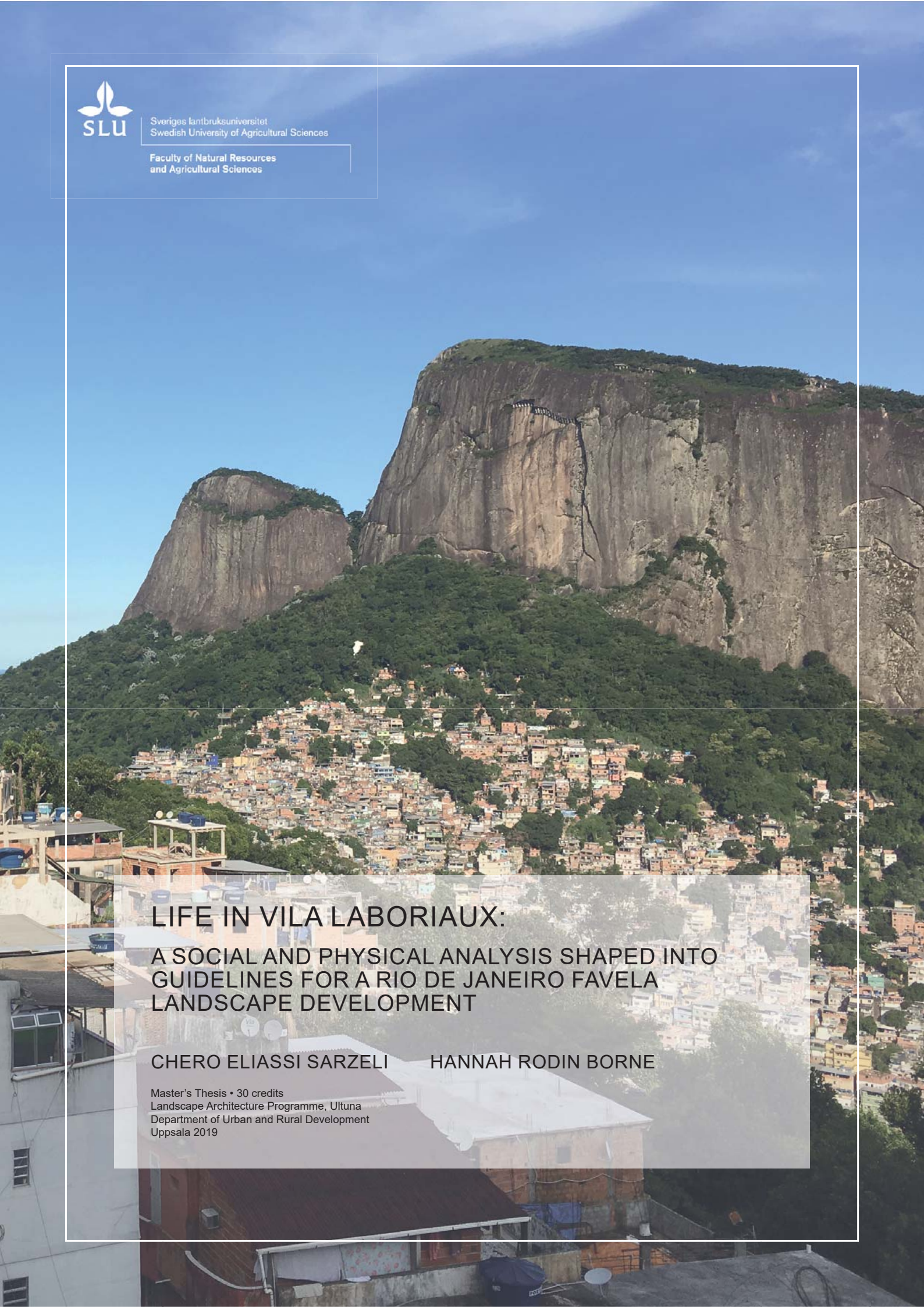




Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Faculty of Natural Resources
and Agricultural Sciences

A high-angle photograph of a densely packed favela in Rio de Janeiro, Brazil. The buildings are colorful and built on a steep, forested hillside. In the background, two large, prominent, rounded rock formations (Morro Dois Irmãos) rise against a clear blue sky. The overall scene is a mix of urban development and natural landscape.

**LIFE IN VILA LABORIAUX:
A SOCIAL AND PHYSICAL ANALYSIS SHAPED INTO
GUIDELINES FOR A RIO DE JANEIRO FAVELA
LANDSCAPE DEVELOPMENT**

CHERO ELIASSI SARZELI HANNAH RODIN BORNE

Master's Thesis • 30 credits
Landscape Architecture Programme, Ultuna
Department of Urban and Rural Development
Uppsala 2019

Swedish University of Agricultural Sciences
Faculty of Natural Resources and Agricultural Sciences
Department of Urban and Rural Development, Division of Landscape Architecture, Uppsala
Master's thesis for the Landscape Architecture Programme, Ultuna
Course: EX0860, Independent Project in Landscape Architecture, A2E - Landscape Architecture Programme - Uppsala, 30 credits
Course coordinating department: Department of Urban and Rural Development
Level: Advanced A2E
© 2019 Chero Eliassi, email: chero.eliaassi@gmail.com, Hannah Rodin Borne, email: hannahrodin@gmail.com
Title in English: Life in Vila Laboriaux: A social and physical analysis shaped into guidelines for a Rio de Janeiro favela landscape development
Title in Swedish: Livet i Vila Laboriaux: En social och fysisk analys format till programpunkter för landskapsutveckling av en favela i Rio de Janeiro
Supervisor: Madeleine Granvik, SLU, Department of Urban and Rural Development
Examiner: Per Berg, SLU, Department of Urban and Rural Development
Assistant examiner: Lena Steffner, SLU, Department of Urban and Rural Development
Cover image: Photograph from a rooftop in Vila Laboriaux with surrounding areas in Rocinha in the background. Photograph taken by Chero Eliassi, 20190402.
Copyright: All featured texts, photographs, maps and illustrations are property of the author unless otherwise stated. Other materials are used with permission from copyright owner.
Original format: A4 (standing)
Keywords: Rio de Janeiro, Rocinha, Vila Laboriaux, favela, landslides, housing removal, gentrification, civil dialogue
Online publication: <https://stud.epsilon.slu.se>





Imagery 1: Photography of Chero Eliassi, our tour guide Fernando Ermiro and our translator Carlos Augusto during the first guided tour in our study site favela Rocinha, walking along the widest main road Estrada da Gávea (see map 4). (Photography taken by Hannah Rodin Borne, 20190214)

ACKNOWLEDGEMENT

We are very grateful for the opportunity we have had to visit Rio de Janeiro, Rocinha and especially the incredible sub-neighborhood Vila Laboriaux. We would like to thank all of the fantastic people we have come across during this journey and we are very glad and proud of the work presented in this study. We would like to give a special thanks to our Swedish supervisors Madeleine Granvik, SLU, Uppsala for all her support and guidance in writing this master's thesis.

We would like to thank our local mentors professor Sergio Fagerlande and Theresa Williams and the Catalytic Communities team. Their expertise and knowledge in working with favela networks and communities were of great value and importance for the topic of the study.

We would also like to thank the humble and experienced architect Luiz Carlos Toledo for sharing his expertise on favela Rocinha and the great work he has completed there. We would also like to give a

big thanks to our local contact in Rocinha Fernando Ermiro who kindly introduced us to the area and made us feel welcome in Vila Laboriaux.

Without our fantastic translators Carlos Augusto and Francisco Soares de Gusmão, there would not have been any communication with the inhabitants of Vila Laboriaux and there would not have been any interviews or survey session.

Last we would like to thank the amazing residents of Vila Laboriaux that welcomed us in the best possible way with their hospitality and kindness. We would like to thank the inhabitants who were kind enough to take their time and share their thoughts and opinions in the interviews and surveys with us.

And lastly, a big thank you to SIDA and the Minor Field Study scholarship for funding and enabling this fantastic experience and study in Rio de Janeiro.



Hannah Rodin Borne



Chero Eliassi Sarzeli



Imagery 2: Lookout point from one of the rooftops in this study's research area Vila Laboriaux. The image shows how the urbanization takes place in Rio de Janeiro and what the settlement construction in favelas usually looks like (Photography taken by Chero Eliassi, 20190222)

ABSTRACT

The urbanization is a rapid movement that has been continuously increasing for the last one hundred years in several places around the world. As a result of poverty and urban migration in Brazil, informal settlements known as favelas (see image 2) have developed in its cities. In the largest favela Rocinha in the state of Rio de Janeiro, the favela faces some of the greatest challenges due to high-density buildings constructed by the inhabitants themselves, narrow built streets and alleys which affect transportation possibilities, landslide risks and inadequate sanitation systems. As the process of building new settlements in Rocinha has a higher pace and a different building scheme than the City government's, the construction process in the favela is different from other urban planned parts of Rio de Janeiro. In the sub-neighborhood of favela Rocinha, the partly governmentally planned area Vila Laboriaux grows on the mountain ridge located close to the economically wealthier neighborhood Gávea. Large areas in Vila Laboriaux were in 2013 zoned as risk areas for landslides by the City of Rio. Landslides happen yearly due to heavy tropical rains in Brazil. During the summer periods when the tropical rain hits Rio de Janeiro, the people living in the favela and risk zones leave their homes to seek shelter. In 2010, several inhabitants of Vila Laboriaux passed away due to landslides that destroyed their houses while they were staying inside. The City government entered shortly after the incident and evicted families to the outskirts of Rio de Janeiro. The City asphalted the large areas hit by the landslides as a way to

prevent the inhabitants from rebuilding new houses on the site. The lack of communication between the inhabitants and the City government is investigated in this thesis through civil dialogue, documentation and mapping of the site. The aim is to map the residents values and perceptions of Vila Laboriaux and how those values can be used for future planning of the neighborhood. The work in this thesis is performed by conducting a study that is divided into six sections, with a focus on civil dialogue methods. The inventory result and analysis show where activities and street life take place in Vila Laboriaux, the road quality, the infrastructure and the development level of the sub-neighborhood. The survey result and analysis presents what inhabitants of Vila Laboriaux feel about governmental changes happening in their neighborhood. The observation result presents human activities, infrastructure, building and developing structures in the sub-neighborhood as well as viewing points, green areas and open spaces. The interview result presents the respondents' answers regarding their general opinion of Vila Laboriaux. Their thoughts regarding transportation, valuable places, changes in the area, amount of inclusion in the planning process, landslides and safety issues and how they believe Vila Laboriaux can develop are also presented. Based on the results, eight design guidelines are proposed for future landscape development of Vila Laboriaux. The thesis concludes with a discussion section which reflects on ethical aspects, the methods used, the result collected and potential future developments.



Imagery 3: Image showing one of the areas in Vila Laboriaux where many settlements were destroyed by the cause of landslides but where residents have started constructing new houses again. This area was shown to us by one of the interview participants who explained what happened after the landslides had damaged the area (see page 64). (Photography taken by Chero Eliassi, 20190221)

SAMMANFATTNING

INLEDNING

Under de senaste hundra åren har det skett en kraftigt ökande urbanisering till städerna. I Brasilien har fattigdom och urban migration lett till att informella bosättningar, även kallade favelas, har tillkommit i brasilianska storstäder såsom Rio de Janeiro. Flera favelor hanterar dagligen utmaningar på grund av tätkonstruerade byggnader med lite ljusinsläpp, trånga vägar och gränder som påverkar transportmöjligheter, risker för jordskred samt ofullständiga vatten- och renhållningssystem. Det finns möjlighet till att lösa flera av dessa problem med en bättre planerad landskapsarkitektur och hantering av offentliga ytor i området.

Byggprocessen i favela går snabbare och särskiljer sig från den formella byggprocessen i andra statligt planerade områden i Rio de Janeiro. Invånare som bor i favelan upplever i stor utsträckning att de är uteslutna från att ta del av planeringen av deras grannskap. Från statligt håll fokuserar utvecklingsförslagen framförallt på visuella förändringar som påverkar hur Rocinha upplevs av turister och tillfälliga besökare. Enligt favelainvånarna är visuella förändringar deras minst prioriterade behov och de skulle föredra satsningar på sanitering, service och en fungerande infrastruktur.

Bristen på kommunikation och dialog mellan den statliga makten och medborgarna i favelan ger inte förutsättningarna för att utforma platser och landskapsarkitektur som är till för medborgarna. Det bör utredas tillvägagångssätt för kommunikation och samarbete med de boende i favelan för att utforma ett planeringsunderlag som kan skapa möjligheter till god landskapsarkitektur och stadsutveckling.

PLATSEN VILA LABORIAUX

På en av de högsta bergsryggarna av Rio de Janeiro ligger favela Rocinha som är den största favelan i Sydamerika. I Rocinha ligger det kommunalt planerade bostadsområdet Vila Laboriaux som gränsar till en av Rio de Janeiros rikaste stadsdelar Gávea. Det tropiska klimatet med de nederbördsrika somrarna resulterar i att jordskred ofta sker i området Vila Laboriaux, vilket har tvingat många boende att flytta därifrån.

År 2010 skedde en av de mest kraftiga jordskreden i Vila Laboriaux, vilket gjorde att flera invånare miste livet i jordmassor och ett flertal bostäder ruinerades. År 2013 blev delar av Vila Laboriaux zonerat som riskområden för jordskred av kommunen i Rio de Janeiro. Den statlig och kommunal makten valde att strax efter händelsen asfaltera de ytor där bostäder tidigare hade varit placerade. Staten genomförde detta för att förhindra invånarna till att bygga nya bostäder på dessa platser (se bild 3). De människor vars hus förstördes blev vanligtvis omplacerade till utkanten av kommunen i Rio de Janeiro, vilket ledde till stora sociala förändringar i grannskapet och konsekvenser för familjerna som tvingades flytta.

Saknaden av kommunikation mellan invånarna i Vila Laboriaux och den statliga och kommunala makten i Rio de Janeiro, framförallt under de stora jordskreden 2010, blev ingångspunkten till denna masteruppsats. I denna uppsats undersöks Vila Laboriaux utifrån medborgarnas perspektiv med komplement av observations och inventeringsstudier.

FRÅGESTÄLLNING

Hur upplever och värderar invånarna i Vila Laboriaux, Rocinha den offentliga miljö i deras grannskap? På vilket sätt kan de lokala invånarnas kunskap samlas och användas inför framtida planering av Vila Laboriaux?

SYFTE

Syftet med denna masteruppsats är att undersöka samt samla information om medborgarnas uppfattningar och värderingar om deras boendeområde i Vila Laboriaux i Rocinha, Rio de Janeiro. Studien fokuserar på att skapa programpunkter och ett planeringsunderlag baserat på den information medborgarna delar med sig av om Vila Laboriaux samt våra observationer och inventeringar, för framtida landskapsutveckling av området.

Målet med den här studien är att genomföra en medborgardialog med invånarna i Vila Laboriaux där dokumentationen av deras kunskap kan användas som framtida planeringsunderlag för grannskapet, och andra liknande tätbebyggda urbana områden. Fokus i den här studien ligger på att lyfta de sociala aspekterna i planeringsprocessen kring frågor angående jordskred, gentrifikation, medborgardialog, offentliga miljöer och infrastruktur på studieområdet.

METOD

Studien genomfördes med sex huvudmetoder. De sex delarna består av en förstudie, inventeringsstudier, observationer, intervjuer, en enkätstudie och slutligen programpunkter.

Förstudien, inventeringsstudien och observationsstudien påbörjades före intervjustudien och enkätstudien. Anledningen till denna prioritering var att vi fann det viktigt att lära oss om komplexiteten av favelas och Vila Laboriaux. Vi ville även att människorna som levde i grannskapet skulle bli bekväma med oss på plats innan vi påbörjade direkt kontakt för informationssamling till intervju- och enkätstudien. En annan anledning var att vi ville formulera så relevanta frågor som möjligt, som även var mottagliga för de invånare som valde att delta i vår studie.

INVENTERINGS STUDIER

Inventeringsstudien är indelad i de tre kategorierna: aktiviteter och gatuliv, vägar och infrastruktur samt utveckling och tillväxt. Observationerna tog plats vid flera platsbesök i Vila Laboriaux och kategoriserades in i fem delar: mänskliga aktiviteter, trafik och infrastruktur, byggnader och utvecklade strukturer, utkikspunkter och gröna ytor, samt service.

OBSERVATIONER

Observationerna genomfördes under platsbesöken i Vila Laboriaux där vi noterade hur människorna i området använde och rörde sig i offentliga ytor. I metoden studerade vi människor i deras naturliga miljö. Resultatet noterades i text och enklare skisser på plats.

ENKÄT

Enkätstudien bestod av fem frågor om deras tankar kring oro över jordskred, förändringar som skett i grannskapet och till vilken grad de har varit inkluderade i de beslut som fattats. Det var etthundra medborgare svarade på enkäten.

INTERVJUER

Intervjuerna delades även in i kategorier och bildade åtta undergrupper: invånarna i Vila Laboriaux, generell uppfattning om Vila Laboriaux, transport, värdefulla platser, förändringar i grannskapet, inkludering i beslutsfattandet, säkerhet och jorderosion, samt framtida utveckling. Intervjuerna genomfördes i respondenternas hem eller ute i den offentliga miljön (se bild 4 s.11).

PROGRAMPUNKTER

Utgångspunkten för utvecklingen av programpunkterna är det resultat som kom fram i inventeringsstudierna, observationerna, enkäten och intervjuerna. Baserat på den information medborgarna har angett och vad vi har observerat

på platsen formulerades åtta programpunkter för utveckling av området Vila Laboriaux.

RESULTAT

INVENTERINGS STUDIER

Resultatet från inventeringarna sammanställdes i tre inventeringskartor. Den första kartan visar vilka aktiviteter, gatuliv och grönstruktur i Vila Laboriaux. Infrastrukturskartan redovisar väginfrastrukturen, vägkvaliteten och topografin. I den tredje kartan, utvecklings- och tillväxtkartan, visas det var det har tillkommit nya byggnader och vägar, som inte syns på grundunderlaget från Google Maps som användes vid inventeringstillfällena.

ENKÄT

I enkätresultatet, som består av fem frågor, framkommer det vad enkätdeltagarna anser om de statliga och kommunala förändringar som har skett Vila Laboriaux och ifall de känner sig delaktiga i beslutsfattandet kring förändringarna som har skett. Enkäten visar även resultat över hur medborgarna känner inför framtida förändringar i området.

OBSERVATIONER

Observationsresultatet delades in i fem kategorier som behandlar mönster i mänskliga aktiviteter, hur trafiken och infrastrukturen fungerar, hur byggnader

tillkommit och var mest utveckling sker, var det finns uttkispunkter, gröna öppna ytor samt hur servicen ser ut i Vila Laboriaux.

INTERVJUER

I intervjuresultatet finns det åtta underkategorier som presenterar intervjudeltagarna, vad deras generella åsikt om Vila Laboriaux är, vad de tycker om transportsystemet, vilka platser de anser är viktiga och värdefulla, hur de upplever utvecklingen i Vila Laboriaux samt hur inkluderade de känner sig i de förändringar som tar plats i grannskapet. Intervjuresultatet visar även vad intervjudeltagarna anser om säkerheten och de följer jordskreden innebär. Slutligen presenteras vad intervjudeltagarna anser om framtida utveckling i Vila Laboriaux.

PROGRAMPUNKTER

Baserat på informationen som presenteras i tidigare resultatdelar, har åtta programpunkter sammanställts för hur Vila Laboriaux kan vidareutvecklas. De åtta programpunkterna är: förbättring av sophantering, stärka vegetativa strukturer i allmänna platser, skapa en större mötesplats för invånarna, förbättra dagvattenhanteringssystemet, förstärka marken med konstruktion som förhindrar jordskred, förbättra befintlig väginfrastruktur, möjliggöra användandet av förnyelsebara energikällor och slutligen utveckla transportalternativen till Vila Laboriaux.



Imagery 4: Image showing how one of our methods, interviews, could be carried out. Here we are at the respondents' house when the interview was performed together with our translator to the left, Carlos Augusto (Photography taken by Chero Eliassi, 20190320).



Imagery 5: Picture showing one of the observations we did of paintings on walls during the observational studies (see pp. 53). The photo shows some wall art in Vila Laboriaux (Photography taken by Chero Eliassi, 20190221).

TABLE OF CONTENT

INTRODUCTION

Definition of Terms	17
Project Background	19
Purpose	20
Problem Statement	20
Target Group	20
Limitations	21
Geographical Limitation	21
Thematic Limitations	21

LITERATURE STUDY AND STUDY OBJECT

Literature Study	23
History of Favelas	23
Favelas in Rio de Janeiro	24
Facts about landslides in Rio de Janeiro	24
Development of Favela Rocinha	26
Study Object: Vila Laboriaux	26
Background	27
Landslides	28
Public Participation	29
Gentrification	31

METHODOLOGY

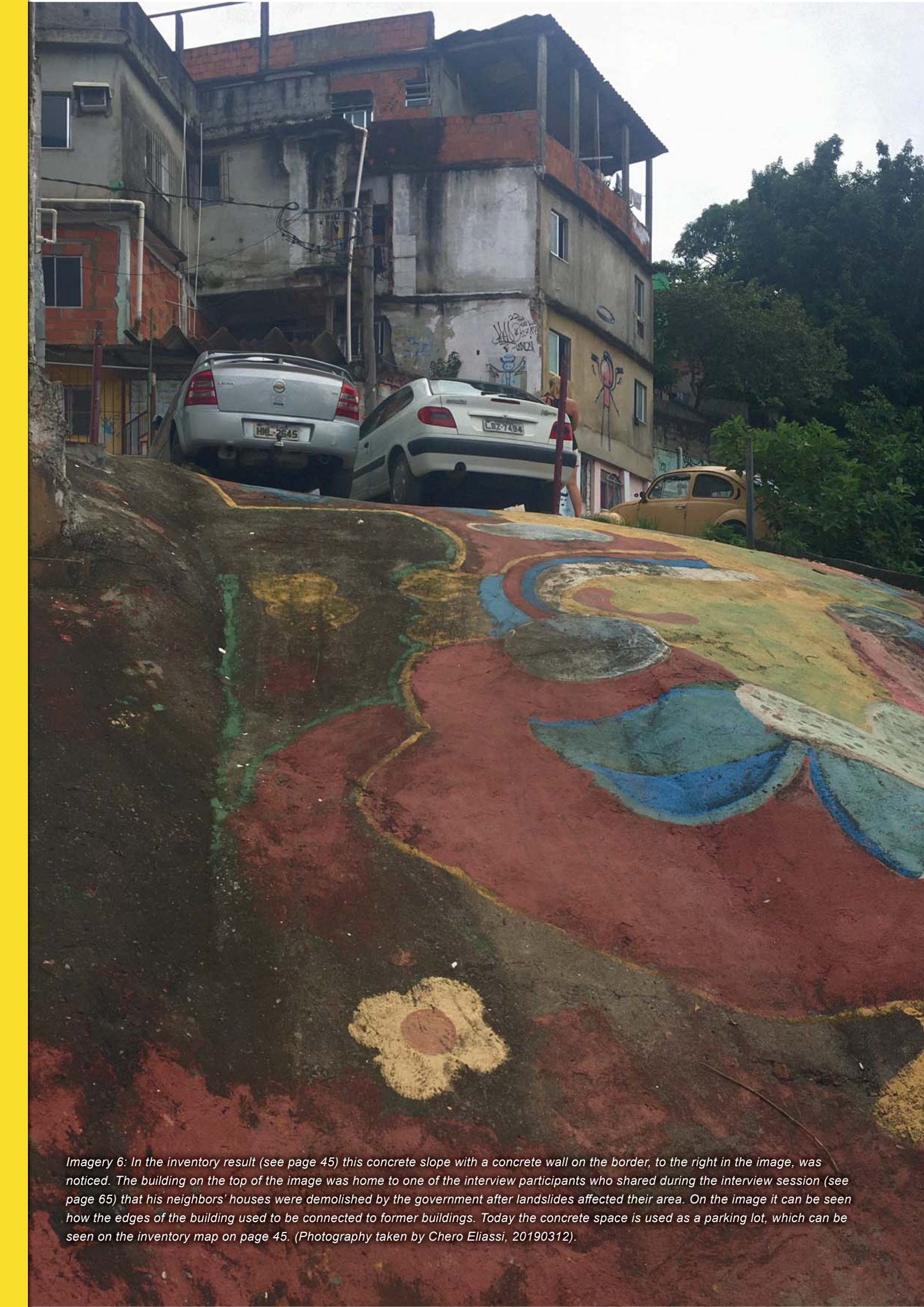
Pre-study	35
Inventory Study	36
Survey	37
Observations	37
Interviews	38
Design guidelines for Vila Laboriaux	41

RESULT AND ANALYSIS

Inventory study and analysis	43
Inventory map: Activities and Street Life	44
Inventory map: Roads and Infrastructure	46
Inventory map: Development and Growth	48
Survey and Analysis	50
Observations and Analysis	55
Human Activity	55
Traffic and Road Infrastructure	56
Buildings and Developed Structures	57
Viewing points, vistas, green areas and open spaces	58
Service	59
Interviews and Analysis	60
Residents in Vila Laboriaux	60
The General Opinion of Vila Laboriaux	61
Transportation	61
Valuable Places	62
Changes in the Neighborhood	63
Inclusion in Decision Making	64
Safety and Landslides	65
Future Development	66

RESULT DESIGN GUIDELINES FOR VILA LABORIAUX

Design Guidelines	69
Improve waste management	69
Stabilize the soil-structure with landslide stabilizing piles and walls	70
Develop a larger meeting place for the inhabitants to use	70
Enhance surface water management and create drainage systems	71
Strengthen vegetative structures in public spaces	71
Improve existing road infrastructure	72



Imagery 6: In the inventory result (see page 45) this concrete slope with a concrete wall on the border, to the right in the image, was noticed. The building on the top of the image was home to one of the interview participants who shared during the interview session (see page 65) that his neighbors' houses were demolished by the government after landslides affected their area. On the image it can be seen how the edges of the building used to be connected to former buildings. Today the concrete space is used as a parking lot, which can be seen on the inventory map on page 45. (Photography taken by Chero Ellassi, 20190312).

TABLE OF CONTENT

RESULT DESIGN GUIDELINES FOR VILA LABORIAUX

Design Guidelines	69
Facilitate the use of renewable energy sources	72
Expand transportation alternatives to Vila Laboriaux	73

DISCUSSION

Method discussion	75
Translation	75
Ethical Aspects	75
Inventory Study and Observations	76
Survey and Interviews	76
Result discussion	77
Inventory Study and Observations	77
Survey and Interviews	78
Design Guidelines in Vila Laboriaux	79
Reflections on Minor Field Studies	79
Challenges in culture and language	79
Future research	80
Continuation of this master's thesis	80

REFERENCES AND APPENDIX

Books	83
Journals	83
Articles and Reports	84
Internet sources	85
Video	86
Maps	86
Oral sources	86
Imagery	86
Interview questions	87
Survey questions	88

Claro-pré
IP DA INTERNET
AQUI
TEM

ESPAÇO BOÊMIO e CULTURAL
LARGO DO SEU VAVÁ



A VIDA É PARA SER VIVIDA,
TEM QUE SABER VIVER A VIDA,
SE NÃO SOUBER VIVER A VIDA,
VAI VIVER PRA QUE.

ASS. POETA GENÁRIO

Diego
Rozas

Imagery 7: Photography of one of the alleys connected to the road Rua Maria do Carmo, Vila Laboriaux. In the observational studies it was noted that the majority of the alleys connected to Rua Maria do Carmo had concrete paving. They would also function as temporary parking spaces for vehicles. The quote on the wall is translated to "Largo do seu Vavá Cultural Space - Life is to be lived; One must know how to live the life; If the one does not know how to live the life; What is worth living for." (Photography taken by Chero Eliassi, 20190222).

INTRODUCTION

The introductory chapter covers definition of terms, project background, purpose, problem statement, target group and limitations within the master thesis.

