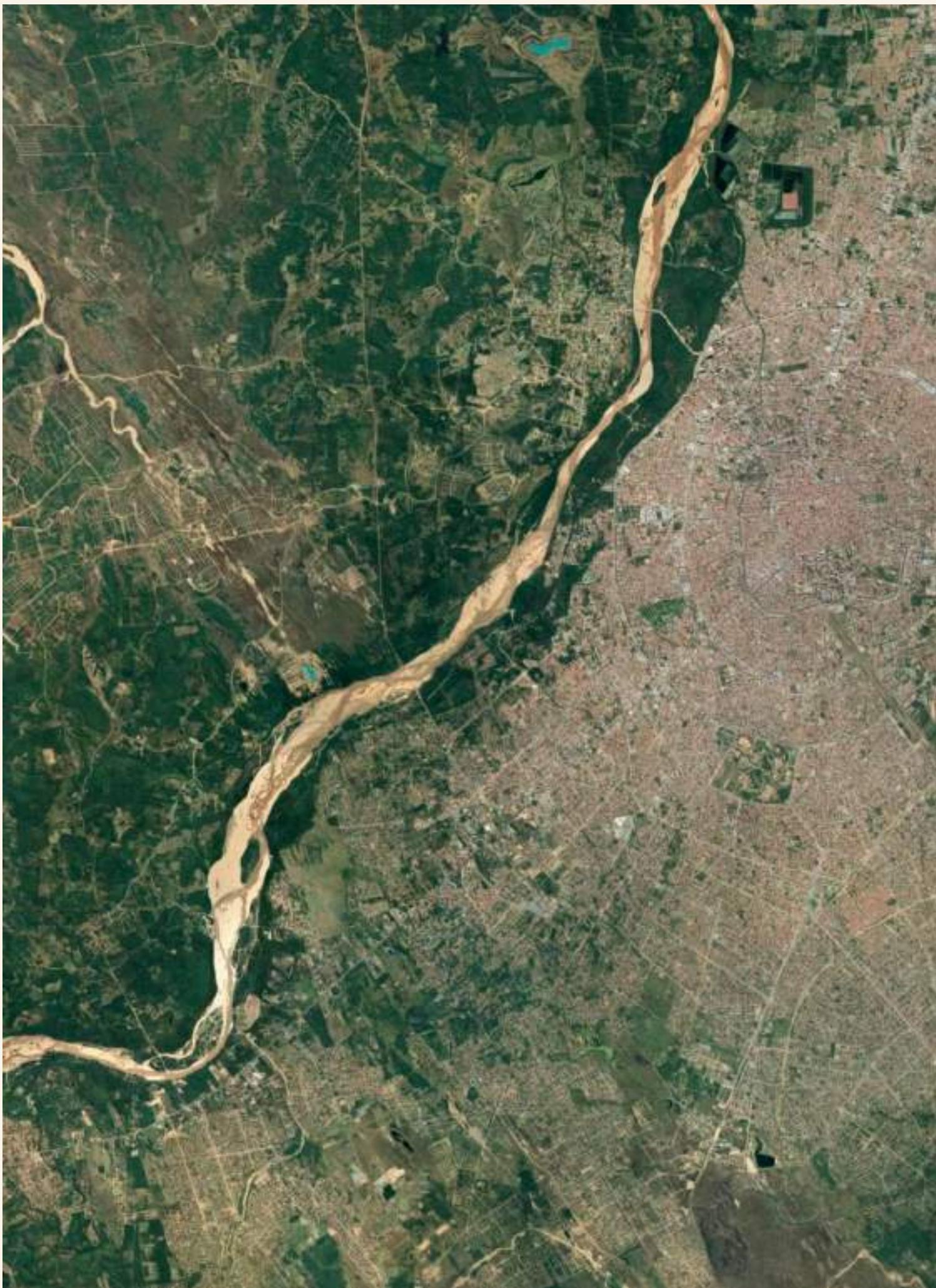
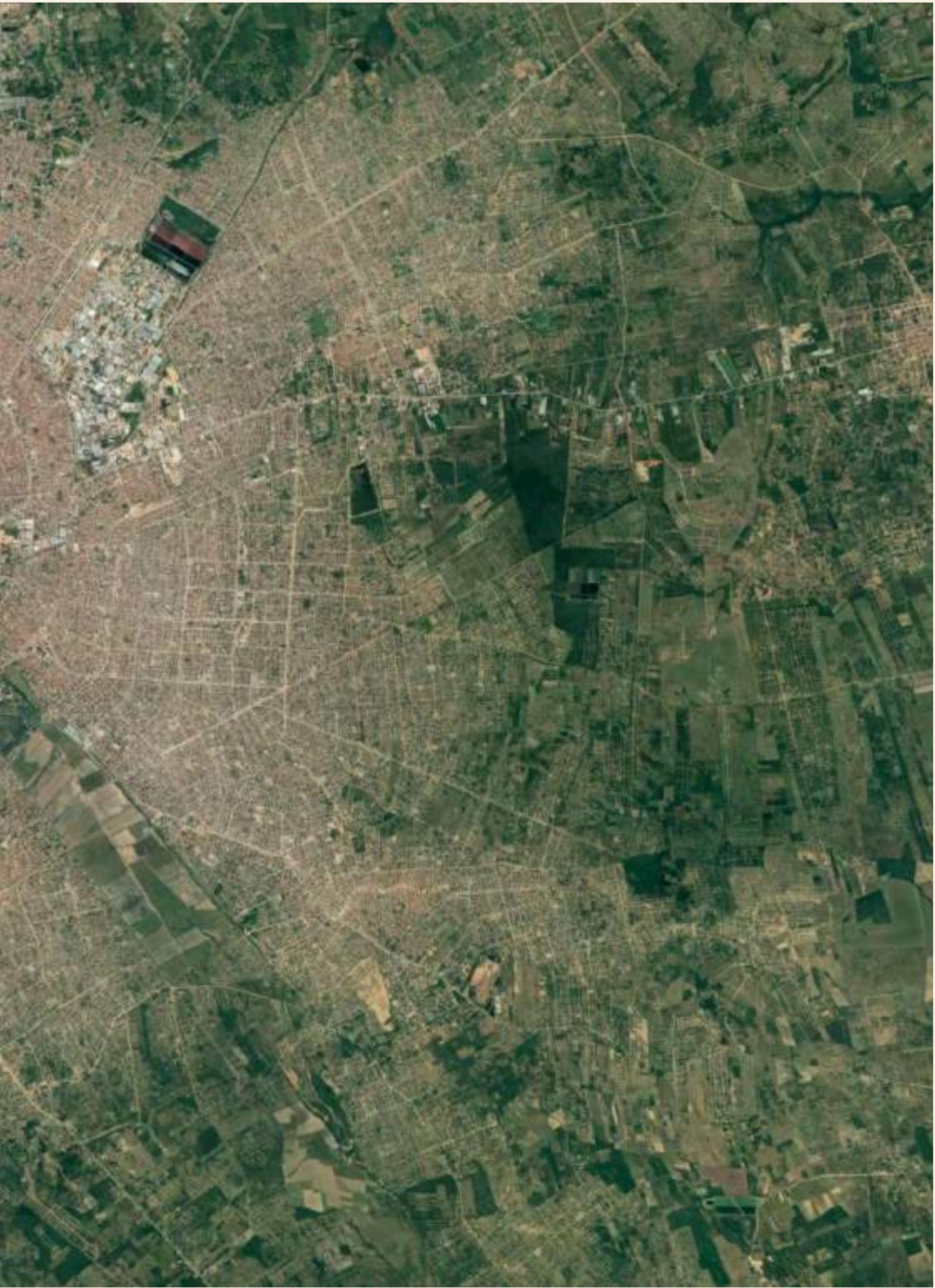
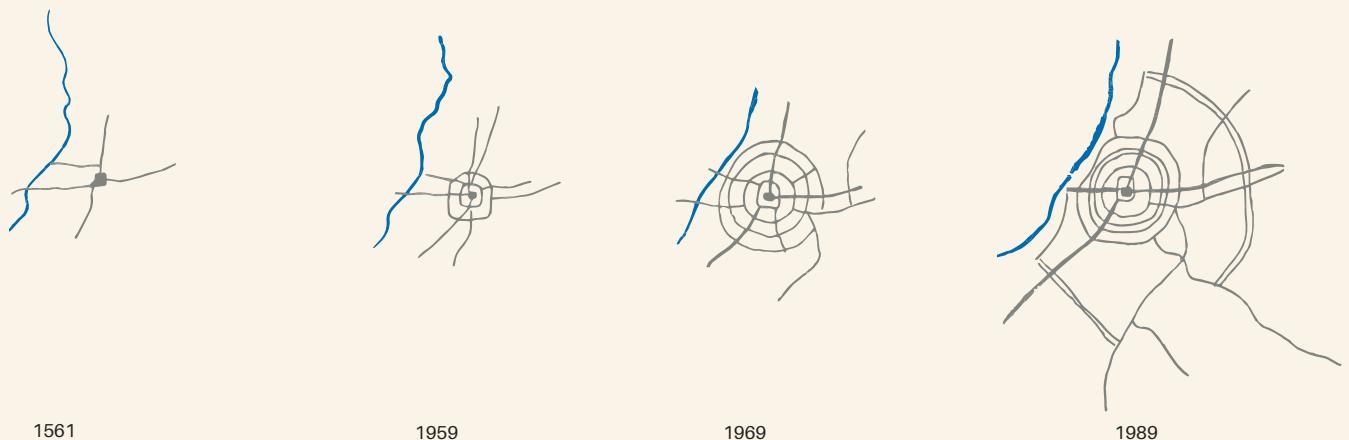


Image 9: Santa Cruz & Metropolitan Area, Google Maps 2022



Santa Cruz de la Sierra





Graphic 10: Evolution of Santa Cruz  
J.D. Kirshner 2010

Graphic 11: Santa Cruz Center Plan of 1906  
J.D. Kirshner 2010



Historical  
Core



Parks/Water

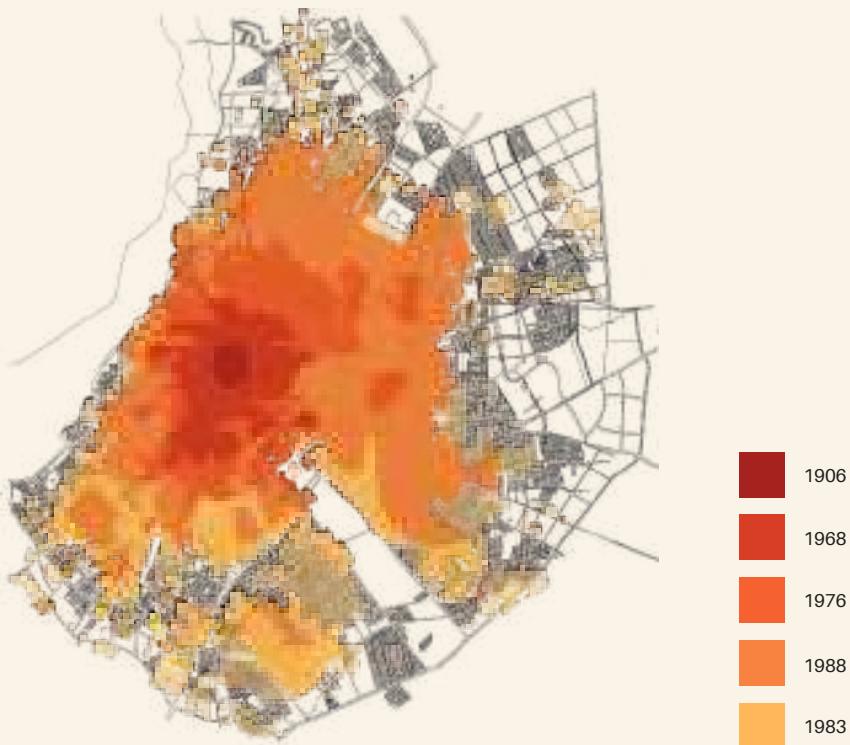
## HISTORY, ECONOMY, POPULATION AND URBAN GROWTH

Santa Cruz de la Sierra was founded during the search for '*El Dorado*' by Spanish conquistador Ñuflo de Chavez in 1561. The city moved more than once before moving to where it is currently located, next to the Pirai River, in 1622. Santa Cruz remained a small, unimportant city until the 20th century. It was planned as a grid according to the urban principles of the Spanish conquistadors. The city remained isolated due to its remote location. The *Cruceños*<sup>1</sup> experienced harsh living conditions due to the climate (Wessels, R.M., 2009, p.13).

In the 19th century, the rubber industry gained momentum in the region. It lasted about 30 years (1880 - 1910). It brought some wealth to the city. During this period, the private sector financed some infrastructure for the city because the Bolivian government showed no interest in Santa Cruz. The built environment of the city only became more and more consolidated, but it did not expand beyond the historical center (Mazoni, M., 2005, p.138).

---

<sup>1</sup> Inhabitants of Santa Cruz



Graphic 12: Santa Cruz, Urban Expansion over Time,  
Facebook.com (2022)



Graphic 13: Santa Cruz, Poverty by District,  
Plan Territorial de Desarrollo Integral de Santa Cruz (2016)



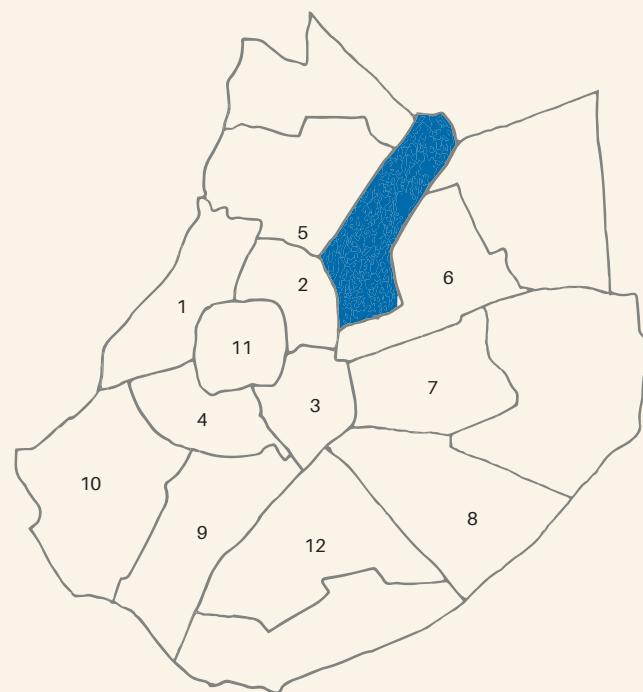
## ECONOMIC CENTER OF SANTA CRUZ

Until the 20th century, Santa Cruz experienced slow growth. Eventually, the Chaco war and the development of the oil and agriculture industries brought attention to Santa Cruz. The plan Bohan was created to economically develop the eastern part of the country since the mining industry declined in the western part. Part of the plan was to develop the agriculture and oil industries of the region. To do so, highways and railroads were constructed to connect Santa Cruz to other Bolivian cities such as La Paz and Cochabamba and neighboring countries. It allowed Santa Cruz to open to the rest of the country as well as Argentina and Brazil. It made national and international trade easier. It was now seen as a strategically located city. Many migrants from the Altiplano and other countries came to Santa Cruz to find work. This came to be known as 'la marcha al oriente'. Hence from 1950 to 1965, the city expanded from 50000 inhabitants to 115000 inhabitants. After WWII, there were also waves of migration from other countries. There were flows of immigrants from Europe and Japan, neighboring countries, and more

migrants from the western part of Bolivia (Mazoni, M., 2005, pp.138-139).

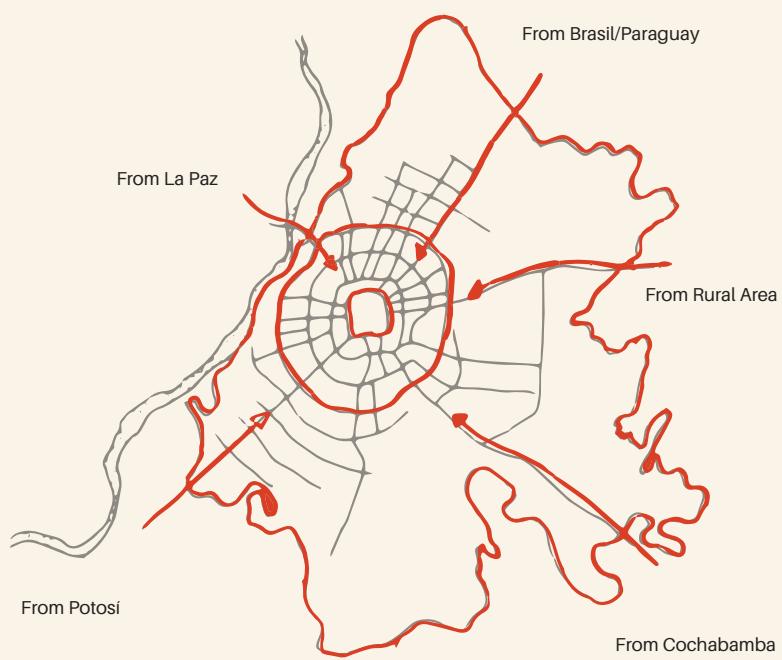
To control the city's urban growth, the plan Techint was created in 1959, but it was only approved in 1967. Its most important features were the circulation rings for cars, the neighborhood unit, and zoning. The first ring was developed around the historical center. Other rings were constructed, and they still structure the city today. The plan equipped the city with drinking water, a sewage system, electricity, telephone lines, street pavements, etc. For about 20 years, the Municipality was able to control the urban growth of the city. However, the economic crisis and neoliberal reforms in the 1980s led to the expansion of the informal sector. Unable to find formal work, informal economic activities resulted in the way of surviving for many migrants. Many started selling goods in the streets, ultimately converting them into open-air markets. Many migrants searching for work established themselves on the city's outskirts, adding pressure to an already fragile infrastructure and exacerbating the uncontrollable urban growth of the city (Mazoni, M., 2005, pp.140-141).

Santa Cruz de la Sierra



Graphic 14: Santa Cruz by Districts  
J.D. Kirshner 2010

Industrial Park



Graphic 15: Santa Cruz, High Migration Ratio



## THE CITY CURRENTLY

As a result, the urban image of Santa Cruz is very heterogeneous. It is modern and globalized while also informal, with low living standards for its most marginalized inhabitants. Nowadays, the city is characterized by a decaying and impoverished historical center, wealthy and precarious neighborhoods, poor infrastructure, and not enough green areas. Hence, Santa Cruz faces many challenges with its continuous population growth and lack of urban planning. The city will most likely keep expanding since it is the country's main economic center, and there are no signs of slowing migration. (Mazoni, M., 2005, p.150).

Santa Cruz de la Sierra

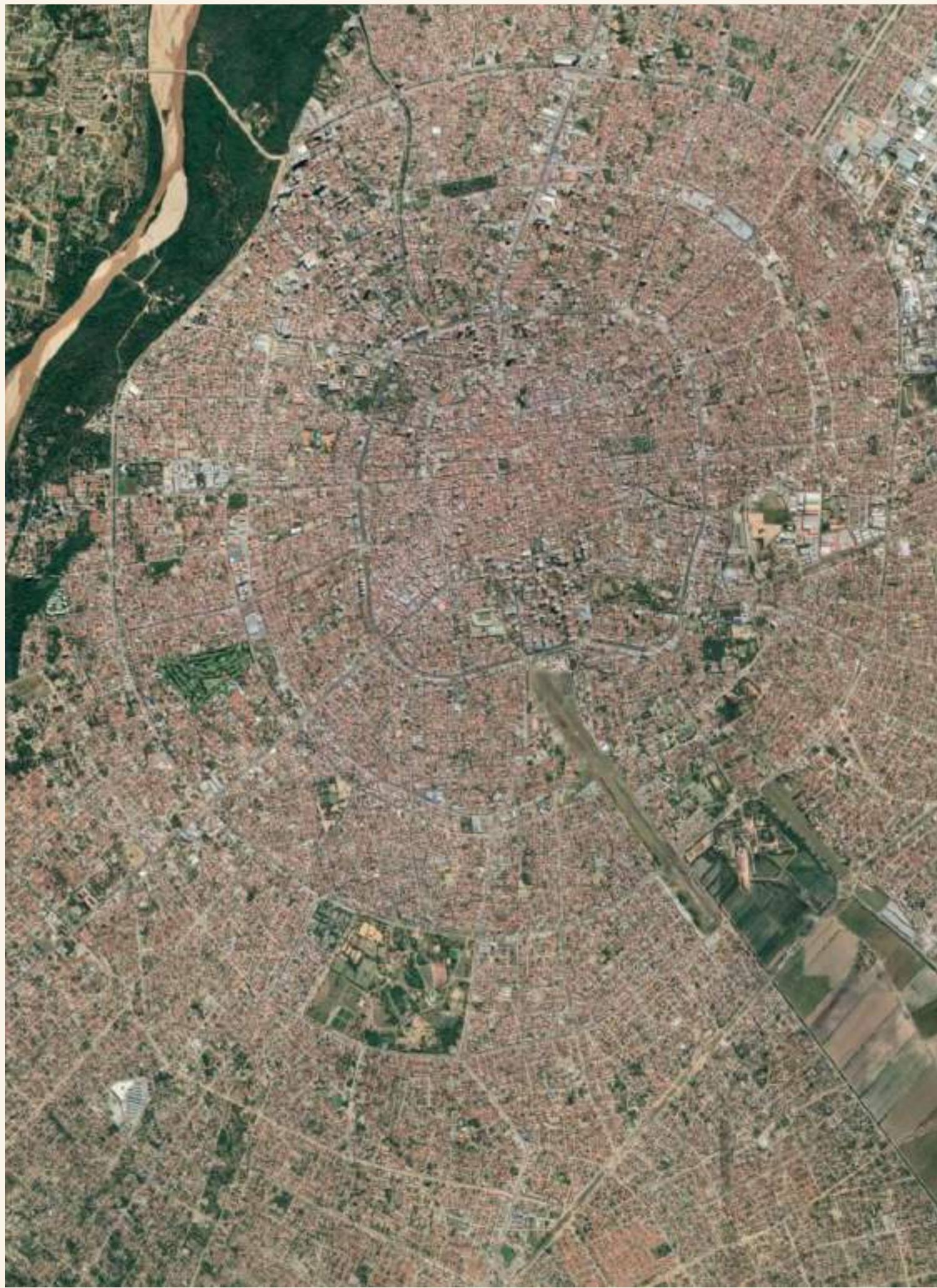
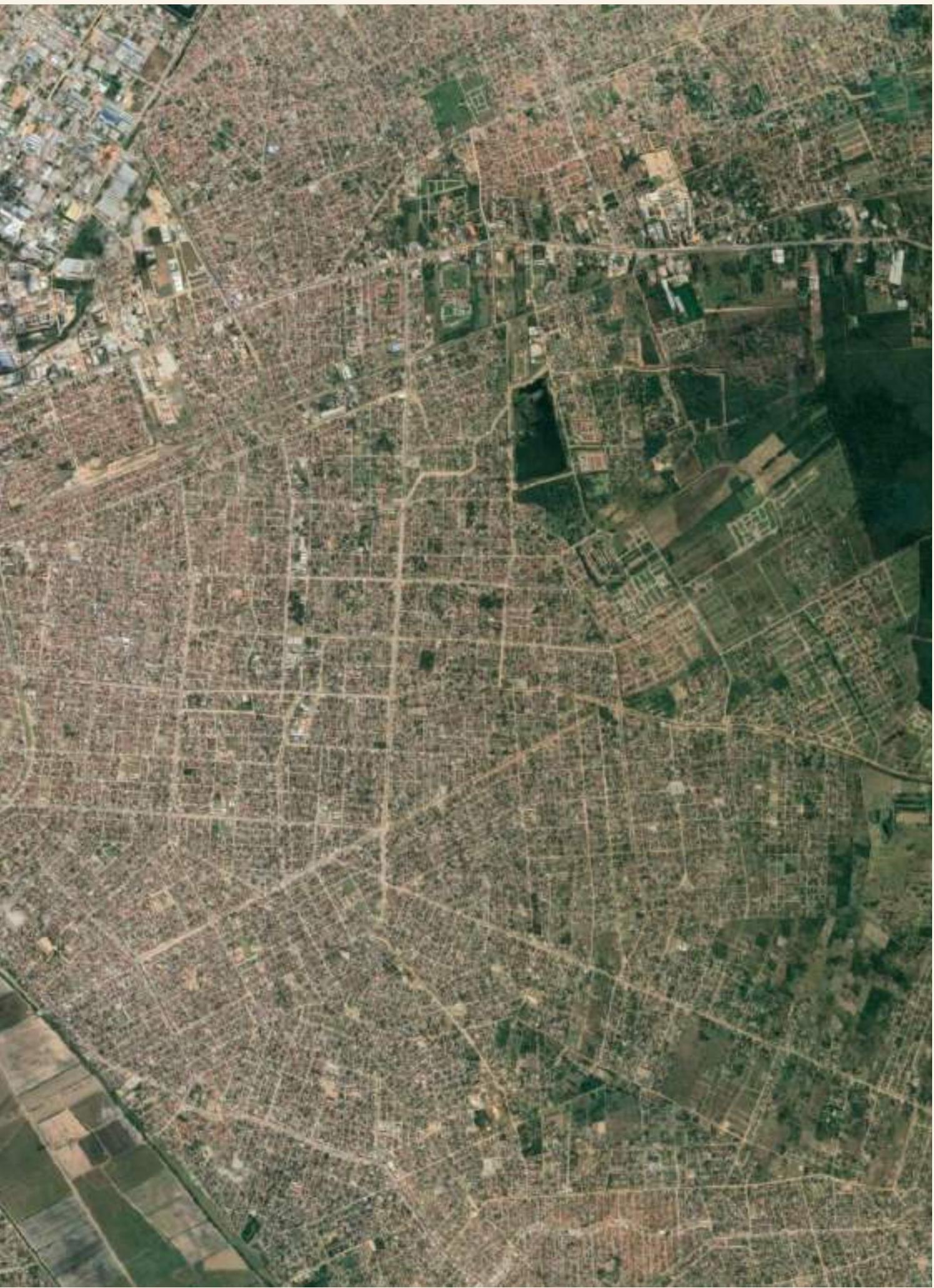


Image 16: Santa Cruz & Metropolitan Area, Google Maps 2022



Santa Cruz de la Sierra





# The Markets of Santa Cruz

According to J.D. Kirshner (2010), the state could not provide adequate formal employment in the 1980s after neoliberal reforms. Despite these changes, migration to Santa Cruz continued, resulting in the informal sector's expansion due to the lack of formal work. The informal economy covers many economic activities such as construction, transport, commerce, food production, etc. The goods produced and services provided informally may be legal, but the process that makes them is not regulated. Informal activities are the most visible in open-air markets, as many migrants sell goods and services in the streets to survive. This phenomenon is sometimes referred to as *mercadización*<sup>1</sup> of the city (p.157).

In 2000, the city counted 20 000 vendors scattered over 22 municipal markets after the City Council conducted a census. The city also counted 30 private markets and informal markets known as *asentamientos*<sup>2</sup> for a total of 35 000 vendors. Vendors are also known as *gremialistas*<sup>3</sup>, and they are all part of *gremios*<sup>4</sup>. As of 2007, the city counted 34 municipal markets, 36 private markets, and 18 informal markets for a total of 88 markets, according to a census from the Municipal Planning Agency (J.D. Kirshner, 2010, p.168).

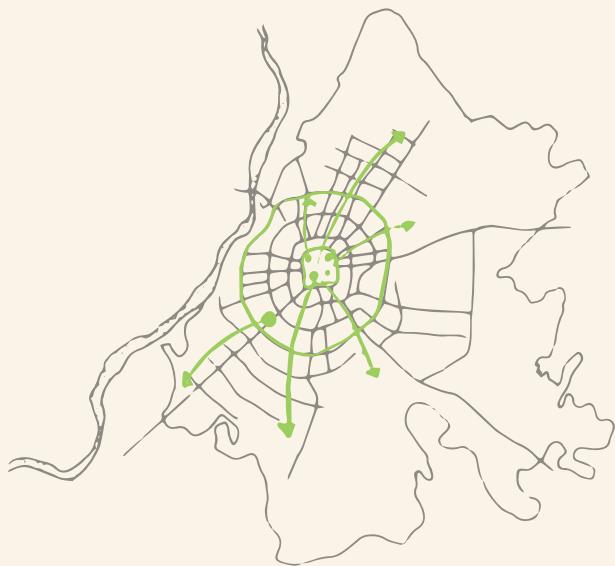
---

<sup>1</sup> The city transforming into a market

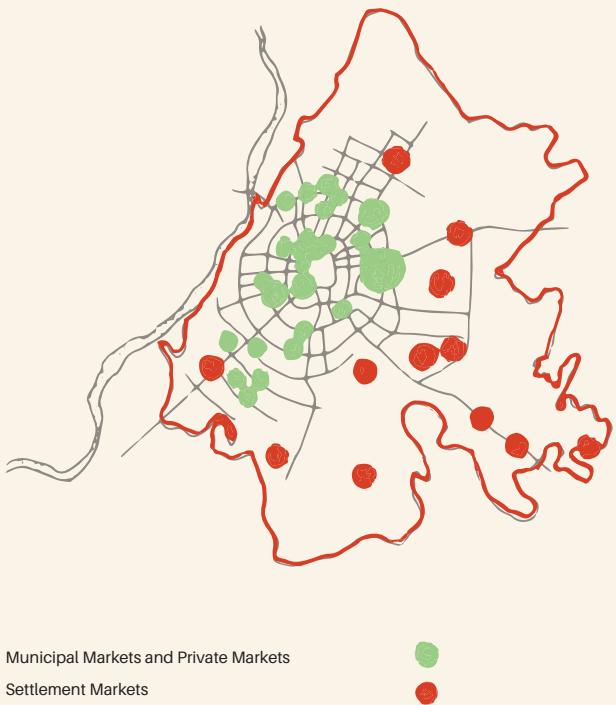
<sup>2</sup> Informal markets

<sup>3</sup> Vendors part of associations

<sup>4</sup> Associations defending the vendors' interests to the Municipality

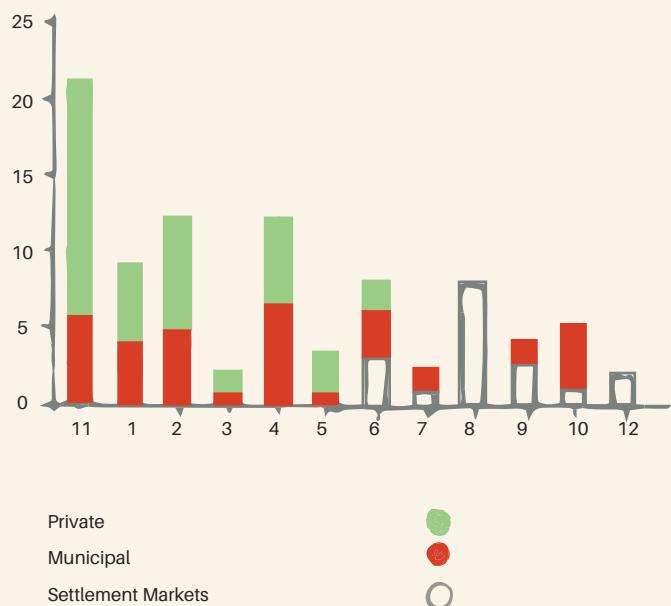


Graphic 17: Santa Cruz,  
Creating "Mercados Nuevos" Outside the Core

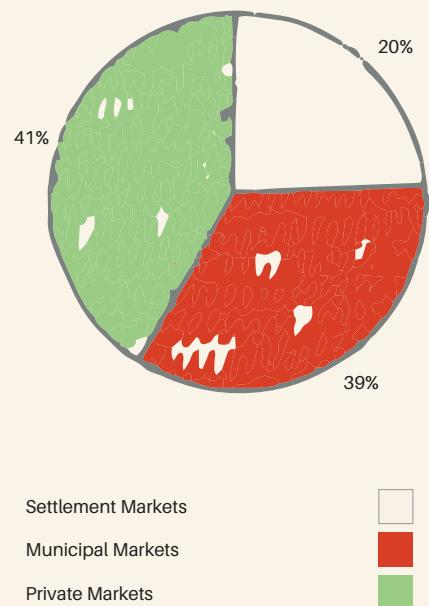


Municipal Markets and Private Markets  
Settlement Markets

Graphic 18: Santa Cruz, Market Locations,  
J. D. Kirshner 2010



Graphic 19: Santa Cruz, Quantity of Markets by Urban Districts,  
J. D. Kirshner 2010



Graphic 20: Proportion of Markets Santa Cruz 2007,  
J. D. Kirshner 2010

## M A R K E T I N F R A S T R U C T U R E

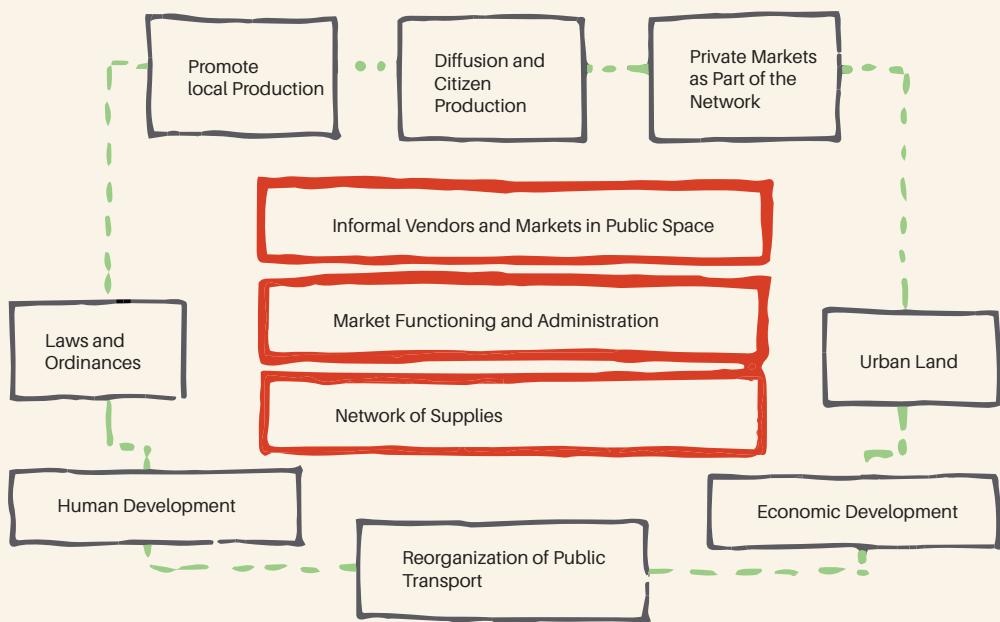
Several markets are of different sizes and situated all over the city. There are three types of markets. The public markets are owned by the Municipality and located on public property. These markets are characterized by their central location, mainly situated within the 4th ring and wealthier districts 1 to 4 and 11. They are easily accessible by privately owned minibuses. ‘*They include formal merchants, self-employed merchants, vendors, and waged and unpaid family works arrangements, as well as both fixed and ambulant vendors who circulate around the edges of the market*’ (Kirshner, 2010, p.168). *Los Pozos, La Ramada, Mutualista, and Siete Calles* markets are among them. They are some of

the largest municipal markets in the city. There are also privately owned markets and the *asentamientos*<sup>1</sup>. The last category is situated on the outskirts of the city, in poorer districts, which are not regulated. They do not have municipal control, are ‘*often formed spontaneously, and lack decent infrastructure. They include self-employment and some waged and unpaid family work that is unregistered and informal*’ (J.D. Kirshner, 2010, pp.168-171).

To conclude, the different types of markets are not evenly distributed throughout the city, with the wealthier districts having access to the municipal and private markets, whereas informal markets are situated in poorer areas

---

1 Informal markets



Graphic 21: Diagram of the Municipal Plan of the New Market Network  
Santa Cruz 2007, J. D. Kirshner 2010

## URBAN RENEWAL

The continuous migration to Santa Cruz of migrants searching for ways to survive has made the markets expand. According to Prof. Victor Hugo Limpias Ortiz (2022), the Municipality was unable to control the growth of the markets due to a lack of funds. To face the problem of expanding markets, the Municipality developed the *Municipal plan for a new supply network, markets, ambulatory vendors, and commercial activities in public spaces* in 2007 to limit their expansion. (J.D. Kirshner, 2010, p.173).

As indicated by Prof. Victor Hugo Limpias Ortiz (2022), part of the plan was to create new markets (*New Los Pozos, New La Ramada, Mercado modelo Plan 3000, New Abasto*) to give a place to ambulant vendors in overcrowded markets. The vendors have been dislocated away from the center and given a stall in the new markets.



Graphic 22: Market Growth over Time, Santa Cruz Core,  
Gobierno Autonomo Municipal 2021



 Initial Market Building	 Growth - 2018
 Growth - 2002	 District 11

## THE MARKETS CURRENTLY

As of 2022, the municipal plan has not been able to solve the problem of expanding markets and related issues because new vendors replace the dislocated vendors and there is still a problem with insufficient funding.



# Los Pozos Market

Los Pozos is situated in the historic center of Santa Cruz and it was founded in the 1960s with a single building named Los Pozos I. The building is, to this day, owned by the Municipality. Back then, the area where the market was situated was not yet densely built. It was constituted of a few houses in a poor neighbourhood. Los Pozos was created as a relocated market from the old, first city market 'La Recova'. All vendors moved successfully because the city was much smaller then, according to prof Victor Hugo Limpia Ortiz (2022). Eventually, many more vendors occupied the surrounding streets, and the market expanded. Since its foundation, Los Pozos has become completely consolidated to become what it is today, a very densely constructed area with many buildings and vendors. It is possible to find all kinds of goods, foods, products, and services. They usually arrive by truck at night from neighbouring countries, but they are often manufactured in China. Fruits and veggies arrive early in the morning from the countryside around Santa Cruz.







Los Pozos I



Calle 6 de Agosto

# Fieldwork

## METHODOLOGY

The fieldwork involved exploring and experiencing the Los Pozos market at different times of the day and weather conditions and talking to many different vendors. This market was chosen for practical reasons as it was situated in the historical center where we lived and similar to other municipal markets in the city. We walked several times through the market to familiarise ourselves, locating reference points, and taking notes about the characteristics of the space. We got very acquainted with the market by consuming and buying goods daily. Often, informal conversations with vendors arose, which helped us understand their backgrounds, motivations, and what changes they would like to see in the market. We talked often with the vendors on-site to ask them questions about what they like and dislike about the market, the changes they would like to see and what

their daily lives look like. The vendors were from different genders, ages, and backgrounds. After some time, people started to recognize the team members. This led to more trustful relationships between some vendors and the team members and suspicion from other vendors. Not all vendors wanted to answer our questions.

The fieldwork consists of fours parts. First, it includes a typology study to represent the built environment not only in pictures but also in drawings. To do so, we have measured the built environment (pavement width, heights, and width of buildings, etc.). It includes observations of the market users and businesses. Finally, it includes observations the streetscapes in addition to the interviews.



Graphic 25: Core Zone 'Los Pozos',  
own graphic



## CORE ZONE

A core zone was defined to carry out fieldwork to thoroughly analyze the issues in the market. It is composed of the public (Los Pozos I) and private markets. They are two closed buildings adjacent to each other. The difference between the private and the public market is that one is owned by the Municipality, and the other is owned by private owners. They are situated at the centre of Los Pozos, a bustling area with a lot of traffic, many ambulant vendors on the sidewalks, and pedestrians circulating in different directions. The public and private markets, nearby streets 6 de Agosto, Campero, Avaroa, Quijarro, Suarez Ariana, Caballero, and several buildings of all kinds, such as private shops and *alojamientos*<sup>1</sup> compose the core zone.

---

<sup>1</sup> Motels in the market



## Typology study

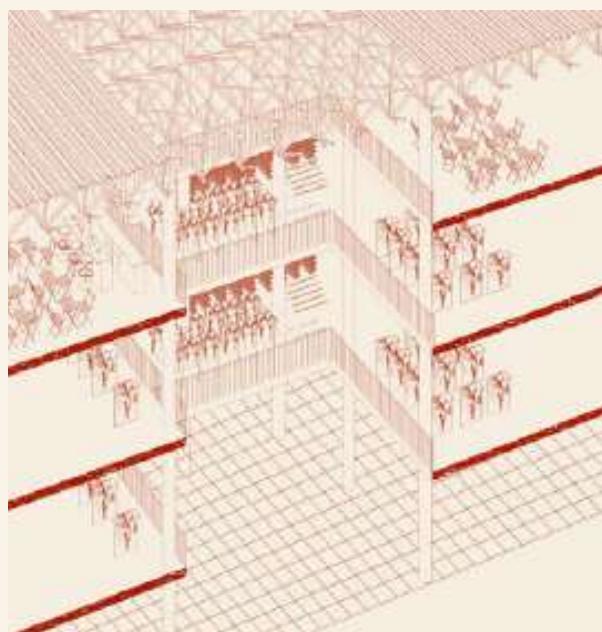
Most buildings have different heights, widths, shapes, colors, and materials, with most of these buildings in Los Pozos being either shops or *alojamientos*. Another important typology in the market is the Private Los Pozos I building and private market. In general, the buildings are usually not higher than four stories. A lift becomes otherwise compulsory.

Los Pozos Market



## LOS POZOS I PUBLIC MARKET

Los Pozos I is a 4 stories high closed building with multiple accesses to the street and a patio in the middle that allows light to enter the building and connect the floors. Products and services are situated at the lower levels and a comedor is situated on the last floor. On the lower floors, all vendors have their shops. In the *comedor*<sup>l</sup>, the cooks have their stands where people come to eat. It is possible to access the upper levels with ramps situated on the side of the building or by stairs.





## MERCADO LOS POZOS CENTRAL

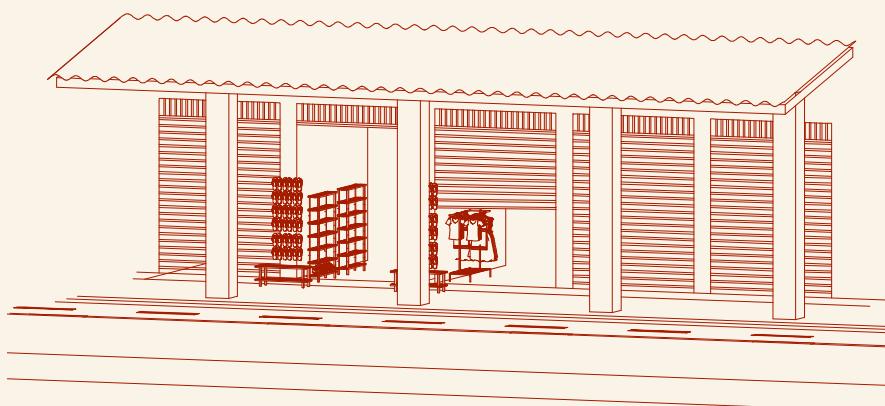
The private market only has a ground floor separated into the *comedor* section and the shop section where all kinds of goods can be found. Both private and public markets sell similar products and foods.



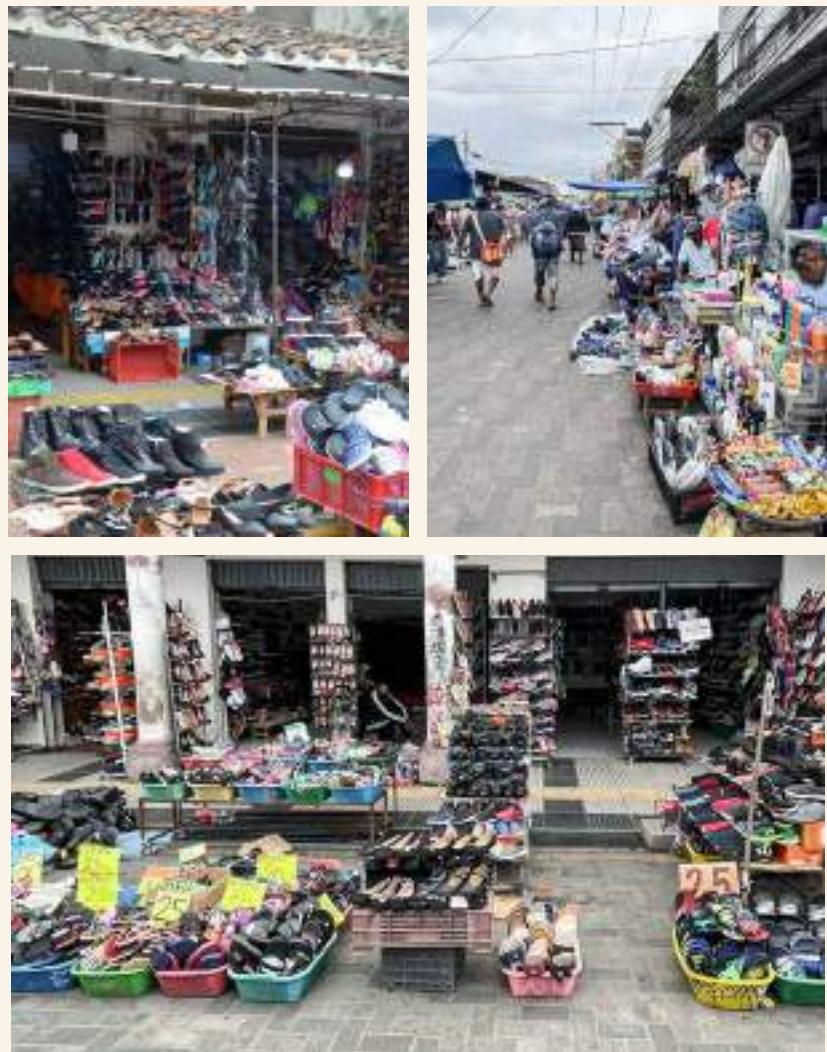


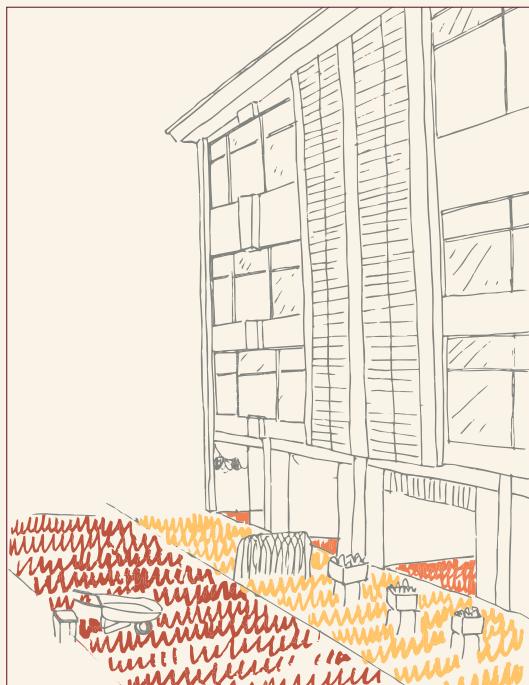
## S H O P S

The shopkeepers sometimes display their products on the sidewalk to attract more buyers or to have more vending space. However, some ambulant vendors selling similar products install themselves in front of the shops, creating conflicts among them. Vendors selling the same goods tend to agglomerate. Some areas of the market are recognisable by the products sold there such as food, electronics, clothing and other goods.