DEFINITION OF TERMS

In this thesis, the following terms defined below will be used:

Civil dialogue and civil communication

Civil dialogue and civil communication are two terms that is used in this master's thesis for studies executed with structured public dialogue with the aim to help people communicate in productive and civil ways.

Community

People who are considered as a unit or people living in one area because of their common interests, nationality or social group. (Community, n.d.)

Conjuntos

Government housing blocks (Perlman 2011 pp. 15).

Landslide

A landslide is the movement of earth material such as masses of rock, earth or debris under the influence of gravity (Cruden 1991).

Favela

According to The Brazilian Institute of Geography and Statistics (IBGE 2010), a favela is a set of 51 or more housing units characterized by the lack of property ownership and at least one of the following characteristics:

- Irregularity of traffic routes and the size and shape of the lots and/or
- Lack of essential public services (such

as garbage collection, sewage system, water network, electricity and, public lighting)

Favelado

Residents who live in the favela.

Gentrification

A complex socio-economic change in a physical area The Cambridge Dictionary (Gentrification, n.d.) defines as: "the process by which a place, especially a part of a city, changes from being a poor area to a richer one, where people from a higher social class live.

Informal settlements

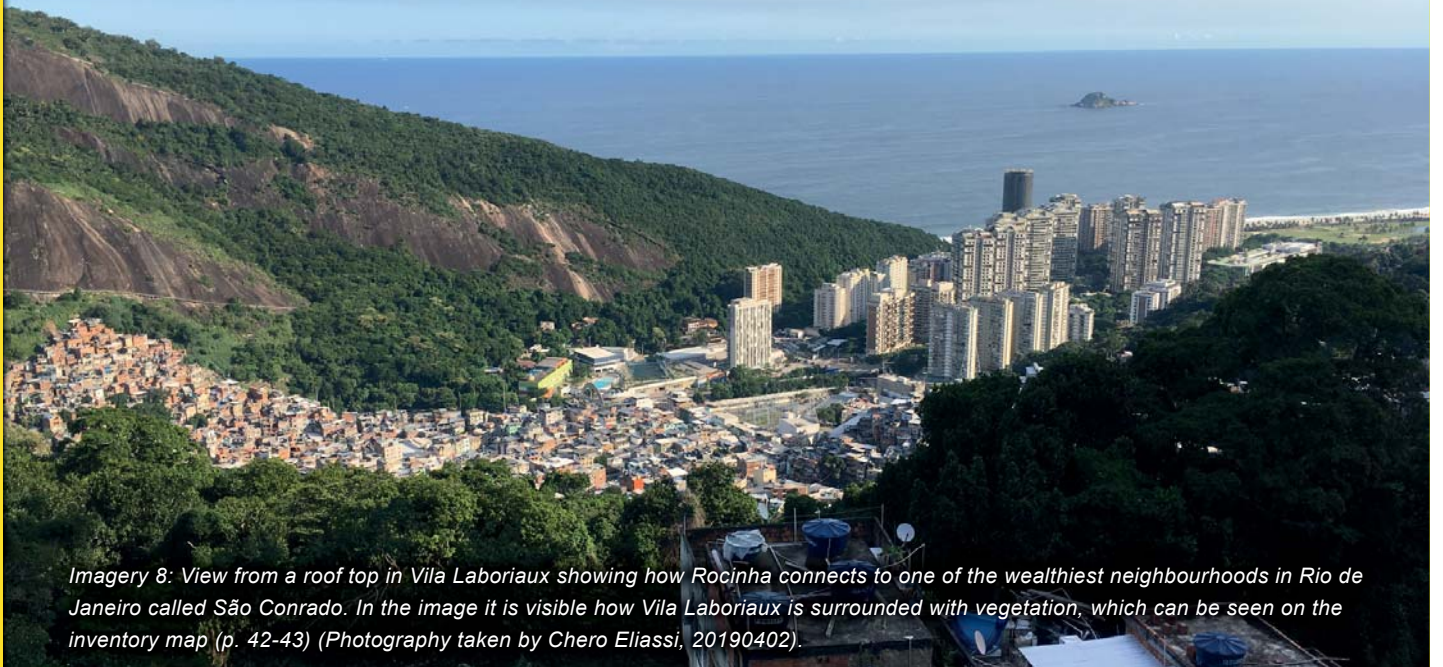
The UN-Habitat (2010) defines informal settlements as residential housing areas where the occupants lack legal claim for the land. Furthermore, they define the living areas as unplanned settlements that do not comply with current building and planning regulations (UN-Habitat 2010, pp. 14).

Public participation

A broad notion that means individuals and/or groups of people are included in the planning process of their community. They are taking part in and influencing decision-making processes that affect the community's future. (Public Participation in Planning, 2014 pp. 8)

Urban

The perception of an urban area varies from person to person, which makes it difficult to define. For this reason, in this master's thesis, we have chosen to define it ourselves accordingly: a densely-settled area with built-up settlements that belongs to and/or relates to a town or a city.



Imagery 8: View from a roof top in Vila Laboriaux showing how Rocinha connects to one of the wealthiest neighbourhoods in Rio de Janeiro called São Conrado. In the image it is visible how Vila Laboriaux is surrounded with vegetation, which can be seen on the inventory map (p. 42-43) (Photography taken by Chero Eliassi, 20190402).

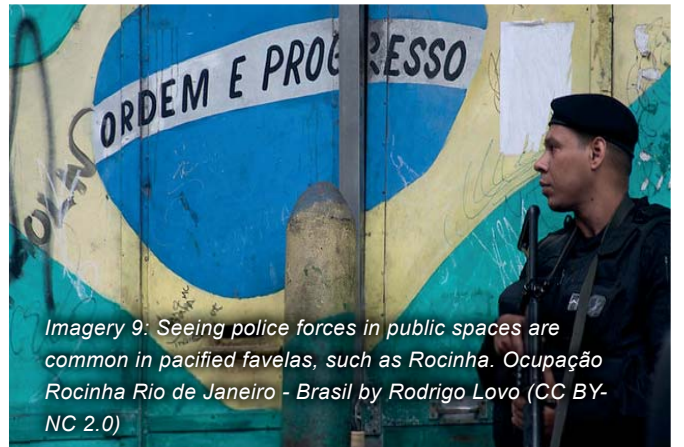
Urbanization

A process where larger number of people relocate permanently from rural, small areas to areas where there is a growth in population, forming cities.

(Urbanization 2019)

Public space

According to the United Nations Educational Scientific and Cultural Organization (UNESCO 2017), the definition of a public space is “an area or place that is open and accessible to all people, regardless of gender, race, ethnicity, age or socio-economic level.”



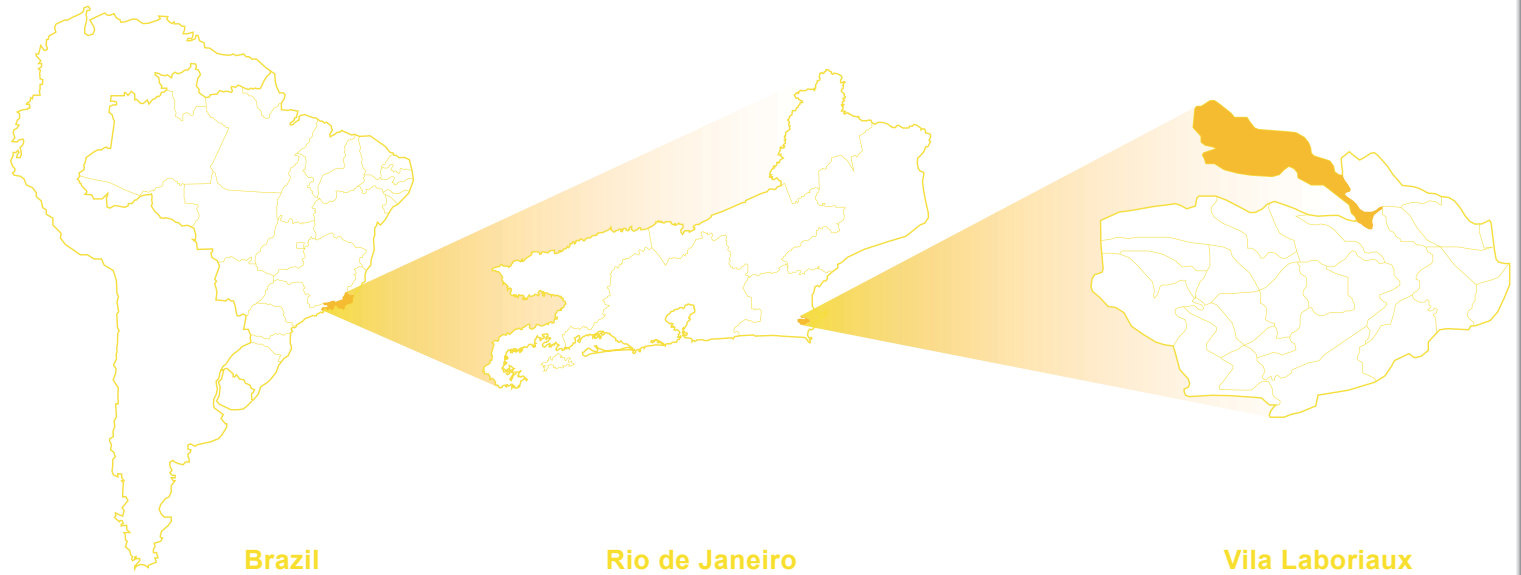
Imagery 9: Seeing police forces in public spaces are common in pacified favelas, such as Rocinha. Ocupação Rocinha Rio de Janeiro - Brasil by Rodrigo Lovo (CC BY-NC 2.0)

Pacification

The aim of a pacification action is to bring peace or end a war in an area, oftentimes using by threat or by military force. (Pacification n.d.)



Imagery 10: One of the roads in Vila Laboriaux showing the level of development. On the inventory map (p. 44.45) this road is marked as beaten track with pits (Photography taken by Chero Eliassi, 20190314).



Map 1: The first map from the left shows the location of the city of Rio de Janeiro in Brazil. The map in the center shows favela Rocinha's location in the southeast region of Rio the Janeiro. The map to the right shows the area Vila Laboriaux located in the north part of Rocinha (Google Maps with modification by Chero Eliassi, 20190227).

Pacifying Police Unit (UPP)

A Portuguese shortening for Unidade de Polícia Pacificadora, is a safety programme Rio de Janeiro implemented in several favelas in 2010 in preparation for the 2014 World Cup. The aim was to maintain control of territories and expel drug trafficking in the favelas (Fabrés 2013).

PROJECT BACKGROUND

The urbanization is a movement that has been rapidly increasing for the last one hundred years in several places around the world (Perlman 2011 pp. 8). Approximately 10% lived in cities one hundred years ago. Today that number is over 50% and it is estimated to be as high as 75% in 2050 (Perlman 2011 pp. 8).

As a result of poverty and urban migration, many informal settlements known as favelas have developed in Brazil. The growth of informal settlements can be found in many parts of the world with divergent names (Perlman 2011 pp. 41, 47). The favelas are areas that typically have been shaped and developed by people who have occupied vacant land at the edge of Brazilian cities and created informal settlements on this land (Wallenfeldt 2016).

In Rocinha, the largest favela in the state of Rio de Janeiro, some of the greatest challenges the

area faces is complications with access to quality housing, not proper working sanitation systems and the narrow built streets, which affects the resident health and has lead to high-density traffic. The narrow built streets also make it difficult for the police force to gain access to the area, which has resulted in drug traffickers settling in the alleys and other dense areas (Al Jazeera English 2014).

A consequence of the annual heavy rainstorms are landslides, that often occur in Rocinha and other hillside favelas in Rio de Janeiro. One of the most lethal landslides occurred in 2010 when 224 people lost their lives in favela Rocinha. In the sub-neighborhood Vila Laboriaux in Rocinha, two people were buried under bricks, debris and mud because of the heavy rains and floods (Phillips 2010).

The area Vila Laboriaux, which is on the ridge of the hill facing the Tijuca National Park (See map 2, pp. 21), has been highlighted as one with the highest risk of landslides (Prefeitura da Cidade do Rio de Janeiro, 2013). Because of the risk of landslides, many residents have been evicted to the outskirts of the city leaving no space for negotiation regarding the housing situation.

In February 21st, 2019, we met Fernando Ermiro, a former Vila Laboriaux resident and a current guide in favela Rocinha, who introduced us

to Vila Laboriaux and its possibilities and challenges. We were shown areas where residents had been removed and relocated, areas where landslides recently had taken place and Ermiro introduced us to the inhabitants of Vila Laboriaux. Many of those people had been affected by the landslides and had faced issues with City Hall's resident removal program.

This information became the starting point of this master's thesis. The ambition was to work alongside the United Nations sustainable development goal number 11, which focuses towards making cities and human settlements more safe, inclusive, sustainable and resilient (United Nations 2018). United Nations goal number 11 focuses on upgrading slums through a bottom-up approach and work with local residents. This is implemented in the study through a citizen communication approach in the form of interviews and surveys with local residents in the studied area.

Additionally, we document our perceptions of the infrastructure, street life, activities and development of Vila Laboriaux through inventory maps of the area and observational studies during site visits.

PURPOSE

The purpose of this master's thesis is to examine and collect information on the local resident's perceptions and values of their favela community in Vila

Laboriaux, Rocinha, Rio de Janeiro. Furthermore, the aim is to form design guidelines based on the collected information from the residents along with the observations and inventory study, for the future landscape development of the site. The aim of this study is to focus on civil dialogue with the resident in Vila Laboriaux where the documentation of their knowledge can be used as future planning material for the community, and other similar dense urban areas. The study focuses on social aspects in the planning process regarding specific issues with landslides, gentrification, public participation and public spaces and infrastructure on the study site.

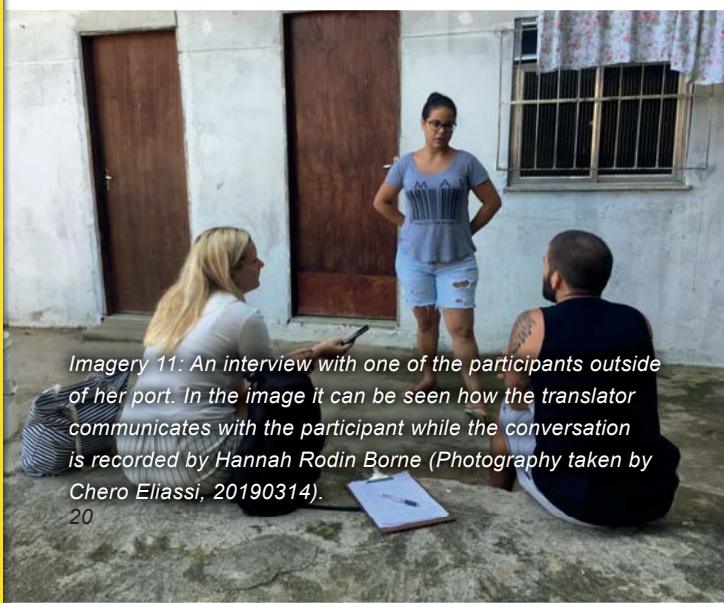
PROBLEM STATEMENT

What are the residents' perceptions and values of Vila Laboriaux, Rocinha, regarding public spaces in their neighborhood? In what way can the local residents' knowledge be documented and used for future planning of Vila Laboriaux?

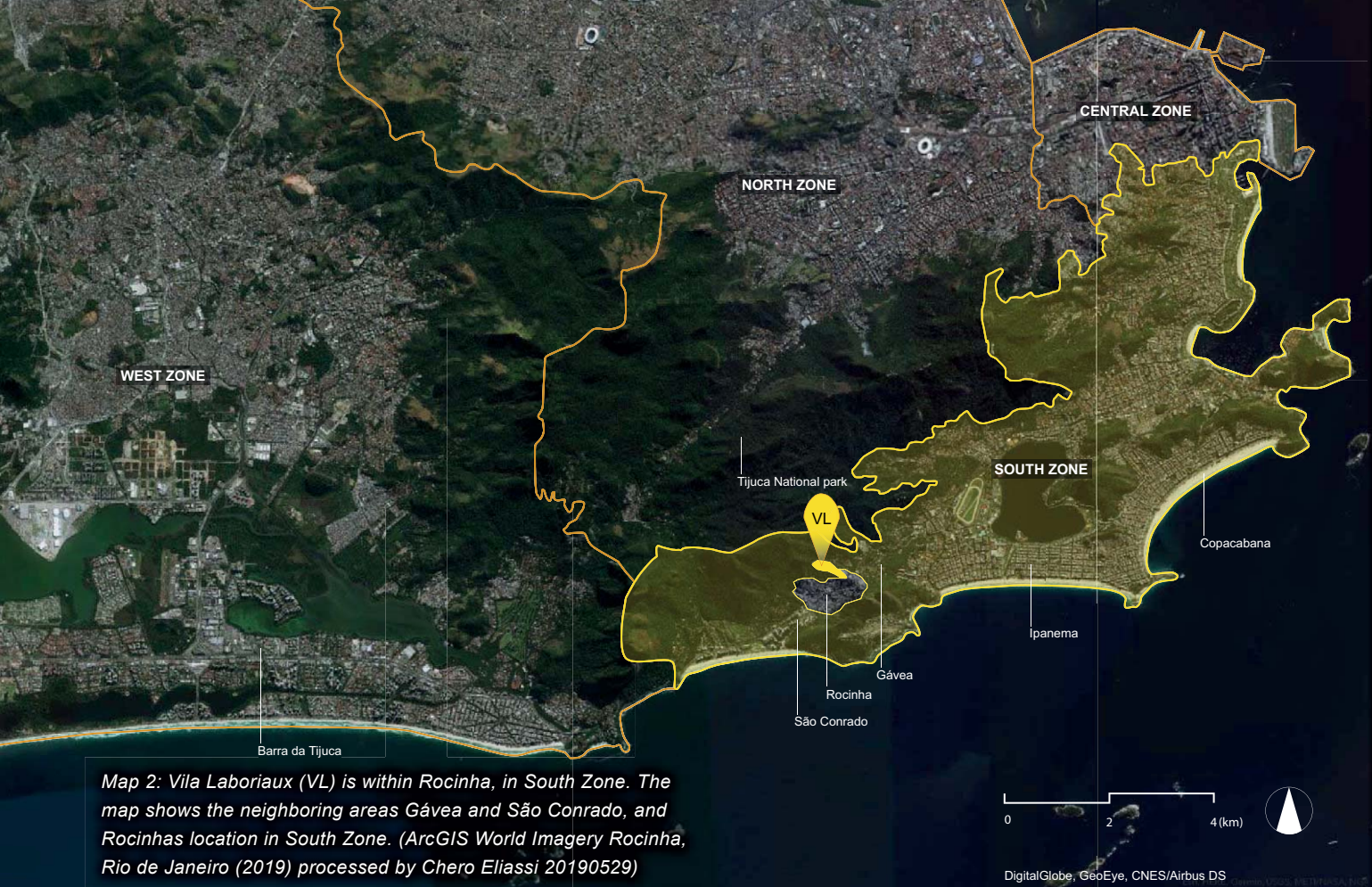
TARGET GROUP

This thesis could be of interest for urban planners, architects, landscape architects and the Municipality of Rio de Janeiro. Additionally, this study could be of interest for people working with similar dense urban areas. The study aims to provide documentation from the residents perspective to politicians and planners in Rio de Janeiro, for the future development of Vila Laboriaux. It is an attempt to work with citizen communication to highlight the importance of civil dialogue between the City government and residents in the planning process regarding key matters, policy decisions, broader planning and resolving basic issues with service.

In this specific study, we focus on the sub-neighborhood Vila Labouriaux in Rocinha and the purpose and context of this master's thesis are adjusted to the area's assets and inhabitants.



Imagery 11: An interview with one of the participants outside of her port. In the image it can be seen how the translator communicates with the participant while the conversation is recorded by Hannah Rodin Borne (Photography taken by Chero Eliassi, 20190314).



Map 2: Vila Laboriaux (VL) is within Rocinha, in South Zone. The map shows the neighboring areas Gávea and São Conrado, and Rocinha's location in South Zone. (ArcGIS World Imagery Rocinha, Rio de Janeiro (2019) processed by Chero Eliassi, 20190529)

LIMITATIONS

The limitations made in this master's thesis helped with answering the problem statement. The limitations were divided into two categories, geographical and thematic limitations.

GEOGRAPHICAL LIMITATION

Our research area is geographically limited to the sub-neighborhood Vila Laboriaux in favela Rocinha in Rio de Janeiro, Brazil. The area begins where Rua Maria Do Carmo is connected to the main road Estrada da Gávea (See map 4, pp. 34) and reaches out to the housing areas on the top, which meets Tijuca National Park (See map 2, pp. 21). The area covers about 57.000 square meters and is about 700 meters long and 200 meters wide when measured on Google Maps. For a more comprehensive research study, it would have been necessary to investigate all aspects and geographical space of a favela. Therefore, the result from this study is in many ways

specific for the location of this site and its resident's view of the area.

THEMATIC LIMITATION

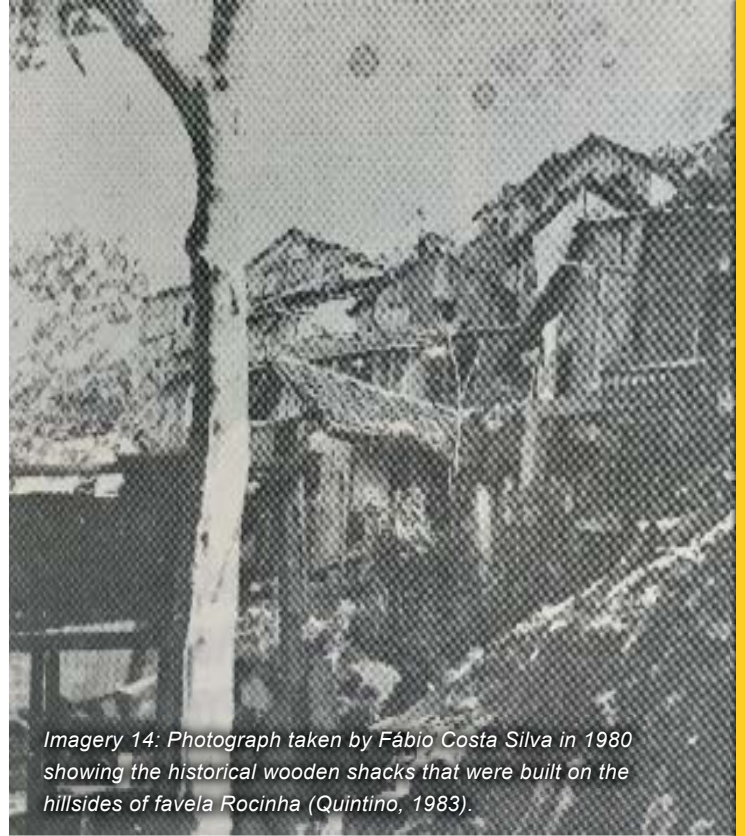
This thesis is thematically limited to investigating social and physical aspects of the limited area Vila Laboriaux, in an urban context. Civil dialogue and communication with residents in Vila Laboriaux is the focus for studying the social aspects in the area. Our limited knowledge in Portuguese and the security situation in favela Rocinha affected how and when we could work there. We limited our site visits to work between 10 am to 5 pm, because of the unsureness of how it would be to collect information during darker hours of the day. A translator also accompanied us during our site visits when we completed interviews and surveys, which also affected the working hours, as we had to adjust to our translator's schedule. The result is presented in form of maps, sketches, and text and design guidelines.

LITERATURE STUDY AND STUDY OBJECT

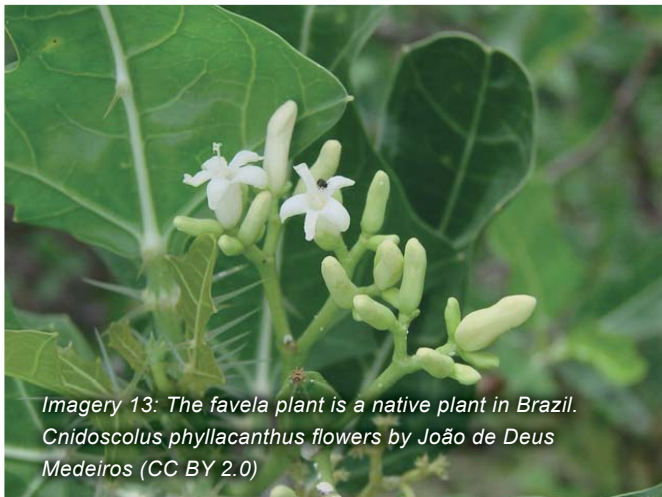
The literature chapter of this thesis is divided into two parts, literature study and study object: Vila Laboriaux.

LITERATURE STUDY

The literature on the history of favelas was studied for gathering information necessary to understand the complexity and context of these communities origin. First, we studied favelas in a larger context to then narrow it down to information about favela Rocinha, where our study object Vila Laboriaux is located.



Imagery 14: Photograph taken by Fábio Costa Silva in 1980 showing the historical wooden shacks that were built on the hillsides of favela Rocinha (Quintino, 1983).



Imagery 13: The favela plant is a native plant in Brazil. Cnidocolus phyllacanthus flowers by João de Deus Medeiros (CC BY 2.0)

HISTORY OF FAVELAS

Originally, the word 'favela' comes from the native name of a plant (see imagery 13) with practical and medicinal functions growing in Brazil. The meaning of the word 'favela' expanded into a geographical meaning during the civil war Guerra de Canudos from 1895 to 1896 where soldiers in the war settled on a hillside of Rio de Janeiro. The place was named Morro da Providência and is considered as the first known favela in Brazil. The soldiers named the new settlements to Morro da Favela after the plant favela. (Valladares 2006, pp. 2)

The settlements in favelas are generally built by the residents themselves without the support from the government. Dwellers help each other with construction and knowledge on how to build the houses (Chokyu & Dias 2018 pp. 484). Most parts of the favela arise spontaneously and are considered unplanned (Al Jazeera English 2014). The road infrastructure in favelas consists of limited or no street addresses (Perlman 2011 pp. 16).

Ever since favelas started developing the favelados, as in favela residents, especially men were criminalized and seen as vagabonds, thieves and people of low value in the social class hierarchy. The favela dwellings were seen as illegal and something that should be removed from the urban environment. (Almeida Carvalho Filho 2006. pp. 5,6)

Janice Perlman is a professor in City and Regional Planning (Mega Cities Project 2019), who explains that when these urban areas grew larger they were regarded as damaging the urban landscape, threatening the public health and urban civility. (Perlman 2011 pp. XVIII)

Favela has been an object of debate during at least a century. The associations between the

word “favela” and words such as “urban violence” and “social problems” is a phenomenon that has enhanced over time. This image has been greatly influenced by what academics such as writers, politicians, administrators, media, engineers and doctors have chosen to represent of the favela. (Valladares 2006, pp. 3).

The low amount of information found about favelas up to the 1970s indicates how low prioritized these urban settlements have been in the historical documentation of favelas (Pino 1997 pp. 112).

FAVELAS IN RIO DE JANEIRO

Rio de Janeiro is a metropolitan known for its several favelas (Wallenfeldt, 2019). The population of Rio de Janeiro consists of a variety of the most wealthy people to the very poor residents, living side by side in nearby neighborhoods. The relationship between the favela and the richer areas is a large part of what defines the city of Rio de Janeiro. Many favelados work within the service professions in the city, without the inhabitants in Rio de Janeiro’s favelas, a large part of the city’s shops, taxis, restaurants and bars would disappear (Al Jazeera 2014).

In the year of 2010, around 1.4 million (IBGE 2017) of the city’s approximately 6.7 million (IBGE 2018) inhabitants of Rio de Janeiro lived in favelas. This number represents around 22% (IBGE 2017) of the city’s population and is the highest number of favela residents in all of Brazil (Hurrell 2011; BBC 2014). In the state of Rio de Janeiro, IBGE, The Brazilian Institute of Geography and Statistics (n.d.) estimated the population of the state to be approximately 17 million.