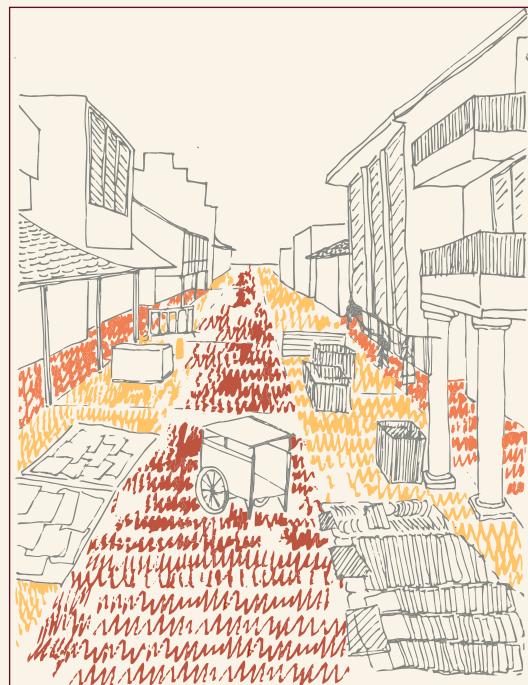


Graphic 27: Store front drawing,  
Own Graphics





Street oriented Shop: Extending to the outside



Calle 6 de Agosto Example Sketch



Graphic 28: Drawing streetscape,  
Own Graphics

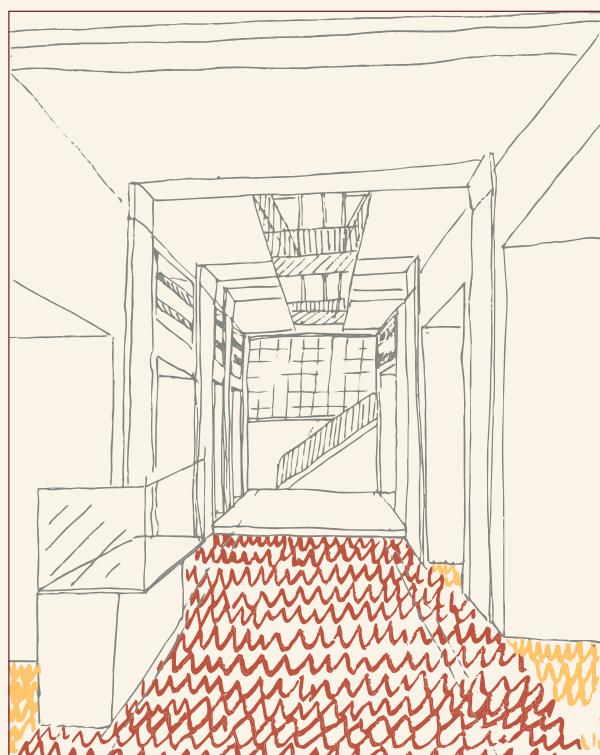


## A LOJAMIENTOS

*Alojamientos* are scattered among the shops, and they are used by people who come to Los Pozos for one night or more to buy or sell products. They use the rooms as storage for their goods and for some business meetings to pay someone. They may also be used for prostitution or drug related activities.

Some buidling have mix-uses. The upper levels are primarily used for storage space and *alojamientos*, while the vending remains on the ground floor, sidewalks, and streets.





Calle 6 de Agosto Multi Use Example:  
3 or more functions  
Alojamiento, Bano, Shop

Circulation

Shop Zone

Graphic 29: Interior drawing of  
multi-use building,  
Own Graphics

## TYPES OF VENDORS

completely formal

Pay taxes  
Shops  
Work in the  
private or public market



regimen impositivo simplificado

Pay less taxes  
Shops  
Make business with informal  
vendors



completely informal

Pay no taxes but weekly  
rights  
Street vendors  
They walk, own a trolley or  
a truck to sell their goods in  
the streets  
They are often mobile  
They can also be static and  
appropriate themselves a  
part of the market



# Market Users

## OBSERVATIONS

According to Prof. Victor Hugo Limpia Ortiz (2022), there are several types of vendors in Santa Cruz. Some formal vendors pay taxes to the government. However, they are mainly located outside the market. They pay full taxes and give bills to buyers, which are tax deducted. They must produce annual declarations of utilities and pay revenue taxes. These vendors have formal businesses such as shops or restaurants.

There is another type of vendor who is still formal, but they pay fewer taxes. They constitute most of the vendors in the market; they belong to the *Régimen impositivo Simplificado*<sup>1</sup>, which means they pay a monthly fixed amount related to the declared size of their investment. However, the vendors usually have much higher revenues than what they declare. Many of them should be completely formal. They usually have shops, *comedores*, *alojamientos*, etc. and sell different kinds of goods.

There are also several informal vendors. They do not pay any taxes besides some daily or

weekly “rights” to municipal authorities to sell in public spaces in illegal conditions. They usually move around the market and they sell their goods on foot or with trolleys and trucks.

Los Pozos market is largely composed of *Régimen impositivo Simplificado* vendors and informal vendors who are part of an intricate network of vendors. Many families will own different types of businesses, creating many sources of income. However, it is difficult to know the scale of these networks. For example, a family may own a formal shop but also have relatives and friends who work for them as informal ambulant vendors.

Vendors are all part of associations. They are responsible for defending the vendors’ interests to the Municipality. Associations in the private and public markets are also responsible for security, cleaning, and maintenance. Associations also have judges and lawyers working for them.

---

<sup>1</sup> Simplified Regime: formal vendors who pay less taxes

## STATIC VENDORS

Private shops & Informal vendor in front



Private market- Cook



Private market- Stands



Private shop



## MOBILE VENDORS

Street vendors- Static



Street vendors- By foot



Street vendors- Trolley





Graphic 30: Frequency of Identities in Los Pozos'  
Own Graphics



## IDENTITIES

The Bolivian population is constituted of many indigenous groups, *mestizos*, Japanese Bolivians, and Mennonites. These different groups are also all found in the market. The market has an important Asian section with foods/goods from Asia. There is also a zone of the market where there are a lot of Mennonites. They are recognizable by their traditionnal ways of living including the way they dress. They come to the market for shopping but mostly for communication with other communities since most of them live without internet or electricity.

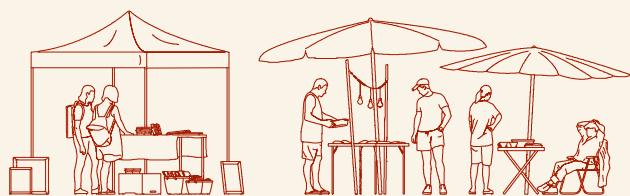


Los Pozos Market



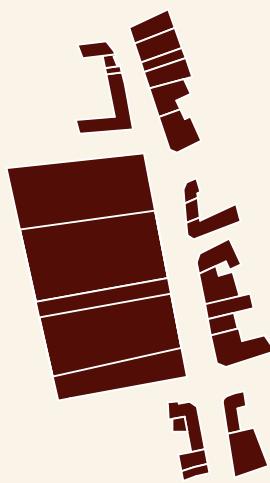
## The streetscapes

The streetscape is chaotic with traffic, overcrowded streets with people, cars, trucks, motorcycles, and buses, and unnecessary infrastructure such as unused electricity wires and bike lanes appropriated by ambulant vendors. Cars and buses occupy an important place in the streetscape as they are very visible. The streets have different widths ranging from a narrow backstreet to a large street that accommodates many lines of car circulation and bike paths. The pavement is often uneven and changes width. The streets have few light posts, trees, benches and trashcans.

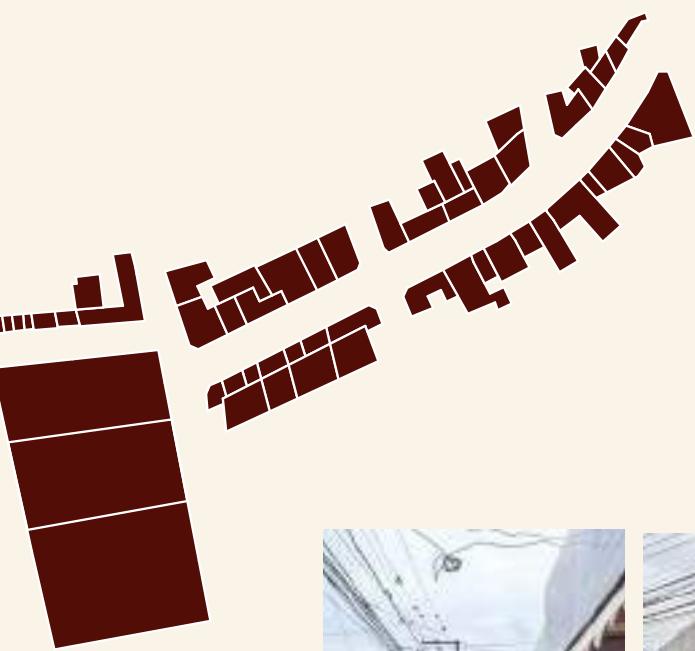




6 de Agosto



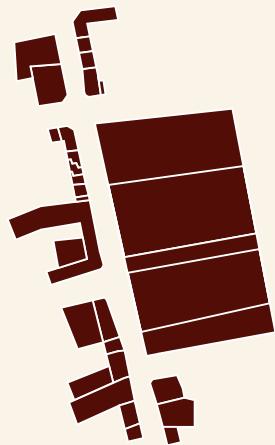
Campero, Avaroa



Los Pozos Market



Mons. O. Aguirre



Quijarro



Suarez Arana

לְפָנֶיךָ יְהוָה אֱלֹהֵינוּ וָאֶתְהַלֵּךְ  
בְּדַבְרָיו וְלֹא־יָמַרְתָּ לִפְנֵי־יְהוָה  
כִּי־בְּדַבְרָיו כִּי־בְּדַבְרָיו כִּי־בְּדַבְרָיו



לְפָנֶיךָ יְהוָה אֱלֹהֵינוּ וָאֶתְהַלֵּךְ  
בְּדַבְרָיו וְלֹא־יָמַרְתָּ לִפְנֵי־יְהוָה  
כִּי־בְּדַבְרָיו כִּי־בְּדַבְרָיו כִּי־בְּדַבְרָיו

Los Pozos Market



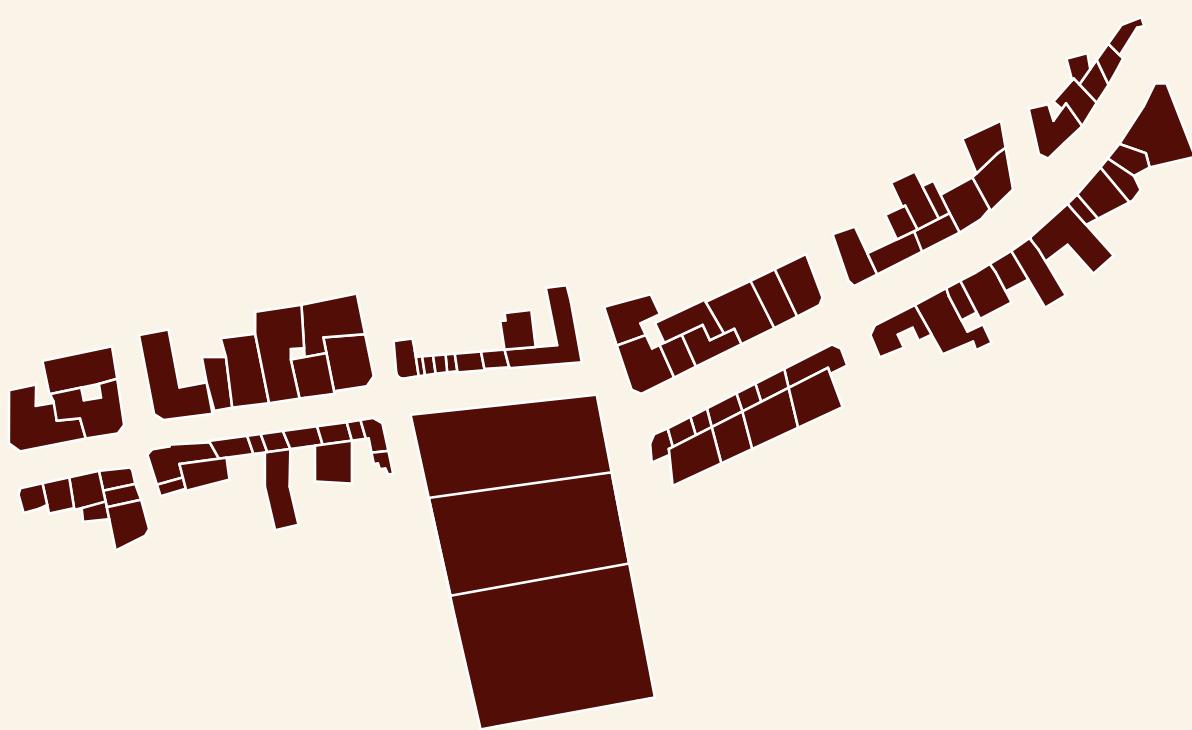
Image 31: 'Los Pozos' Market, C. 6 de Agosto: Google Maps 2022



Los Pozos Market



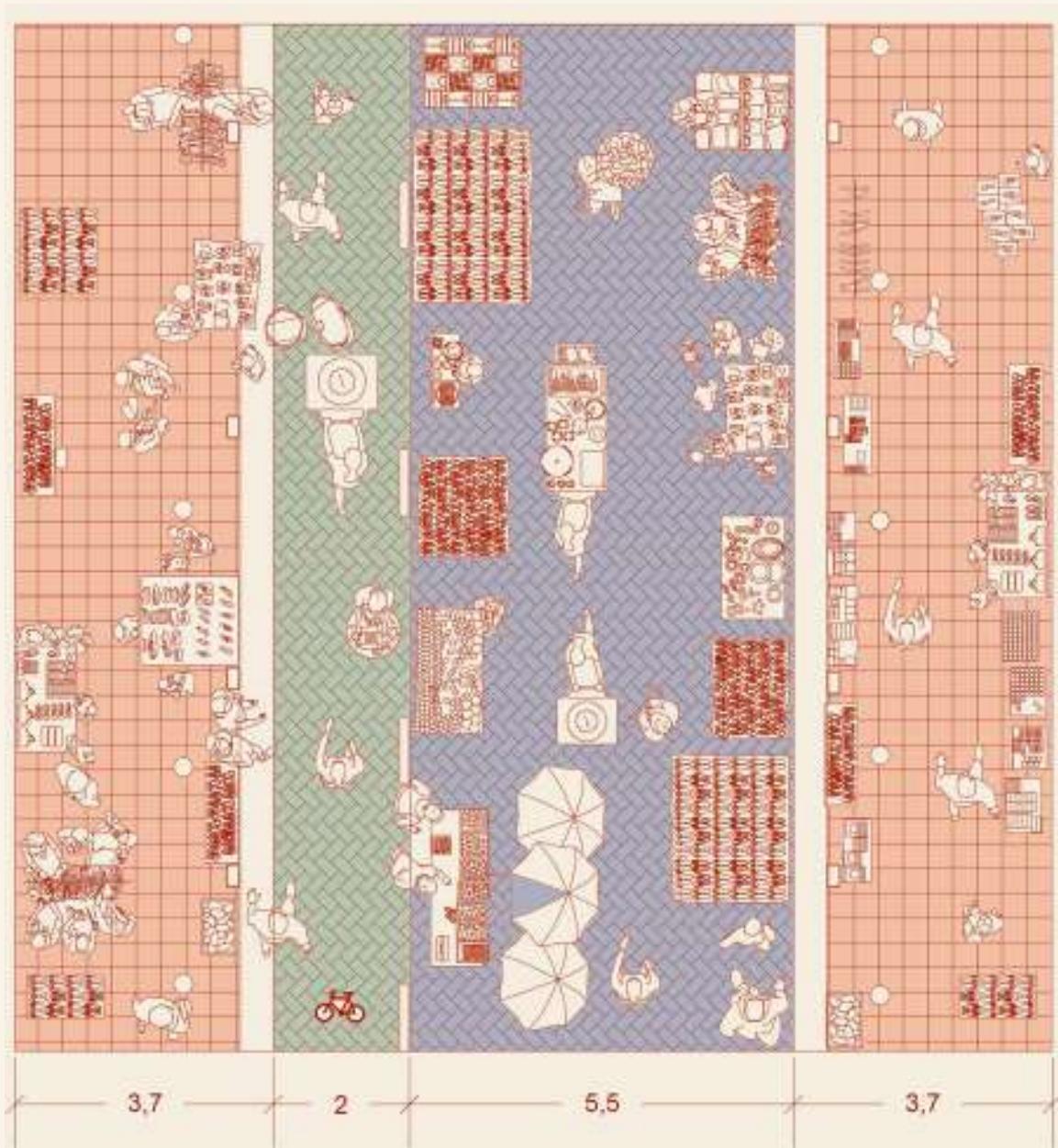
CALLE 6 DE AGOSTO



## CALLE 6 DE AGOSTO

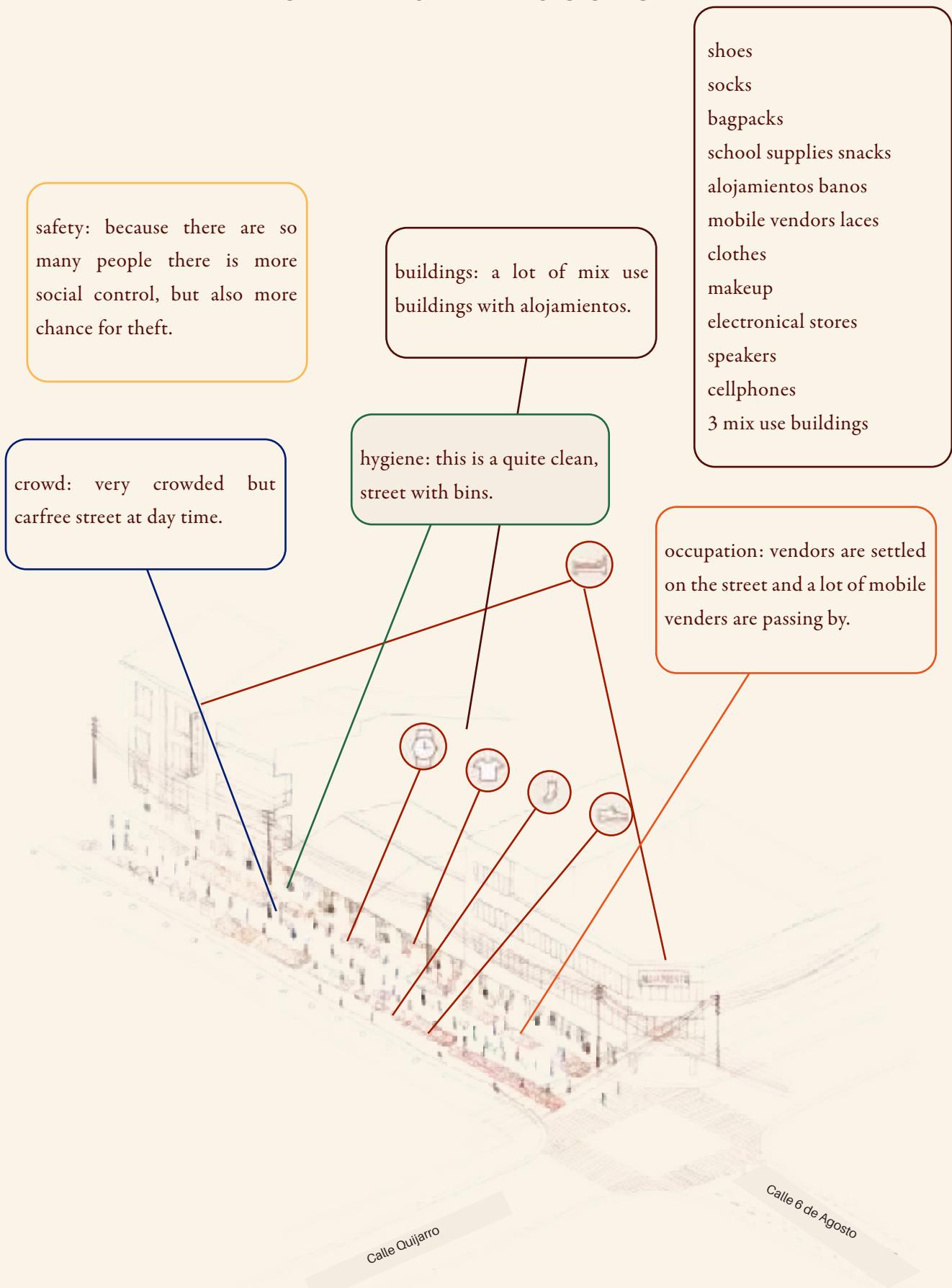


## CALLE 6 DE AGOSTO

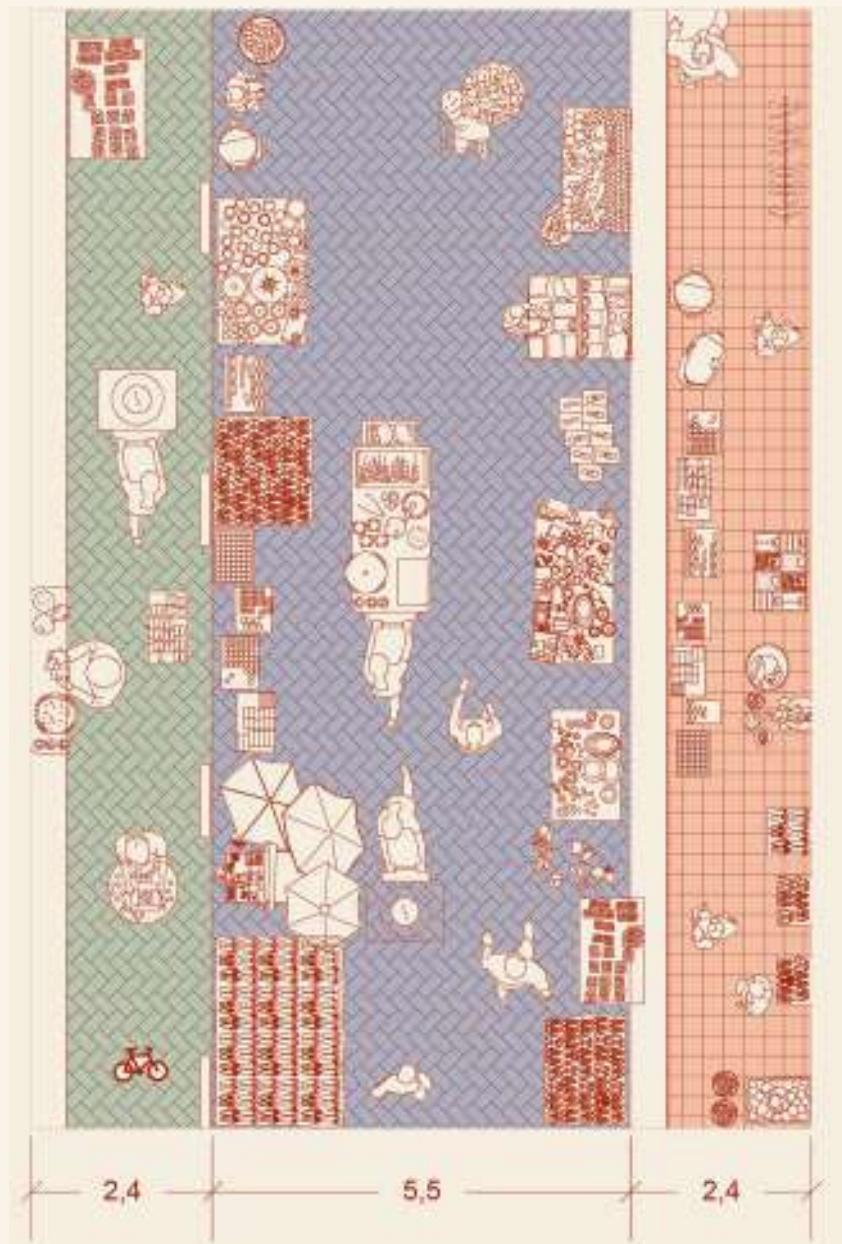


Graphic 32: Streetscape topview measured,  
Own graphics

## CALLE 6 DE AGOSTO

Graphic 33: Streetscape analysis,  
Own graphics

## CALLE 6 DE AGOSTO



Graphic 34: Streetscape topview measured,  
Own graphics

## CALLE 6 DE AGOSTO

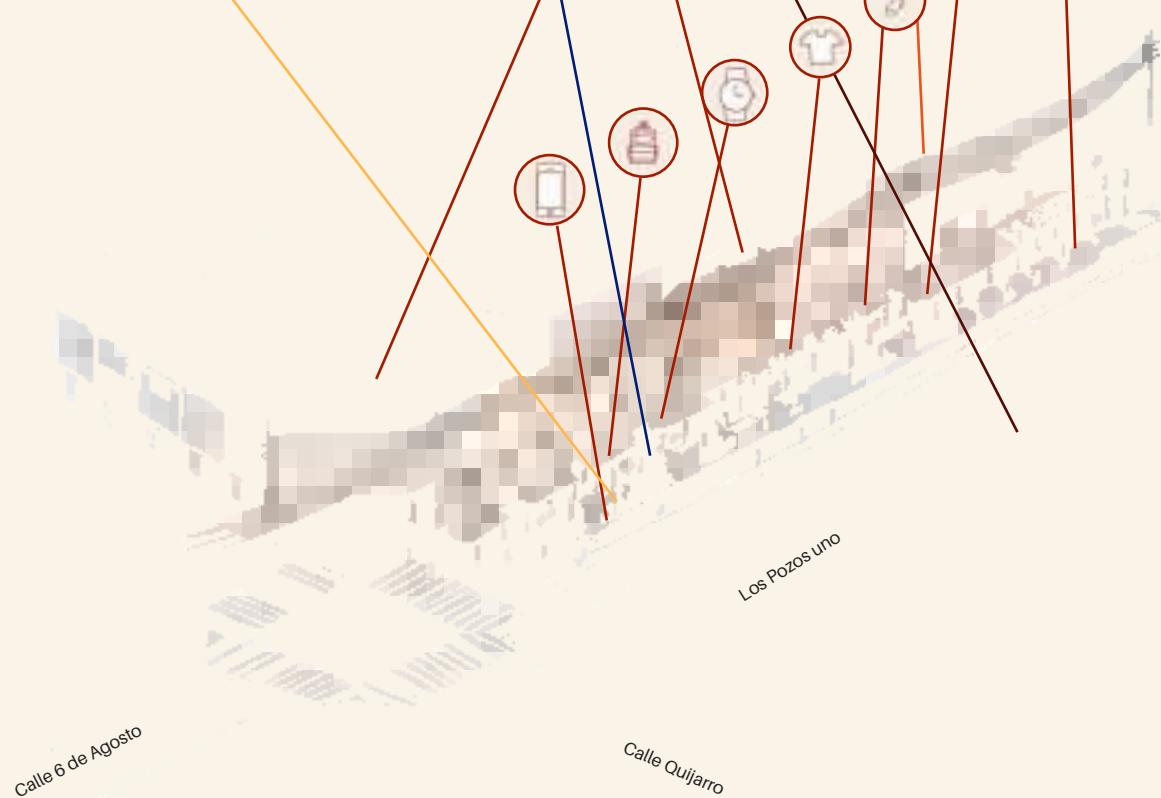
shoes  
 socks  
 bagpacks  
 school supplies snacks  
 alojamientos banos  
 mobile vendors laces  
 clothes  
 makeup  
 electronical stores  
 speakers  
 cellphones

crowd: pedestrian traffic.

buildings: quite residential street. it's located next to the los pozos uno mercado.

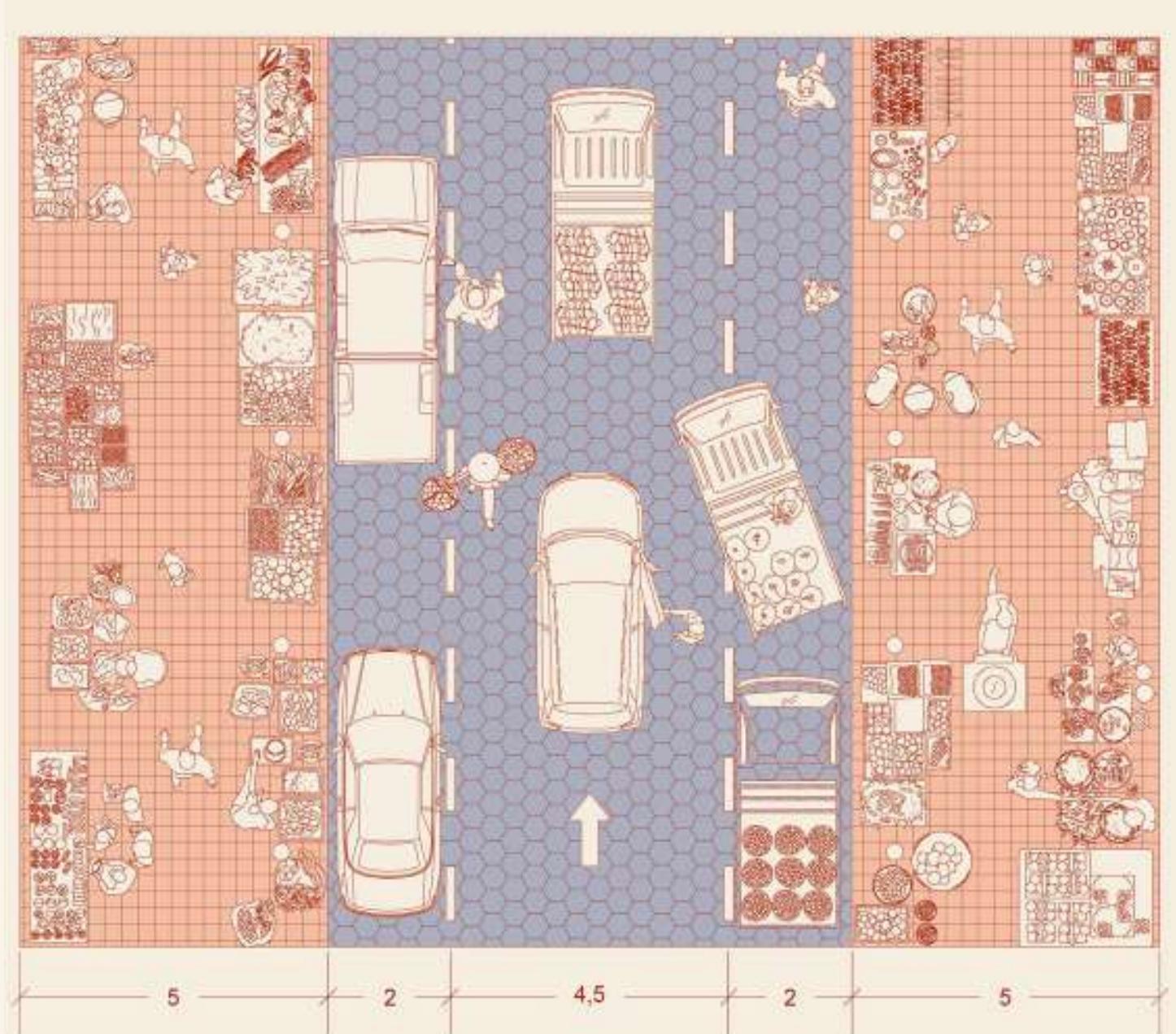
occupation: Venders are settled on the street and a lot of mobile venders are passing by. many small vender stands with food.

safety: because there are so many people there is more social control, but also more chance for theft.



Graphic 35: Streetscape analysis,  
Own graphics

## CALLE 6 DE AGOSTO



Graphic 36: Streetscape topview measured,  
Own graphics

## CALLE 6 DE AGOSTO

toy stores  
vegetables  
fruit  
elementary food  
butcher  
cheeses

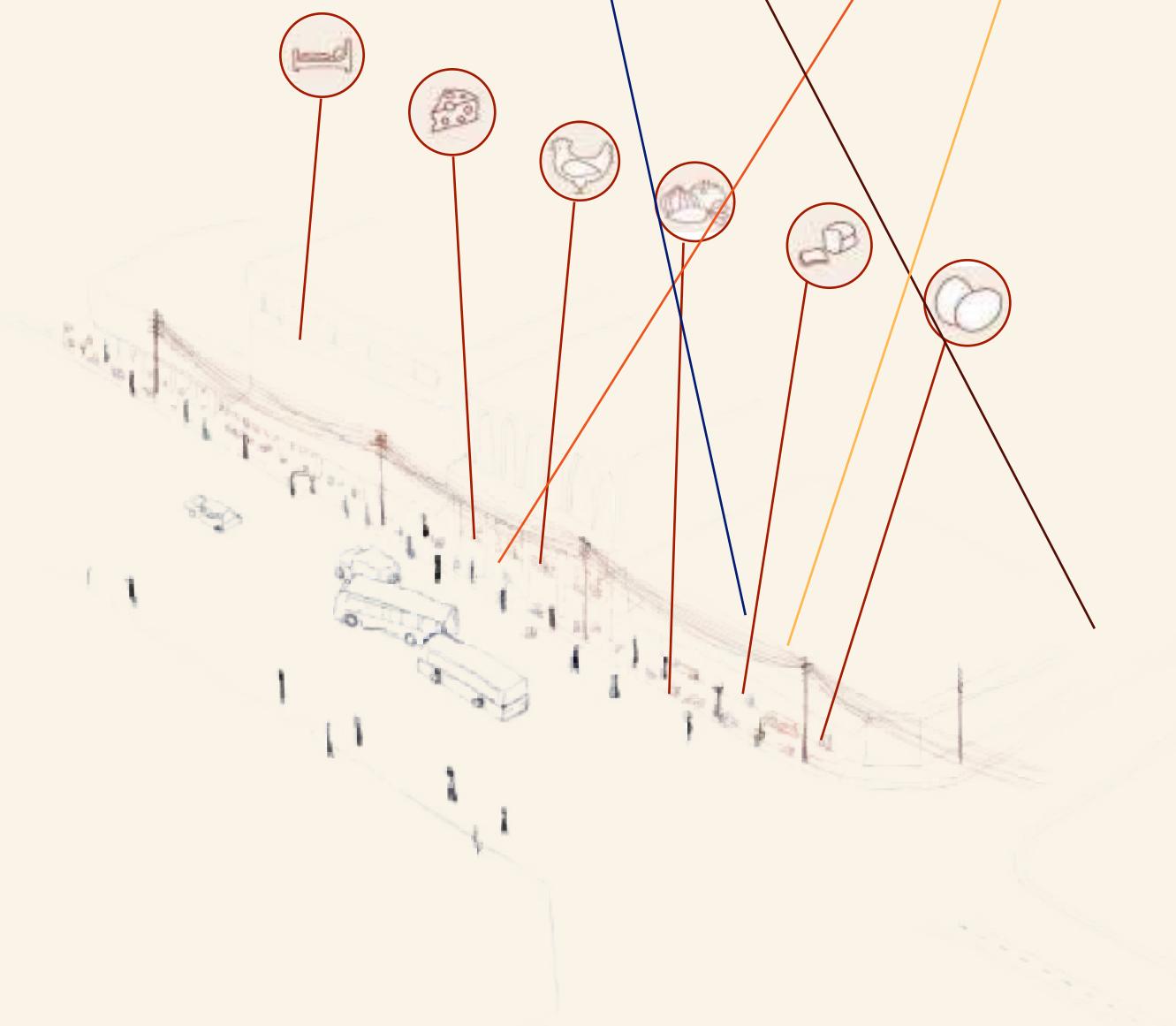
crowd: big street with a lot of car traffic.

occupation: vendors are settled on the street and a lot of mobile venders are passing by. many small vendor stands with food.

hygiene: because of the butchers here the street smells bad. there's a big trash container.

buildings: quite residential street. it's located next to the los pozos uno mercado.

safety: male dominance, catcalling.



Graphic 37: Streetscape analysis,  
Own graphics

Los Pozos Market



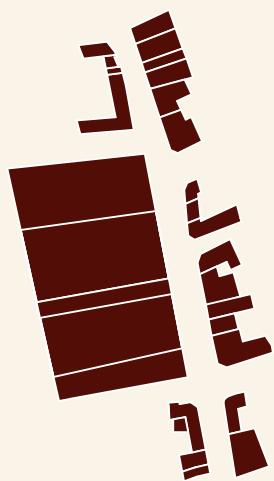
Image 38: 'Los Pozos' Market, C. Campero: Google Maps 2022



Los Pozos Market



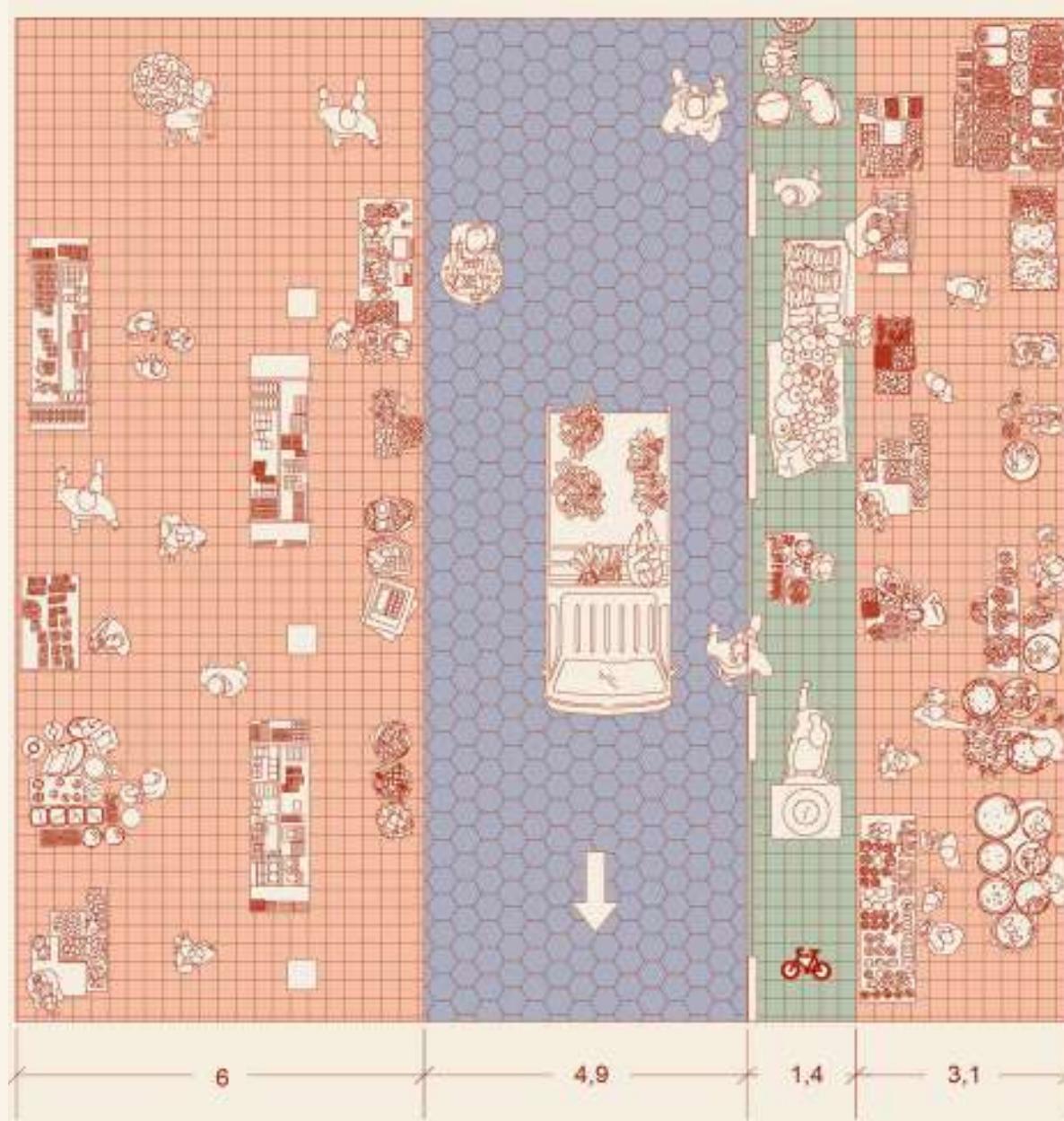
## CALLE CAMPERO



## CALLE CAMPERO

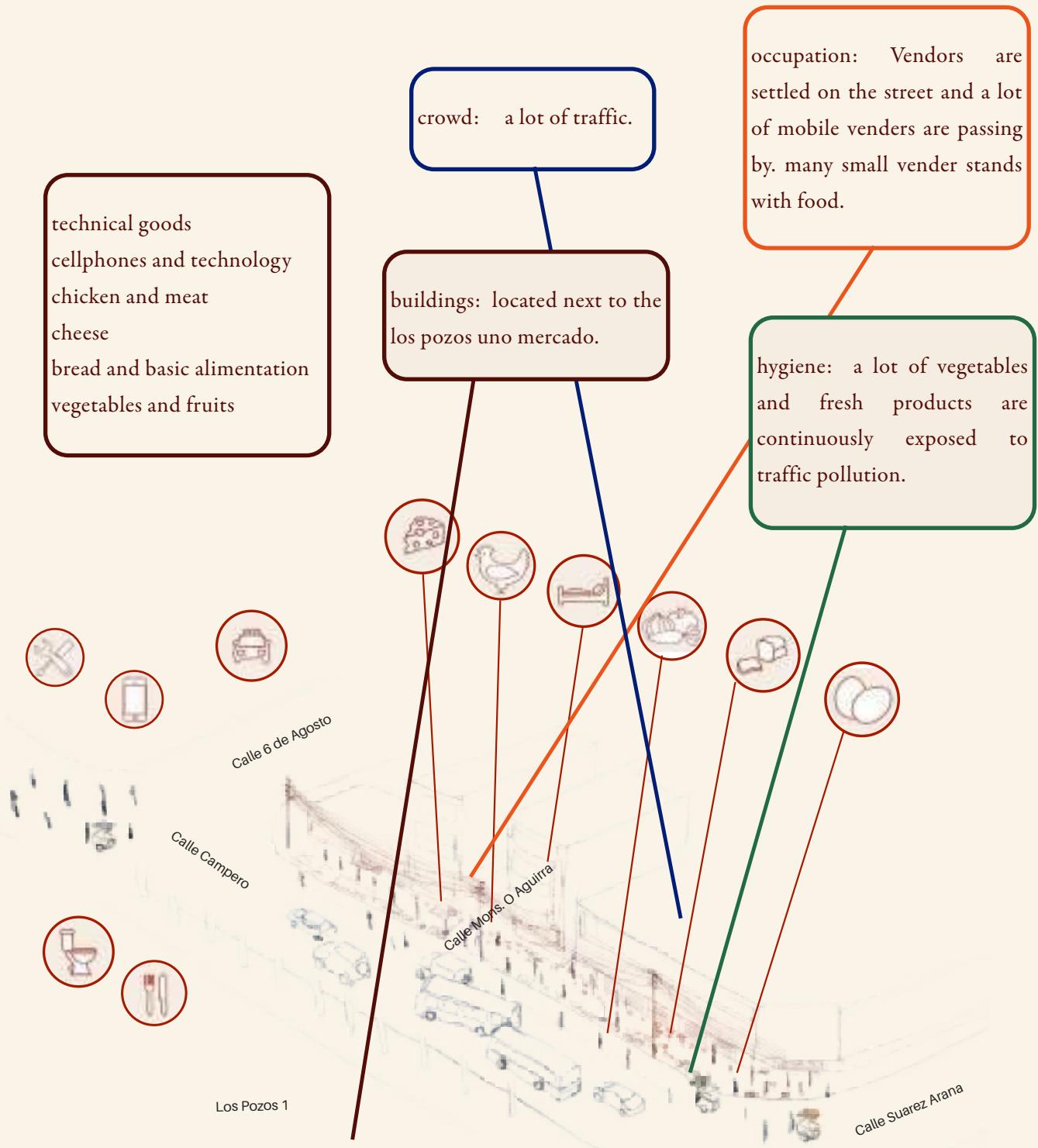


## CALLE CAMPERO



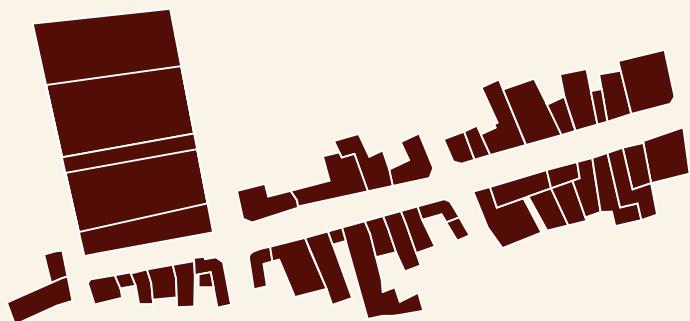
Graphic 39: Streetscape topview measured,  
Own graphics