At the end of the 19th century, Brazil transitioned from an empire to a republic and underwent several political changes which led to further development in the favelas in Rio the Janeiro (Skidmore 2010 ch. 9). As a result of a housing crisis, the urban poor in the city of Rio de Janeiro

were forced to move into the favelas (Pino 1997 pp. 2). Additionally, as more migrants moved to Rio de Janeiro for work during the industrialization, more people were seeking living opportunities in the favela, which resulted in a growth of these urban areas (Pino 1997 pp. 2).

During the first half of the 20th century, the favelas in Rio de Janeiro were ignored by state government and city. At the beginning of the 1940s, the favelas began attracting political attention as national and local politicians used the poverty alleviation and modernization as a platform in their campaign. Their political programs centered on delivering modern public housing units as an alternative to the slums that they believed generated diseases, crime and moral corruption (Skidmore 2010 ch. 9).

The situation in favelas of Rio de Janeiro became more complex after the 1980s, as the drug trade and trafficking amongst men and a minority of women developed. With violence from both the police force and the traffickers, a warlike living environment was developed in the favela. Police violence against the local residents increased gradually (Almeida Carvalho Filho 2006. pp. 6).

FACTS ABOUT LANDSLIDES IN RIO DE JANEIRO

Landslides are one of the most damaging and deadly natural disasters on earth. Mountainous areas are the most common regions where landslides occur, but areas such as valleys, fjords and on the seafloor at the edges of continental shelves are also common. (Clague & Stead 2012 pp. 1)

In the city of Rio de Janeiro when the intense summer rainstorms hit the steep slopes, commonly where the favelas are located, landslides are prone to take place (Vieira and Fernandes 2004, pp. 791). In the year of 2010, heavy rainfall caused massive landslides in Rio de Janeiro (Rodrigues 2017).



Imagery 15: Image showing the density of buildings and the building structure in the central part of Rocinha. Similar structure was noted during the observations in Vila Laboriaux. Rocinha favela main road taken by Chensiyuan in 2014 CC BY-SA 4.0

The level of precipitation (rainfall), and water, in general, plays a definitive role in most landslides, and the phenomena is more frequent in humid environments, such as Rio de Janeiro, than in dry climates. Other factors than precipitation which influence the outbreak of landslides are the climatic conditions, the shape of the slope, the soil type and the vegetation cover (de Oliveira et al., 2016).

Regions with a warmer atmosphere hold more moisture and warmer oceans are more likely to create stronger cyclonic storms. Commonly in coastal mountainous regions, long-term or seasonal increase in rainfall would lead to more frequent landslides and presumably result in catastrophes where the earth masses would move to lower levels, taking people's lives and damage the landscape (Clague & Stead 2012, pp. 1).

In a study performed by Seluchi and Chou (2009) in Rio de Janeiro on the mountainous region of Serra do Mar, the occurrence of landslides were mainly related to the passage of cold fronts or to the South Atlantic Convergence Zone (SACZ) that

extends from the Amazon towards the southeast of Brazil.

According to the professor of Earth Sciences John J. Clague and professor of Geoscience and Geotechnics Douglas Stead (2012, pp. 7) landslide risks are expected to increase in the future as a result of increased human population in landslide-prone regions, especially in mountainous areas. The professors also hypothesize climate change as a factor that may increase the number of landslides to take place in the future.

Since the 1960s in Rio de Janeiro, the population on the hillslopes increased which lead to a growth of living areas located in risk zones (Vieira and Fernandes 2004, pp. 791). Favelas were particularly vulnerable since they usually have been built on unstable ground, sensitive for the rain. The land had to some extent former been used as landfill disposal, which makes the land even more vulnerable. Landslides do not only occur on the ground where there are built settlements, but they are also as common in the rainforest areas (Phillips

2010).

To counter landslide risks, land-use planning and hazard mitigation (risk reduction) can be performed in mountainous areas and slopes outside of mountains where development is happening. The infrastructure and the people living in these areas will then be reduced to the exposure of landslides. With engineered secured works, protection can be provided in developed areas. According to Clague and Stead (2012, pp. 7), engineering cannot solve all risks and issues and is ineffective in stabilizing unstable, large masses of rock slopes. Further, the professors mean it is difficult to protect people from large landslides unless it is people with access to resources and wealth.

DEVELOPMENT OF FAVELA ROCINHA

People moved to Rocinha and started constructing houses in the area almost one hundred years ago (Chokyu & Dias 2018 pp. 485). In the late 1920s, Rocinha was founded by male factory workers and other manual workers with poorly paid jobs and low or no education. The majority arrived from the countryside and learned physical work from male relatives who had migrated to Rio de Janeiro before them (Almeida Carvalho Filho 2006. pp. 1).

In the 1970s some parts of Rocinha were able to receive electricity by the company Light. When electricity was installed in the area there was a minority that could afford it at the beginning (Almeida Carvalho Filho 2006. pp. 6).

In former Rocinha resident Zé Luis S. Lima's article he writes about the Gatos culture, which appeared in Rocinha as a result of not affording electricity because of economic limitations. Many residents struggled with administrative difficulties in paying for the electricity. The Gatos culture was a way of connecting to the neighbor's electricity and was done by those favelados who had some

knowledge of electricity. (Lima 2015)

During this period the Favela Eradication Program was a state-sponsored program that forcibly removed residents from their favela. The residents were then relocated into public housing blocks, distant from the center of Rio, called conjuntos. (Perlman 2011 pp. XX)

Between the years of 1983 to 1984 infrastructure was installed in several favelas, including Rocinha, in the project called Mutirão. The project included building sanitation infrastructure, roads and a community center (Perlman 2011 pp. 274).

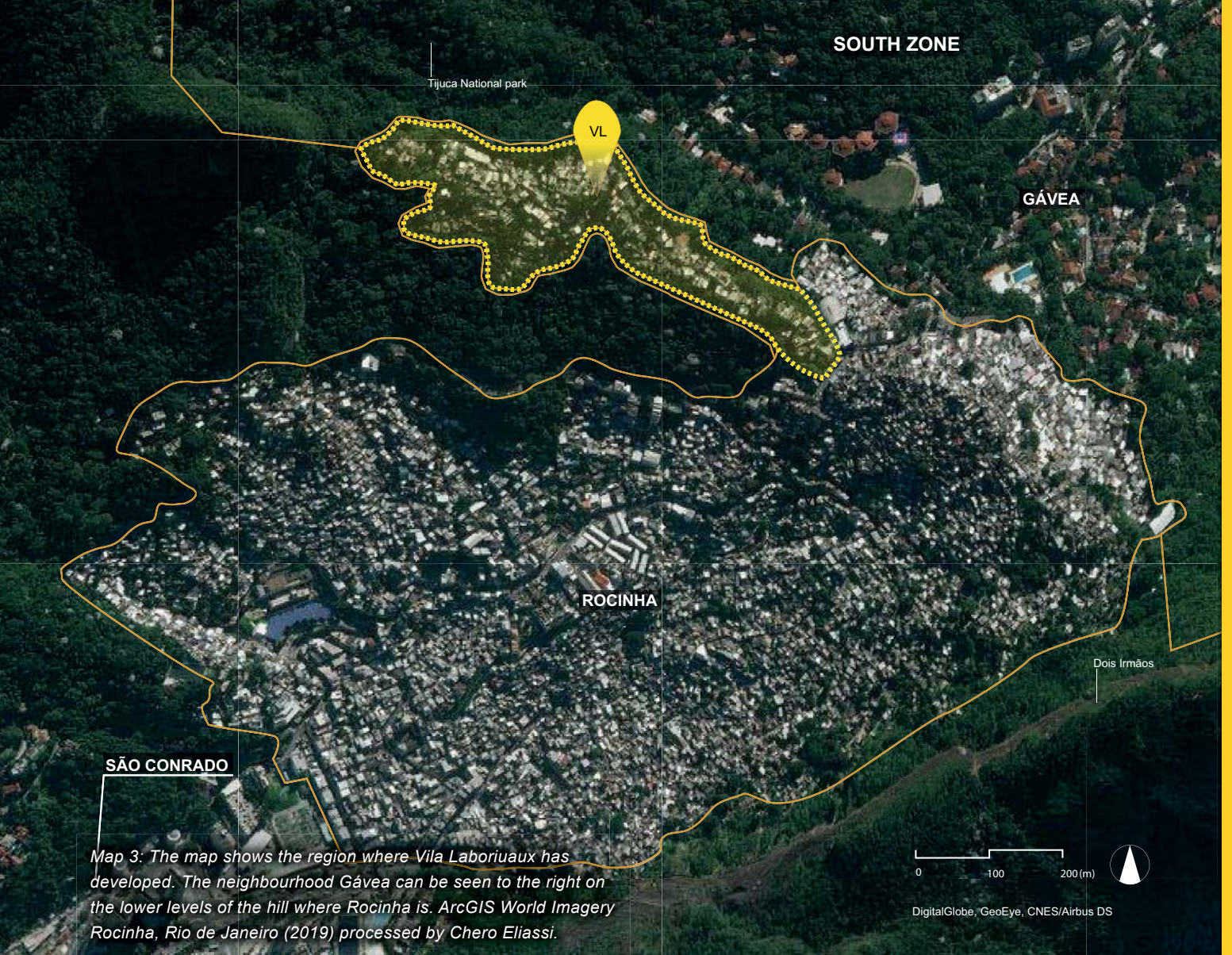
Architect and urbanist Luiz Carlos Toledo led the latest project in Rocinha. The project Plano Diretor Socioespacial carried through from 2005 to 2007. The project focused on Rocinha's growth and reorganization of land (Chokyu & Dias 2018 pp. 485). Toledo has worked with trying to integrate the favela with the rest of the governmentally planned city of Rio de Janeiro. Toledo widened the streets and made space for the Rocinha population to meet with the rest of the city of Rio de Janeiro.¹

The expanded streets also resulted in many residents suddenly had natural sunlight coming into their house. The new public spaces that appeared were filled with plants and gardens, which was initiated by the residents themselves. Investments were also made in constructing a footbridge, designed by Oscar Niemeyer (Roller 2011) and a sports center at the central area of Rocinha (SUDERJ (n.d)).

STUDY OBJECT: VILA LABORIAUX

This chapter is divided into the background of Vila Laboriaux regarding issues with landslides in the sub-neighborhood. Furthermore, the public

¹ Interview with experienced architect Luiz Carlos Toledo, that has worked with the planning of favela Rocinha since the 1980s. Professor Sergio Fagerlande helped us with translation during the interview that was performed on March 22, 2019.



participation process and gentrification issues regarding Vila Laboriaux will also be presented.

BACKGROUND

In Rocinha during the 1980s, there was an expansion towards the top of the mountain hill, near the neighborhood of Gávea, with new governmentally built houses (Calado 2016). In the lower parts of Rocinha, in an area known as Campo Esperança, floods and similar issues would have colossal impacts on the favelados' houses and their neighborhood. For that reason, the City government decided to build houses in an area on the higher levels of Rocinha, facing the Tijuca National Park (see map 3), and relocate the people in Campo Esperança to this new area named Vila Laboriaux (Robertson 2016; Calado 2016). According to our local tour guide and

historian Fernando Ermiro², the governmental houses in Vila Laboriaux were constructed in 1982, with around 73 families moving into the area (Alves 2018). Vila Laboriaux expanded with new informal settlements located next to the governmental houses, as there were people moving into the favela from other parts of the country (Robertson 2016).

No exact data could be found on Vila Laboriaux's current population on the City authorities database. According to the source Urbanização de favelas (URB Favelas), an organization consisting of academics, planners, architects and several other professions, around 4000 people and 800 families were settled in Vila Laboriaux 2018 (Alves 2018).

² Guided tour with Fernando Ermiro, director of Rocinha Histórica and a former Vila Laboriaux resident that now lives in another sub-neighbourhood in Rocinha. The tour in Vila Laboriaux was performed February 21, 2019.



Imagery 16: Fernando Ermiro showing us a recent landslide occurring in the Tijuca Forest, close to where Vila Laboriaux favelados get spring water. (Photography taken by Chero Eliassi, 20190221)

According to this data, the average family would consist of five family members in Vila Laboriaux 2018.

The main road Rua Maria do Carmo reaches to the top of Vila Laboriaux which then connects to Rua. José Inácio de Assis, a parallel street to Rua Maria do Carmo. There are additional existing roads in the neighborhood without established names notified on Google Maps (2019).

Fernando Ermiro³ shared that there are many families with children living in the area. The pre-school 'Escola Municipal Abelardo Chacrinha Barbosa' is located at the top of Vila Laboriaux which attracts many families with children to move into the area.

³ Guided tour with Fernando Ermiro, director of Rocinha Histórica and a former Vila Laboriaux resident that now lives in another sub-neighbourhood in Rocinha. The tour in Vila Laboriaux was performed February 21, 2019.

LANDSLIDES

Many favelas were strongly affected by the landslides in 2010, among those were Rocinha and the sub-neighborhood Vila Laboriaux. Large areas of favela housing and parts of the vegetative spaces in the Tijuca forest were ruined. The City government used the landslides as an argument to stop the occupancy of land and claimed Vila Laboriaux was in an immediate risk zone for landslides (Rodrigues 2017).

Furthermore, Ermiro⁴ shared that several slopes were laid with concrete on the border of Vila Laboriaux by the City authorities (Prefeitura do Rio de Janeiro) as a risk measure. Fernando Ermiro told us the concrete slopes protect the rainwater from infiltrating into the soil and also lead the rainwater

⁴ Guided tour with Fernando Ermiro, director of Rocinha Histórica and a former Vila Laboriaux resident that now lives in another sub-neighbourhood in Rocinha. The tour in Vila Laboriaux was performed February 21, 2019.

away from land surfaces in risk-zones. The concrete slopes were also a strategy to prevent favelados from building and rebuilding more residential houses in these areas.

The city authorities threatened some favelados in Vila Laboriaux with eviction from the area immediately. There was no technical report confirming the risk, which could validate the need for removal of all houses. The residents of Vila Laboriaux therefore gathered and did collective actions to remain in the risk-zone area in protest of the evictions. As a community they managed to some extent to be heard by the City government, for example, the pre-school was reopened and a containment wall of concrete was built to prevent landslides (see imagery 30) (Rodrigues 2017).

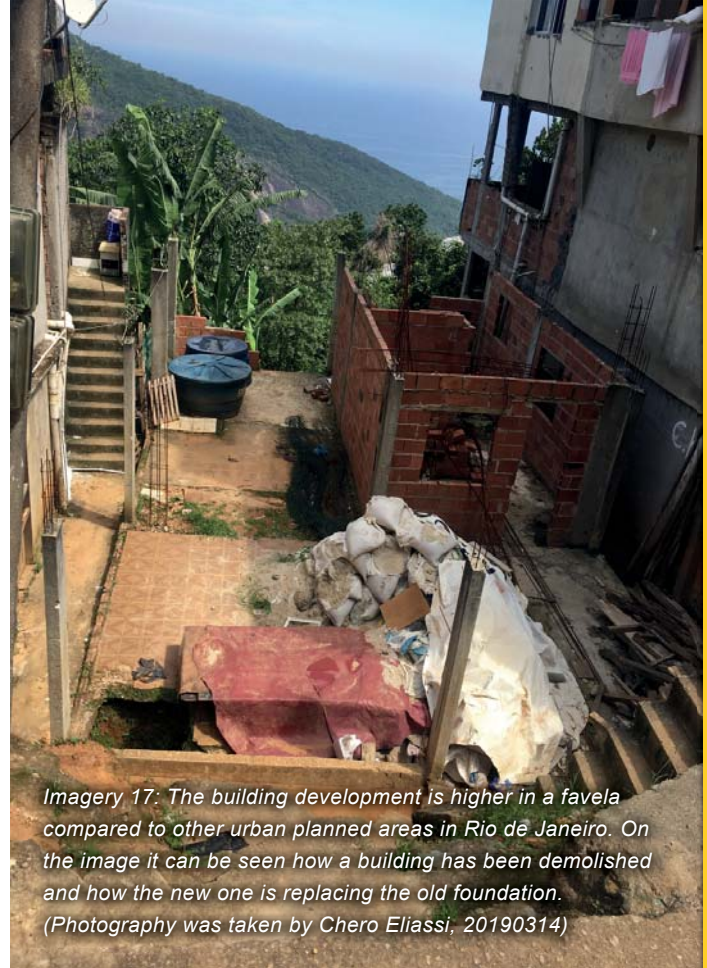
Architect Luiz Carlos Toledo⁵, who did the Rocinha Masterplan, supported the residents and was committed to protecting the favelados in Vila Laboriaux after the landslides in 2010. Toledo clarified there was no technical reason for this eviction and that many of the families could have stayed in the area, they should not have been evicted.

PUBLIC PARTICIPATION

In professor Janice Perlman's study, interviews were held with residents in the Brazilian favelas for a period of more than 40 years (Perlman 2011 pp. 203). Perlman's studies show that residents living in favelas feel like they do not have a voice in the political arena. According to Perlman, many favelados feel their opinions is not included in the political landscape and decision-making processes (Perlman 2011 pp. 203).

A bottom-up method within the planning department is an approach to involve more

⁵ Interview with experienced architect Luiz Carlos Toledo, that has worked with the planning of favela Rocinha since the 1980s. Professor Sergio Fagerlande helped us with translation during the interview that was performed.

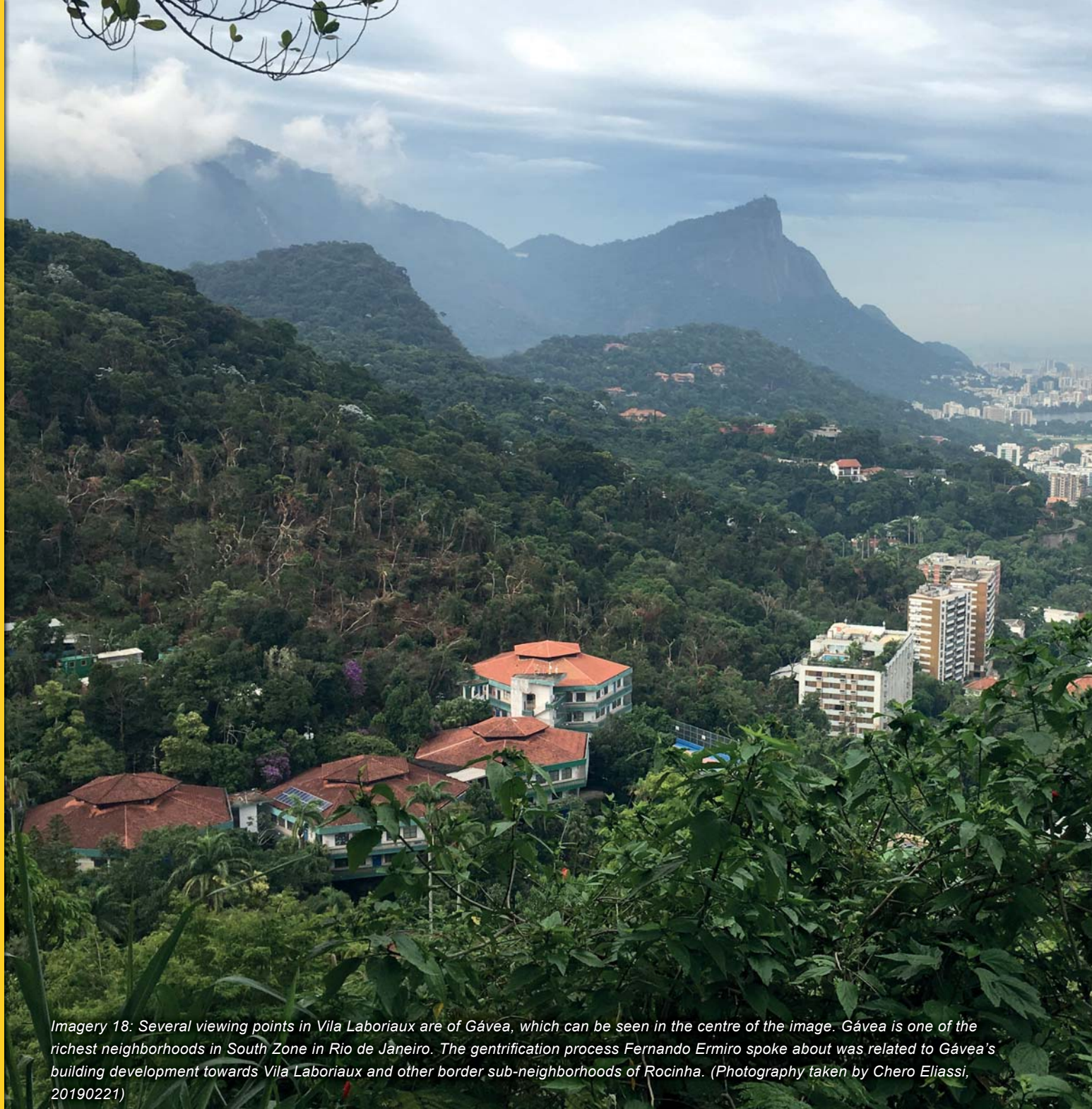


Imagery 17: The building development is higher in a favela compared to other urban planned areas in Rio de Janeiro. On the image it can be seen how a building has been demolished and how the new one is replacing the old foundation. (Photography was taken by Chero Eliassi, 20190314)

participation in decision making from local politicians and officials. It is a planning method contradicting the using of technical expertise and instead encourages public participation from inhabitants (Murray et al., 2009, p. 444).

According to a professor in environmental science, Paul Sabatier (1986), there is a desire for a system within the planning department which acknowledge the needs of the local residents and prioritize civil dialogue. Sabatier points out a weakness in the opposite model, the top-down approach, which starts with policymaking by the City authorities. The Top-down approach starts from the decision-makers perspective and tends to neglect the central target group (Sabatier 1986, p. 30).

In Vila Laboriaux, there has been a lack of communication between the local residents and the City government. The City government implied a top-down approach during the landslides 2010, were residents in Vila Laboriaux did not receive enough information about the relocation of residents and the residents were in many cases forced to sign removal



Imagery 18: Several viewing points in Vila Laboriaux are of Gávea, which can be seen in the centre of the image. Gávea is one of the richest neighborhoods in South Zone in Rio de Janeiro. The gentrification process Fernando Ermiro spoke about was related to Gávea's building development towards Vila Laboriaux and other border sub-neighborhoods of Rocinha. (Photography taken by Chero Eliassi, 20190221)

orders. Residents in Vila Laboriaux were relocated with short notice before the removal. The local community was not included in the decision-making process, for example no alternatives were considered besides eviction of residents. (Rodrigues 2017)

Architect Luiz Carlos Toledo⁶, informed us about the different methods he has used when

working with public participation in favela Rocinha and Vila Laboriaux. For instance, Toledo started a radio program and a TV-show where people could call in and ask questions. This was a way of communicating with residents and inform them about changes happening in favela Rocinha. He presented himself and informed the population about the widening of the streets and the construction of the water canal. People could conversate with Toledo

⁶ Interview with experienced architect Luiz Carlos Toledo, that has worked with the planning of favela Rocinha since the 1980s. Professor Sergio Fagerlande helped us with translation during the interview that was performed on March 22, 2019.



about their issues and challenges living in the favela.

Toledo⁷ decided to place his office in favela Rocinha, which helped creating a connection to the population and the drug dealers and traffickers, which held a great power position in favela Rocinha. The acceptance and communication with them enabled Toledo to proceed many of these projects in favela

⁷ Interview with experienced architect Luiz Carlos Toledo, that has worked with the planning of favela Rocinha since the 1980s. Professor Sergio Fagerlande helped us with translation during the interview that was performed on March 22, 2019.

Rocinha. This method of working on site, including residents in the planning process and collaborating with the leaders of the favela was a relatively uncommon approach within the planning process of favelas.⁸

GENTRIFICATION

According to Thaisa Comelli, Isabelle Angelovski & Eric Chu, gentrification patterns are stimulated and enhanced when favelas are upgraded with new house constructions, infrastructure and public space in combination with pacification and police control (Comelli, Anguelovski & Chu 2018, pp. 634 - 636).

Favelados living in favelas around the city's central areas, including Rocinha and Vila Laboriaux, have all been affected by the City government's aspiration to sell land on the hillsides to profit on real estate business (Griffin 2016; McCann 2014 pp.1). Especially during the Olympic Games in 2016, there were urban reforms in Rio de Janeiro, that promoted and benefited the real estate market for people with money and the tourist industry. Many favelados were affected and were evicted to other parts of the city, with less attractive land further away from the city center (Alves 2018, pp.18).

However, the positive effects of the gentrification process is the renewal of housing and infrastructure in a neighborhood. The value of properties increases and usually the poverty deconcentrate. Studies have shown that existing residents find benefits with increased and improved local services and shops (Atkinson 2002).

Moreover, the gentrification affects the favelados livelihood and their sense of belonging and having access to public spaces in the favela negatively. Eventually, this leads to a relocation of socially vulnerable inhabitants and a change in class- and race in the favela (Comelli, Anguelovski & Chu

⁸ Interview with experienced architect Luiz Carlos Toledo, that has worked with the planning of favela Rocinha since the 1980s. Professor Sergio Fagerlande helped us with translation during the interview that was performed on March 22, 2019.

2018, pp. 634 - 636). In favelas, there are on average a higher percentage of black people living in the communities than in other parts of Rio de Janeiro. The racial segregation is shown geographically, where there is a higher percentage of white people living in the wealthier, richer areas in the South Zone (see imagery 18) and a higher percentage of black people living in the favelas and in the urban periphery (CatComm (B) n.d.).

Fernando Ermiro⁹ informed us about the rich neighborhood Gavea, bordering Rocinha, and how the City government intended on selling land to businessmen who would invest in more luxury resorts as the area had a desirable view of the South Zone of Rio de Janeiro. Although this would lead to an upgrade of the community, this pattern would lead to a gentrification process where the current population would have to move.

Moreover, Ermiro informed us about how valuable the land is that Vila Laboriaux is located on. The local tour guide explained how the City government was removing houses and asphaltting spaces in Vila Laboriaux in the risk of landslides, which in the future leads towards a gentrification process in the area.

According to Ermiro, most of the people that lived in the risk-zones for landslides, in Vila Laboriaux, still wanted to stay there. Among the residents, there was common disbelief towards the City government's plans and directives regarding landslides and risk areas.

⁹ Guided tour with Fernando Ermiro, director of Rocinha Histórica and a former Vila Laboriaux resident that now lives in another sub-neighbourhood in Rocinha. The tour in Vila Laboriaux was performed February 21, 2019.



Imagery 19: During the survey process, we would oftentimes approach favelados of Vila Laboriaux and ask them if they would want to participate in the survey, which can be seen in the image. We would then continue to ask if they would want to participate in an interview. (Photography taken by Chero Eliassi, 20190327).

METHODOLOGY

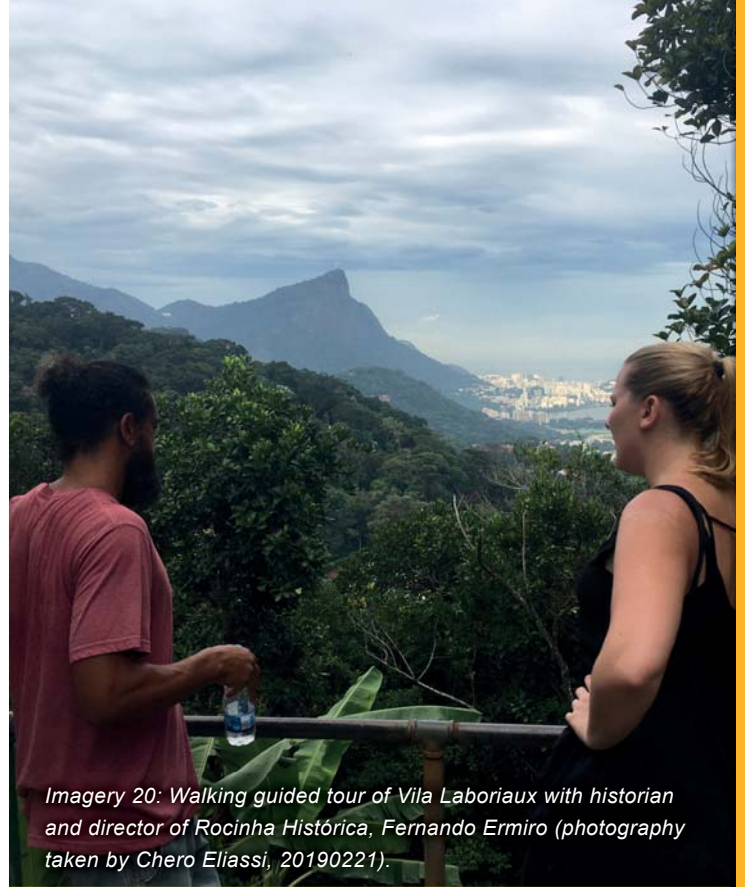
The work was performed by conducting six-part studies: a pre-study, an inventory study, survey, observations, interviews and lastly formulating design guidelines for Vila Laboriaux.