## CALLE CAMPERO

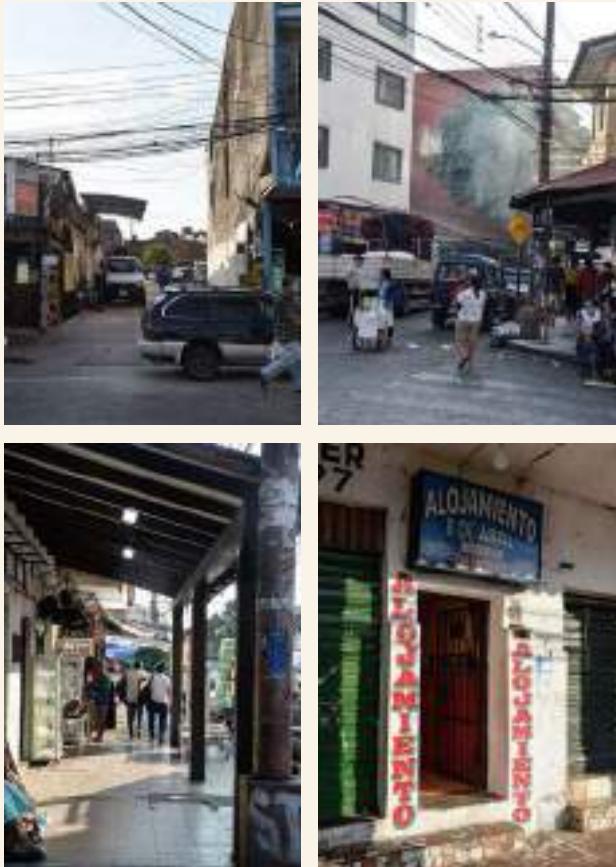


Graphic 40: Streetscape analysis,  
Own graphics

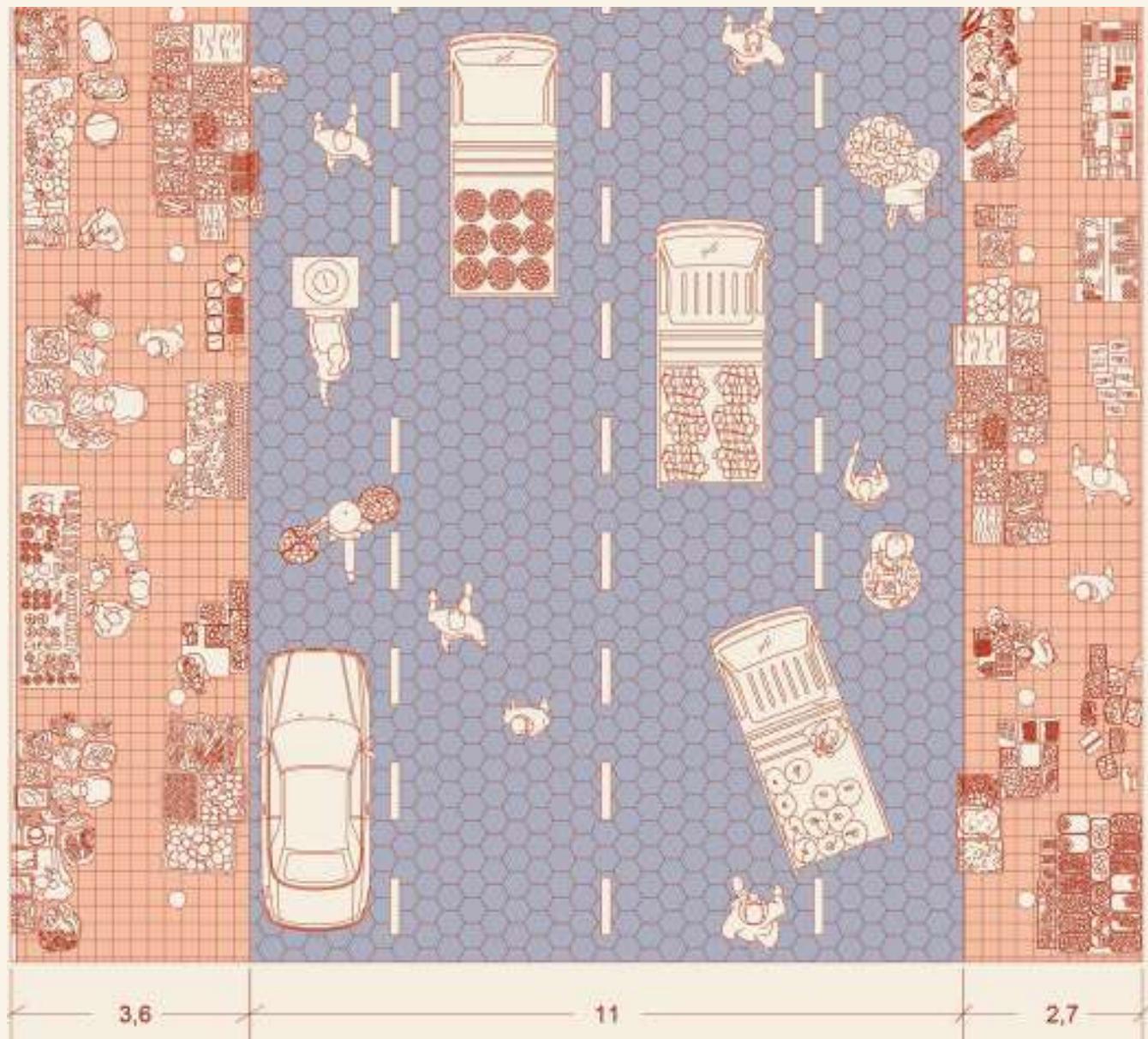
CALLE SUAREZ ARANA



## CALLE SUAREZ ARANA



## CALLE SUAREZ ARANA



Graphic 41: Streetscape topview measured,  
Own graphics

## CALLE SUAREZ ARANA

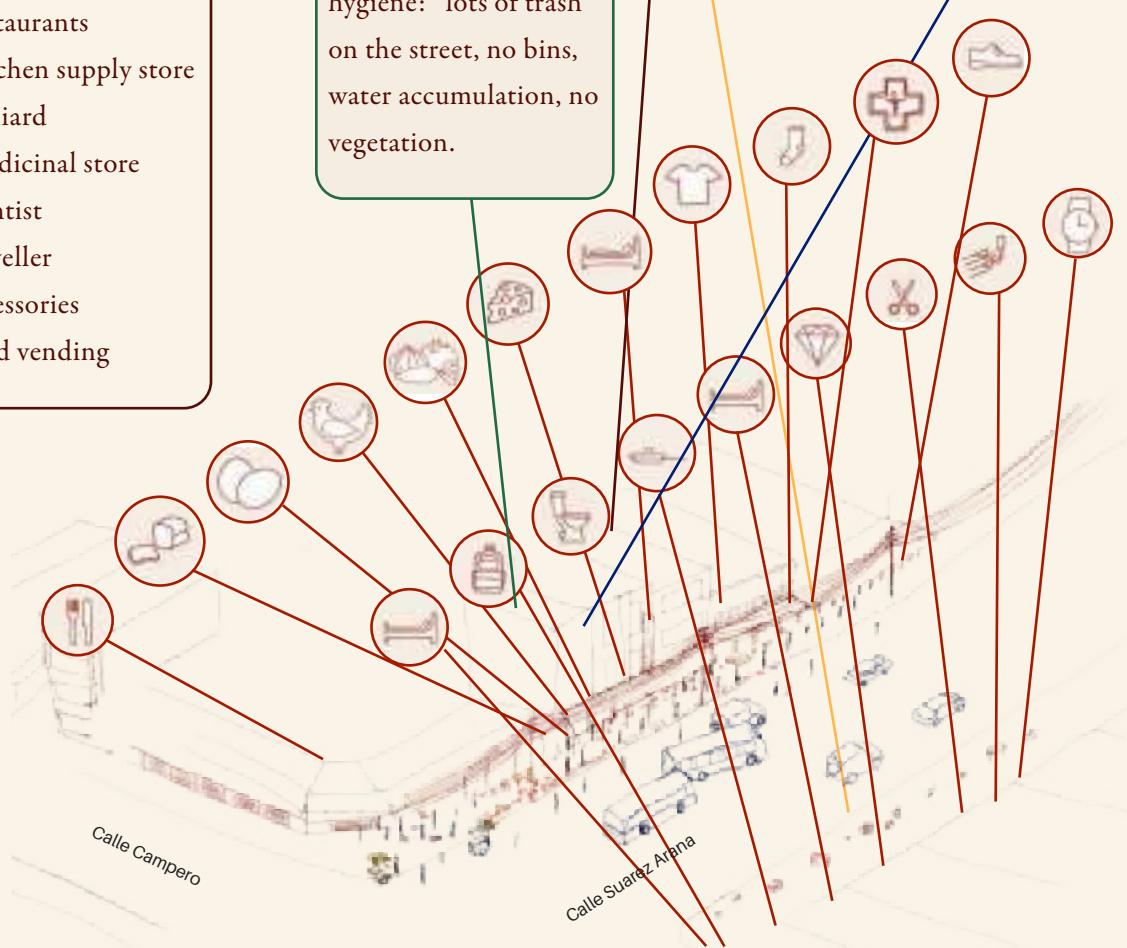
artisanal  
 baño  
 key smith  
 jewellery  
 bazar  
 alcohol  
 alojamiento  
 pharmacy  
 chicken and eggs  
 vendors  
 hairdresser  
 cleaning amenities  
 residential  
 clothing stores  
 restaurants  
 kitchen supply store  
 billiard  
 medicinal store  
 dentist  
 jeweller  
 accessories  
 food vending

safety: unsafe place to walk at night, drunk people, no lighting.

buildings: many mix use buildings and alojamientos.

crowd: a lot of traffic.

hygiene: lots of trash on the street, no bins, water accumulation, no vegetation.



Graphic 42: Streetscape analysis,  
Own graphics

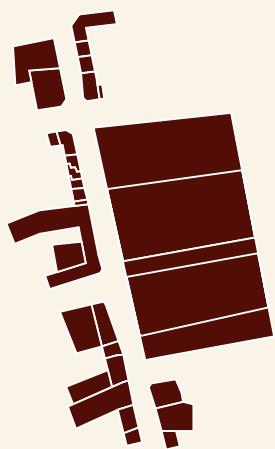
Los Pozos Market



Los Pozos Market



## CALLE QUIJARRO



## CALLE QUIJARRO



## CALLE QUIJARRO



Graphic 44: Streetscape topview measured,  
Own graphics

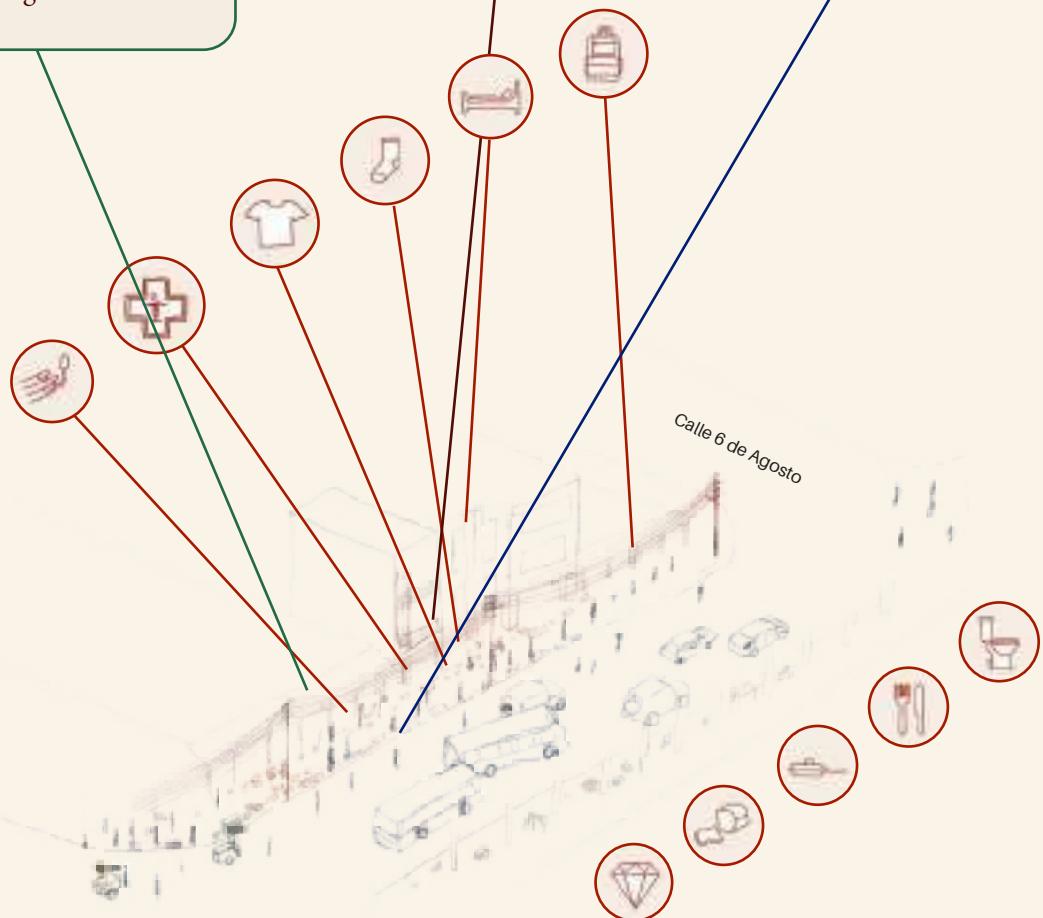
## CALLE QUIJARRO

alojamiento  
 pharmacy  
 mixed-use building  
 los pozos 1  
 nail studio  
 residential  
 clothing store  
 comedor  
 bus  
 kitchen supply store

hygiene: low hygiene, lot of trash on the street, big containers.

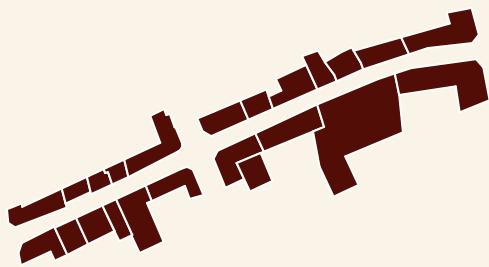
buildings: 3 mixed use buildings with alojamientos.

crowd: always crowded and a lot of traffic.



Graphic 45: Streetscape analysis,  
Own graphics

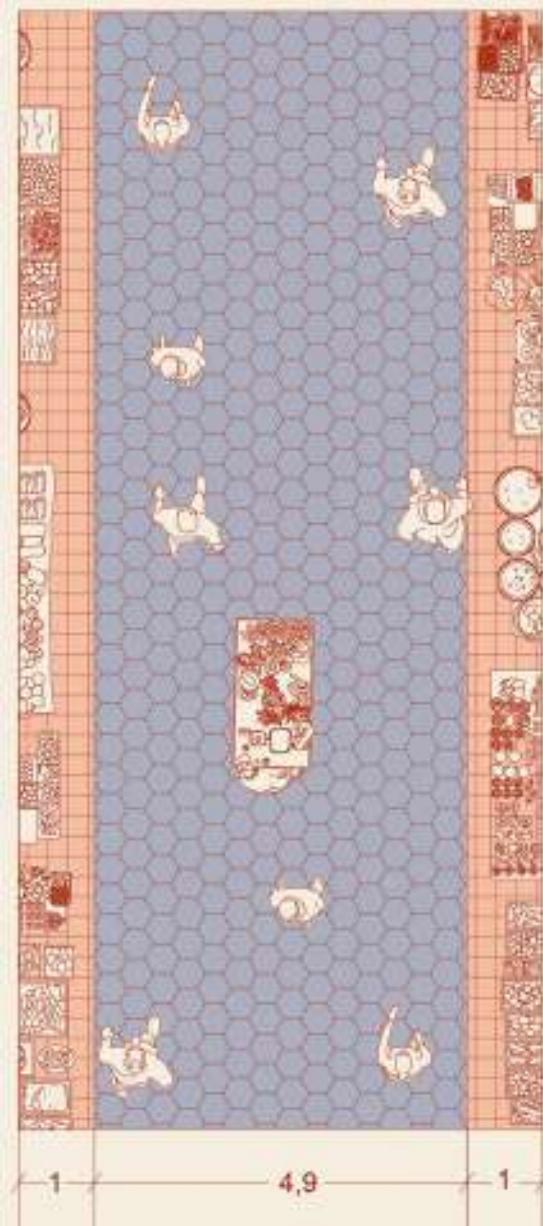
CALLE MONS O. AGUIRRE



## CALLE MONS O. AGUIRRE

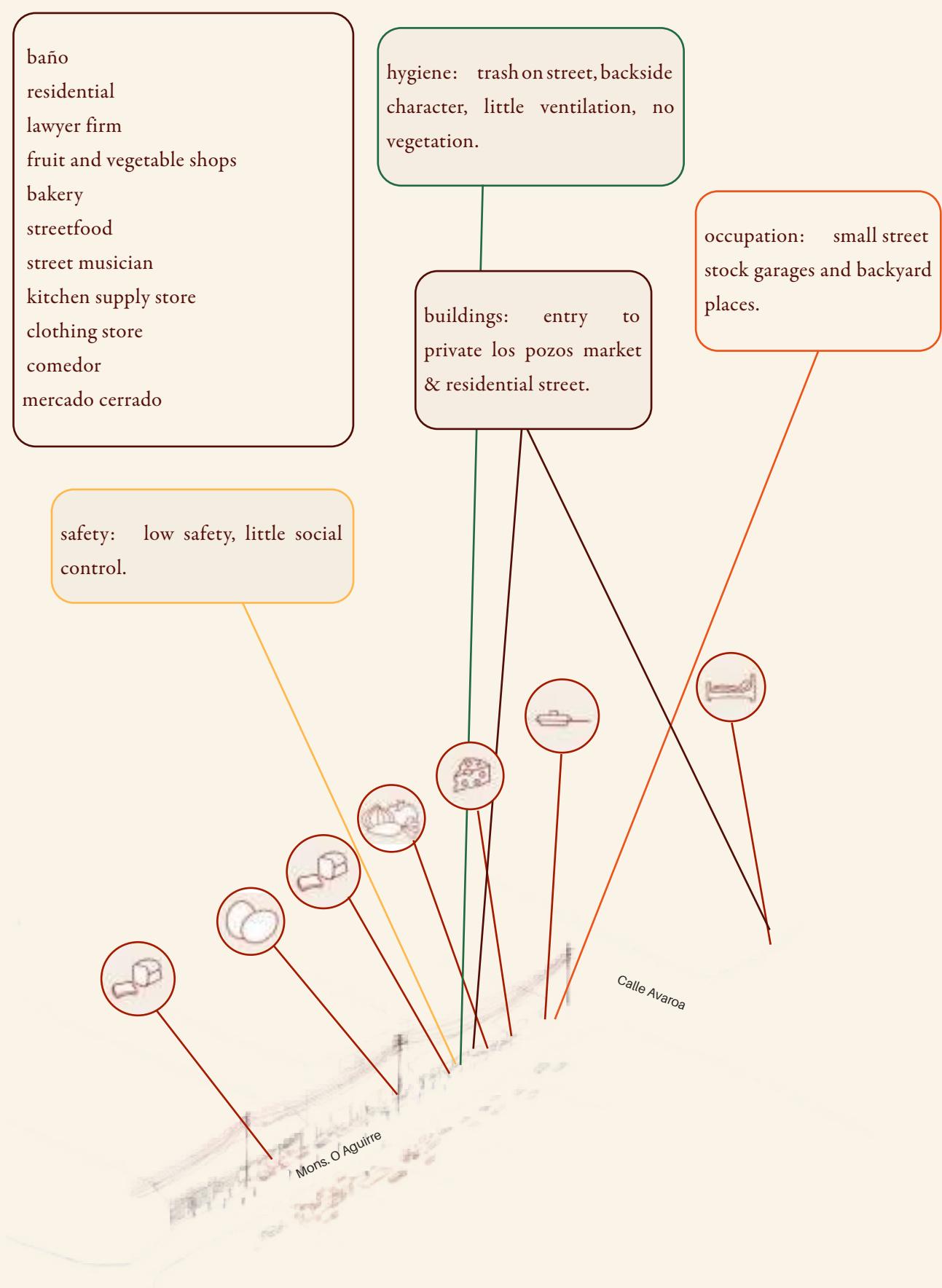


## CALLE MONS O. AGUIRRE



Graphic 46: Streetscape topview measured,  
Own graphics

## CALLE MONS O. AGUIRRE

Graphic 47: Streetscape analysis,  
Own graphics

Los Pozos Market



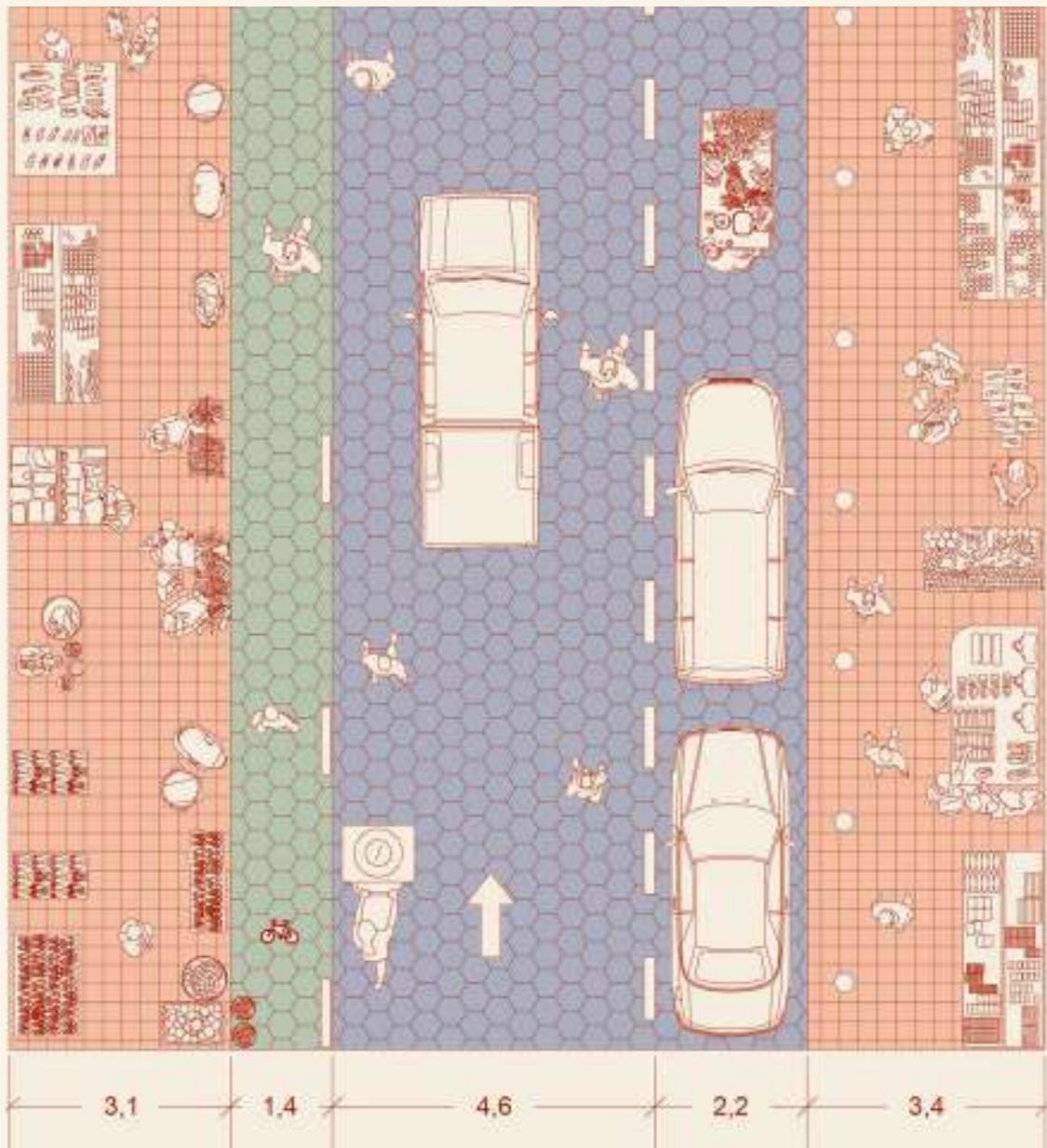
Image 48: 'Los Pozos' Market, C. Caballero: Google Maps 2022



Los Pozos Market

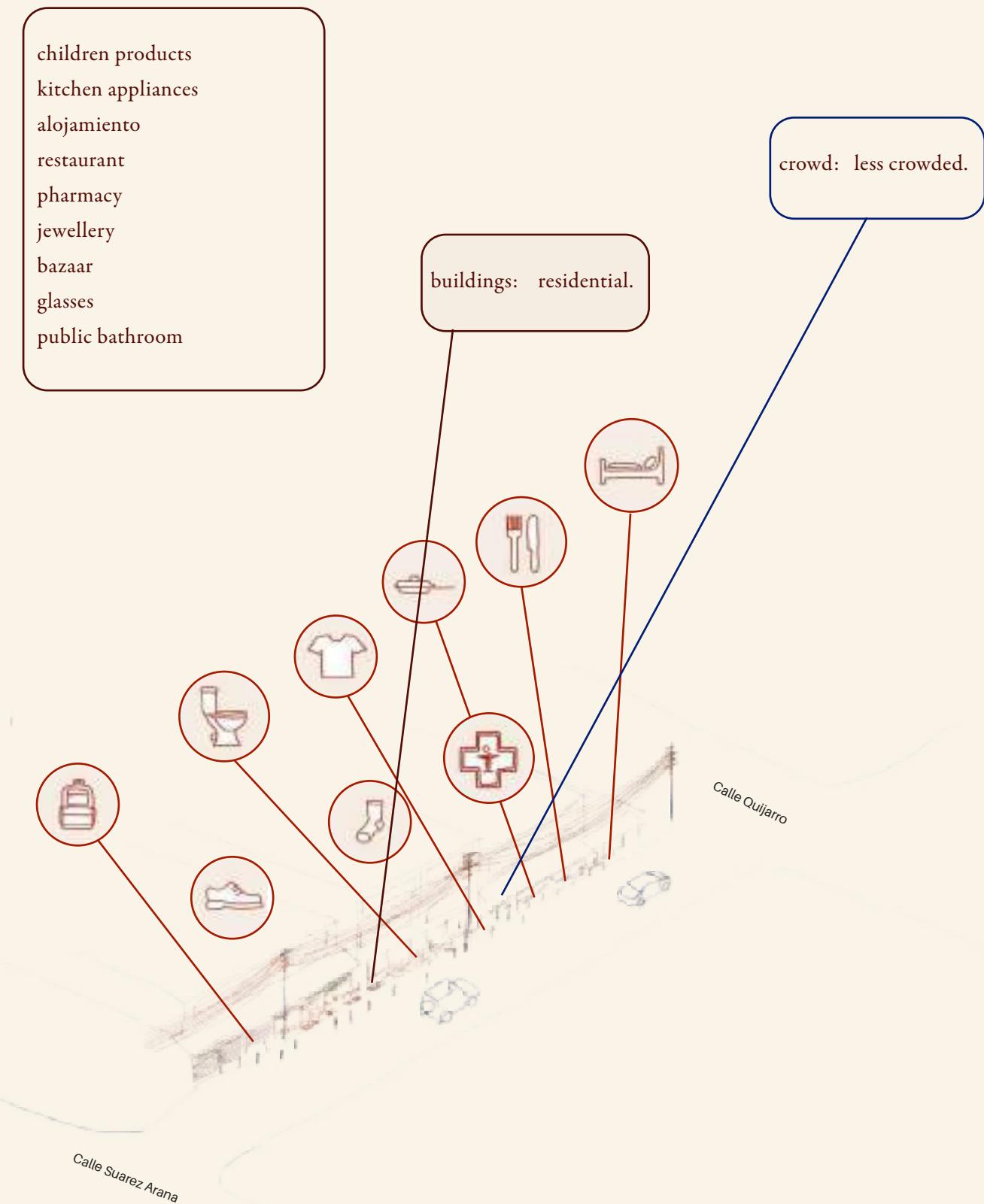


## CALLE CABALLERO



Graphic 49: Streetscape topview measured,  
Own graphics

## CALLE CABALLERO

Graphic 50: Streetscape analysis,  
Own graphics

Los Pozos Market



Image 51: 'Los Pozos' Market, C. Avaroa: Google Maps 2022



Los Pozos Market



## CALLE AVAROA



Graphic 52: Streetscape topview measured,  
Own graphics

## CALLE AVAROA

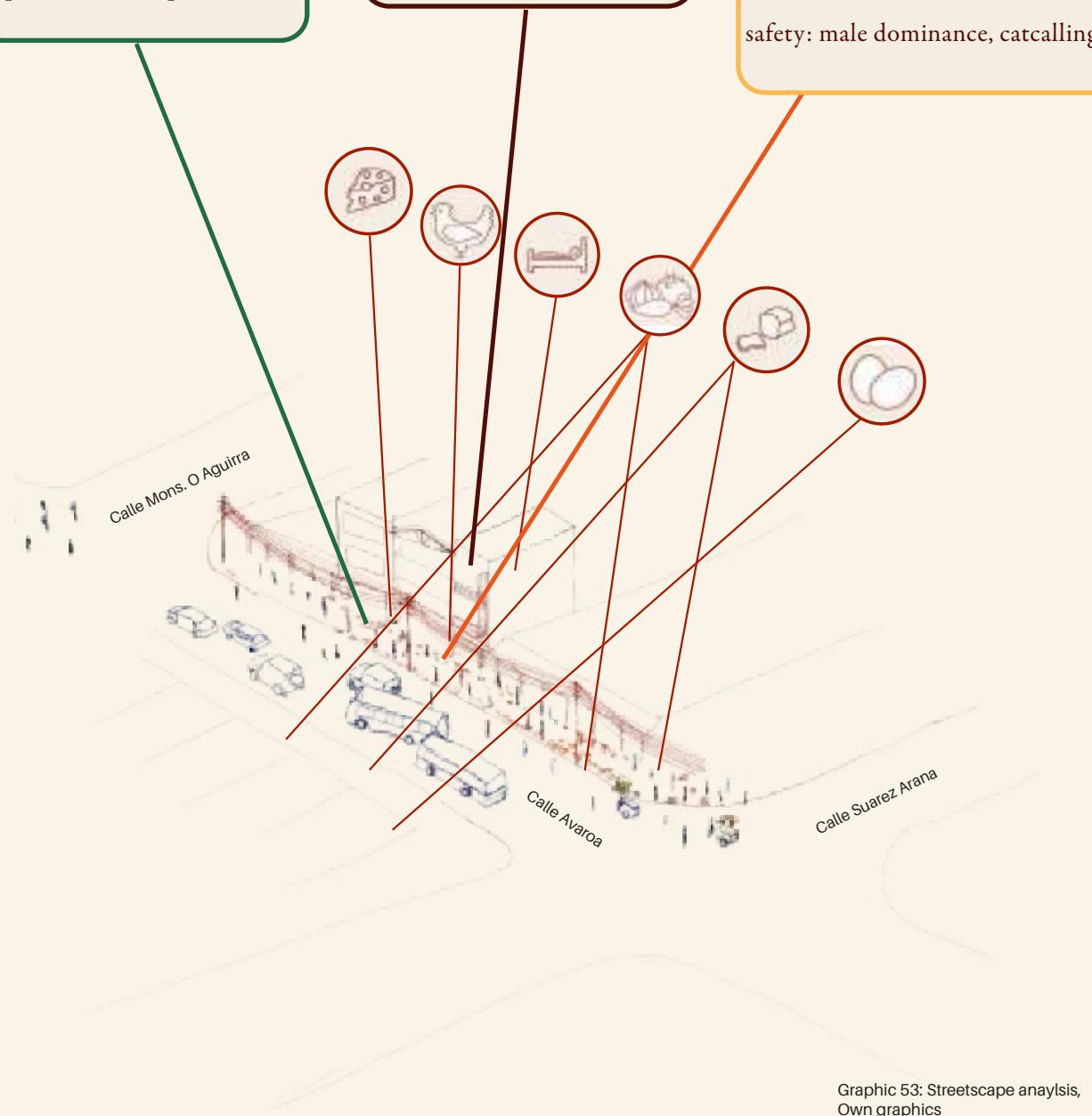
chicken and meat  
cheese and eggs  
bread and basic alimentation  
vegetables and fruits

hygiene: a lot of vegetables and fresh products are continuously exposed to traffic pollution.

buildings: a lot of alojamientos.

occupation: very uneven pavement and collumns.

safety: male dominance, catcalling.



Graphic 53: Streetscape analysis,  
Own graphics



## Interviews

This part of the fieldwork was about observing market users and interviewing them to understand their livelihoods, everyday life, perceptions of the market, needs, and what changes they would like to see.

## INTERVIEW

### LUCIA SHOP VENDOR IN PRIVATE MARKET

*I sell clothes in the private market. I don't like the look of the market. I would like to change the comedor. I like the chaos of the market, but I believe there is competition among the people. I decided to work in the private market because I prefer the customers.*

The store has been a family business for about 16 years. She lives above the store. They sell Korean/Asian food and kitchen supplies. They import their products from Korea. Bolivians started to learn how to cook korean. She believes there are safety issues in the market.

### CINTIA OWNER OF A CHINESE PRIVATE STORE



## INTERVIEW



She rents a store inside the building. She sells clothes for women and teenagers. She would appreciate a view towards the outside. It would attract more clients according to her. She believes that the contact with the client is important.

CHRISTINA  
SHOP VENDOR IN LOS  
POZOS I  
PUBLIC MARKET

### ANA STREET VENDOR

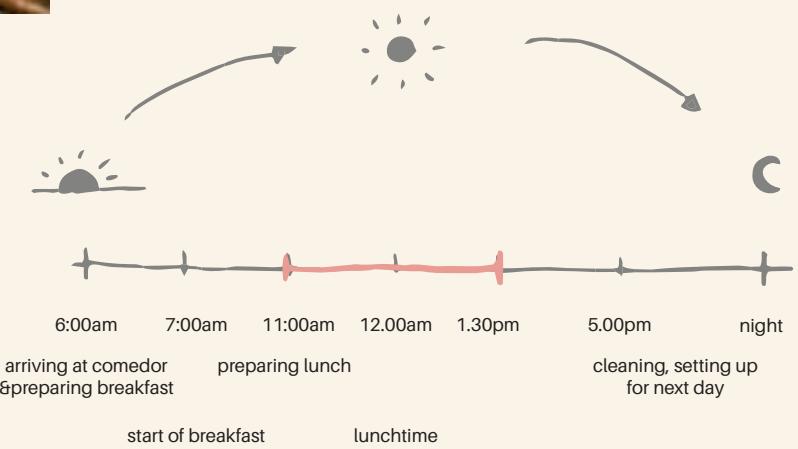
*"I started selling in the streets because not enough clients came to my store. I don't feel safe because there are a lot of gangs and thieves who pay the security guards. Me and other vendors communicate through WhatsApp in case of danger. I believe the market is not clean and that there are too many puddles. I believe the car circulation is needed to have clients. I like the chaos in the market. But I'm not well protected against the weather. I sell my things under a balcony or a rooftop when it rains. My clothes fly away when it winds."*

## INTERVIEW



### GLORIA COMEDOR LOS POZOS 1

*"I arrive here everyday by 6am. Most people have lunch at my comedor. I have been working here for many years already."*



Graphic X: Typical Day in the Comedor

## INTERVIEW

### GLORIA'S SON

*"I'm the son of Gloria. I'm 8 years old. I live at district 11 in the first ring. I live 20 minutes from the market."*



### MARISOL COOK IN THE PRIVATE LOS POZOS MARKET

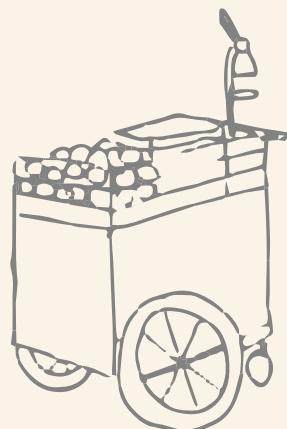
Marisol is a cook in the private Los Pozos market. She says there are a lot of issues in the market like its infrastructure. It is old and many things have to be repaired. Her day starts around 7h.

## INTERVIEW

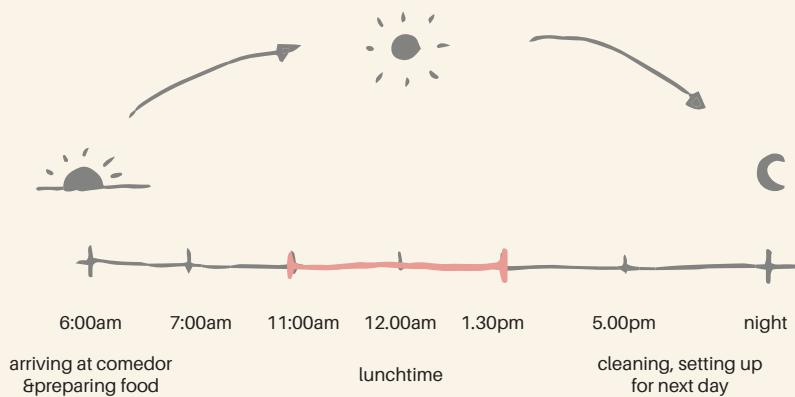


*"I live in a large neighborhood. I come to Los Pozos every day by bus. This takes me 40 minutes. I start working around lunchtime and I change sites in the day. All types of people love my juices and the fruit is bought from the vendors in the market. They get it from Samaipata. I go around the streets every day and by night I lock my carretón. I am afraid it will be stolen."*

REINALDO  
ORANGE JUICE  
VENDOR



## INTERVIEW



Graphic X: Typical Day in the Vegetarian Comedor

*"I used to be a taxi driver in La Paz but now i'm a cook. I am offering only vegetarian food. It is going very well. My wife and I published a cookbook. I start my day very early and I buy everything in the market. I prepare the food and close my stand at 16h."*

JUAN  
VEGETARIAN  
COMEDOR LOS POZOS 1



**What do I want**

- A restaurant downstairs of Los Pozos I because many people don't go up
- Placing the comedores of Los Pozos I on the groundfloor to make it more accessible and visible (no lift)
- Repairing the infrastructure of Los Pozos I
- Repairing the infrastructure of private Los Pozos but management keeps the money for themselves
- More security
- Order
- Less thieves
- Places to sit and rest
- A calmer Calle Campero
- More ventilated vegetable market, cooling of meat (hygiene)

**What I have**

- A shop, a space to negotiate
- A safe job in a shoe store
- Calle 6 de Agosto
- The variety of what you can buy at the market is nice
- Parque Arenales
- The vegetarian comedor, but missing the possibility to cook with gas

**What I don't want**

- Too much disorder
- Too many thieves and too little security
- Calle Campero is a drug and alcohol abuse space
- Disorder
- A dirty market
- Calle Campero staying full of thieves

**What I do not have**

- A space in a closed market space  
(it is too expensive to enter: 25000Bs.)
- A place to live close by
- I have been selling here for 50 years now and until 20 years ago Parque Arenales used to be very safe, until all the migrants came...
- They promised to provide trees in Calle 6 de Agosto but all what happens is that people break their legs in the wholes of the ground and the trashed sewers make the streets dirty when it's raining
- Ten years ago the market was turning into a red light district and things become worse
- A library
- Trees, more green space

## WHAT DID THE PEOPLE HAVE TO SAY?

In this case, we asked the vendors several specific questions to understand what they want/don't want and what they have/don't have in the market. The demands were mostly about security. More specifically, to make the Los Pozos I market, Calle Campero, and Parque Arenales safer. They are also a few changes they would like in Los Pozos I. For example, the comedor at the ground floor to gain more client, better cooking stations, and a lift. There is a lack of amenities such as WC and trash collecting spots to make the overall market more hygienic.

Los Pozos Market

Calle  
Campero

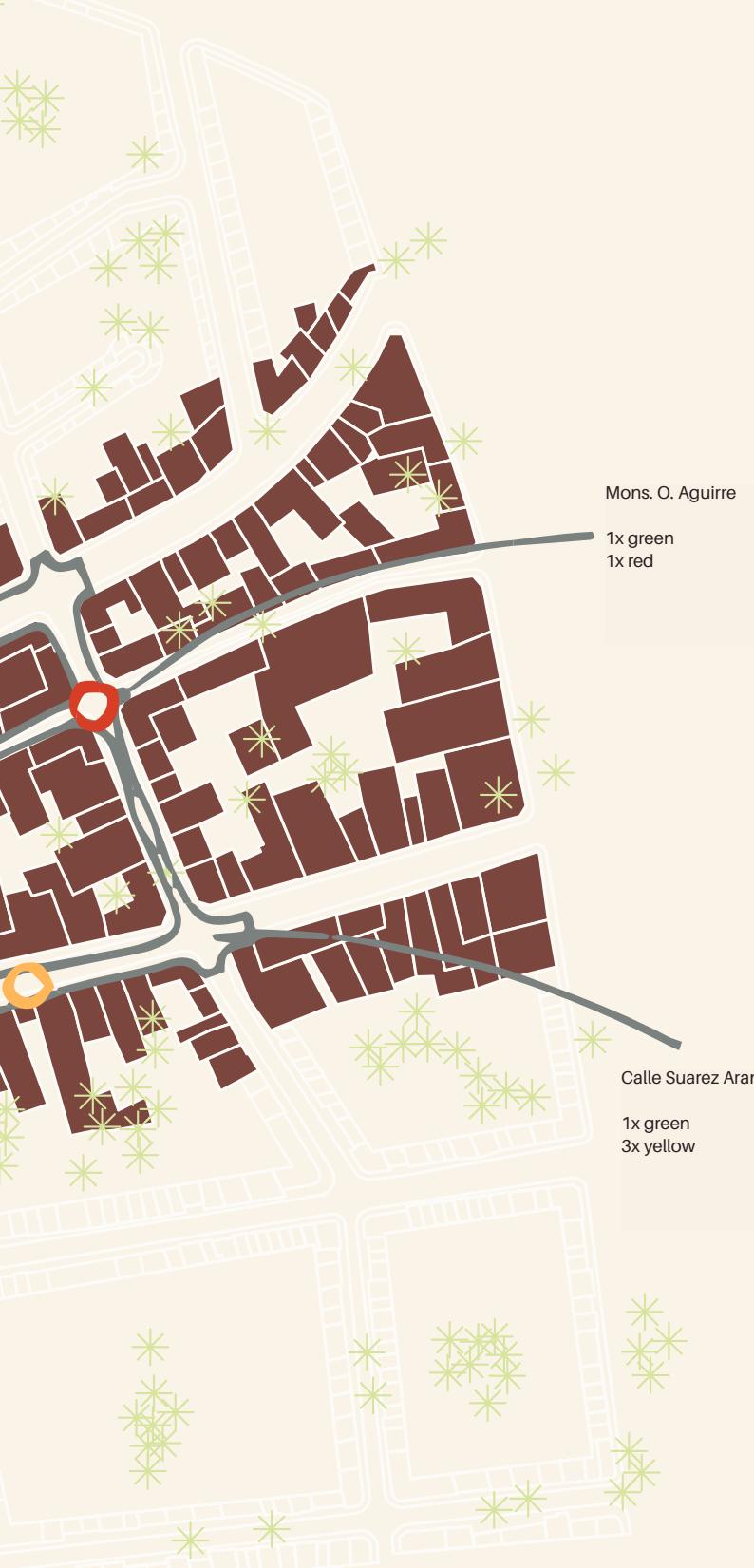
5x red  
6x yellow

Calle 6 de Agosto

2x blue  
2x red  
2x green



Graphic 55: Emotional mapping,  
Own graphic



Emotional mapping consists in asking the interviewees the areas where they like or not to spend time as well as the places that they would like to see changes or not. For this activity, 6 females and 3 males were interviewed.

Calle Campero and Parque Arenales are seen as the most dangerous places by the market users because of crime such as theft and mugging. Interestingly, some of the places that are seen as dangerous by some market users are also places that other market users appreciate such as Parque Arenales.

The intersection between Calle Campero and Mons O. Aguirre feel particularly unsafe for women as there is much more men, making the women feel more vulnerable. Calle Campero is where the most people feel unsafe and where they want to see changes. Women particularly would like to see changes there.

According to the vendors, Parque Arenales used to be safer than it is now which is why they would also like to see change.

Finally, Los Pozos I is seen as safe despite the petty crime that occurs such as theft. The change the people would like to see is more related to the layout of the space, the infrastructure and amenities.

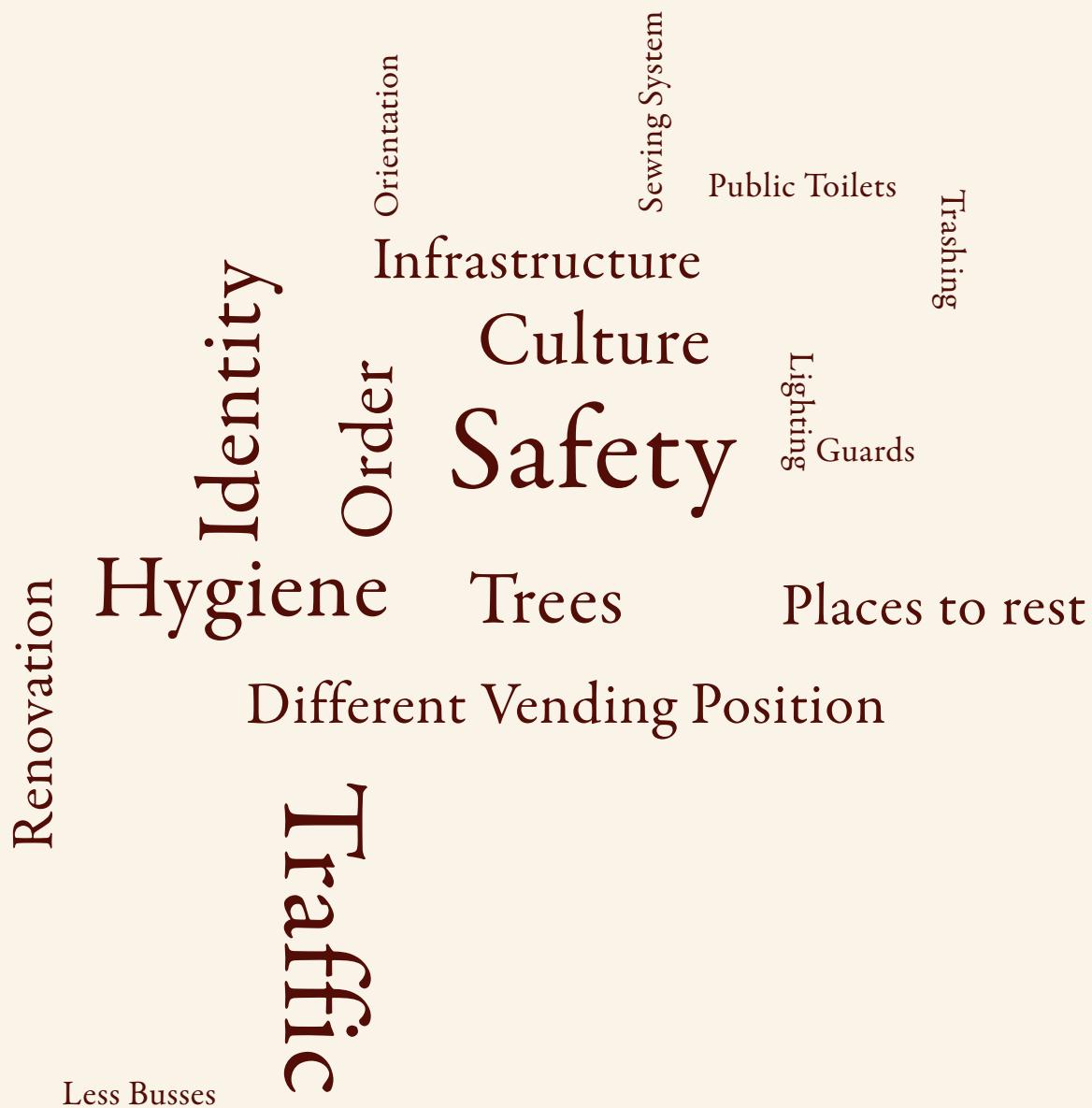


□ Where do I like to spend time? :-)

□ Where do I NOT like to spend time :(

□ Where would you like a change?

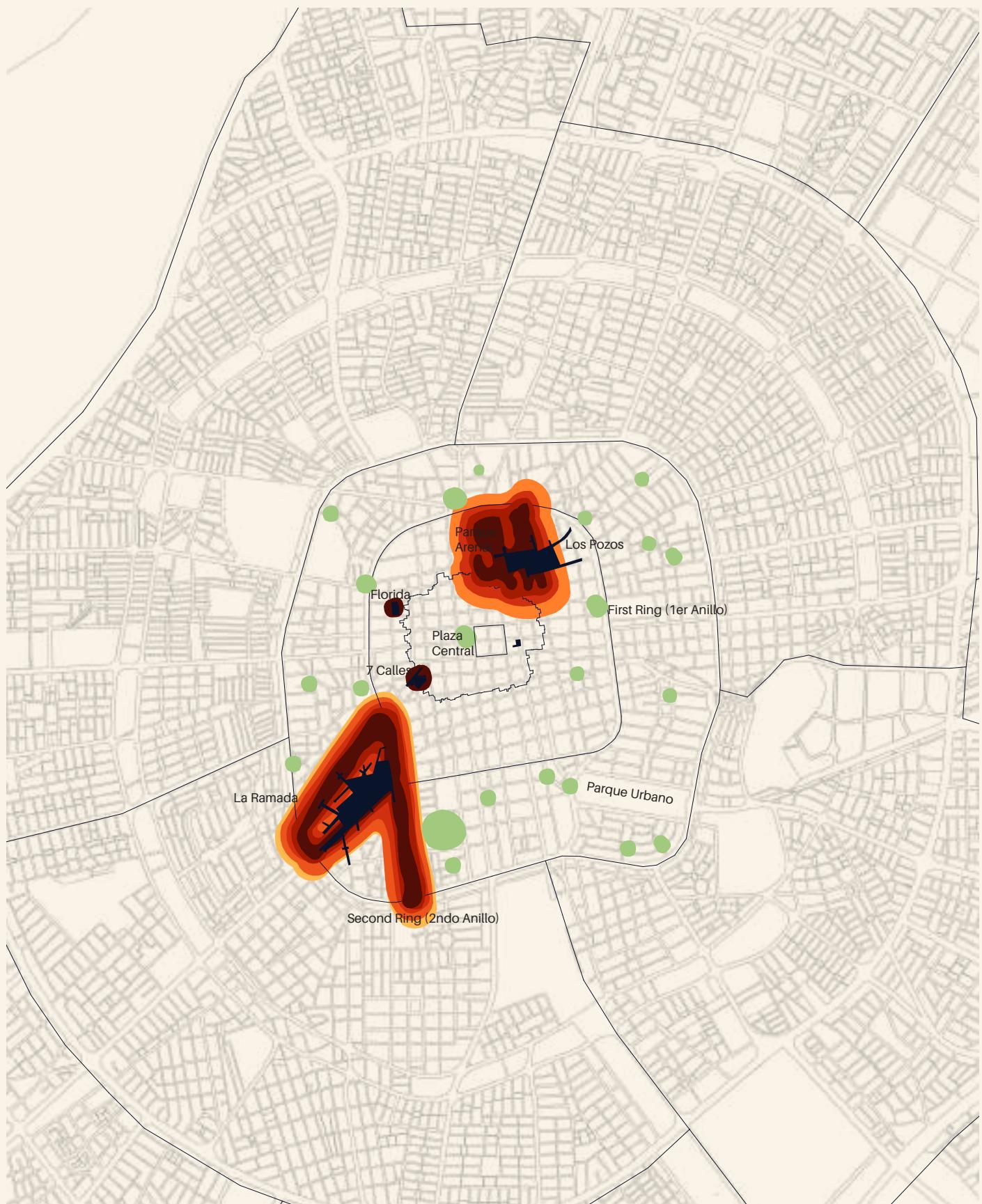
□ Where would you NOT like a change?