The pre-study, inventory study and observation phase was performed before the interviews and the surveys. We found it necessary to understand our research area and the complexity of how favelas function to be able to formulate and ask relevant questions to the residents of Vila Laboriaux. Lastly, the design guidelines were conducted, since they are based on the result from the earlier five methods.

PRE-STUDY

The pre-study included literature studies and site visits to get an overview and understanding of the research area. Foremost, the literature was based on papers written by researchers on the subject *favelas*, mainly from internet based sources. Primarily, previously conducted social studies in favelas, papers on the history of favelas and papers on methods to use for public participation were studied. The literature studies were the basis for formulating the project and define what would be studied in Rocinha, as knowledge was gained about the study site.

Before our arrival in Rio de Janeiro, we reached out to several urban planning organizations working in different favelas and we were connected to the non-governmental organization (NGO) Catalytic Communities (also called CatComm). This local NGO organization worked with empowerment, communications, and urban planning in Rio de Janeiro's favelas. They also functioned as a connector organization, creating links between favela civil society and global civil society (CatComm (A)



Imagery 20: Walking guided tour of Vila Laboriaux with historian and director of Rocinha Histórica, Fernando Ermiro (photography taken by Chero Eliassi, 20190221).

n.d.).

As we described our aim with our master's thesis, CatComm connected us to historian Fernando Ermiro, the director of Rocinha Histórica, a digital museum sharing the stories of the residents in Rocinha (Depies 2018). He had great knowledge of areas in Rocinha and how residents were affected by the City governments plans and decisions about the neighborhood. Residents had previously not been included in the decision-making process. Ermiro had formerly lived in Vila Laboriaux, but when we met him he lived in another sub-neighborhood of Rocinha.

During our initial meeting with the historian, we had a guided tour through some areas of Rocinha. This helped us get a notion of how a favela could appear and function. On the 21st of February, Ermiro guided us through Vila Laboriaux. The tour lasted for four hours where Fernando Ermiro showed us the main areas of Vila Laboriaux.

Ermiro walked us along road Rua Maria do Carmo and partly into some of the alleys. Furthermore, Ermiro explained how Vila Laboriaux

had developed and expanded, about the people, what areas were in the risk zones for landslides and the removal of residents houses. Ermiro told us he had followed the resident removal process and was updated on the changes that had been made in the study area.

We gained a profound introduction to Vila Laboriaux and what challenges the residents were facing in their living area.

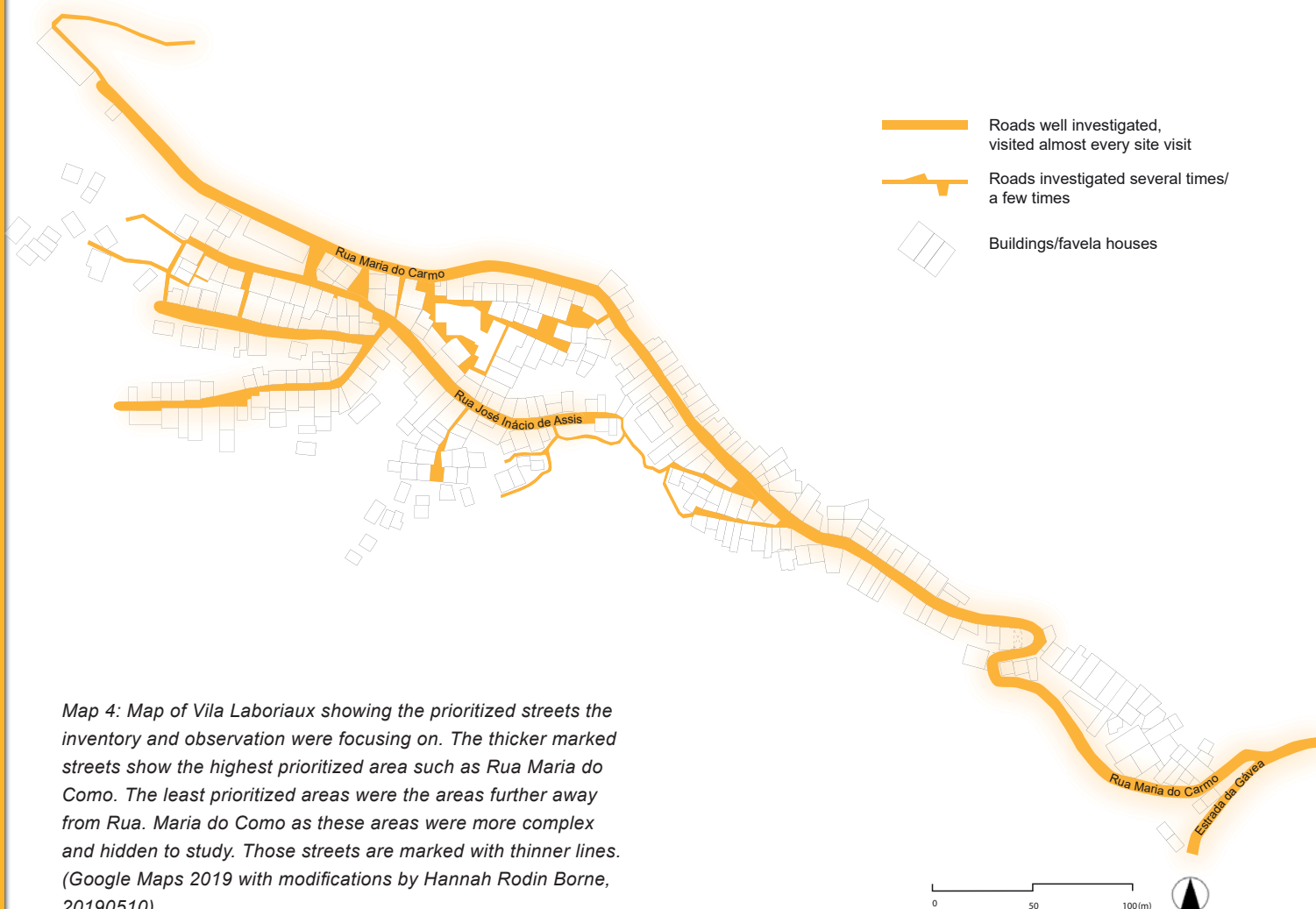
INVENTORY STUDY

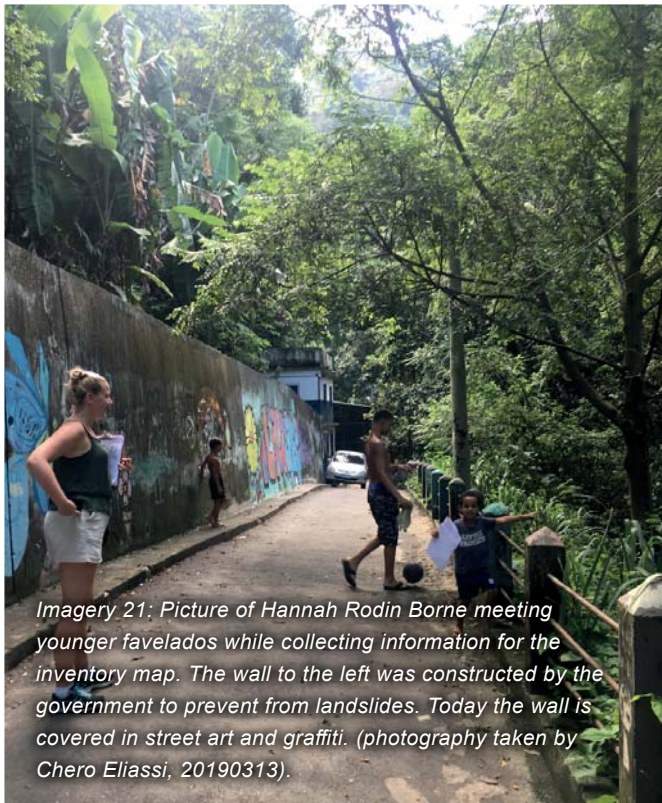
In the next study phase, an inventory map was performed in Vila Laboriaux with notifications made during site visits. The inventory study took place during weekdays between 10 am and 4 pm on sunny, and, partly cloudy days. It was summer in Rio de Janeiro when we did the inventory study, the high temperature of 30 degrees pressured us

to divide the work into several days. The inventory study was conducted during three days: March 12th, March 13th, and March 14th, 2019. The inventory documentation began at the bottom of Vila Laboriaux, where the main road Rua Maria do Como begins (see map 4, p. 36).

Furthermore, we worked our way up towards the top of Vila Laboriaux, getting closer to Tijuca National Park walking along the main road. The following categories were part of the inventory: road infrastructure, paths, topography, building development, social meeting points, green spaces and areas, water surface management, open mix-use spaces and services on bottom-levels of buildings. During the last day of the inventory, on March 14th, we did an inventory on the narrow alleys and more hidden areas further away from Rua Maria do Como.

We printed our cartographic material from





Imagery 21: Picture of Hannah Rodin Borne meeting younger favelados while collecting information for the inventory map. The wall to the left was constructed by the government to prevent from landslides. Today the wall is covered in street art and graffiti. (photography taken by Chero Eliassi, 20190313).

Google Maps and used that as our cartographic material during the documentation of Vila Laboriaux. We added information and content we found missing on the printed Google Maps. For example, new houses that had been built and new roads that had been paved were not shown on Google Maps. Therefore, we marked it on our maps simultaneously while being on site.

The purpose of the inventory was to have a deeper understanding of the area and to make a complimentary map of the content in Vila Laboriaux. The aim was to cover as much of the categories as possible and to create a map as accurate as possible for how Vila Laboriaux was at the time being.

SURVEY

As our ambition was to collect a larger amount of information regarding the resident's perception of Vila Laboriaux, a survey with five close-ended questions were performed. Performing the survey as a method was a significant part of the master's thesis as the purpose was to work with civil dialogue

and communication. Moreover, it worked as a significant base for us as there was a lack of planning documentation on the sub-neighborhood.

During the majority of our site visits in Vila Laboriaux, we collected survey answers in the area. Our ambition was to ask as many residents as possible as we did not find an exact number of the population. The number of inhabitants is not documented by the Municipality of Rio de Janeiro. Later on, as we were given an approximate number of the population, we were pleased with aiming to achieve a hundred answers. Our aim was to collect data from a diversity of people living in the community and we had the same approach as our interview method when it came to finding inhabitants that could participate in the survey study. The approach was to ask a random selection of residents that we met in the public spaces, mainly along Rua Maria do Carmo where we could meet many residents.

We openly shared with participants of the survey and other interested people what we were studying in their favela and why we were studying in Vila Laboriaux.

OBSERVATIONS

The observation studies were naturalistic observations and took place simultaneously as we concluded the interviews on site. The method naturalistic observations involve observing humans interacting in their natural environments, so their words and behaviors can be brought into their proper context. The method is a descriptive study of people in their natural settings (Angrosino 2007, pp. 2).

During the observations in Vila Laboriaux, the temperature was in general around 30 degrees and the humidity around 80 percent. A minority of the days on field were cloudy and around 27 degrees. On two occasions it was raining and one of these days the rain was heavy and flooded down the streets of Vila Laboriaux.

The purpose of the observational studies was to document on a map and paper how people used outdoor spaces and how they interacted with different places in the area. The method of naturalistic observation was an important tool to understand the usability of the area and to understand the users in the public spaces.

The observations were noted in text and simple sketches during the site visits. We used an unstructured approach when we collected information in Vila Laboriaux, which means we noted the usage of space and activities spontaneously. The documentation covered the resident's activities, the life and activities on the streets, the traffic, buildings, viewing points, and spatialities. We did a conscious decision of noting our observations during several site visits to enable us to make general comprehensions of the activities taking place in Vila Laboriaux.

We chose to perform open observations during our field visits in Rocinha and openly share with the people in the favela what we were studying. We shared information about what we were working with and what the purpose of our observations was, as we found it important for the locals to know what our aim with the study was in Vila Laboriaux.

We used sketching as a tool during the observation periods to capture important details in the community. One part of the observational studies was to sketch different places and objects that highlighted the character of the area. This was mainly performed on road Rua Maria do Como. The reason we chose the main street was that we felt more comfortable walking and observing areas where there were many people in movement and businesses along the street. On the smaller roads and in the alleys, most of the public spaces were private and belonged to the residents who lived there. We, therefore, chose not to observe these areas as much as it could have been perceived as intrusive for

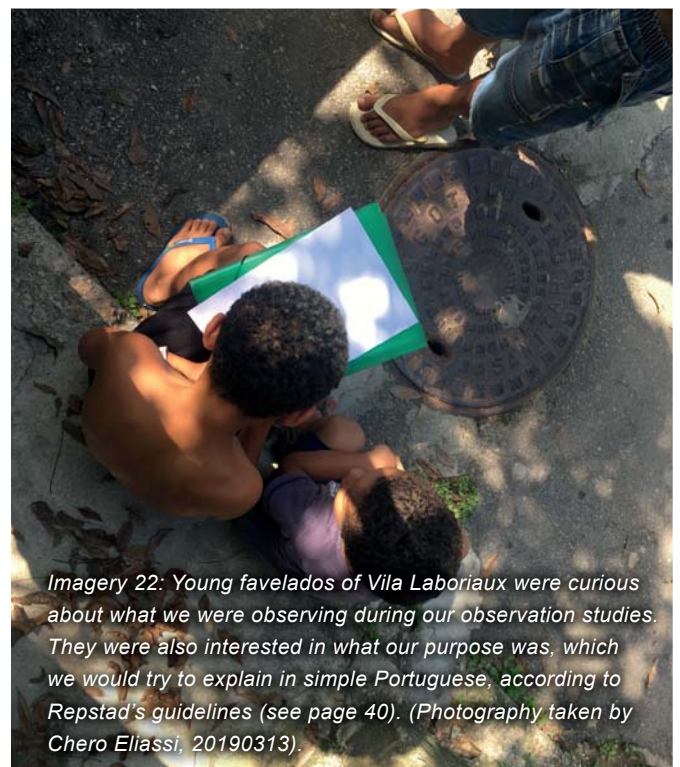
the local's living there. The sketches we drew on site, of Vila Laboriaux's public spaces, were drawn in ink.

INTERVIEWS

The interview study was performed as semi-structured interviews consisting of introductory and general questions, which developed into deeper and more categorized questions the closer towards the end (Repstad 2007 pp. 86). A significant part of our methodology was to perform these interviews, as the purpose of this study was to work with participation methods and citizen dialogue.

The interviews also played an important role as there was a lack of planning documentation of Vila Laboriaux and favela Rocinha. We, therefore, chose to gather information about the district from the residents themselves in the study area.

The interviews were conducted during weekdays when we did the site visits. Our ambition was to interview a diversity of people living in Vila Laboriaux. The interviews were performed with residents of different gender, age and, occupation to document various perspectives of public spaces and the life in Vila Laboriaux. The people we interviewed



Imagery 22: Young favelados of Vila Laboriaux were curious about what we were observing during our observation studies. They were also interested in what our purpose was, which we would try to explain in simple Portuguese, according to Repstad's guidelines (see page 40). (Photography taken by Chero Eliassi, 20190313).

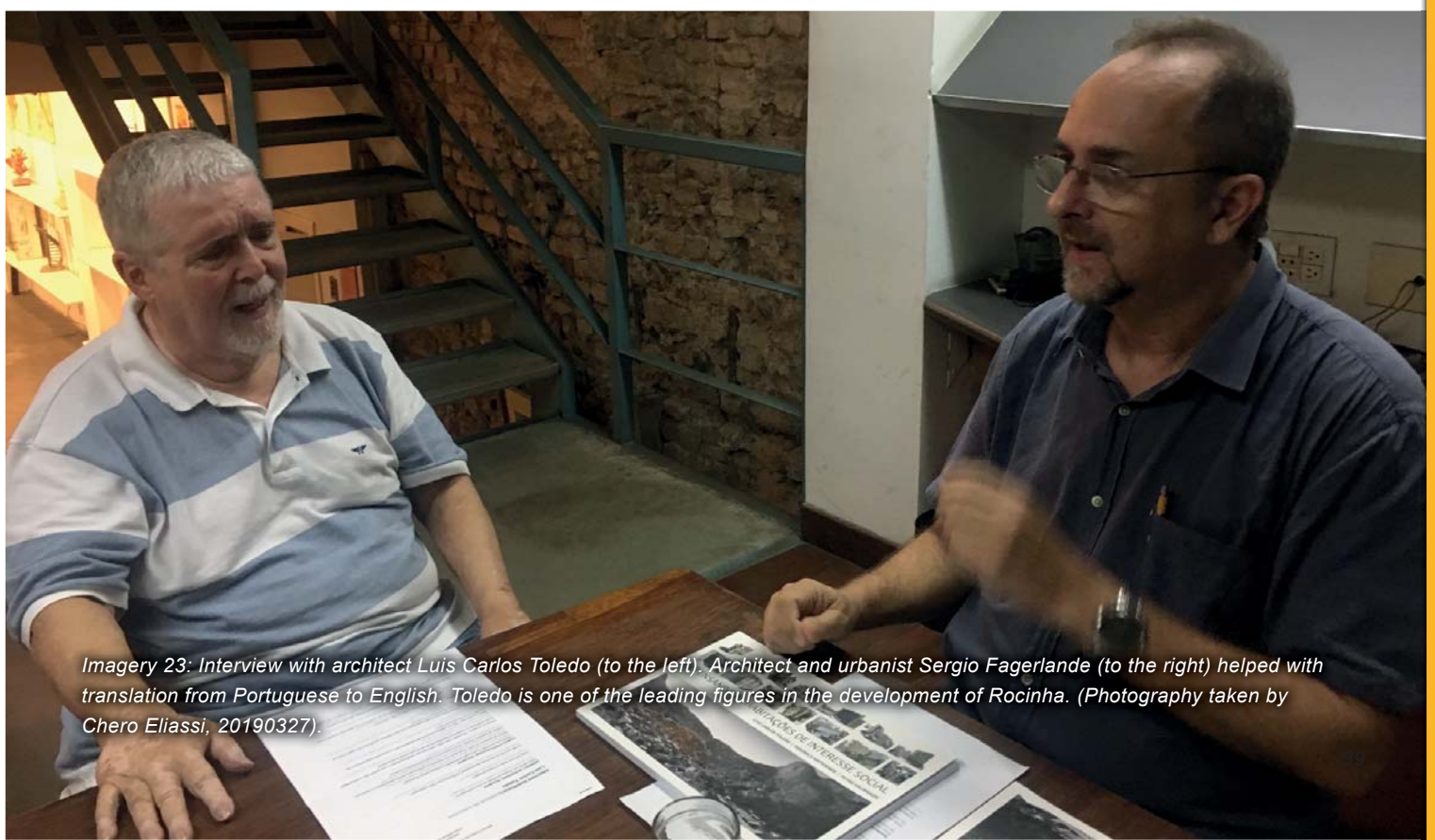
were based on a random selection as it was an obstacle to have demands on a specific group to interview. We did, however, make a conscious decision to approach female residents more frequently as they oftentimes were occupied with work, taking care of children and doing household chores, while the male residents used the public spaces more often, during our visiting hours. The male residents were also more willing to participate in our study than the female residents. This was another reason for our aspirations to communicate with the women of Vila Laboriaux. This general notion was told to us by the residents themselves and our translators during our site visits. The notation of the stereotypical gender roles was also strengthened during the observation phases of our work.

When we met the respondents we began with explaining the purpose of the interview, what their role would eventually be and what rights they had in participating in the interviews. Furthermore, we then handed out a paper with the information we had shared orally as well as information about the organization Catalytic Communities we had a collaboration with. Additionally we handed out our

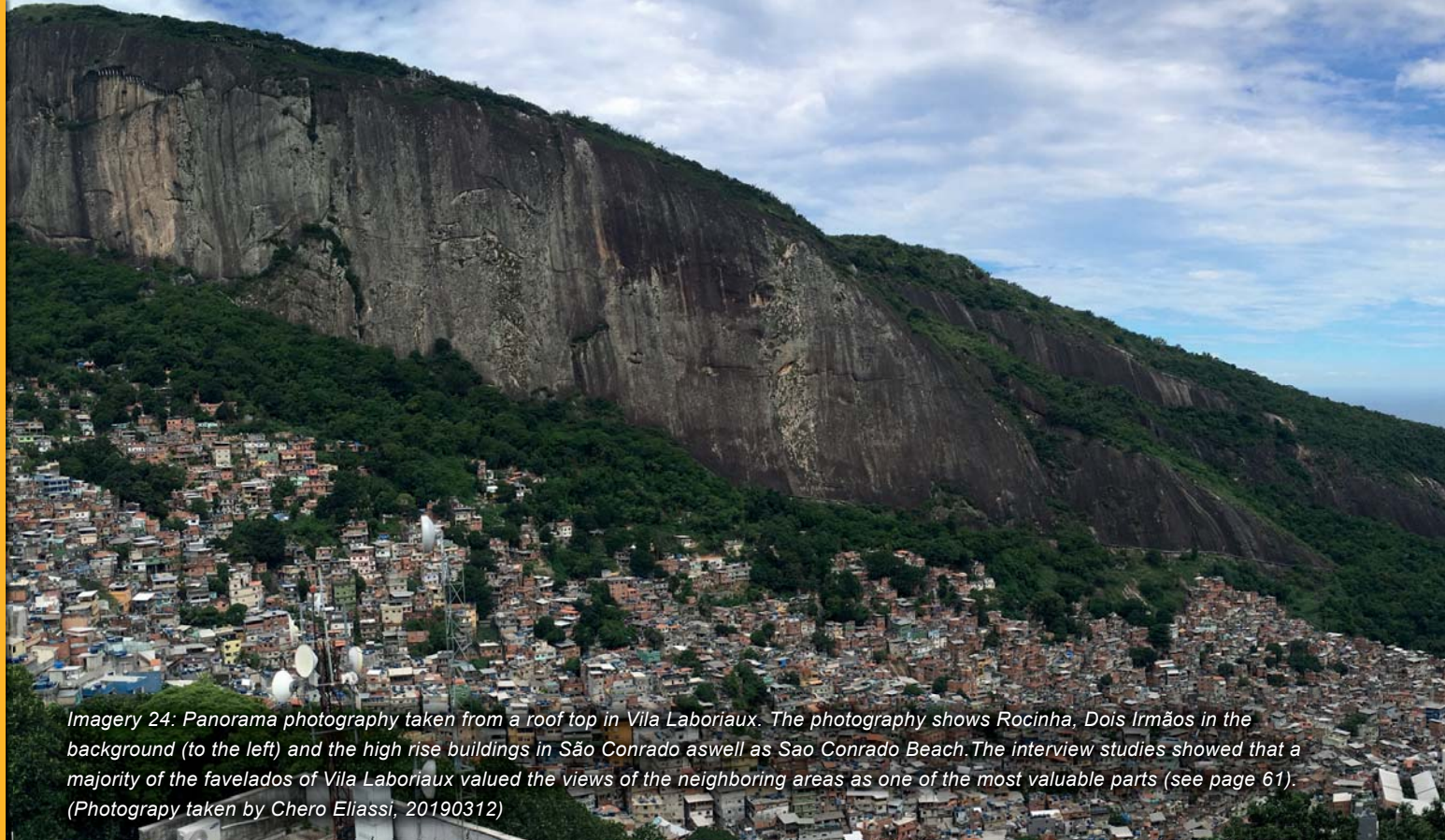
contact details if they, later on, felt they wanted to add to the interview material. This pre-interview procedure was performed according to Swedish Rules of Ethics in Science (Repstad 2007 pp. 90).

In our documentation work during the interviews, we sound recorded and occasionally photographed the interviewees, with their permission, using a mobile phone. We also wrote down personal notes to remember interesting sections of the interview. Using a sound recorder was a huge advantage as we could focus on having direct contact with the respondents and avoid spending time on writing down what was being said. This also served a purpose in the analysis phase as we had literal documentation that was not filtered as it would have been if we just had notes. (Repstad 2007 pp. 93).

We processed the translated information directly after the interview period was finished as according to Repstad (2007 pp. 65) one should organize the field notes as quickly as possible after a field visit. Many scientists agree with Repstad and have experienced that if the information is not documented immediately after observation, it will be lost or misrepresented. (Repstad (2007 pp. 65)/(ibid.)



Imagery 23: Interview with architect Luis Carlos Toledo (to the left). Architect and urbanist Sergio Fagerlande (to the right) helped with translation from Portuguese to English. Toledo is one of the leading figures in the development of Rocinha. (Photography taken by Chero Eliassi, 20190327).



Imagery 24: Panorama photography taken from a roof top in Vila Laboriaux. The photography shows Rocinha, Dois Irmãos in the background (to the left) and the high rise buildings in São Conrado as well as São Conrado Beach. The interview studies showed that a majority of the favelados of Vila Laboriaux valued the views of the neighboring areas as one of the most valuable parts (see page 61). (Photography taken by Chero Eliassi, 20190312)

According to Repstad (2007 pp. 53), it is of great value not to share the profession and academic purpose of the study for creating common ground and to create trust between the participants and the interviewers. We, therefore, introduced ourselves as two students from Sweden who worked with CatComm, which some residents were familiar with. Some of the participants asked about our purpose, which we then explained more detailed. Even though that could affect what the participants were willing to share, the importance of letting the residents of Vila Laboriaux know what was happening was greater than to keep it secret.

Between the interview questions, we had everyday conversations where our ambition was to create trust and connection with the interviewee (Repstad 2007 pp. 55). We chose to do this as we found it important for the respondents not to perceive the interview as something difficult and heavy to perform.

We carried out ten interviews during our visits to Rocinha. If there would have been more interviews, the analysis of the collected material

would have the risk of being depthless, as the purpose of the method was to do a qualitative study (Repstad 2007 pp. 92).

Repstad claims the researcher's age, gender and background can have effects on how the respondent acts during the conversation. Generally, the researcher has easier to connect to the interviewee the less they differ from one another (Repstad 2007 pp. 71-72).

By asking the interviewee only pre-formulated questions where there is no room for extended answers can result in a passivating behavior from the respondent. We, therefore, had some flexibility in the interviews where the questions were adapted to some extent after the respondent answers during the interviews. We tried to take the interviewee's background into account and formulate the question in an understandable way and order for them. (Repstad 2007 pp. 86).



DESIGN GUIDELINES FOR VILA LABORIAUX

The design guidelines were formulated and developed from the information received in the pre-study, inventory study, the survey, the observations, and the interviews.

In the design guidelines, some suggestions were formulated originated from the proposals we received first-hand from the residents and some suggestions were developed by us, based on what information was missing in Vila Laboriaux and what we, as landscape architects, regarded as possible solutions.

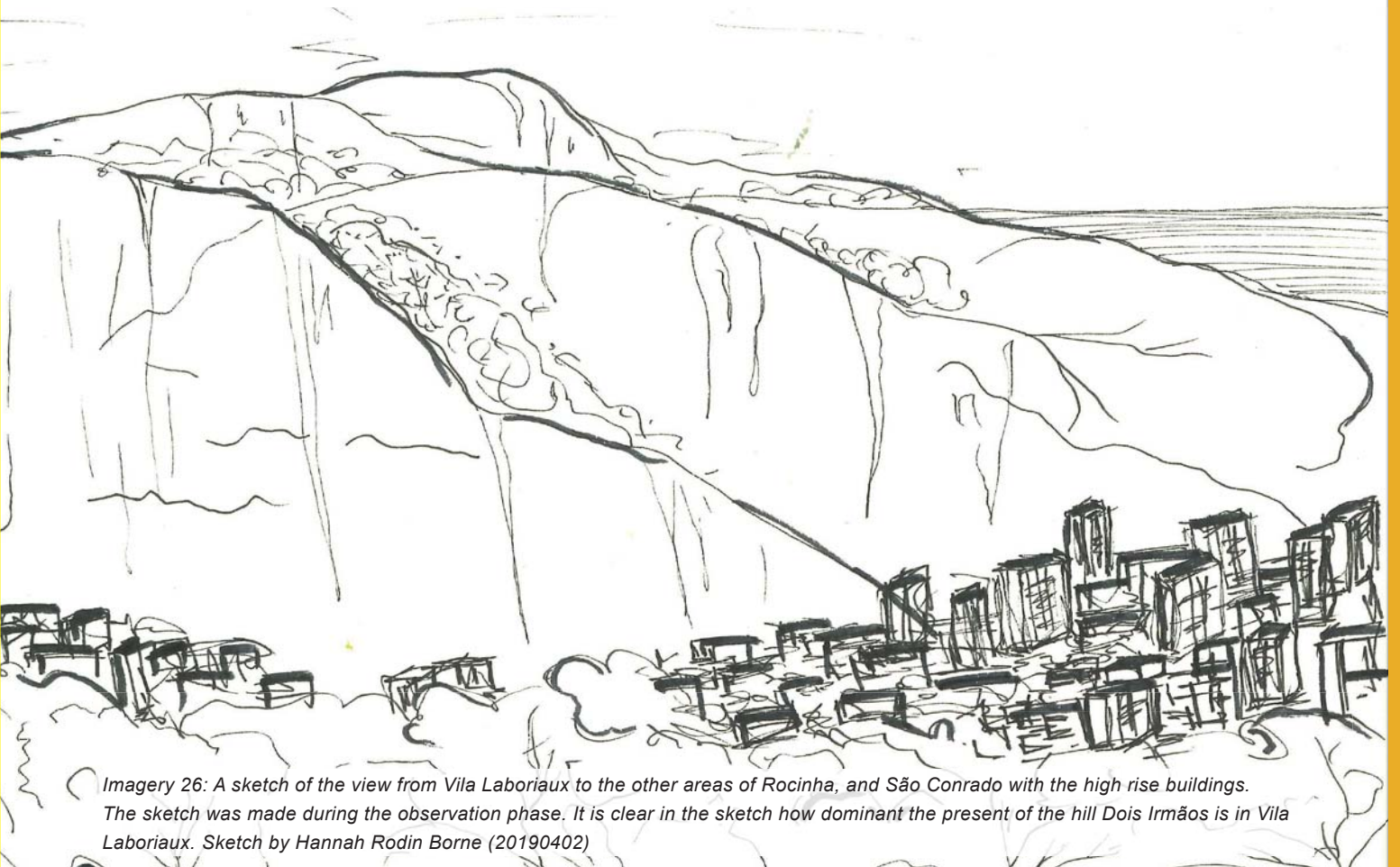
The aim was to find suitable guidelines for the specific site Vila Laboriaux, where we had to consider which solutions could be implemented in regard to topographical, geological, economic, political and urban density aspects.



Imagery 25: The image shows Chero Eliassi in one of the interviews with a respondent in Vila Laboriaux. During some occasions, we met residents in public places and did the interview on spot, to adjust to the their needs. (photography was taken by Hannah Rodin Borne, 20190402).

RESULT AND ANALYSIS

In this chapter, the results are presented as well as analysis to every sub-result. The chapter begins with inventory studies of Vila Laboriaux, and then the survey performed in the sub-neighborhood is presented. After the survey result is shown, the observation studies will be displayed in text, photographs and sketches. Finally, the interview result will be presented in text and photographs.



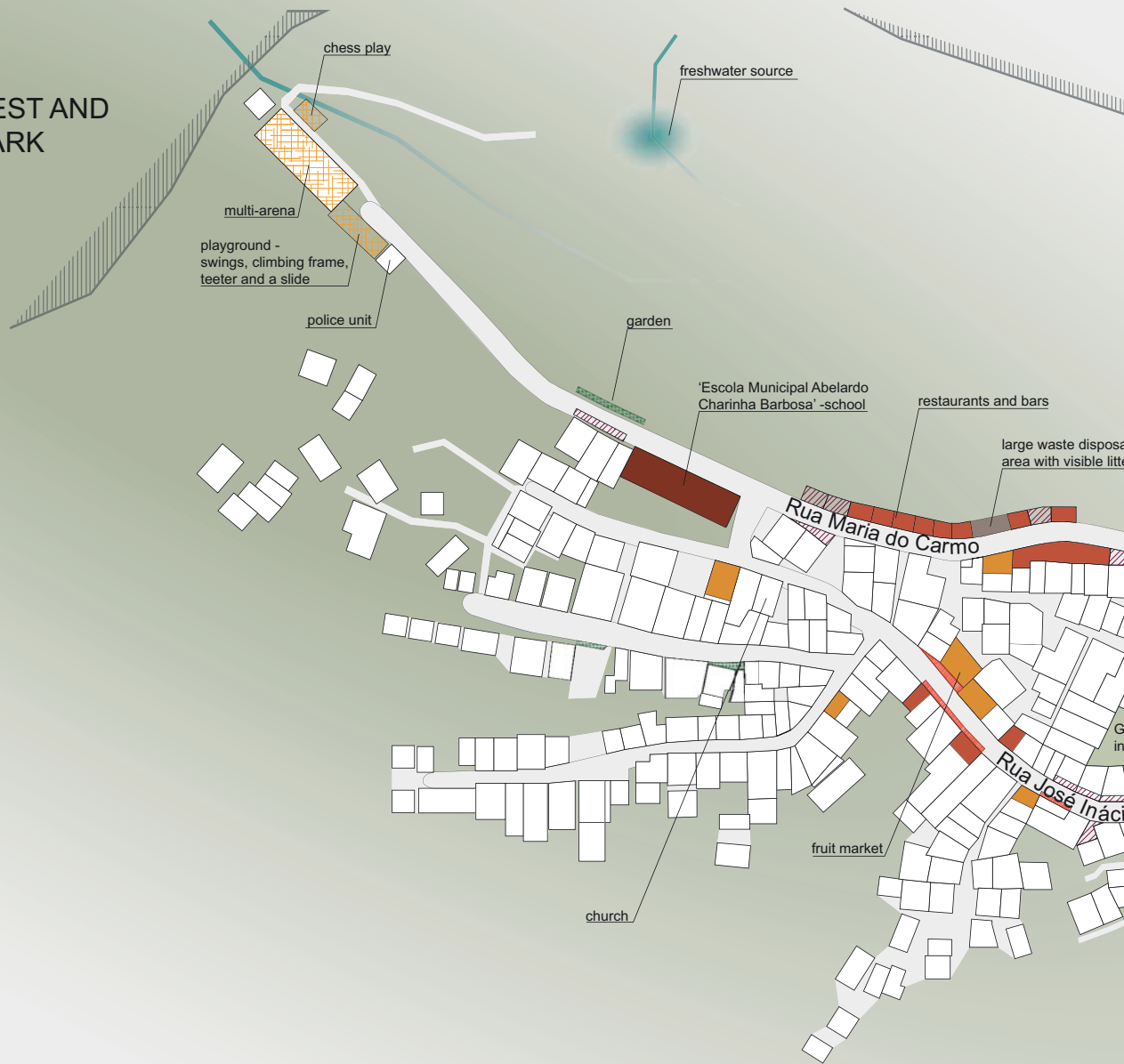
Imagery 26: A sketch of the view from Vila Laboriaux to the other areas of Rocinha, and São Conrado with the high rise buildings. The sketch was made during the observation phase. It is clear in the sketch how dominant the present of the hill Dois Irmãos is in Vila Laboriaux. Sketch by Hannah Rodin Borne (20190402)

INVENTORY STUDY AND ANALYSIS

The inventory study is presented in a map over Vila Laboriaux divided into three categories: activities and street life, roads and infrastructure and development and growth.

The inventory study proceeded during three days; March 12th, March 13th, and March 14th. The result of the inventory maps is analyzed after each map, in the text below the map.

TIJUCA FOREST AND NATIONAL PARK



INVENTORY MAP:

ACTIVITIES AND STREET LIFE

In Vila Laboriaux there were several stores and services along Rua Maria do Carmo. It included fruit- and vegetable stores, restaurants and bars, vehicle repair shops, an outdoor gym, churches, playgrounds, and a museum. Most of the stores were small in size and located on the ground floor of the residential buildings, facing the street.

In front of many favelados' houses, there were some smaller porches and gardens that added liveliness and activity to the street life in the neighborhood. At the back of a parking lot, there was a farming garden with herbs and edible plants (marked as 'edible garden' on the map), managed by











the residents themselves. The garden was to some extent overgrown and was in need of maintenance.

The sub-neighborhood is surrounded by nature and the Tijuca Forest and National park. Two main waste disposal areas for litter were found during the inventories. Although, there was still a lot of garbage and waste that had been thrown in the forest slopes. One waste disposal station had small garbage bins that were overloaded. The other station had no garbage bins and the litter was thrown directly, openly on the sidewalk of the street.

Some of the public spaces like The Visual and the outdoor gym were located with a great view over favela Rocinha and the South Zone of Rio de Janeiro.

GÁVEA

LEGEND

-  Green spaces
-  Bars and restaurants
-  Play ground
-  Waste disposal area
-  School/kindergarden
-  Front gardens
-  Shops and fruit markets
-  Workout area
-  Garage workshop
-  Porch



Many houses in the area had garages on the entry-level of their houses. The garage gates were often closed during the site visits.

Map 5: The base map is originally from Google Maps (2019) and has been processed and modified by Chero Eliassi and Hannah Rodin Borne during inventory sessions in Vila Laboriaux,

TIJUCA FOREST AND NATIONAL PARK



INVENTORY MAP:

ROADS AND INFRASTRUCTURE

The road network was generally of good quality along the main road, Rua Maria do Carmo, where the road was covered in asphalt on the top layer and had few bumps. Most commonly, concrete and asphalt were used as materials on the roads in Vila Laboriaux.

As Vila Laboriaux is on a mountain ridge, most parts of the roads were steep with an incline between 10 to 35 %. It was mainly at the top along Rua Maria do Carmo (marked as 'FLAT' on the map) that had inclination which was not perceived as a tough slope by us. The steep slope gradually decreased and leveled out the further up one came in Vila Laboriaux. Many of the bars, restaurants, and

















shops were located on the flat spaces on the top of Vila Laboriaux.

The streets were normally between two to five meters wide, the width varied greatly in different parts of the district. Additionally, the alleys were more narrow in between houses, usually being between one to two meters wide. The streets varied many times along the total route, 'with some parts being more narrow while others were more wide. The streets usually ended with a larger width towards an open area.

Several undertakings to prevent landslides in the area were notified. There were both concrete slopes on the borders of Vila Laboriaux and concrete

GÁVEA

LEGEND

-  Road: asphalt
-  Road: concrete
-  Road: beaten track with pits
-  Extended road
-  Width of street
-  Difference in elevation, arrow showing direction of higher level
-  Part of the road perceived as flat
-  Side walk
-  Concrete slopes
-  Concrete wall
-  Bridge
-  Fence
-  Stairs
-  Parking lot
-  Handrail
-  Parked vehicles

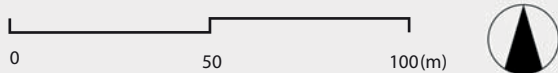


walls built in the risk-areas.

Along the main road where Vila Laboriaux begins, which is one of the steeper areas, there was a constructed handrail along the stairway of the road. Also next to the school, there was a handrail along the path walk.

In the Tijuca forest, there was a wooden bridge, crossing a small stream which leads to the water source in the forest.

Between housing facades, there were several narrow stairs. The stairs often lead to a smaller pathway, which was commonly found among the many housing blocks in Vila Laboriaux.



Map 6: The base map is originally from Google Maps (2019) and has been processed and modified by Chero Eliassi and Hannah Rodin Borne during inventory sessions in Vila Laboriaux,

TIJUCA FOREST AND NATIONAL PARK



INVENTORY MAP:

DEVELOPMENT AND GROWTH

In Vila Laboriaux, we noted several construction projects including re-building of the road network and new houses constructed during the visits. Numerous new houses and small roads were seen on site, that could not be found on the maps we used from Google Maps (2019).

Most of the roads, new and old, were in bad condition. Residents patched the roads themselves where there were holes. Usually, the holes were filled with concrete.

One of the edge zones in Vila Laboriaux, near the Tijuca forest (marked as 'area in development' on the map), was in major development with several new houses and paths being built in the area. In the same

zone, there were areas of the landmass and houses that previously had been damaged from landslides, which residents were rebuilding houses and paths on.

In several parts of Vila Laboriaux, open and unused spaces were seen which were located between housing blocks. In several cases, the open spaces were overgrown with weed, filled with litter or were covered slopes for preventing landslides.

On site, we estimated that most houses were between two to five floors high. In some cases there had been stairs constructed on the outside of the building, leading up to the second or third floor of the house.

A frequent notion was new house levels

GÁVEA

LEGEND

- × Estimated house levels
- New building
- ▭ Extended road
- ▨ Area in development
- Open unused space
- Lamp post
- ▭ Surface water canal



were built on top of a already existing house. Since there is a lack of space in favela Rocinha and in Vila Laboriaux, residents have built vertically instead.

Canals for sewage and surface water had been built along the main roads, especially Rua Maria do Carmo. The canals were constructed in concrete and some parts were covered in concrete on the top of the canal to create paths for pedestrians to walk on. We did not identify any wells in Vila Laboriaux.

There were few lamp posts in Vila Laboriaux. Most of the lamp posts were places on Rua Maria do Carmo. The electric cable poles had two functions, both carrying the cables and to function as lamp poles. This combination made it difficult to identify the lamp posts.

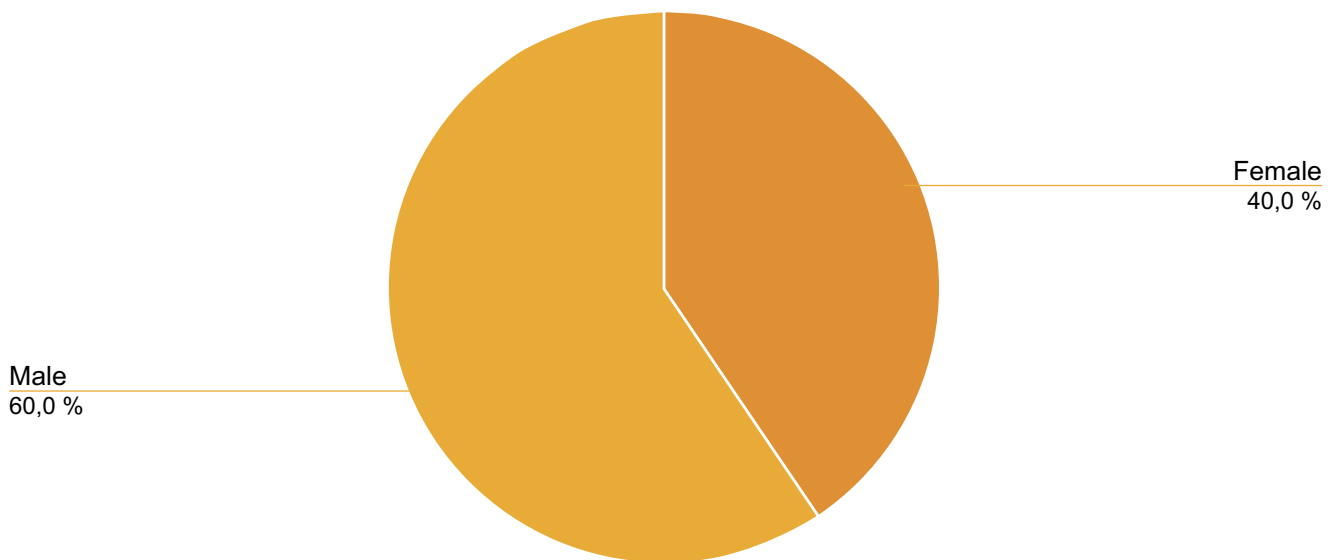
Map 7: The base map is originally from Google Maps (2019) and has been processed and modified by Chero Eliassi and Hannah Rodin Borne during inventory sessions in Vila Laboriaux,

SURVEY AND ANALYSIS

The results are presented below in circular diagrams for each asked question, with a text below each diagram explaining the meaning of the result and an analysis of the data.

The survey is based on the participation with one hundred residents in Vila Laboriaux. The survey was executed during several occasions between the 15th of March until April 3, 2019.

Question 1: Gender balance



QUESTION 1: RESULT

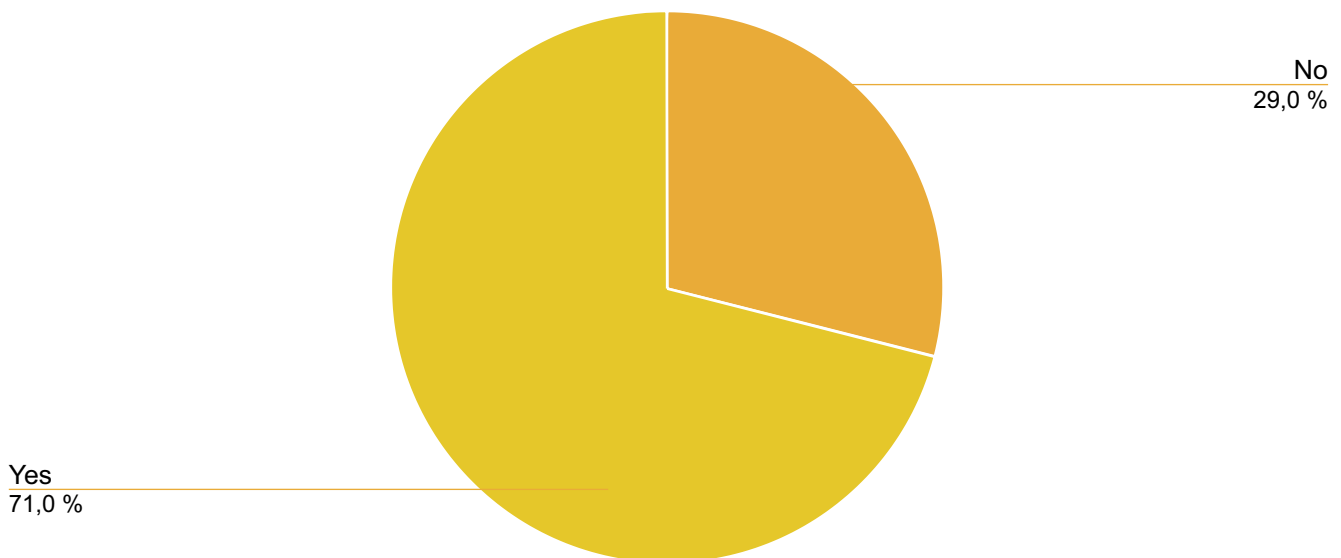
Our intent with the survey was to receive answers from a relatively equal amount of male and female residents. In practice, this meant we had to approach a larger amount of female residents since there were more men circulating on the streets during our visits. In general, female residents were more hesitant about participating in the survey.

The result shows we received answers from 60% male and 40% female residents which is close enough to an equal distribution.

Most of the people we approached and talked to were middle aged. Several survey participants were above sixty years old and were frequently seen

in the public during midday when we visited the site. The smallest participant category was people under twenty-five years old. We did not collect data over the age of the participants in the survey, the result presented here are admissions and perceptions from ourselves.

Question 2: Has there been any change with houses, roads, or outdoor space made by the government during the last ten years in Vila Laboriaux?



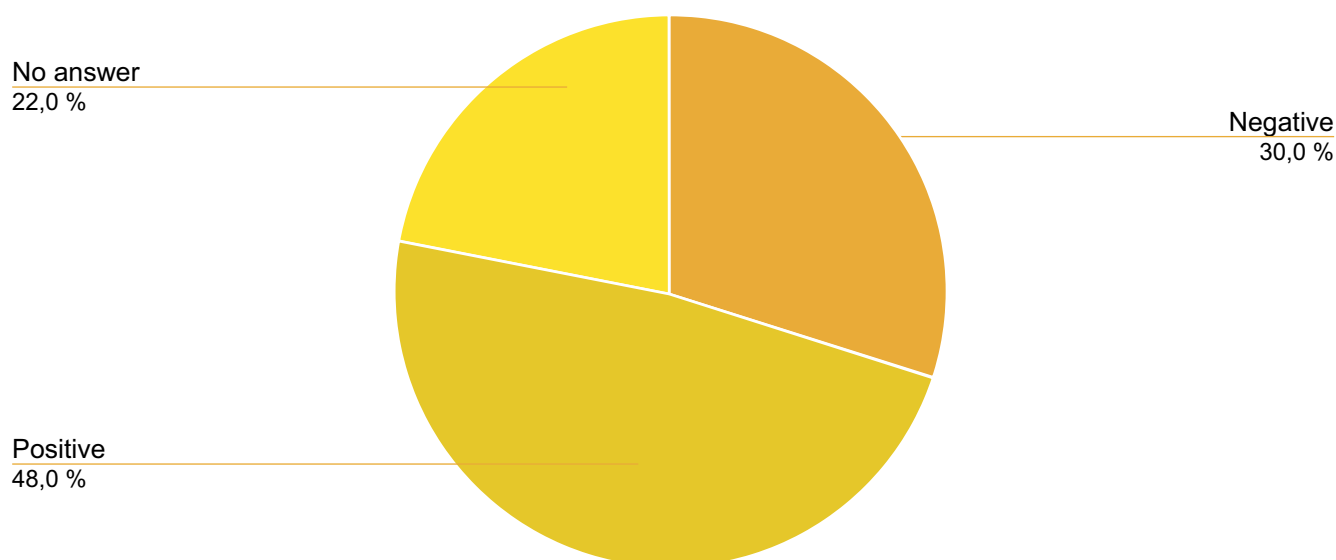
QUESTION 2: RESULT

When this question was asked, many residents (71%) shared memories of changes and development completed in Vila Laboriaux. Some of the most common examples shared were about where the gym area, the multi arena, the playground, the visual, the asphaltting of the main road Rua Maria do Carmo and the newly built houses at the edges of Vila Laboriaux that were in constant development.

Some of the residents answered 'No' to this question (29%), and explained they did not know of any changes. Some of the survey participants also told us that they had not lived in the area long enough to have seen any changes.

Many of the people we asked had to think for some time before they answered the question. Some of them were not sure if the changes they remembered were made by the City government or by some other governmental authority. Part of the residents mentioned examples of changes the residents had made themselves when they answered this question, even though we tried to explain that we were only looking for governmental examples.

Question 3: Do you think the change has been positive or negative?



QUESTION 3: RESULT

On this question, the answers varied plenty. The largest amount of participants (48 %) appreciated when the City government had made investments in Vila Laboriaux and thought the changes were in general positive.

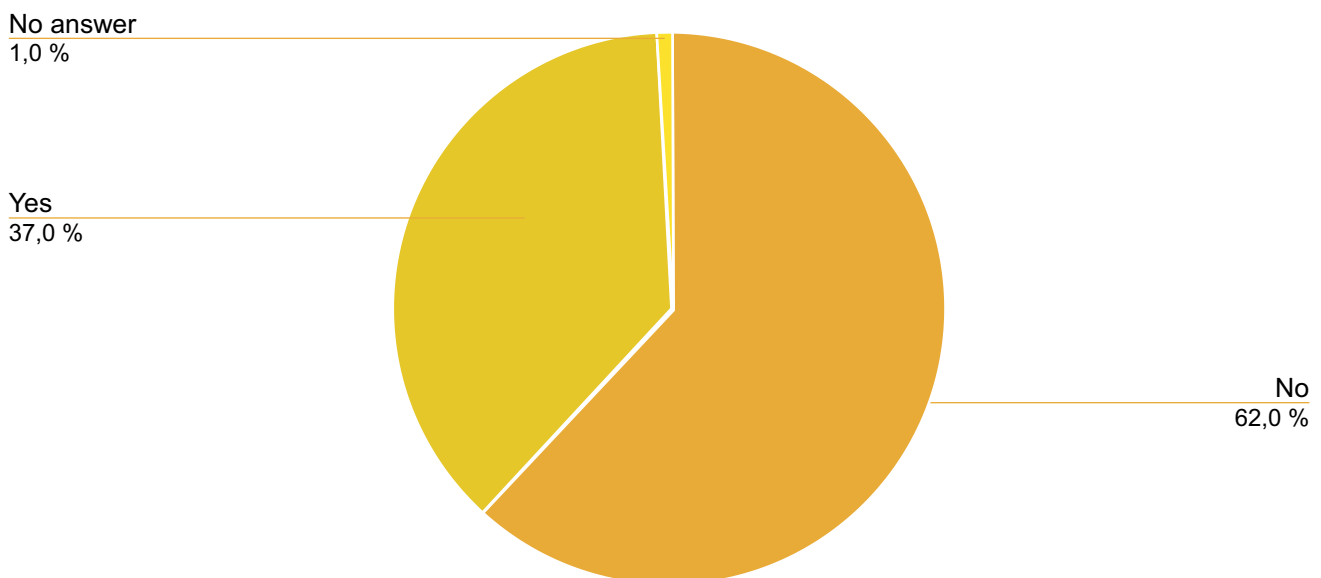
Several of the inhabitants who responded to the survey stated they wished for the City government to invest more in Vila Laboriaux and there was still a lack of many basic services and infrastructure in the community. Some participants (30%) answered 'Negative' to this question since they thought the City government had not done enough investments and that they are waiting for more

changes to happen in the neighborhood.

A relatively large amount of residents had no answer to this question (22%), they considered the changes to be both positive and negative and could therefore not give us an answer. In some cases, they thought one answer was more predominant, and those contestants could answer positive or negative on the question.

If the person we asked answered 'No' to question 2, we skipped asking question 3, since it was connected as a follow-up question to the previous one.

Question 4: If the government makes changes in Vila Laboriaux, do you feel you are involved and can affect the decisions that are being made?



QUESTION 4: RESULT

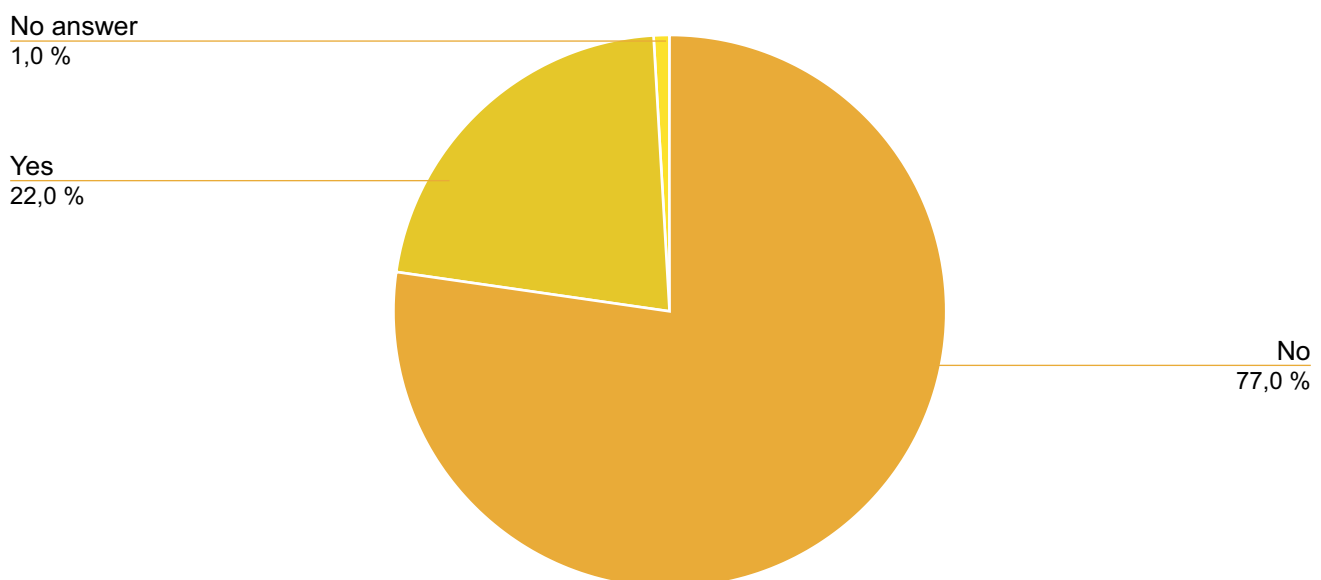
A large amount of the residents answered 'No' to this question (62%), and explained they felt neglected by the City government. Residents participating in the survey shared they never had any personal contact with anyone from the City authorities. Some people we asked the question to shared memories of when neighbors had been forced to move from Vila Laboriaux (and landslides were the most common reason why) and families were notified just a couple of days before they were forced away.

Several of the residents also answered 'Yes' to this question, many of them remembered that the City government had built and asphalted the

road Rua Maria do Carmo which goes through the community, and they were pleased with the addition of road.

Partly, this answer was confusing since we did not receive any explanation on how they had been involved in the planning process of the road. We suspect that for some of them, the question was misinterpreted and they gave examples of governmental changes that they were pleased with.

Question 5: Are you aware of any change in the nearby future in Vila Laboriaux, that worries you?



QUESTION 5: RESULT

On this question, the majority of people answered 'No' (77%), they did not know of any future changes they were worried about. Some of the residents (22%) answered 'Yes' and informed us that they had heard that the City government was planning on constructing more concrete slopes to prevent landslides. We also received the answer from a few residents that they were worried about that their house would be removed by the City government for the reason that the house was not built stable enough for future landslides.

We suspect this question was also misinterpreted to some extent. During some

occasions, we believe the translators did not say the full sentence and skipped translating the last part of the question '(...), that worries you?'. This can have affected the answers in a direction where people told us about changes that they were excited about and wished for, instead of what worried them.

OBSERVATIONS AND ANALYSIS

The result of the observations and analysis was divided into five categories: human activity and other types of activity, traffic and road infrastructure, buildings and developed structures, viewing points, vistas, green areas, and open spaces and service. The categories respond to the material that was observed during the site visits in Vila Laboriaux. Below, the five categories will be presented in text, photography, and sketches.

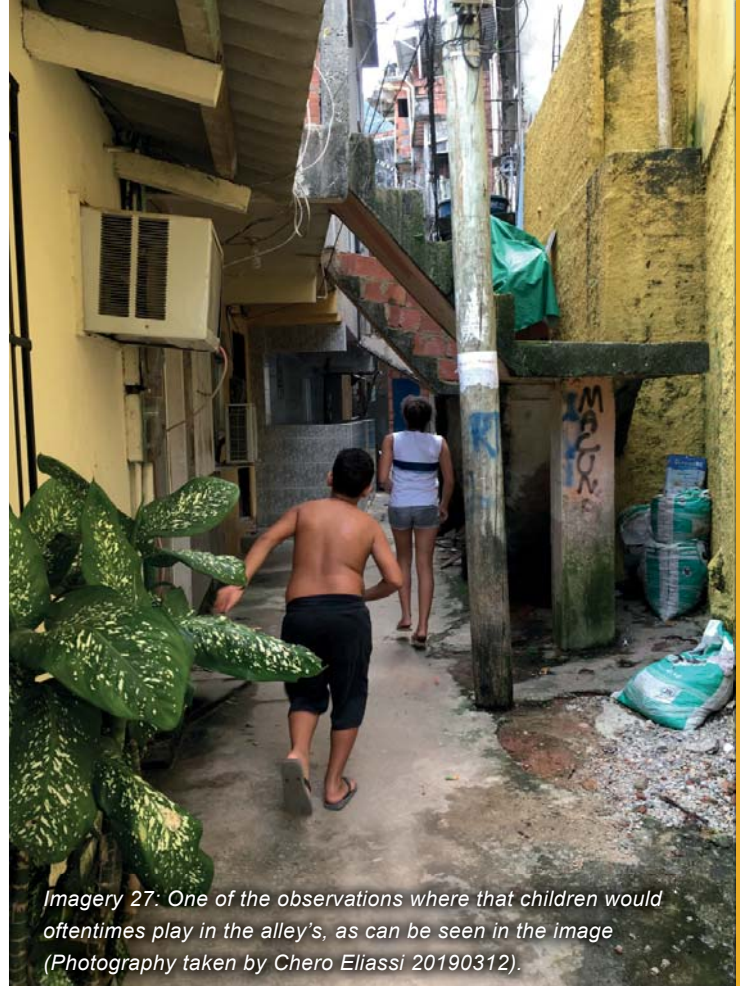
HUMAN ACTIVITY

In Vila Laboriaux, most of the human activity was found on the main road, Rua. Maria do Carmo. The higher up one was located, where there was a more dense concentration of residential houses, the less noted movement of vehicular traffic and people. Many pedestrians at the beginning of Rua Maria do Carmo were walking back and forth between Vila Laboriaux and other sub-neighborhoods of Rocinha and/or other neighborhoods in Rio de Janeiro.

During the site visits, the majority of the people walking back and forth in Vila Laboriaux were families picking up and leaving younger family members at the school 'Escola municipal Abelardo Chacrinha Barbosa'.

Children used all kinds of public spaces to play and be creative. The majority of the time we visited the area around the multi-arena (see imagery 44), children in most cases young boys, at the age between five and seventeen, used it to play soccer and other sports.

Children at the same age would also be found running around hiding and playing in the alleys (see imagery 27) that were connected to the main road. The alleys would oftentimes lead to the forested areas of Vila Laboriaux, where many children also were found playing in the trees and with other materials in nature. Younger adults were several times seen at the outdoor gym area in Vila Laboriaux,



Imagery 27: One of the observations where that children would oftentimes play in the alley's, as can be seen in the image (Photography taken by Chero Eliassi 20190312).

socializing on the gym equipment. They were also seen in smaller groups of two to seven individuals standing at the building corners, close to viewing points or sitting on chairs on the streets of Vila Laboriaux. The outdoor gym was sometimes used by older women at an age around forty to sixty years old, during our observation periods.

Regarding human activity inside the residential houses in Vila Laboriaux, during the majority of our site visits, we noted that there would be at least one or two favelados playing loud music on each street. Other sounds from the houses entering the streets were from the television, favelados talking on the phone and people having regular conversations. These sounds were heard as the windows and doors of the houses were open, facing the streets on several occasions, and therefore created this zone of semi-public and semi-private space.

Along the main road, several houses had porches (see imagery 28) of 1.5 x 4 square meters



Imagery 28: The image shows how a porch in Vila Laboriaux can look like. Most of the residential houses had porches, which had different functions depending on the owner of the porch. (Photography by Chero Eliassi 20190314)



Imagery 29: Artwork by WARK was observed on many places in Vila Laboriaux. Several building facades were covered with the artist's symbolic angels. (Photography by Chero Eliassi 20190403)

belonging to the house and creating space between the road and the houses. This space did most of the time function as a space for storage, hanging washed clothes and also a social space. The people who lived in the houses would occasionally sit on their porch and watch people walk back and forth, mostly on Rua Maria do Carmo. Mostly it was older women who used to sit on chairs and watch people. The men would also sit on their porches and watch people move from one place to another, but the majority of the men would gather outside of the shops along the main road and socialize in groups. The men were also seen more often in public spaces than the women in Vila Laboriaux during our visits.

Several walls of the building facades were covered with graffiti, political messages, and art created by the local residents of Vila Laboriaux and Rocinha. Artwork by the well-known artist WARK from Rocinha, was seen on some buildings and walls in Vila Laboriaux (see imagery 29). Also, a concrete wall that functioned as a protective barrier against

landslides, had graffiti art on it (see imagery 21 and 30).

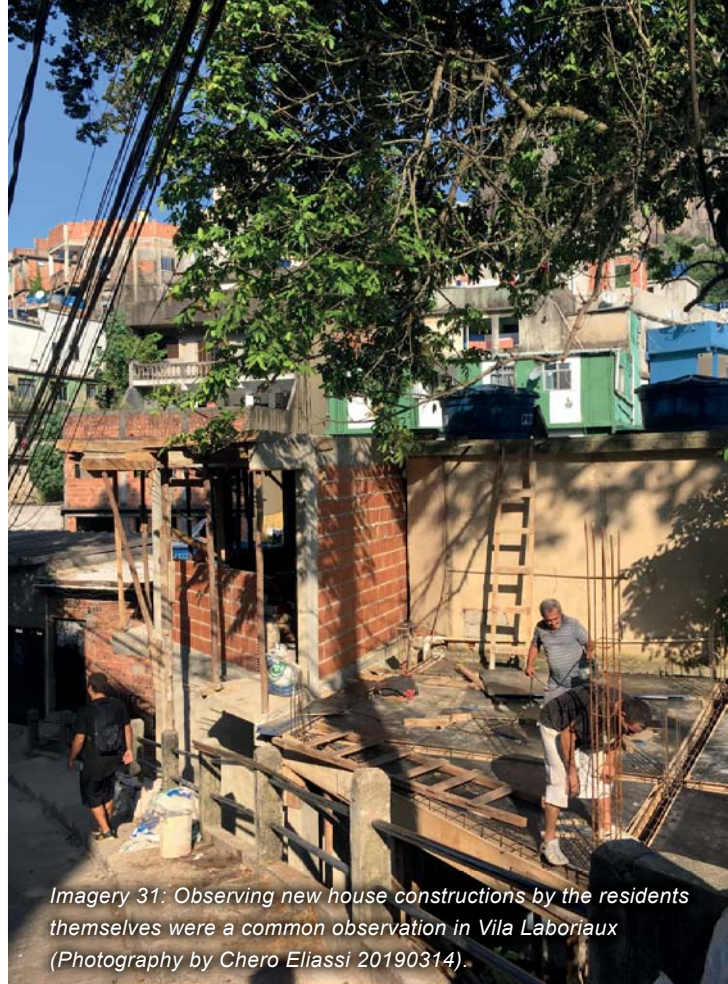
TRAFFIC AND ROAD INFRASTRUCTURE

In Vila Laboriaux the vehicular traffic was less than that of other sub-neighborhoods of Rocinha. As Vila Labouriaux is on one of the highest elevations in Rocinha (see imagery 12) and is on the border of Rocinha, less favelados travelled through it.

The character along Rua Maria do Carmo changed in several ways, the further up one came on the road in Vila Laboriaux. The lowest point on the road, where Rua Maria do Carmo connected to the main road in Rocinha, Estrada da Gávea, was where most of the (vehicular and pedestrian) traffic was noticed. This area where the two bigger roads met was also where buses, vans and motorbikes stopped to pick up and drop off commuters to and from Vila Laboriaux and other areas of Rocinha. Around the center of Rua Maria do Carmo there was both traffic, which results in high traveler flow



Imagery 30: Interviewer pointing at an area affected by landslides close to a playground in Vila Laboriaux. (Photography by Chero Eliassi 20190320)



Imagery 31: Observing new house constructions by the residents themselves were a common observation in Vila Laboriaux (Photography by Chero Eliassi 20190314).

and service, which oftentimes had people standing or sitting down at a restaurant, a café or a Salgado (snack bar). The higher up in Vila Laboriaux, and the closer to the end of Rua Maria do Carmo, the less traffic flow and high-speed movement were registered by us. Furthermore, the higher up along the main road, the fewer changes in elevation were noticed.

When we passed the school 'Escola Municipal Abelardo Chacrinha Barbosa' on Rua Maria do Carmo, the sound level of traffic was lower and there was less vehicular traffic. The parallel road Rua José Inácio de Assis was more narrow and had a lower road quality with less vehicular traffic flows. Some of the parallel roads were also made of concrete, which differed to Rua Maria do Carmo, which was asphalted. The only streets in Vila Laboriaux with official names were Rua. Maria do Carmo and Rua José Inácio de Assis. As we noted, there were at least five more paved streets in the sub-neighborhood who had not been named.

Vehicles in Vila Laboriaux were parked

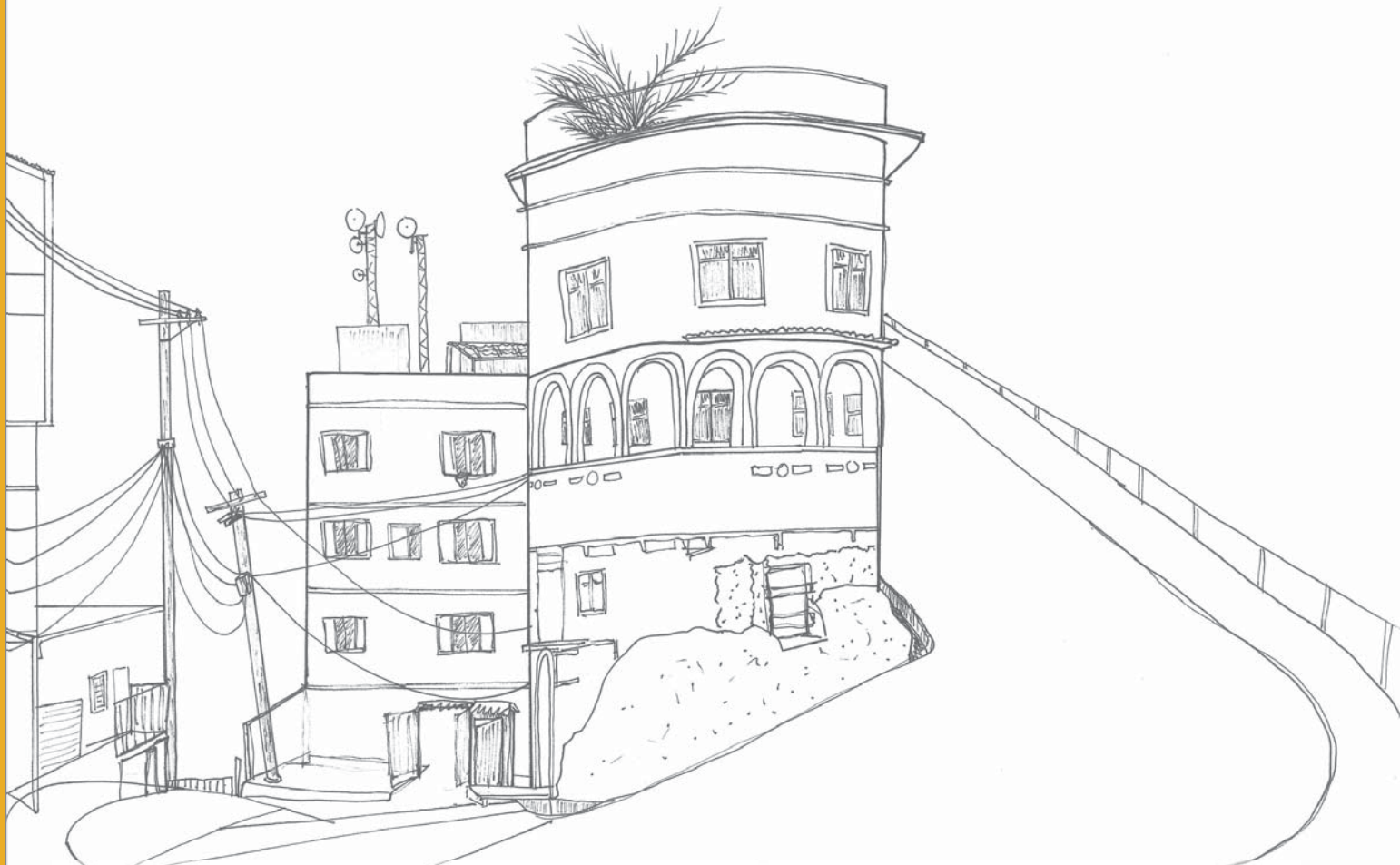
spontaneously on streets and on semi-private spaces (see imagery 36). Several vehicle owners parked their motorbikes outside of their house entrance.

BUILDINGS AND DEVELOPED STRUCTURES

All over Rocinha, one could find hanging electricity cables. The same could be found in Vila Laboriaux, with the highest density of electricity cables hanging on poles along Rua Maria do Carmo (see imagery 41).

There was a high pace when building new house construction in Vila Laboriaux compared to for example Swedish standards. Along Rua Maria do Carmo, we found several projects with new buildings and reparations of buildings. Oftentimes these reparations were performed by the resident themselves (see imagery 31).

At the end of Rua Maria do Carmo, growing towards Barra da Tijuca Forest, several buildings were built and repaired. Some of the reparations



Imagery 32: Sketch of the inclination and the different types of building structures in Vila Laboriaux that can be seen in the inventory map roads and infrastructure. The area is sketched close to The Visual (see the inventory map on page 47). Sketch by Chero Eliassi (20190312)

were done as a consequence of landslides and heavy rain falls. The majority of the houses built in Vila Laboriaux were built densely with several floor-levels. The houses were often built wall to wall with alleys who separated them into house blocks.

The houses followed the topography in Vila Laboriaux along the inclined mountain ridge.

The majority of the roads in Vila Laboriaux were either concrete roads or paths. The further away from the main road, the lower road quality was noted. All of the roads in the sub-neighborhood had holes which the residents themselves repaired with either mud or with concrete mixture.

VIEWING POINTS, VISTAS, GREEN AREAS AND OPEN SPACES

In Vila Laboriaux, informal social spaces were found spontaneously in all of the area. Many of the social spaces were noted on the stairs along the main road. Other places were groups of residents, mostly young

adults and, older men, who would be seen socializing were close to shops, viewing points of Gávea and São Conrado, and spaces were one could stand without disturbing the vehicular traffic.

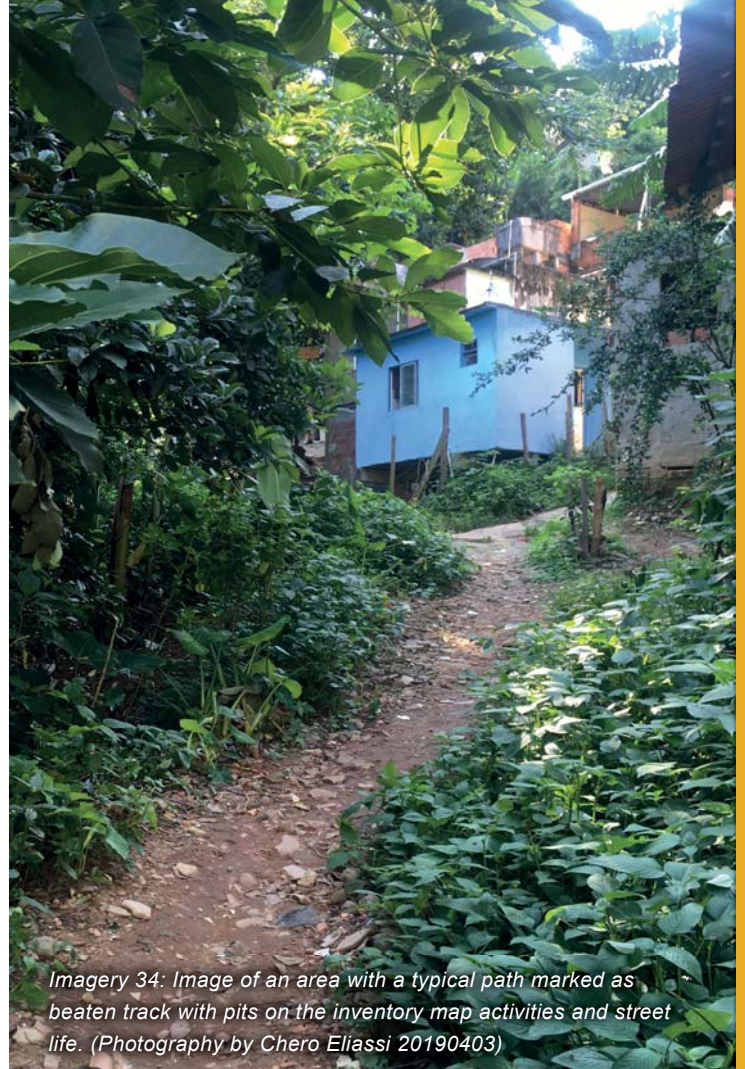
Elderly people would oftentimes be found where there would be shade and seating opportunity. These places were oftentimes located close to the roads or outside of their house on their porch. Walking along Rua. Maria do Carmo we noted several alleys in between the houses. These alleys were many times used as play areas for children and some alleys also lead to viewing points of Rocinha and other parts of Rio de Janeiro.

The viewing points from Vila Laboriaux were characteristic for the sub-neighborhood. Many favelados from Rocinha and other people visited Vila Laboriaux to get a view of the South zone. On one side of the mountain ridge there were viewing points of the neighborhoods Ipanema, Lagoa, Copacabana

and, Gávea. On the other side of the ridge there were viewing points of the rest of Rocinha, and the neighborhood São Conrado.

There was a greater amount of vegetation and forest in Vila Laboriaux than in the majority of the sub-neighborhoods in Rocinha, as Vila Laboriaux was at the border of the favela, connected to Barra da Tijuca Forest. Where there were no buildings or paths, the area would consist of tropical vegetation (see imagery 34). Many paths that connected one area in Vila Laboriaux to another would cross vegetative areas.

Several favelados decorated their outside entrances and porches with plants in different sizes and shapes. In some areas, larger mango trees and avocado trees were found in between houses. Most of the plants were native plants that also could be found in the edging forest.



Imagery 34: Image of an area with a typical path marked as beaten track with pits on the inventory map activities and street life. (Photography by Chero Eliassi 20190403)



Imagery 33: Sketch of the alleys in Vila Laboriaux. Oftentimes the buildings would be more than three levels high. Most alleys lead to viewing points of South Zone. Sketch by Chero Eliassi (20190312)

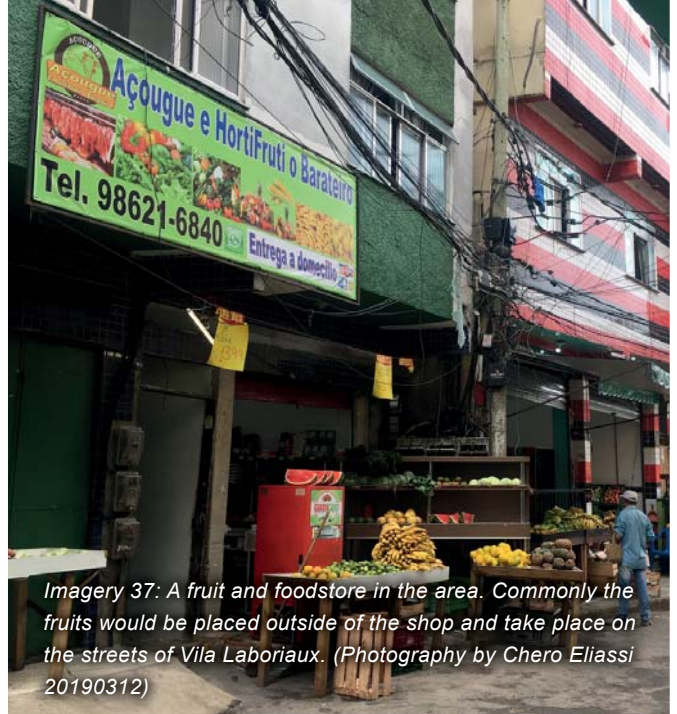
SERVICE

Most of the service shops were located along Rua Maria do Carmo. Along the main road, we noted three vehicle repair shops with men working together and socializing. There were also two clothing shops along the main road, where women were working. Restaurants, bars, cafés and Salgados (snack bars) were placed mainly along the main road but were concentrated to the top of Vila Laboriaux. This area with small restaurants, shops and bars was mostly visited by groups of older and younger men. Some restaurants, shops (see imagery 35) and kiosks could also be found on the side-roads to Rua Maria do Carmo.

Several areas in the forest surrounding Vila Laboriaux were covered in litter and had waste built up in piles. Many favelados used the forest as landfill disposal (see imagery 35). The company Comlurb worked for the Municipal of Rio de Janeiro and



Imagery 35: Image of an area in the forest, in the risk of landslide, partly because the ground has been covered in litter for decades, which accelerate the landslide process (Photography by Chero Eliassi 20190320)



Imagery 37: A fruit and foodstore in the area. Commonly the fruits would be placed outside of the shop and take place on the streets of Vila Laboriaux. (Photography by Chero Eliassi 20190312)

cleaned the outdoor spaces in the area. Even though they visited and worked in Vila Laboriaux two to three times per week, there was still a lot of litter left. Litter could also be found on the streets and outside of building entrances.



Imagery 36: Parked motor cycles were common to find on the streets of Vila Laboriaux. The sketch also shows the scale of the building structure in the district. Sketch by Hannah Rodin Borne (20190320)

INTERVIEWS AND ANALYSIS

In this chapter, a summary of the answers we received from the interview sessions with residents in Vila Laboriaux is presented and analyzed. The interviews varied from 20 minutes to 90 minutes long conversations.

We did interviews with 10 different respondents in Vila Laboriaux, 3 female and 7 male residents. The number of respondents that had the same standpoint/opinion is marked with the following classification; One - respondent A-J, two, three, more than four answered the same - several/many, more than six answered the same - most, and ten respondents answered the same - all/everyone.

RESIDENTS IN VILA LABORIAUX

We began the interviews with some general questions. We wanted to get to know our interviewee's better and understand what their everyday life looked like. The oldest person we interviewed was 67 years old, and the youngest two people were 17 years old. The middle age of all our contestants was 37 years old.

The participants worked with a variety of different professions, many of them within the service sector such as street cleaning, construction, waiter,

salesmen in a bakery, motorbike taxi and deliveries with motorbike taxi. We interviewed two retired individuals and one undergraduate studying music. Respondent F was retired at the time we interviewed him, but he used to work as a horse rider instructor.

Most of the interviewee's had lived in Vila Laboriaux for over 30 years, and three of them were born in the neighborhood. Several people had lived there for less than fifteen years.

Many of the participants in Vila Laboriaux described their daily life as 'normal', two of them worked very long hours and spent little time in the area, three worked less and spent more time at home with family, walking their dogs, playing soccer, going on hikes or socializing with neighbors.

THE GENERAL OPINION OF VILA LABORIAUX

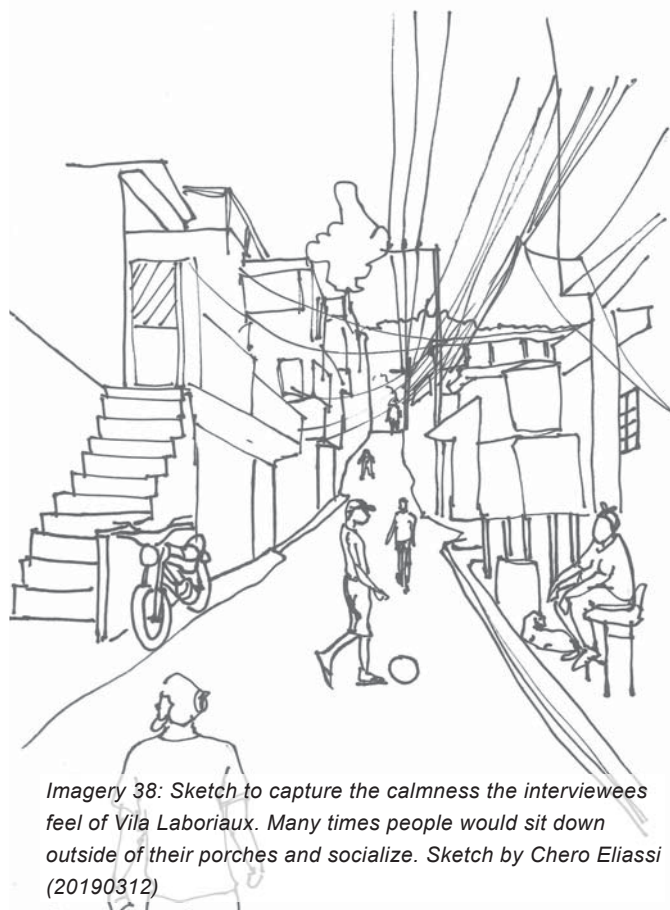
When we asked the residents about their general opinion of the area some recurring opinions

were; 'calm', "quiet place", "beautiful forest". Most of the interviewees thought Vila Laboriaux was a great place to live in. Respondent J said Vila Laboriaux was not as busy as the rest of favela Rocinha.

"Everything is good, calm, mountain climate, a lot of jack fruit and avocado." (Moises Oliveira, translated by Francisco Soares de Gusmão March 27 2019)

Several of the people we interviewed suggested improvements in the sub-neighborhood, three people thought the infrastructure needed upgrading. Respondent C told us there was a lot of construction that had started but had not been finished. Respondent E pointed out there was still a lot of basic infrastructure missing such as electricity and water services. Respondent I talked about the sewage problem and stated people should be more concerned about nature.

"The basic infrastructure. There is a lot of houses without water and electricity, there is a lot of houses without water services or ability to flush the water." (Larissa Damasceno, translated by Fernando Ermiro March 26 2019)

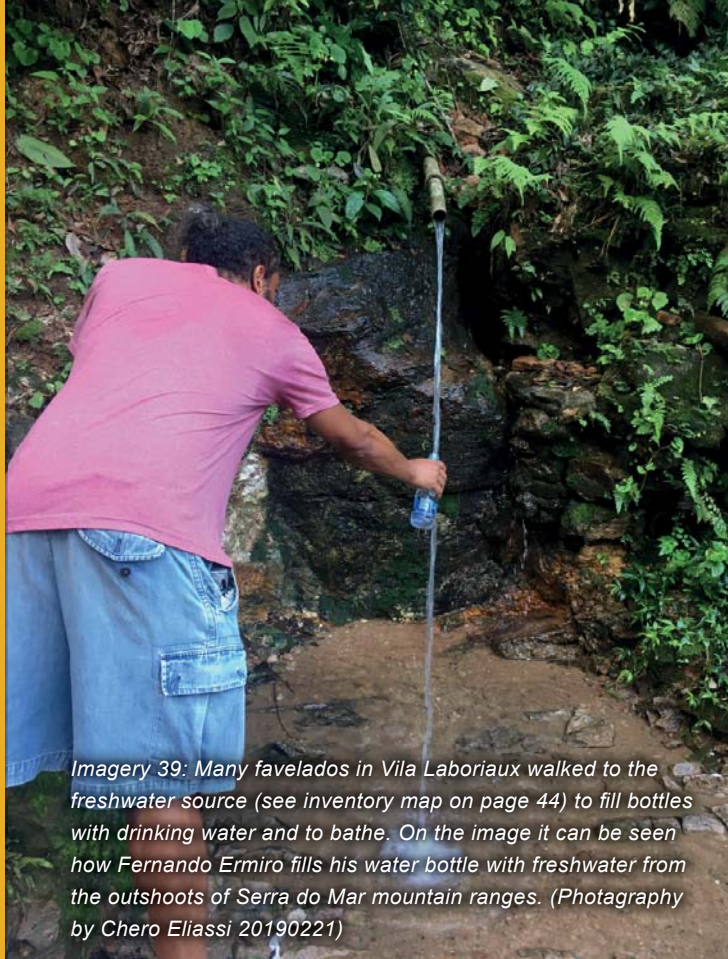


Imagery 38: Sketch to capture the calmness the interviewees feel of Vila Laboriaux. Many times people would sit down outside of their porches and socialize. Sketch by Chero Eliassi (20190312)

TRANSPORTATION

The most common vehicle among our interviewees was to use the motor cycle for transportation. Two of them owned their own motorbikes and many of the interviewees used the motor cycle taxi as a transportation tool. Several participants shared with us it was the most accessible transport to travel within Rocinha. Furthermore, three used the motor cycle taxi since it was a cheaper option than using a car and also more easy to get around within the narrow streets.

"Because of traffic jams and everything is so still you know. It does not move a lot so by motorbike I save up money and time." (José Marciel, translated by Francisco Soares de Gusmão, April 2 2019)



Imagery 39: Many favelados in Vila Laboriaux walked to the freshwater source (see inventory map on page 44) to fill bottles with drinking water and to bathe. On the image it can be seen how Fernando Ermiro fills his water bottle with freshwater from the outshoots of Serra do Mar mountain ranges. (Photography by Chero Eliassi 20190221)

Going on foot or taking the bus was the second most common choice amongst the interviewees. Many of the participants considered the public transportation to be a too high-priced option in Rocinha and Vila Laboriaux, and therefore chose to sometimes walk between one node to another. On the other hand, respondent F said he walked everywhere because he enjoyed it and liked walking.

Respondent C told us she goes with the van because she thought the motorcycle was too scary to travel with, and soon when she would be a pensioner, the van would be free of charge for her and a more comfortable way of traveling.

When we asked about suggestions for improvement with transportation two participants suggested a cable car all the way up from the low point of Rocinha to Vila Laboriaux would be a good idea. Respondent J told us it would be one more public transportation option to choose from.

During the period we concluded the interviews the only option to come all the way up to Vila Laboriaux with public transportation was to take the

van. Sometimes the motor cycle taxis went all the way up, often they stopped at the beginning of Rua. Maria do Carmo. The motor cycle taxi drivers did not always want to go all the way up as it, according to drivers, put heavy pressure on the engine. Several resident participants wished for more vans and motor cycle taxis to transport all the way up to Vila Laboriaux, and for the transportation to not be as expensive as it was. Two residents were pleased with the transportation options and thought all the transportation worked fine. Respondent G who worked as a motor cycle taxi driver suggested speed bumps, path walks with zebra lines and crossing lines should be added in Vila Laboriaux.

VALUABLE PLACES

We received a variation of answers when we asked the participants about the public spaces they use in Vila Laboriaux. Commonly for most residents was the water resource in the forest (see imagery 39), the multi-arena and the hike in the Barra da Tijuca Forest and National Park. Besides the answers mentioned above, we got many particular answers such as; respondent A likes to drink cachaça and beer at the local bar, respondent E sometimes buys açai, respondent C spends time at the supermarket while respondent I likes to workout at the outdoor gym in Vila Laboriaux.

"I like to stay in front of the barbeque place and where they stop the vans [close to the school] and outside of my house. I just stay looking." (José Pera de Vascelos, translated by Francisco Soares de Gusmão, March 27, 2019)

Furthermore, many resident participants had in common that they meet up friends and family in each other's houses. Usually, they ate lunch, had barbeques and/or stayed at the rooftop of the house.

When we asked the interviewees about the nicest parts in Vila Laboriaux, the predominant

answer was the views of Gávea (see imagery 2 and 18), São Conrado (see imagery 8 and 24) and the south zone of Rio de Janeiro. Most residents told us the views were the most beautiful part of the sub-neighborhood. The second most common answer for what the residents enjoyed was the hike in the



Barra da Tijuca Forest and the multi-arena. Two of the participants also liked the outdoor gym in Vila Laboriaux, the waterfall in the Barra da Tijuca Forest and the parts of Vila Laboriaux where there were proper infrastructure and sanitation.

“All the views that are around here is the best place.” (José Marciel, translated by Francisco Soares de Gusmão April 2, 2019)

When asked what the participants liked the least in Vila Laboriaux, one of the most common answers we received was the major issues in the area with sewage and sanitation management. Several people told us they wished for a better sanitation system and the exposed trash on the street bothered them. (The quote below is discussing

the dumpster on imagery 40). Three out of ten participants thought everything was good in Vila Laboriaux and they liked to keep the area the way it was. Two people thought the steep hill and the areas in risk of landslides were the least nice part of Vila Laboriaux (see imagery 32).

“What part of Laboriaux do you like the least?” “The dumpster, something better should be there. It should not be that exposed the dumpster.” (Ericson Correa, translated by Carlos Augusto March 20, 2019)

CHANGES IN THE NEIGHBORHOOD

Several participants said the population in Vila Laboriaux had grown. There had been a constant movement of new residents into the sub-neighborhood simultaneously as people were relocated from their houses because of landslides. Respondent I observed new inhabitants usually settled down at the edge zones of the community. Many favelados mentioned the infrastructure had changed with newly constructed asphalted streets, concrete slopes and walls in the areas with risk of landslides and that water and electricity had been installed in most houses.

In general, most interviewees said some of the changes in Vila Laboriaux were done by the City government and some of the changes the community residents made themselves. Respondent G told us the Residents Association in Vila Laboriaux used to construct more for the public space in Vila Laboriaux, but nowadays there was a lack of resources.

“It is good, this has to be said the government does some good stuff, not in the proportion we would like to have but they are good and we have to say this.” (Marilia Gabriela Pinheiro dos Santos, translated by Francisco Soares de Gusmão March 27, 2019)

INCLUSION IN DECISION MAKING

When we started asking questions about public participation and involvement with the planning of Vila Laboriaux we received quite similar answers from the resident participants. Most of them experienced the City authorities did not contact them when they decided to change something in the sub-neighborhood. If they did communicate with them, it was usually late in the planning process and the community inhabitants did not have much impact on the decision-making.

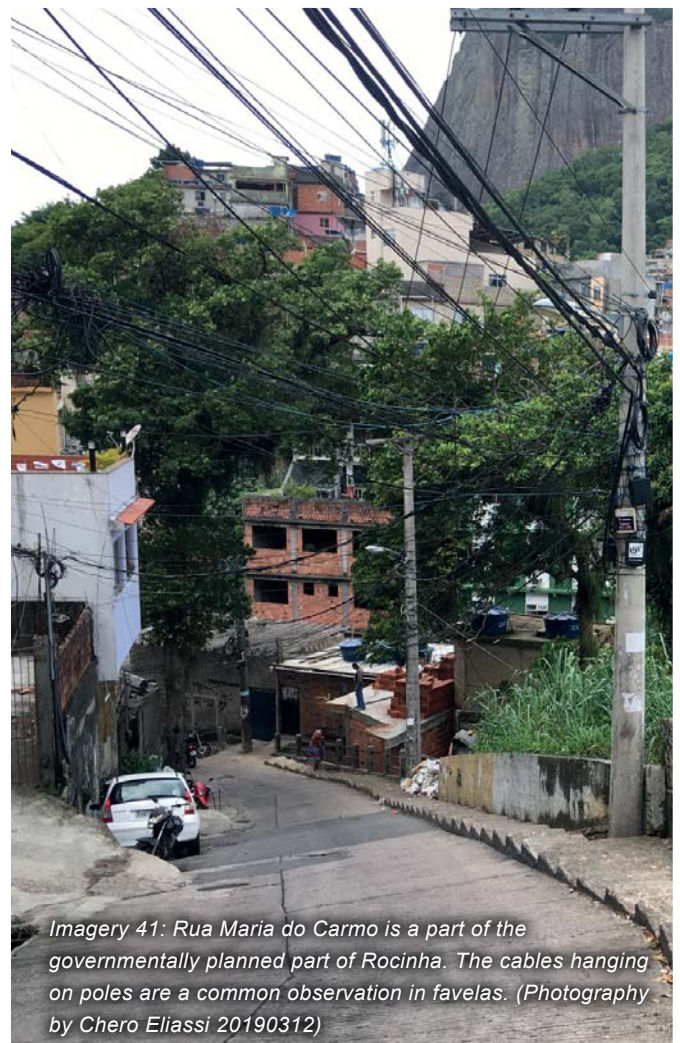
When asked if they felt they had a voice when changes were being made in Vila Laboriaux by the City government, everyone answered they were not being heard. Resident J thought he might have a voice if they gathered several people and submitted their opinions in a larger group. He told us they previously reached out to The Pontifical Catholic University of Rio de Janeiro's (PUC) law and environmental students when they needed help with these kinds of issues.

To summarize, we could interpret from the interviews disbelief towards the City government and their intentions towards the residents in favelas. Many witnessed there was a lack of presence in the favela from the City authorities, and they wished for a closer contact with them. A general opinion shared by many was the City government had not cared about them and they felt neglected by the bureaucratic system. Respondent B informed us there were meetings with the Residents Association in Vila Laboriaux where one could state one's opinions if the interest was there.

"We have several communication ways these days like Whatsapp, however the government likes to keep people in the dark because they can not push the government for changes, if people do not have access to these things, they will not demand things all the time you know. They will not be a pain in the ass for the government." (Ericson Correa, translated by Carlos Augusto March 20, 2019)

"Basically the reason why the government would not notify these people, you probably know, people from the favela they tend to be not so educated and instructed, right? So it is a lot. I do not think they have a voice or resources to prevent their houses from being moved or so. So the government just comes and does it. I do not think they can do anything about it no. A lot of people do not know their rights, most people have no clue actually about it." (Antonio Barros, translated by Carlos Augusto March 20, 2019)

Among the interviewees, most residents would have liked to be more involved in the future planning of Vila Laboriaux. Since they lived there, many of the answers were that it was in the best of their interest to have the opportunity to impact the future of their neighborhood. Respondent I talked about how he wanted to make the favela better for his kids and the upcoming generations of Vila Laboriaux. Several participants also told us they were



Imagery 41: Rua Maria do Carmo is a part of the governmentally planned part of Rocinha. The cables hanging on poles are a common observation in favelas. (Photography by Chero Eliassi 20190312)

not interested in becoming more involved. These participants argued there was a lack of time and other various problems to deal with first-hand. Among these participants, there was also a lack of interest in engaging in the decision-making of Vila Laboriaux.

SAFETY AND LANDSLIDES

When we asked the interviewee's about safety, two people told us they felt safe in Vila Laboriaux but further down in the other sub-neighborhoods in Rocinha they felt less safe. Many participants did not feel unsafe in the area, but they shared some important subjects. The most common concern was with police violence, landslides, and shootings in favela Rocinha.

Respondent B told us during shootings, people stayed at home as a way to protect themselves. She shared this is a part of their everyday life in the favela. Respondent E shared her fear of being out alone in public spaces as a woman. She described her fear being the highest during the night and morning when the streets were empty.

"The feeling of insecure is in everywhere. Brazil is a terrible place to be a woman. Every 11 minutes in Brazil one woman is raped. There is no public or policial security for women. It is very hard in Brazil to classify sexism and not to talk about women. And the corruption by the government and by the UPP does not give to women security. Not in Rocinha, not in Rio de Janeiro." (Larissa Damasceno, translated by Fernando Ermiro March 26, 2019)

Regarding the risk of landslides, none of the residents we interviewed had personally been affected, but most of them knew residents and neighbors in Vila Laboriaux who had been. Many participants shared there had been community inhabitants relocated and some of them knew residents who had passed away because of the consequences of the landslides.

When discussing landslides in Vila Laboriaux,

many interviewees mentioned the heavy rain that occurred in 2010. They shared that a high number of people died, lost their houses or were relocated from areas in Vila Laboriaux to other parts of Rocinha or the West Zone (see map 2 on page 21) in the City of Rio de Janeiro. The heavy rain also destroyed large parts of Vila Laboriaux and Rocinha. Two participants told us they know people who lived on the hillside near the multi-arena in an area called 'Bika'. These participants were stressed and worried about how landslides would affect them.

Respondent I told us about his memories from the landslide in 2010 where he dug people out from the house masses left after the landslides. He remembered saving dogs, but no humans were found alive. Respondent D showed us the area outside his house where a big landslide had occurred. He explained what happened on the spot in the quote below.

"Yes, do you see the light bulb? [pointing at a light bulb around 8 meters away from his house] The mud destroyed her place [the woman that used to live in a house next to the light bulb] and two people died on that day because of the landslides. They were home and huge tons of mud came down and destroyed their house. I mean usually the mud drags the house with it. And this time it was destroyed." (Marcelo Mendes, translated by Carlos

Augusto 20 March, 2019)

Respondent J told us his neighbors in the house next to him were relocated (see imagery 6) after the landslide 2010. He explained those residents never received anything in compensation from the City government, neither money or a new house, for being forced to move.

Respondent E stated the City authorities does not care about the security of the population that lives in favelas. When favela families were forced to be removed because of risk with landslides they were rarely asked and they were predominantly moved

to areas far away from their current living district in other zones of the City of Rio de Janeiro.

“Vaccination pool clinic, like the one we have at the bottom, that would be good.” (Henrique Eduardo, translated by Carlos Augusto

April 3, 2019)

FUTURE DEVELOPMENT

When asking the respondents what they would like to add, change and what is missing in Vila Laboriaux, most interviewees requests were for basic services to upgrade and work properly in the community.

Many participants preferred more schools and daycares and for the public transportation system to be improved. Respondent B wished for a tram-line all the way up to Vila Laboriaux. She thought the steep hill up to the neighborhood was an obstacle and a tram-line would make the transportation easier and more accessible for the community inhabitants. Respondent C wished for more frequent departures with the vans and respondent J suggested speed bumps and traffic signs to slow down the motorcycles.

“Maybe they could change anything with the vans, it is too high here and I do not like to go by the motorcycle so I use the van.”

(Marialeide dos Santos, translated by Francisco Soares de Gusmão March 27, 2019)

Two residents wanted a better system to prevent landslides from occurring in Vila Laboriaux. Respondent D talked about the issue with the housing foundations, and the construction of the foundations must be improved. Two residents mentioned the issue with electricity and that there had been frequent power outages, often during summertime. They would have liked an improved system with electrical cables. Three residents suggested an improvement for the healthcare system, as the closest hospital was in Copacabana. Respondent E talked about how elderly, pregnant women and injured people had to walk a long way down to the bottom and up the hill again to receive healthcare. Respondent H suggested;



Imagery 42: Interview with one of the residents in Vila Laboriaux with the translator (on the left). After the interview the interviewee (to the right) showed us an area where he was concerned the litter thrown in the forest outside of his house would result in landslides. Most of the interviews took place in the interviewee's house, as can be seen in the image. (Photography taken by the daughter of Ericon Correa, 20190328).

RESULT DESIGN GUIDELINES FOR VILA LABORIAUX

The design guidelines for Vila Laboriaux were made as a completion to the inventory study, the observational studies and the interview studies. The design guidelines are based on the response we received in the interviews and surveys and what was observed and inventoried. The guidelines answer to the second problem statement: In what way can that knowledge be collected and used for future planning of Vila Laboriaux? (See page 20).

The compilation of design guidelines consists of eight aspects and are divided into short term and long term guidelines.

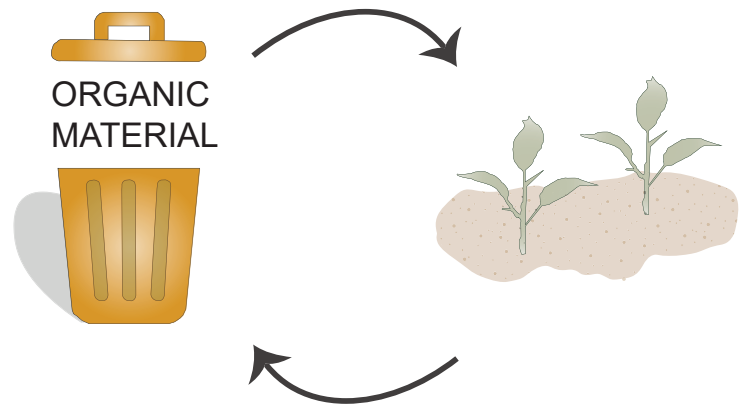
DESIGN GUIDELINES

Short term:

- Improve waste management
- Develop a larger meeting place for the inhabitants to use
- Facilitate the use of renewable energy sources

Long term:

- Stabilize the soil-structure with landslides stabilizing piles and walls
- Enhance surface water management and create drainage systems
- Strengthen vegetative structures in public spaces
- Improve existing road infrastructure
- Expand transportation alternatives to Vila Laboriaux

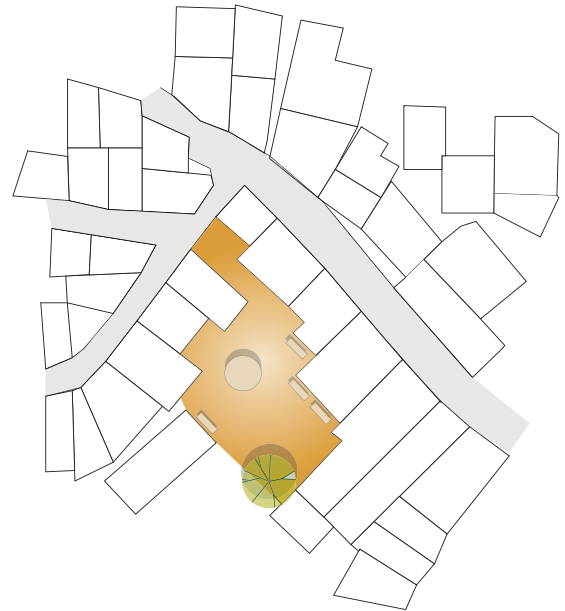
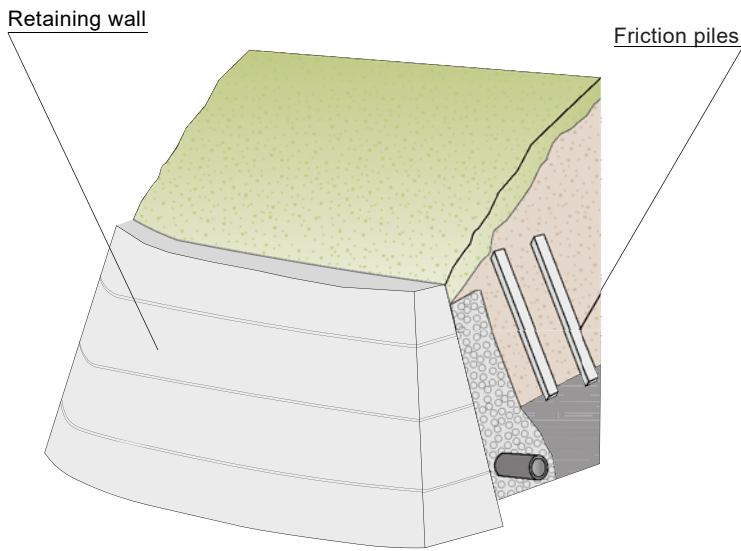


IMPROVE WASTE MANAGEMENT

Litter can be found in several places in Vila Laboriaux. The forest areas surrounding the sub-neighborhood are covered in litter on the ground. In the inventory map: activities and street life (see page 44 and 45), litter and large waste disposals have been marked in public spaces. In the interviews with the local residents (see page 61) it is also noted that the trash on the streets is an issue many find disturbing.

There needs to be an improved system in the sub-neighborhood for collecting waste. A considerable amount of the waste was found on the outer borders of Vila Laboriaux. Currently, the cleaning companies hired by the state government only access the main roads in the area, they also need to have access to the alleys and more narrow streets of Vila Laboriaux for collecting waste. Additionally, there need to be more waste bins placed all over the sub-neighborhood, especially in areas further away from the main streets Rua Maria do Carmo, to make it more accessible for people to throw garbage.

The opportunity of sorting organic waste should be introduced for the favelados so the organic waste can be recycled in a natural process. The organic material, the humus, can also function as fertilization on the public and private vegetative areas in Vila Laboriaux.



STABILIZE THE SOIL-STRUCTURE WITH LANDSLIDE STABILIZING PILES AND WALLS

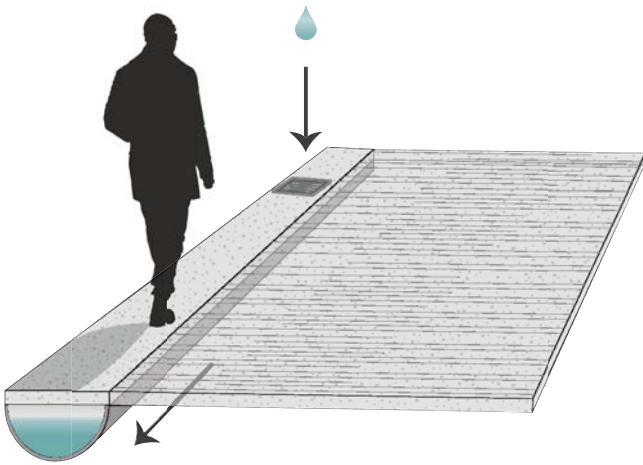
The result from the interview studies shows landslides were an issue several inhabitants were worried about (see page 65). As respondents desired better systems for the prevention of landslides in Vila Laboriaux, the need of analyzing risk zones for landslides is high prioritized. Also considering the fact of climate change and global warming which is expected to increase landslides occurring (see page 25). The material collected on the risk zones needs to be shared with the local inhabitants in the sub-neighborhood so awareness is spread.

There is a need to construct stabilizing walls to prevent landslides from occurring. The stabilizing and retaining walls need to be built not only in Vila Laboriaux and on its borders, but also on the higher levels above Vila Laboriaux. The drainage systems created along with the stabilizing walls and piles need to expand and be connected in the whole area, since an expanded drainage system would counter landslides to some extent.

DEVELOP A LARGER MEETING PLACE FOR THE INHABITANTS TO USE

As was discovered in the interviews with the locals, the majority of meetings with family and friends took place at each other's houses (see page 62). The lack of larger public spaces for meetings was noted in the observation studies (see page 56) and inventory studies (see page 48 and 49), besides the public spaces on the streets.

Vila Laboriaux is in need of outdoor meeting places without the disturbance of vehicular traffic, which the public spaces on the streets have. A square would provide the local inhabitants with space to use outdoors. It may also be used when there are events and other types of public meetings. It could also provide seating opportunity for rest and recovery, considering the area is so steep.



ENHANCE SURFACE WATER MANAGEMENT AND CREATE DRAINAGE SYSTEMS

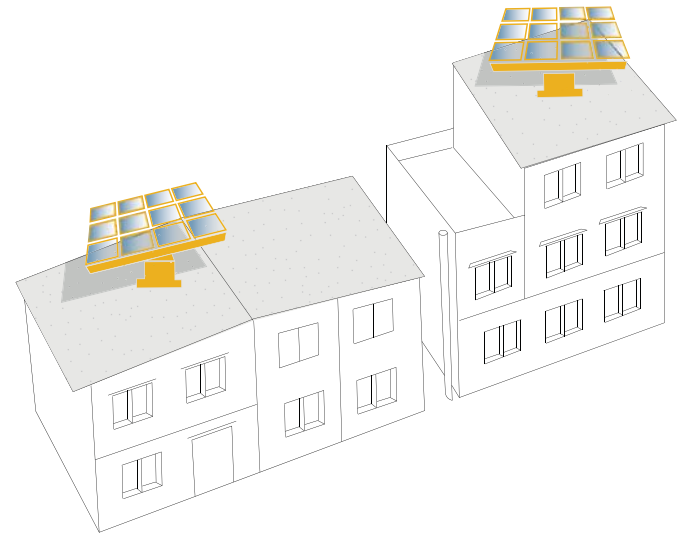
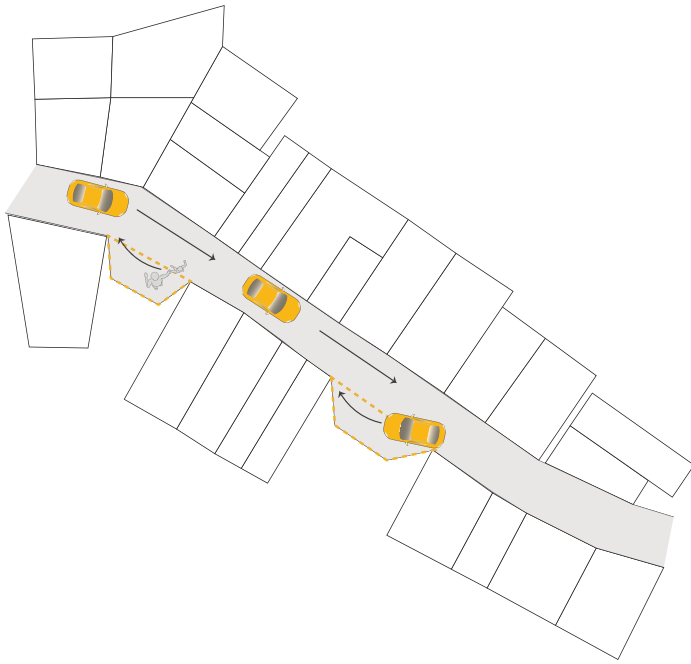
One of the main issues during heavy rainfall is the water drainage systems in Vila Laboriaux. In the inventory studies, it was clear several areas in the sub-neighborhood were lacking surface water management and drainage systems (see page 48 and 49)

Stormwater management needs to be implemented in all of Vila Laboriaux, including the areas on the outer borders, which are the largest risk zones for landslides. A suggestion is to expand the drainage systems similarly as parts of the underground drainage system on Rua Maria do Carmo. Alongside parts of the main road, the drainage system is constructed underground, covered with a concrete surface that one can walk on.

STRENGTHEN VEGETATIVE STRUCTURES IN PUBLIC SPACES

Summers in Vila Laboriaux reach a level of around 30 degrees celsius in temperature. As the sub-neighborhood is located on a mountain ridge, the high temperature and the daily challenges in transportation make it difficult for the inhabitants to spend time outdoors during day time, which was noted in the observational studies.

Creating vegetative structures and planting trees will lower the temperature in Vila Laboriaux as well as providing shade for travelers on the main roads and for inhabitants using the public spaces. The already existing structures of front gardens on the main roads can be integrated into the larger vegetation structure. Plants for erosion control are suggested to be used as a biological buffer for the landscape (see page 25).



IMPROVE EXISTING ROAD INFRASTRUCTURE

The result from the inventory study shows that in Vila Laboriaux there are four roads in good condition, the main road Rua Maria do Carmo and three parallel roads that starts from the main road. These roads are constructed in either concrete or asphalt. The remaining roads in Vila Laboriaux are narrow alleys in concrete or beaten tracks that are in need of better maintenance. The majority of them have pits on the pathways which create several issues in pedestrian and vehicular traffic (see page 44).

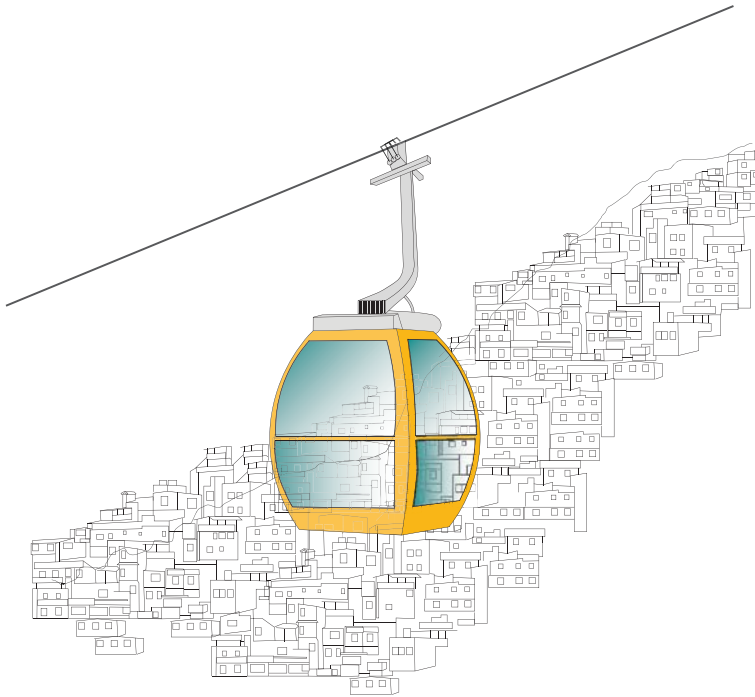
Moreover, the roads need to be widened or constructed with road pockets where there is potential. Roads should also be asphalted or have site-cast concrete to stabilize the paths. This would help pedestrians during heavy rainfall, as it will facilitate the transportation issues in Vila Laboriaux. The pathways need to function with drainage systems and to have the right inclination for surface water to not maintain the areas where people walk. The beaten tracks need to be enhanced with gravel and stone dust for better structure and accessibility.

FACILITATE THE USE OF RENEWABLE ENERGY SOURCES

During the observations in Vila Laboriaux, one of the first things noticed was the number of power cables to provide the inhabitants with electricity. In the interviews, it was said power outages were frequent during summer time (see page 62).

Many favelados in Vila Laboriaux have rooftops, often times with open spaces. These spaces have the potential to be used for installing rooftop solar energy panels. The energy would be renewable and enable the residents independency compared to the current energy resource in the area.

Except for providing electricity for residential houses, electricity can also be used to provide outdoor light in the neighborhood's roads and public spaces. The lack of light in public spaces is something that one respondent told us prevented her from to stay outdoors during night time (see page 63).



EXPAND TRANSPORTATION ALTERNATIVES TO VILA LABORIAUX

The transportation is an issue traveling to and from Vila Laboriaux as it is on a mountain ridge, transportation with a cable car to the top is an alternative that was requested in the interviews (see page 60). Another helpful possibility, considering how steep the area is located, would be to add a tramline up to Vila Laboriaux.

Furthermore, the residents wish for better transportation alternatives for elderly people, injured and pregnant women, that are not able to take the motor taxi. One suggestion was more frequent departures with the vans for a lower cost (see page. 60).



Imagery 43: Picture of Chero Eliassi collecting information in the inventory study and sketching in Vila Laboriaux while meeting children outside the middle school Escola Municipal Abelardo Chacrinha Barbosa. The wall in the background was constructed by the City government after landslides had affected the area in 2010. The wall is today covered in graffiti and is marked as concrete wall with graffiti on the inventory map roads and infrastructure. Photography taken by Hannah Rodin Borne, 20190313)

DISCUSSION

The study was supposed to answer the problem statement: What are the residents' perceptions and values of Vila Laboriaux, Rocinha, regarding public spaces in their neighborhood? In what way can the local residents' knowledge be documented and used for future planning of Vila Laboriaux?

In summary, the purpose of this master's thesis was to examine and collect information on the local resident's perceptions and values of their favela community in Vila Laboriaux, Rocinha, Rio de Janeiro. Furthermore, the aim was to form design guidelines based on the collected information from the residents along with the observations and inventory study, for the future landscape development of the site.

In the discussion chapter, the method and result of this study will be discussed. The chapter ends with our own reflections about carrying through the study and what reflections on what can be done for future research on the subject.

METHOD DISCUSSION

The method discussion is divided into four sections: translation, ethical aspects, inventory study and observations and, survey and interviews. In this chapter an analysis regarding choice of methods, challenges and issues with the methods and how they could be improved is presented.

TRANSLATION

During the site visits, when the survey and the interviews were performed, three different male translators helped us with translating information from Portuguese to English in Vila Laboriaux. The translators did not have an academic background in translation and were not used to translating, which resulted in some parts of the interviews and survey being incorrectly translated.

Primarily, regarding the translation, there

was an issue where the translator was adding his own thoughts and opinions to as well as sharing what the interviewee was saying. In some cases, the translators had their own thoughts about the subject and unconsciously added their own answers and thoughts to the questions. During some occasions, it was hard for to try to separate what the thoughts of the translator were and what the thoughts of the interviewee were. This issue was managed with communication where we told the translator how important it was for him to translate exactly what the respondent was saying. The positive outcome of us communicating this aspect was that all the translators improved in translating more neutral interviews and surveys.

During several interviews, respondents gave long and profound answers to some questions, without taking breaks and letting the translator translate the information to us. In some of these cases, the translator only managed to share some parts of what was said, resulting in information being missed from answering the question in a more detailed way. The consequence of the long answers were the translator not remembering to translate all of the information and we lost information that could have been of huge value to this thesis.

All the translators we were working with had a unique connection to favela Rocinha. Two of them were born and lived in Rocinha and one of them had lived in Vila Laboriaux for a longer period of time. Having translators who could communicate with the local language was a huge advantage in the interviews and surveys. It created a casual presence and reduced the academic approach.

ETHICAL ASPECTS

Throughout the whole study, from defining what would be examined in the study, to proceeding the project and finally analyzing and presenting the result, the ethical aspects and account of Vila

Laboriaux's residents have been vital for the project.

Since we are two master's students from Sweden, a country with a completely different culture and history, we were humble and in great respect to the people that introduced us to Brazil, Rio de Janeiro and the favela. The knowledge and expertise our mentors Fernando Ermiro, Theresa Williams, Sergio Fagerlande and Carlos Luis Toledo shared with us was of great value and importance for the focus and topic of the study.

Additionally, we received information from our mentors and other people we met on site on who we could approach, which topics that were perceived as acceptable to ask and what could be presented in the result in this study. The questions we asked during the interviews and the survey were carefully contemplated and a great amount of focus was on how the answers would be presented. The meetings we had with the friendly and welcoming local residents in Vila Laboriaux were very successful.

During the interviews, we presented ourselves, where we came from and what our purpose was with the questions. The outcome of this presentation was a feeling of trust and comfort between us and the locals, an approach that was inspired by Luis Carlos Toledo's method he used when he worked in favela Rocinha (pp. 28 -29).

INVENTORY STUDY AND OBSERVATIONS

The methods used for the inventory study and observations could have been improved by using protocols with pre-determined criterias. Such protocols would have made the study more structured and limited the framework for what we should search for and notice.

One of the more successful choices in our method was using Repstad's technique to organize our notes as soon as possible after the site visits (2007 pp. 65). The risk would have been great if we had not written down the collected information after

every site visit. The believe of the information being lost or misrepresented would have been possible if we had not followed Repstad's advice.

The usage of the cartographic material from Google Maps was partly problematic, the information showed on the map was in several cases not correspondent to where houses, roads and public spaces were located in reality. Another issue was to identify exactly where we were on the map during the site-visits. Both of us found it difficult to be precise with writing down notes on the map. After the site visits some markings of houses, roads and alleys had to be adjusted to correspond with what we had seen earlier during the day.

For the inventory study, we used Google Maps printed on A4 sheets to notify what we inventoried in every area we visited. After a while, the sheets were full of notes, and there would be very little space left for more notes. This lack of space on the sheets affected the result since it limited us in how much we could write down. We noted a pattern in our inventory session: As soon as our sheets would be full of notes, we would end the inventory. The consequence of this action was there being information lacking as we did not finish the proposed amount of inventory for the day.

SURVEY AND INTERVIEWS

The survey and interview questions were formulated after the recommendations we received from our mentors and supervisors, both in Rio de Janeiro and in Uppsala. This resulted in well-formulated and structured questions. One issue we noted was the language shaped in the questions. Our supervisors in Rio de Janeiro preferred a more local language, while our supervisors in Uppsala wished for a more academic language in the interview and survey questions.

When we were on site, the questions tended to be translated into a more local conversational

language the more interviews we did. We had to change the language of our interview questions and the survey from an academic language to a less formal one that had a more casual tone. After we changed how we asked the question, the answers we received were more detailed since the questions were not be as complex to understand and answer. The questions were also seen as repetitive by some interviewees, which we took as feedback and changed for future interviews.

In the beginning, our approach to find residents that wanted to be interviewed was to ask them if they were willing to book a meeting and adjust according to this schedule. Often times we were given their cellphone number to be able to reach out to them via the message application WhatsApp, which was used greatly in Brazil. We then moved on and at the end of the day we would try to reach out to the possible interview participants. This strategy did not work very well, usually people cancelled the meeting or did not have time to meet us for the possible interview.

As soon as we saw a pattern, after approximately four residents not getting back to us, we began approaching people in Vila Laboriaux directly to ask survey questions first. We informed the participant it would take about two to five minutes which the majority of the locals participated in. As a next step, we spontaneously asked the respondent if they had time for a longer, more profound interview straight away. This tactic was more successful and it was easier to find people who wanted to take part in the longer interviews.

RESULT DISCUSSION

The result discussion is divided into five sections: inventory study and observations, survey and interviews, design guidelines in Vila Laboriaux, own reflections and future research. In this chapter the signification and context of the result is discussed and for what it could be used in future developments of Vila Laboriaux and other similar dense urban areas.

INVENTORY STUDY AND OBSERVATIONS

The result from the inventory study and observations indicates that Vila Laboriaux is an area with many activities, liveliness and has a potential for future development. It is a sub-neighborhood in constant change where new houses and roads are continuously constructed, which affects the social structures. There are several open, unused public spaces that have potential to be developed according to the inhabitants needs and preferences.

The observations that were noted during our site visits were an indicator of the activities and life of the residents in Vila Laboriaux. Since we noted observations during several occasions visiting the area it resulted in that we were able to draw conclusions over frequent activities that we noticed several times. For example, we were able to summarize that the outdoor gym-area was used more like a spot for young adults to meet and hang out, then a space for exercising. This conclusion was drawn because of the multiple times we observed the activities on site.

The results concluded in this thesis can be of importance in how places are valued and used in Vila Laboriaux. As an example, the observation above might indicate that there is a lack of public space for young adults to meet and hang out, so the outdoor gym-area develop into an option and gets an additional use.

The main contribution with the inventory study

and observations is the mapping and documentation of values and use of public spaces in Vila Laboriaux. Through observations noted in maps and text, there is now a more solid information basis on content and the usage of public spaces and places in Vila Laboriaux. This demonstrates the importance of conducting an inventory study and collect observations, before re-planning a neighborhood. Oftentimes, there are important qualities that constitute the *genus loci* or the soul of that specific place, which many times cannot be discovered beforehand on maps or papers.

In the inventory and observational studies, we noticed that the landslides do not only occur where there are settlements but in the rainforest and landscape that surrounds Vila Laboriaux as well (see page 28). This leads to the question if these areas are suitable at all for the construction of these informal settlements? The economic factor plays a significant part in this question, which professor John J. Clague and professor Douglas Stead confirms (see page 28). In the wealthy neighborhood Gávea close to Vila Laboriaux the possibility to construct safely and in the protection of landslides is much greater due to the fact they have the financial resources to construct with landslide stabilizing methods. In conclusion, Vila Laboriaux and other favela areas in the risk of landslides could probably be constructed protected from landslides if the financial resources were submitted.

SURVEY AND INTERVIEWS

The result from the survey and the interviews demonstrate the residents in Vila Laboriaux do not feel involved in the planning process of their community. There is mistrust towards the City government concerning how they are helping them, simultaneously as many residents wish for increased investments and involvement in their sub-neighborhood from governmental authorities.

The result from the interviews and survey shows that the current planning process in many ways is proceeded in contrary to the methods Toledo used (see pages 30 and 31) where he worked integrating with the community, using citizen communication as his primary source for the planning process.

The favela and Vila Laboriaux has great social resources and a strong community, that is not the source to some of the problems in the area. The result from the interviews and the survey show a problem with the exclusion of citizens that live in the favela, and that they are excluded from governmental decision making about their neighborhoods.

In one of the interview questions we asked whether the people of Vila Laboriaux felt they had a voice when changes were being made by the government, the answer corresponded to what professor Perlman (2011 pp. 203) had discovered.

Furthermore, we have realized that the origin of some of the questions we asked, was founded in assumptions we had before we concluded the surveys and the interviews. This has to a large extent affected the result. For example, the last question we asked in the survey was 'Are you aware of any changes in the nearby future, that worries you?', here we had expectations beforehand that the residents would be worried about governmental changes. We subsequently understand this was a false assumption made by us. The result from the interviews and survey have shown most of the residents are pleased with the City authorities making investments in the area, and hope for more changes and investment. This is a lesson learned that we take with us for future civil dialogue processes, to have great consideration whether the questions are open for different answers and make sure not to ask any leading questions.

During the interview and survey sessions, one common behaviour we noticed when interviewing a

person, in company or with a group of people, is that they had a great influence on each other's answers. This became problematic for the result of this study, as we were searching for qualitative answers from the participants. We had several incidents when we asked the survey question to a group of people and we wanted them to answer one by one. However, in most cases, they agreed with each other's answers on every question and did not have separate opinions on the matter. We therefore noticed they were strongly influenced by each other.

Moreover, there has been an issue during the interview sessions that different respondents have made their voice and opinions heard to a different extent, some had a lot to say while others gave very short answers. In the chapter with the result from the interviews, we have tried to balance this problem by having at least one quote from every respondent, to make a non-partisan result chapter where everyone who participated in the study got their voice heard. There has been a conscious selection and consideration on the amount of quotes and text each respondent will have in this thesis.

The result from the first times we did interviews and surveys depart from the ones we did towards the end. As we gained more experience interviewing, our performance doing interviews got better. This resulted in longer interviews during the first sessions, and shorter ones with the last residents we talked to. We asked more relevant supplementary questions towards the last interviews contrary to the first ones. In the beginning, we asked more questions, but many of those questions were also irrelevant for the end result of this study.

Furthermore, our awareness improved regarding what supplementary questions we could ask and to whom. This affected the result in the matter that some respondents thoughts and values are represented more than others who did not say as much during the interviews.

The main contribution of the survey and interview study is the basis of information regarding the resident's perceptions that is now available for future planning of the neighborhood. The aim is that this study could highlight the importance of civil dialogue and start a discussion on how to include residents in the planning process, foremostly in similar dense urban areas where the urge is much needed.

DESIGN GUIDELINES IN VILA LABORIAUX

The design guidelines for Vila Laboriaux were developed towards the end of this study, as a complement to the Result and analysis chapter.

The guidelines presented in this master's thesis are primal, general solutions to the existing problems which have the potential to be developed and researched further. Some of the guidelines were beyond our expertise for example, regarding waste management, preventions of landslides, surface water management, and renewable energy source.

We had basic knowledge within the professional field but the problems were very specific and complex for the site. We would have needed to cooperate with, for example, engineers and geologists for more advanced and expert specific suggestions.

REFLECTIONS ON MINOR FIELD STUDIES

In this chapter some of our own reflections about how we experienced executing a Minor Field Study (MFS) and what knowledge we have gained from this project is presented.

CHALLENGES IN CULTURE AND LANGUAGE

Neither one of us had been to South America or Brazil before this study, which made a huge impact on how the study was implemented. Since neither of us speak any Portuguese, it was a challenge with the communication and getting to know people when

we first arrived in Rio de Janeiro. Moreover, we realized when we arrived that relatively few Brazilians speak English, therefore we started learning basic Portuguese quickly after we got there.

Fortunately for us, the Brazilian culture and people are very helpful, friendly and open. People were curious about our project and asked many questions, both during the pre-study and during the site visits in Vila Laboriaux.

Throughout this project, we learned plenty about Brazilian culture, people and the country's complex history, which was relevant to understand and perform this study. However, the nine weeks we spent in Rio de Janeiro was too insufficient for us to understand more of the complexity with favelas and the relationship favelas have with the remaining urban areas in the city Rio de Janeiro.

Overall, implementing the Minor Field Study was a great experience for both of us. In the future, when we will be working as landscape architects, this experience will be of importance since we gained knowledge and understanding on how important civil dialogue is and how we should prioritize it better in the planning process. There is much knowledge and perceptions to obtain from the local residents that live in a neighborhood that is impossible to understand if you only visit a site a few times.

FUTURE RESEARCH

In this chapter, an analysis of if the study answers to the problem statement and the purpose of this master's thesis is discussed. Furthermore, some suggestions for how this project could be developed and carried on is presented.

CONTINUATION OF THIS MASTER'S THESIS

In summary, we have studied the life in Vila Laboriaux through a social and physical analysis that we shaped into guidelines for a Rio de Janeiro favela landscape development. The research was

performed with a focus on civil communication with the inhabitants in Vila Laboriaux to create planning documents for future development.

The result of this study shows that the residents in Vila Laboriaux wish for well-functioning basic services and infrastructure in their neighborhood before any other investments can be prioritized. This answers to the purpose of this master's thesis which was to collect information on the resident's values and perceptions of Vila Laboriaux. We also accomplished to develop guidelines from the information we received in the interviews, survey, observations and inventory study.

The aim of this study was to focus on civil dialogue, something that we could have incorporated in the development of the guidelines to a larger extent. However, we started formulating the guidelines after coming home from Rio de Janeiro, which resulted in that we could not have a dialogue with the residents while concluding the guidelines.

If this study were to be continued, an interesting proceeding would be to investigate further what the residents' requests are, beyond the basic services and infrastructures, if they were working properly.

Vila Laboriaux's location close to nature resources and the rain forest is uncommon compared to other sub-neighborhoods in favela Rocinha. Most of the other districts in Rocinha have less nature, more traffic and are more densely built. Therefore, it would be of interest to investigate the expansion of green structure and how green values can be included in the urban structure of the favela and, in other urban areas with fewer nature resources than Vila Laboriaux.

In this study, civil dialogue and citizen communication were briefly examined in the delimited area Vila Laboriaux. For future research, it would be of interest to develop the result of this study and investigate further what the most efficient citizen

communications methods would be in these dense urban areas. Additionally, since the purpose of this master's thesis was to create documentation of the residents' knowledge and perceptions for future planning material, it would be of interest to investigate methods further on how the result can be implemented in the planning process and be used in reality.



Imagery 44: Image of the playground area and the multi-arena at the top of Vila Laboriaux. The fence separating the play ground area from the concrete road was ruined in some parts of it. The area is marked as (Photography taken by Chero Eliassi, 20190313)

REFERENCES AND APPENDIX

BOOKS

Clague, J. and Stead, D. (2012). *Landslides - Types, Mechanisms and Modeling*. New York: Cambridge University Press, pp.1,7,8.

McCann, B. (2014). *Hard times in the marvelous city*. Durham: Duke University Press, pp.1.

Murray, M., Greer, J., Houston, D., McKay, S. and Murtagh, B. (2009), 'Bridging Top down and Bottom up: Modelling Community Preferences for a Dispersed Rural Settlement Pattern', *European Planning Studies*, 17 (3), pp. 441–462.

Perlman, Janice E. (2011). *Favela: four decades of living on the edge in Rio de Janeiro*. New York: Oxford University Press

Repstad, P. (2007). *Närhet och distans: kvalitativa metoder i samhällsvetenskap*. 4., [rev.] uppl. Lund: Studentlitteratur

Skidmore, T. (2010). *Brazil: Five centuries of change*. 2nd ed. New York: Oxford University Press.

Davis, Mike (2006). *Planet of slums*. London: Verso

JOURNALS

Angrosino, M. (2007). *Naturalistic Observation*, Routledge, no. 1, pp. 2. [online] http://www.urbancentre.utoronto.ca/pdfs/curp/CNR_Getrification-Help-or-.pdf [Accessed 5 June. 2019].

Chokyu, M & Dias, M. (2018). 'Favela's Houses as Design Reference: Using Shape Grammar', *Journal of Civil Engineering and Architecture*. vol. 12, no. 7, pp. 484-85.

Comelli, T., Anguelovski, A. & Chu, E. (2018), 'Socio-spatial legibility, discipline, and gentrification through favela upgrading in Rio de Janeiro', *Taylor & Francis Group*, vol. 22, no. 5-6, pp. 634-636. [online] <https://rsa.tandfonline.com/doi/pdf/10.1080/13604813.2018.1549205?needAccess=true> [Accessed 27 Feb. 2019].

de Oliveira, N., Rotunno Filho, O., Marton, E. and Silva, C. (2016). *Correlation between rainfall and landslides in Nova Friburgo, Rio de Janeiro—Brazil: a case study*. *Environmental Earth Sciences*, [online] 75(20). Available at: <https://link.springer.com/content/pdf/10.1007%2Fs12665-016-6171-7.pdf> [Accessed 18 Jun. 2019].

Pino, J. (1997). *Sources on the History of Favelas in Rio de Janeiro*. *The Latin American Studies Association*, [online] Vol. 32(No. 3), pp.111-122.

Sabatier, P. (1986), 'Top-down and Bottom-up Approaches to Implementation Research: A Critical Analysis and Suggested Synthesis', *Journal of Public Policy*, 6 (1), pp. 21–48.

Seluchi, M. and Chou, S. (2009). *Synoptic patterns associated with landslide events in the Serra do Mar, Brazil*. *Theoretical and Applied Climatology*, [online] 98(1-2), pp.67-77. Available at: <https://link.springer.com/content/pdf/10.1007%2Fs00704-008-0101-x.pdf> [Accessed 18 Jun. 2019].

Vieira, B. and Fernandes, N. (2004). *Landslides in Rio de Janeiro: The role played by variations in soil hydraulic conductivity*. *Hydrological Processes*, [online] 18(4), pp.791-805. Available at: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/hyp.1363> [Accessed 18 Jun. 2019].

ARTICLES AND REPORTS

Almeida Carvalho Filho, S. (2006). A Favela da Rocinha: a memória de velhos e velhas na luta contra a vulnerabilidade social (1930-1993):. [online] anpuh.org. Available at: <http://www.snh2011.anpuh.org/resources/rj/Anais/2006/conferencias/Silvio%20de%20Almeida%20Carvalho%20Filho.pdf> [Accessed 20 Feb. 2019].

Alves dos Santos Rodrigues, S. (2018). REMOÇÕES DE MORADIAS NO CONTEXTO DAS OLIMPÍADAS NO RIO DE JANEIRO: O CASO DO LABORIAUX, OS CONFLITOS DISCURSIVOS E PRÁTICAS DE APROPRIAÇÃO DO TERRITÓRIO. URB Favelas. [viewed wed 3 May 2019]. <GT1-252-73-20181115145643>

Atkinson, R. (2002). Does Gentrification Help or Harm Urban Neighbourhoods? An Assessment of the Evidence-Base in the Context of the New Urban Agenda. ESRC.

Calado, B. (2016). Rocinha: de fazenda a maior favela do Rio de Janeiro. [online] MultiRio. Available at: <http://www.multirio.rj.gov.br/index.php/leia/reportagens-artigos/reportagens/8689-rocinha-de-fazenda-a-maior-favela-do-rio-de-janeiro> [Accessed 1 Mar. 2019].

Depies, J. (2018). Rocinha Histórica Tour. [online] Rioonwatch.org.br. Available at: <http://rioonwatch.org.br/?p=33602> [Accessed 29 Mar. 2019].

Fabrés, R. (2013). Pacifying the Favelas of Rio de Janeiro. [online] TIME. Available at: <http://time.com/3796307/pacifying-the-favelas-of-rio-de-janeiro/> [Accessed 18 Apr. 2019].

Griffin, J. (2016). Olympic exclusion zone: the gentrification of a Rio favela. [online] TheGuardian. Available at: <https://www.theguardian.com/cities/2016/jun/15/rio-olympics-exclusion-zone-gentrification-favela-babilonia> [Accessed 23 Apr. 2019].

Hurrell, F. (2011). Rio Favela Population Largest in Brazil: Daily | The Rio Times. [online] The Rio Times. Available at: <https://riotimesonline.com/brazil-news/rio-politics/rios-favela-population-largest-in-brazil/> [Accessed 19 Feb. 2019].

IBGE - Agência de Notícias. (2018). IBGE releases Population Estimates of municipalities for 2018. [online] Available at: <https://agenciadenoticias.ibge.gov.br/en/agencia-press-room/2185-news-agency/releases-en/22385-ibge-releases-population-estimates-of-municipalities-for-2018> [Accessed 15 Feb. 2019].

IBGE - Agência de Notícias. (2017). National Day of Housing: Brazil has 11.4 million persons living in slums. [online] Available at: <https://agenciadenoticias.ibge.gov.br/en/agencia-news/2184-news-agency/news/15701-national-day-of-housing-brazil-has-11-4-million-persons-living-in-slums> [Accessed 17 Feb. 2019].

IBGE. (n.d.). Rio de Janeiro | Cities and States | IBGE. [online] Available at: <https://www.ibge.gov.br/en/cities-and-states/rj.html?> [Accessed 15 Feb. 2019].

IBGE. (2010). Aglomerados Subnormais Informações Territoriais. Instituto Brasileiro de Geografia e Estatística.

Lima (2015). The Owners of Electricity in Rocinha. Rio on Watch. [online] Available at: <https://www.rioonwatch.org/?p=21088> [