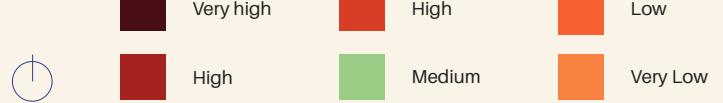
Graphic 56: Word cloud of demands by order of priority

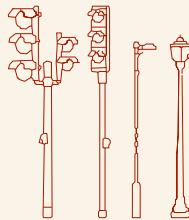
# The Issues

The fieldwork allowed to better understand the issues in the market. After observing the market and discussing with the vendors, it was clear that security was one of the biggest problems the vendors are facing on a daily basis. The feeling of insecurity has many causes such as the lack of social vigilance in the night, theft, catcalling, Parque Arenales and lack of lighting. Inadequate infrastructure was another important issues according to the vendors. From our point of view, streetscapes, hygiene and public places were other relevant issues to work on.



Graphic 57: Zones of Insecurity, Santa Cruz Core,  
Gobierno Autónomo Municipal 2021

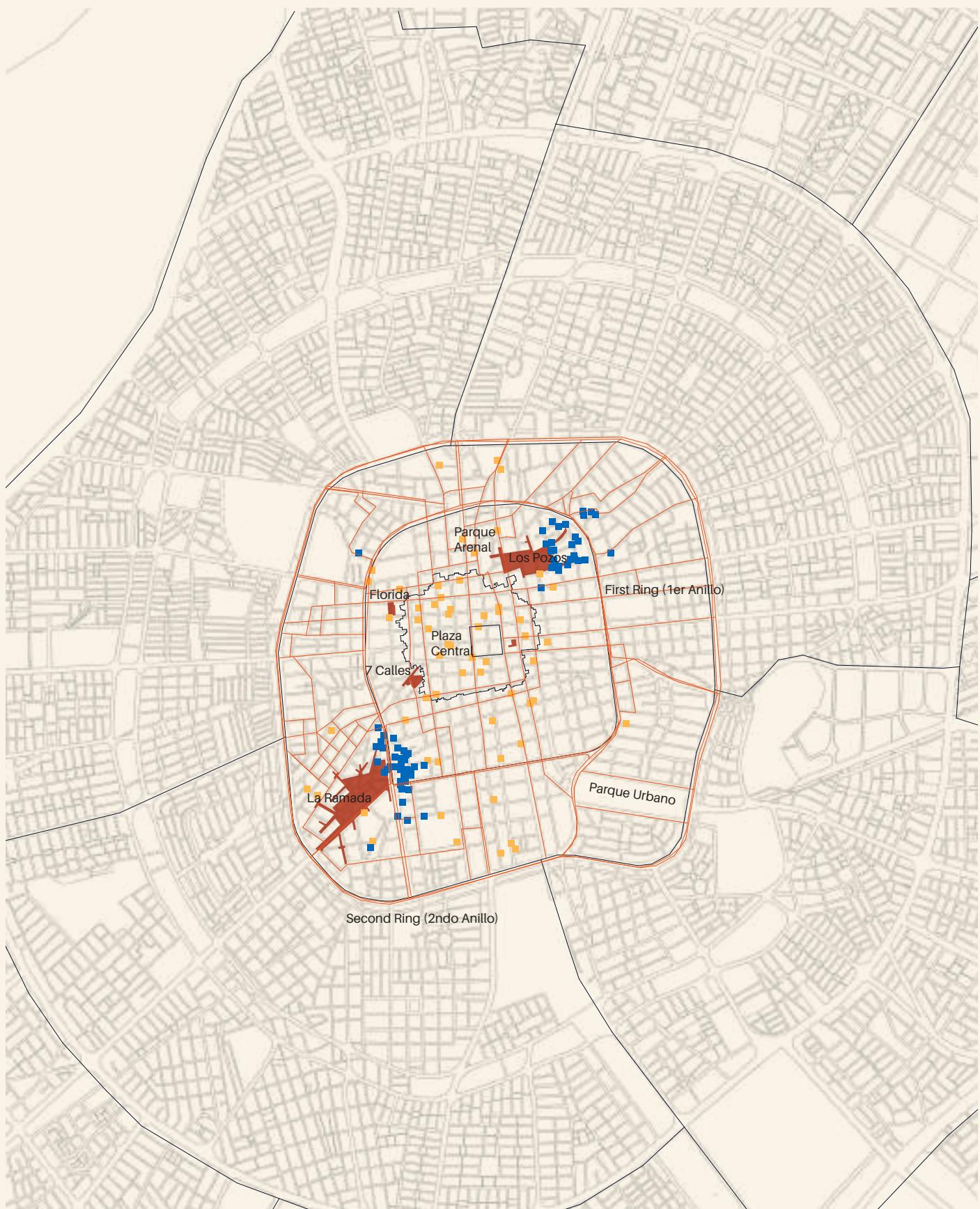




## SECURITY

Most vendors do not live in the market. They come to work in the market during the day, creating social control and causing an unsafe environment at night due to the emptiness. There are many illegal activities, such as prostitution and drug-related activities. Men also tend to make women feel unsafe when they experience inappropriate behaviours such as catcalling. The municipality sends patrols to guard the area. This causes fear because patrols sometimes seize the goods of informal vendors. Petty crime, such as theft, is an issue in the market. For example, private guards provide security in the Los Pozos I building. However, they cannot always cover all places. Hence, thieves will steal when the guards are not patrolling an area. Parque Arenales is seen as dangerous by the vendors. There are many petty and more serious crimes, such as mugging. Additionally, there needs to be more lighting in the whole market.

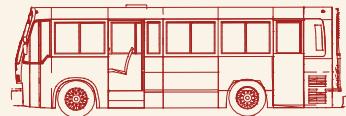




Graphic 58: Buslines, Microbuses and Parking - Santa Cruz Core,  
Gobierno Autonomo Municipal 2021



■	Microbus offices	■	Core Zone Markets
■	Parkinglots	■	Busroutes

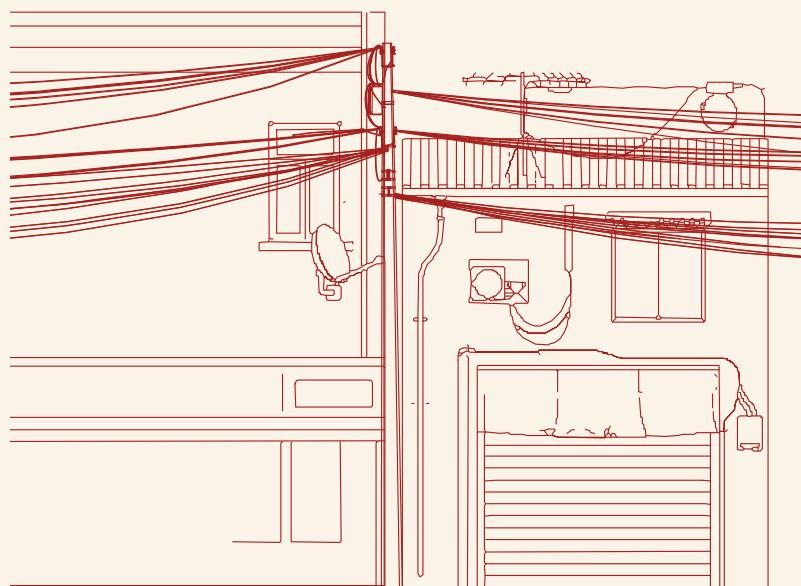


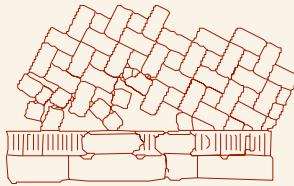
## TRAFFIC

Cars and buses drive through the market as they are the primary means of transportation in the city. There is no public transport, so the private-sector buses compete for passengers. As a result, some drivers drive recklessly through the market. Many people use their car to go to the market. Traffic creates noise pollution and environmental damage. There is a lot of traffic around the public and the private markets, particularly on Campero street. Calle 6 de Agosto is currently the only pedestrian street in the market.

To counter the congestion issue the municipality planned to establish a public bus system. However, their attempt was met with resistance by the private sector. Thus the project was never realised (Victor Hugo Limpias, 2022).





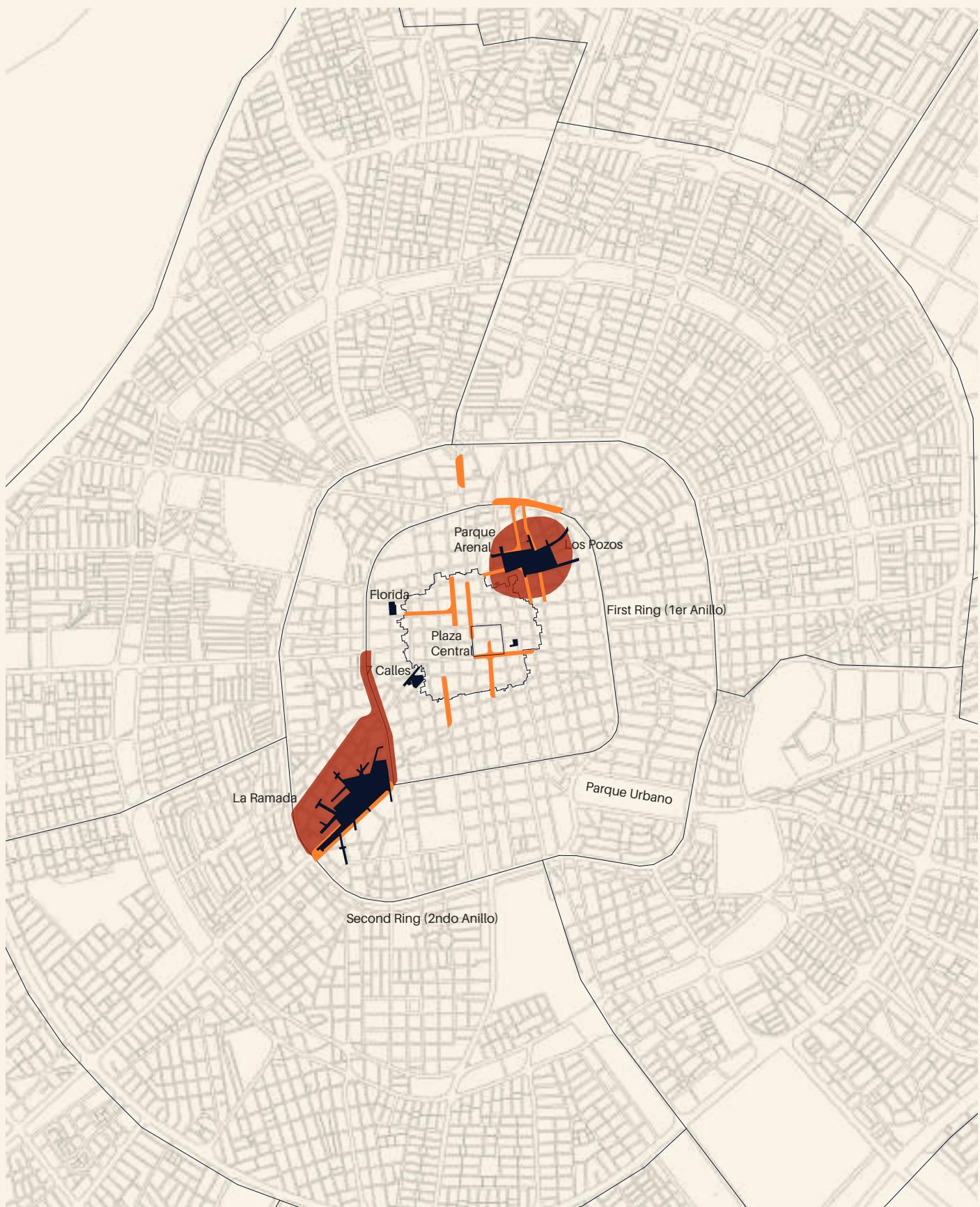


## INFRASTRUCTURE, FACILITIES AND AMENITIES

The market has poor infrastructure. There are some unused bike lanes and many electricity wires that are not used and sometimes even dangerous as they hang at eye level. Pavements are often unequal and roads have many holes. The sewage system is not capable of absorbing all the water during heavy rains.

It lacks decent facilities and amenities. The cooks from the Los Pozos comedor shared their concern about the absence of lifts in the building, making it difficult for them to carry the food up to the fourth floor, where it is situated. It also makes it more difficult for some client to reach. An inclusive environment is one where all individuals, abled or disabled, can move freely with no barriers because of their conditions. As part of an accessible environment, there should be the necessary amenities so people can access different areas of the market. Some cooks have also complained about their cooking stations in the public and private markets.

The built environment is simultaneously aging and decaying since it poorly maintained. The markets have a leaking roof, some buildings have broken windows, poor structure and dilapidating materials.



Graphic 59: Zones of Pollution, Santa Cruz Core,  
Gobierno Autonomo Municipal 2021



- Environmental Pollution
- Noise Pollution



## HYGIENE

Products such as meat and cheese are not refrigerated, and they produce unpleasant smells. Thorough cleaning of the market occurs once a week, *el dia de limpieza*. There are also very few public toilets throughout the market. The lack of amenities makes the market sometimes unsanitary.

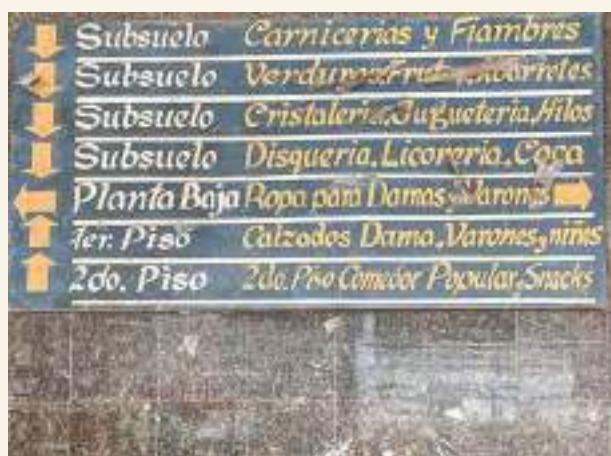






## GARBAGE COLLECTION

The market lacks many spots for waste collection (trash, recycling, composts) which, in turn, contributes to the amount of waste in the streets. Many of the vendors and market visitors throw their garbage in their immediate surrounding with complete disregard towards the hygiene issues this behaviour creates.

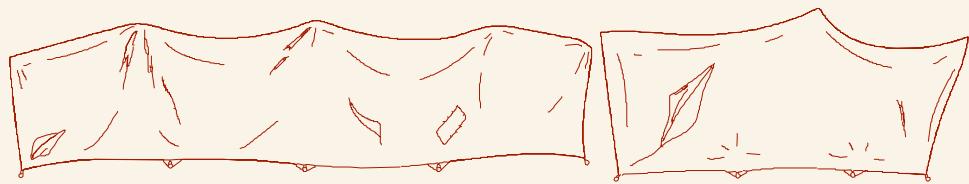




## S I G N A G E

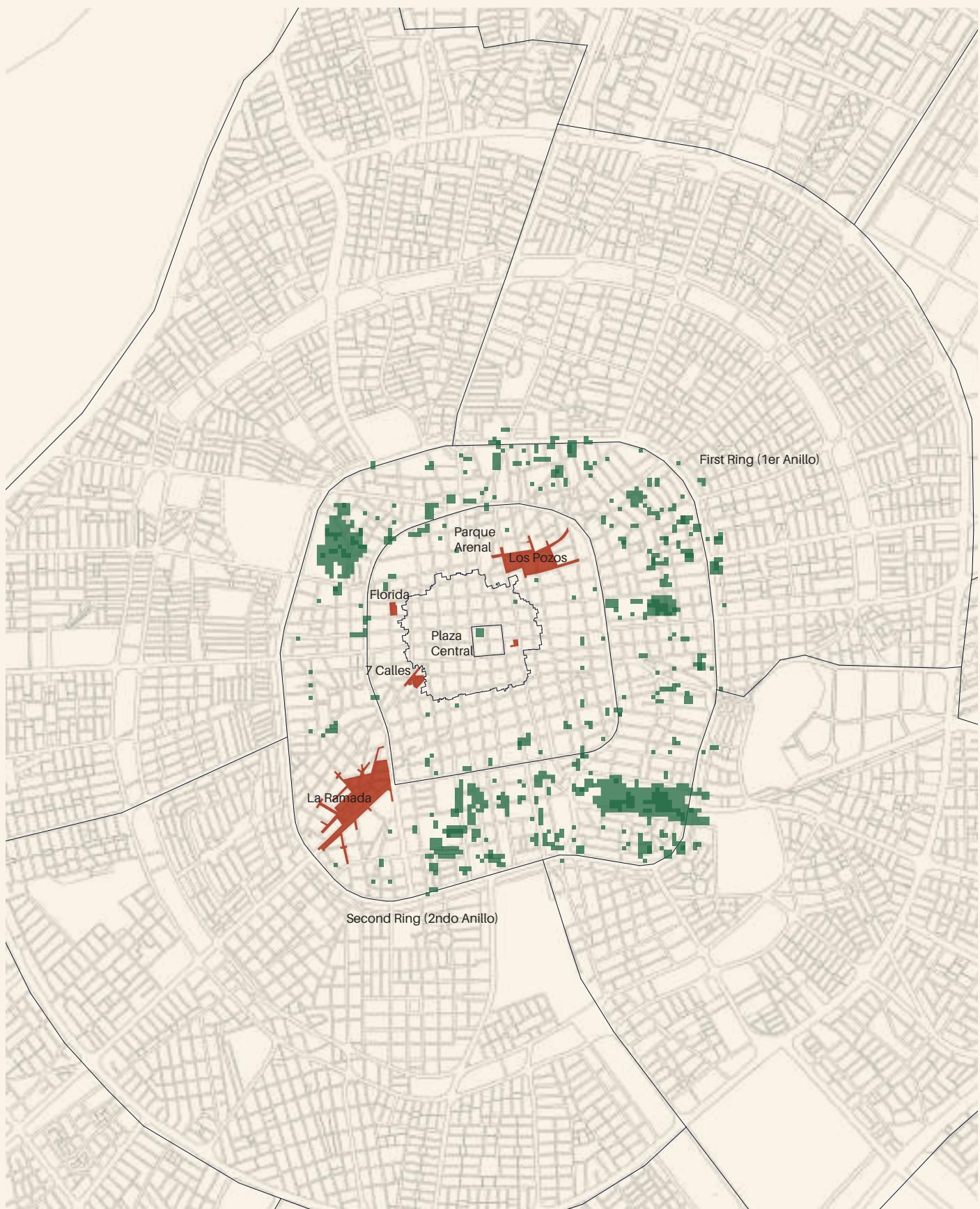
There are no maps indicating where to find certain products or streets. It is easy to get lost in the market which exacerbates the feeling of insecurity.





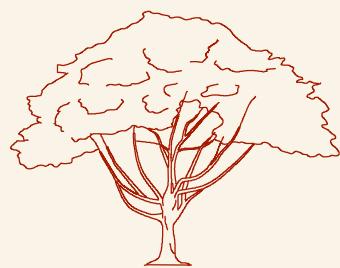
## W E A T H E R

Vendors are not very well protected against the weather. Santa Cruz is characterized by hot and humid summers, creating heat islands, and heavy rains in very short periods in the winter, creating temporary floods of streets as the sewer system cannot absorb all the rain at once. Vendors use large plastic sheets to protect their products when heavy rains occur.



Graphic 60: Vegetation and Core Markets - Santa Cruz Core,  
Gobierno Autonomo Municipal 2021





## VEGETATION

The lack of vegetation exacerbates heat accumulation in the market. There are only a few trees and bushes scattered here and there. Vegetation provides shade when the sun shines brightly, cools the environment by reducing heat islands and reduces air pollution.





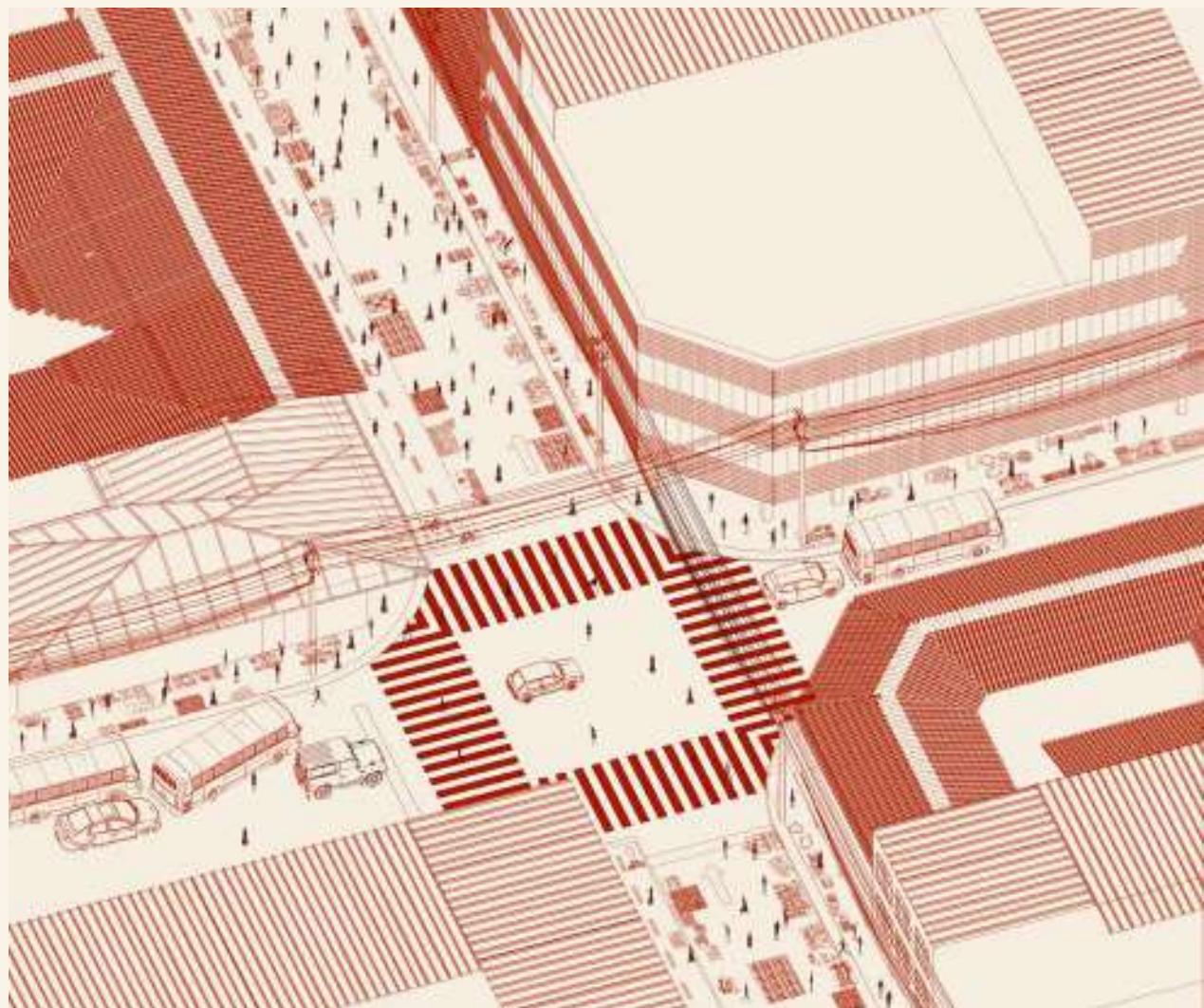
## PUBLIC SPACES

Los Pozos has no qualitative public spaces to sit, such as areas with benches. Parque Arenales is the main public space close to the market. However, the park has several issues, such as the lack of vegetation, crime as well as the lack of connection to the market. Even though many vendors said that they felt unsafe there, some market users still enjoyed this place. It used to be more welcoming before calle Murillo to traffic. Additionally, ambulant vendors appropriate public spaces such as sidewalks, causing the market to be overcrowded.





# Design Strategies



current market

## STRATEGIES

Markets are important social spaces. Although Los Pozos market is busy all day long with market users, it is not a place to wander, nor is it such an exciting place to go to if it is not to make trade or purchases. The environment is hostile, especially at night.

According to Sophie Watson and David Studdert (2006), markets are important social spaces. However, to function optimally, a few criterion need to be respected. They include some features to attract visitors to the site, opportunities to linger, good access to the site and an active and engaged community of traders. Some other criterion are a well-laid-out site, a connection with other retail outlets, and effective site management.

The design strategies address the issues identified by the vendors. They mainly seek to improve the conditions of the market to make it a less hostile environment and a more welcoming place. The main goal is to make a safe, inclusive, accessible, and enjoyable market for market users of all genders, ages, backgrounds, etc., through a participatory process by which the vendors' input is highly valued.

The design strategies seek to solve more urgent issues identified by the vendors, such as security and infrastructure. They are necessary to improve their quality of life. They also seek to solve issues we see as designers, such as the streetscapes, lack of public spaces and urban furniture, and protection against the weather. Some strategies are more punctual, and others are at a larger scale.



better signage

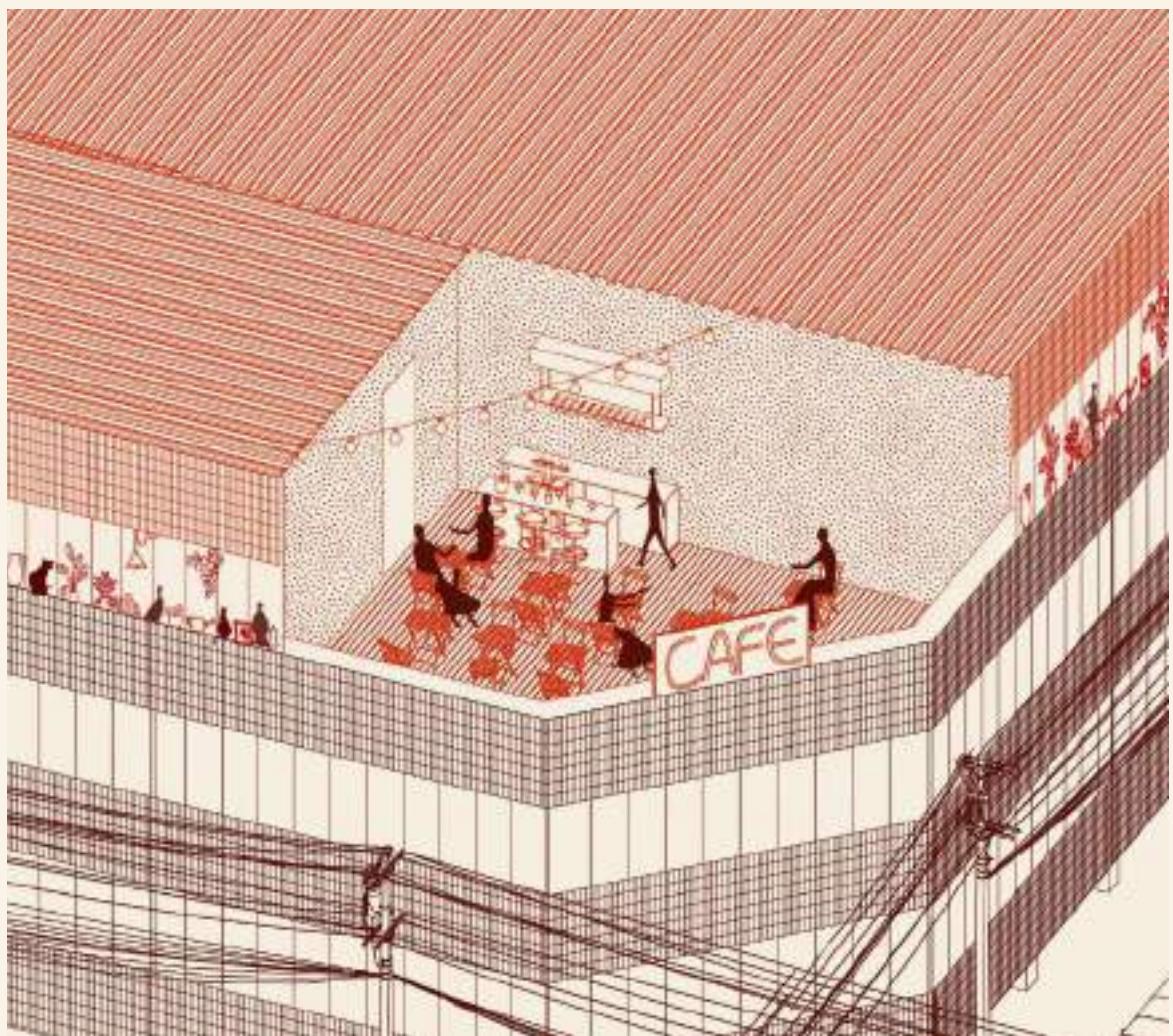
## BETTER INFRASTRUCTURE

The overall infrastructure is in a mediocre state. For hygiene issues, we believe it would be necessary to add waste collection spots to remove the waste from the streets and improve the existing facilities, such as more and cleaner public toilets and refrigerators for perishable products. Finally, another relevant change is to add a lift to the Los Pozos I comedor for accessibility.

Case study: The Zenin market in Cairo was selected as a case study for this issue. As part of Egypt's initiative for safe cities and safe public spaces, the market was redesigned to make it safer for girls and women. The market included securities issues, inadequate infrastructure and facilities, hygiene problems, etc.

As most vendors are women, their participation and input were highly valued. Women's request was mainly about designing streets well-lit at night and eliminating dark back alleys to increase the feeling of security, using materials such as ceramics that are easy to clean, improved facilities and infrastructure such as ventilation, running water and waste disposal sites, etc.

Providing a safe working space for women empowers them by providing them safer work opportunities and the possibility to become more economically independent (UN Women, 2020, pp. 25-27).

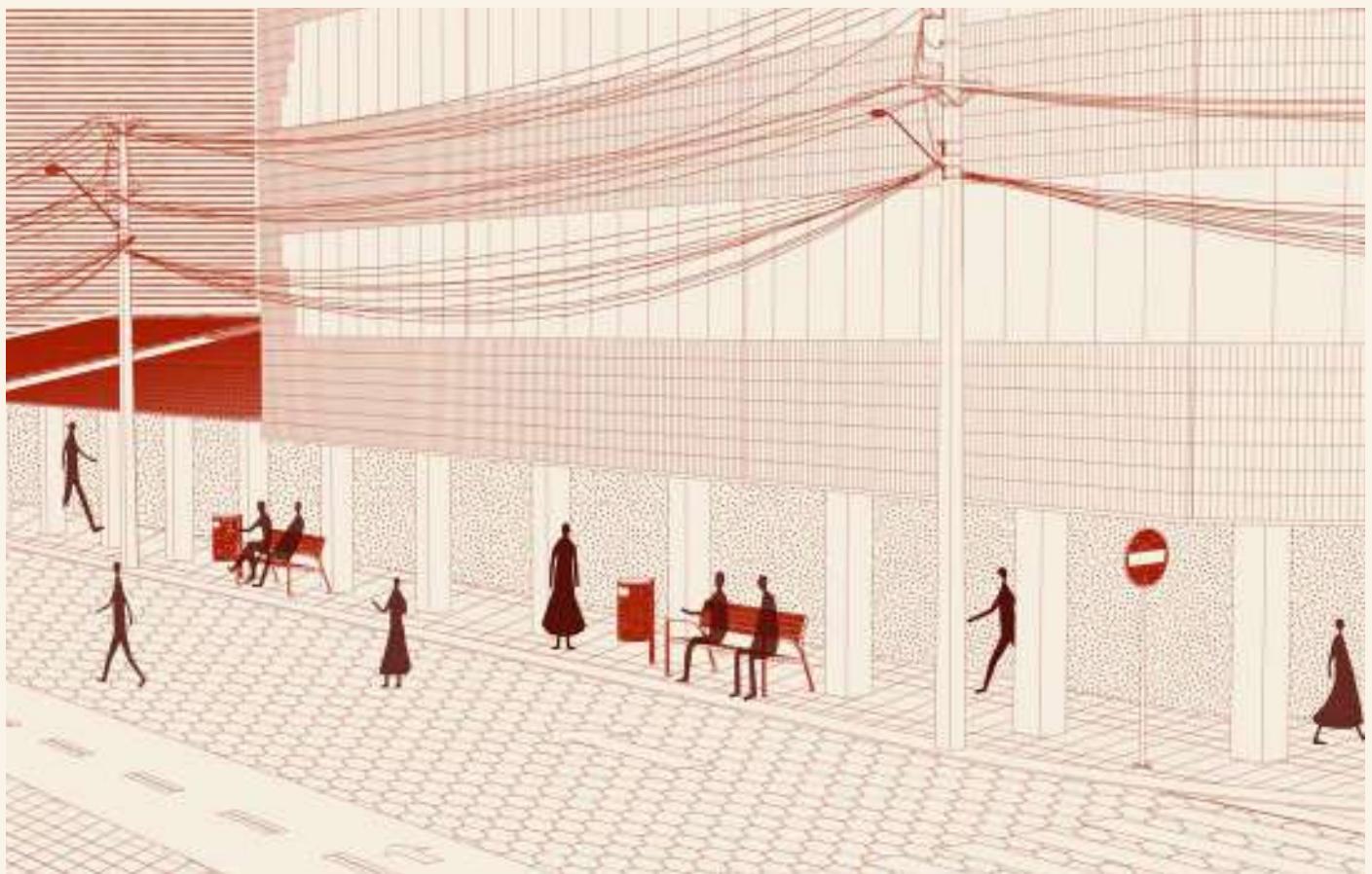


mix usage/ activities, lighting, wayfinding

## MIX USE

The issue of security can be addressed in multiple ways. One way would be to increase social control. The vendors mostly live outside the market. They come to work at the market during the day. As a result, there is no more social control at night, and at that moment, illicit activities take place in the market, such as prostitution and drug consumption. Social control could be improved by having more housing and a greater mix of usage in the market. This way, vendors would not have to travel so far to come to work, and they would save time and money on commuting. Some housing could be built on top of existing buildings that are not yet four stories high. Other punctual interventions include ensuring that the market is well-lit, adding lighting in more shady areas such as back alleys and adding wayfinding features to feel like the market is more secure.

**Case Study:** Inspired by the case study in El Alto, we would like to add wayfinding features to help market users find their way in the market. El Alto, like Santa Cruz, is a Bolivian city with a lot of migration. Aymara women, an indigenous group, constitute a high amount of that migration. Indigenous women and other minorities are more at risk of experiencing sexual harassment and other forms of violence. As part of an initiative from El Alto to make public space feel safer for women, a study was carried out to identify unsafe places. They also asked Aymara women to indicate their routes to sell their goods on a map and why. For example, public transport and dark market alleys were some of the places identified. The maps were built to scale as a wayfinding tool for women, as knowing where you are is important in feeling safe. The maps help Aymara women decide which routes to take and avoid. Aymara women also pointed out that street signs were sometimes only in Spanish, making it harder to locate themselves as some women only spoke their native language (UN Women, 2020, pp. 23-24).



streetscapes: traffic management, urban furniture and lighting

## P E D E S T R I A N F R I E N D L Y S T R E E T S

Cars, buses and motorcycles are very present in the market as they are the main means of transportation in the city and the market, making it crowded, polluted and noisy. Although they are necessary for many vendors to transport the goods and to go to work, we would like to make the market more walkable by making some streets car-free and improving traffic management. Making some cars pedestrian-friendly and adding amenities such as lighting, trees, trash cans and benches to sit, currently nonexistent, will improve the streetscape and make Los Pozos a healthier and safer environment. Vegetation is another punctual element that would allow us to achieve these objectives while providing shade and reducing heat islands. We would like to harmonize the built environment so it has less of a chaotic visual appearance by removing electricity wires that are no longer useful and unused bike lanes. Making sidewalks even could be a way to facilitate walking in the market and improve the overall infrastructure.



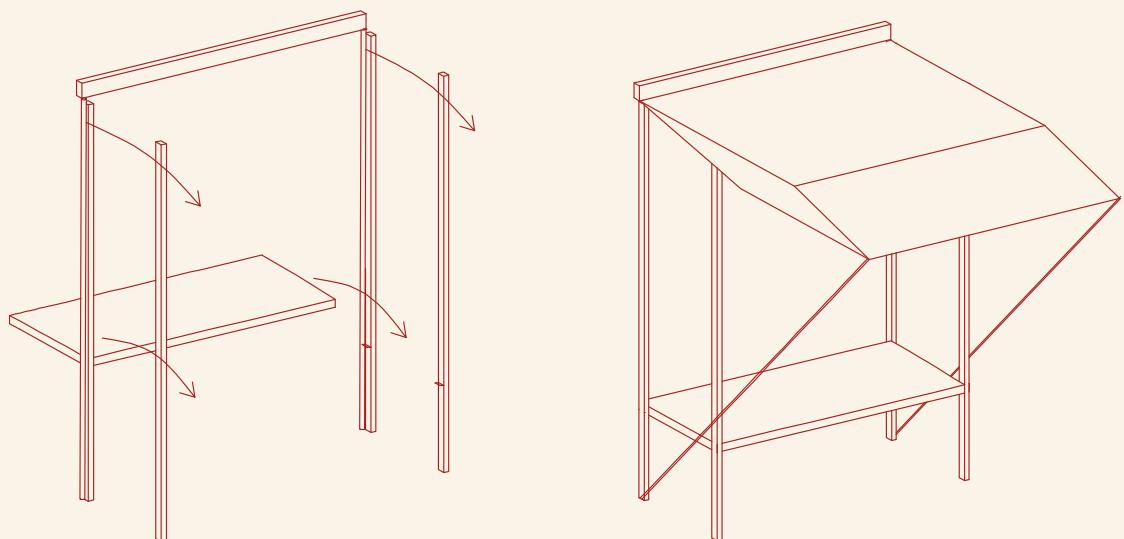
revitalization of Parque Arenale

## REVITALIZATION OF PARQUE ARENALES

Parque Arenales is entirely paved, with few trees and vegetation for a park. Additionally, it is seen as a dangerous place by many market users and inhabitants of Santa Cruz, as there is a lot of violence. Although counterintuitive, it is also a place that is appreciated by some vendors we have interviewed. We would like to revitalize the park and improve the connection between it and the market by adding vegetation and trees. We would like to add greenery to make it more enjoyable to consume, rest, walk, play, eat, and improve air quality.

Parque Arenales used to be safer than now. The neighbourhood requested that street Murillo close. They wanted the street to become private. As a result, the area became more dangerous, neighbours started to flee, and the neighbourhood became very poor. Hence, we would propose the reopening of Murillo street to vehicular traffic.

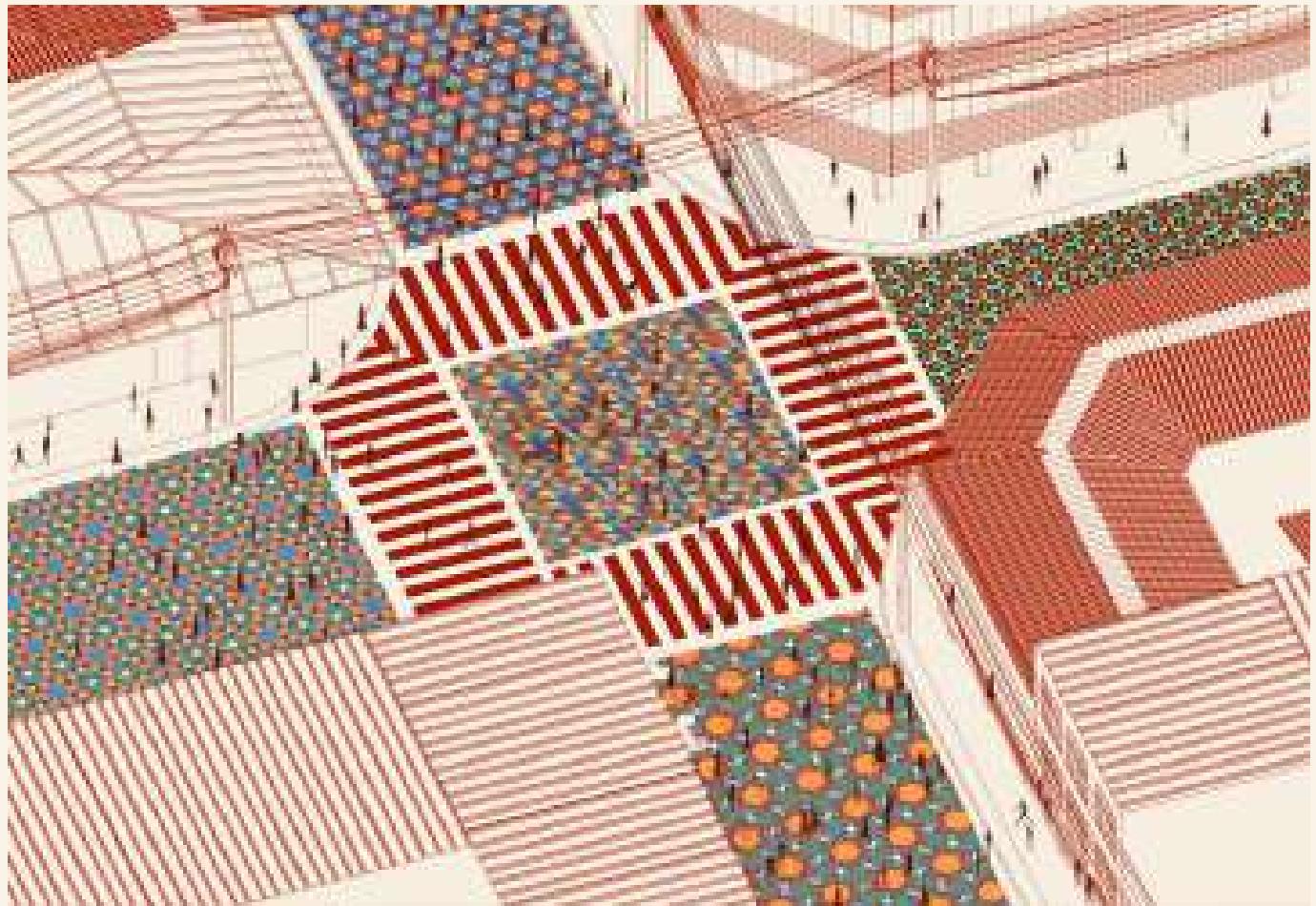
In addition to Parque Arenales, Los Pozos could have some small green spaces with benches implemented within the market to enjoy food or rest.



modular system for extension towards street to protect from weather

## WEATHER PROTECTION

Vendors are not well protected against the rain and the sun. Many vendors display their items on the street. As a result, the goods are not protected from natural elements and may be damaged. The proposal to solve this issue is to design a modular system extending above the goods and protecting them and the vendors. To protect the vendors against the weather, we would implement more vegetation to offer shade and reduce heat accumulation like trees and bushes. Additionally, we would like to develop a system to protect the vendors more adequately against the rain.



art displaying the various identities of the area

## STREET ART

Los Pozos market could benefit from having an identity. It is like any other market in Santa Cruz now. Nothing sets it apart from Siete Calles or La Ramada. A piece of art representative of the market could be included to achieve this. Los Pozos market could be a place where not only regulars go but also tourists, for example. We propose to involve the vendors in creating a mosaic to give it an identity the market users could recognise.



## REFLECTION

We encountered various challenges during our analysis, such as the language barrier, making it difficult for people to understand us at times. Also, it sometimes made people uncomfortable answering our questions. Moreover, more factors could make the analysis less precise and sources of mistakes. For example, the data we were working with was maybe outdated. We were also influenced by our preconceptions and western backgrounds.

It is arduous to bring changes to the market at this moment. Expropriation is possible by law, but the vendors would not accept being expropriated. However, we think it is still relevant to consider strategies that could eventually be adopted.

Besides the design strategies, it would be interesting to have education projects like one of the interviewees mentioned. They could tackle various themes and not only sexual health. Education could be given directly in the Los Pozos market. They could be about how to properly dispose of waste, etc., give the necessary tools and knowledge to the vendors to alter and improve their environment, about the conservation of food, etc. It would allow to further develop the participatory process of the project.

The architectural interventions proposed are meant to make the market safer, inclusive, accessible and enjoyable through a participatory process including people of different backgrounds. However, architectural interventions alone are not enough to bring changes to markets. They must also occur at the policy level and education level. Only then will it happen. For the moment, the design strategies may help improve the market, but they do not tackle the root cause of the problem.

# Bibliography

## *Written Litterature*

Kirshner, J. (2008-2010). Migration, Informalization and Public Space in Santa Cruz, Cornell University. Bolivian studies journal, Vol. 15–17, 150–190. doi: 10.5195/bsj.2010.10

Mazoni, M. (2005). Una ciudad que busca su espacio. 136-160.

UN Women. (2020). Cairo, Egypt: creating inclusive and accessible public markets for all women and girls. Safe Cities and Safe Public Spaces for Women and Girls Global Flagship Initiative: Second International Compendium of Practices. (pp. 23-24). PUBLISHER New York: UN Women

UN Women. (2020). El Alto, Bolivia: Migrants women at the center of urban planning solutions. Safe Cities and Safe Public Spaces for Women and Girls Global Flagship Initiative: SecondnInternational Compendium of Practices. (pp. 25-27). PUBLISHER New York: UN Women

Watson, S. & Studdert, D. (2006). Markets as sites for social interaction. The Poloco Press, 53p. Retrieved from <https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/1940-markets-social-interaction.pdf>

Wessels, R.M. (2009). Urban development of Santa Cruz de la Sierra (Unpublished master dissertation). TU Delft, Delft, The Netherlands.

## *Municipality*

Concejo Municipal de Santa Cruz. (2016). Plan Territorial de Desarollo Integral, Santa Cruz de la Sierra: 2016-2020

Gobierno Autonomo Municipal: DEPARTAMENTO DE PLANIFICACIÓN Y SEGUIMIENTO INTEGRAL: DIAGNÓSTICO DISTRITAL PARTICIPATIVO (2021) (Planbases for the Transportlanes, Security Statistics, Environmental Pollution, Market Growth over time)

## *Interviews*

Interview with Victor Hugo Limpias Ortiz on the 27th of July 2022.

Interview with the Municipality (Nicolas Kersting, Marlene Muriel Rivas Reyes, Jimmy Toledo, Mariana Daga) on the 29th of July 2022 and 12th of August 2022.

Interview with Theresa Koenig on the 2nd of July 2022.

Interviews with the vendors every week during our six weeks stay between the 4th of July and the 8th of August 2022.

Workshop SUPERWIEN on the 27th of July 2022.

**Websites**

Bolivia Population 2023 (Live). (n.d.). Retrieved November 1, 2022, from <https://worldpopulationreview.com/countries/bolivia-population>

Encyclopædia Britannica, inc. (n.d.). Bolivia. Encyclopædia Britannica. Retrieved November 1, 2022, from [https://www.britannica.com/place/Bolivia indigenas](https://www.britannica.com/place/Bolivia-indigenas)

McFarren, P. J. (2022). Bolivia | History, Language, Capital, Flag, Population, Map, & Facts. Encyclopedia Britannica. Retrieved the 1st of November, 2022, from <https://www.britannica.com/place/Bolivia>

Population, total - bolivia. Data. (n.d.). Retrieved the 1st of November, 2022, from <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=BO>

Pueblo Indígena Chiquitano. BioBol.org. (n.d.). Retrieved November 1, 2022, from <https://www.biobol.org/index.php/actividades/pueblos->

Sanchez, R.J. & Wilmsmeier G. (2009). Landlocked Countries in South America: Transport System. CEPAL - Serie Recursos naturales e infraestructura. No 142, 82 p. Retrieved November 1, 2022, from [https://www.cepal.org/sites/default/files/publication/files/6343/S0900132\\_en.pdf](https://www.cepal.org/sites/default/files/publication/files/6343/S0900132_en.pdf)

The project, J. (n.d.). Mennonite in Bolivia. Joshua Project: People Groups of the World. Retrieved the 1th of November, 2022, from [https://joshuaproject.net/people\\_groups/13677/bl](https://joshuaproject.net/people_groups/13677/bl)

Wikimedia Foundation. (n.d.). Santa Cruz de la Sierra. Wikipedia. Retrieved the 1st of November, 2022, from [https://de.wikipedia.org/wiki/Santa\\_Cruz\\_de\\_la\\_Sierra](https://de.wikipedia.org/wiki/Santa_Cruz_de_la_Sierra)

**Photographs**

All photographs are our own, except if mentioned differently

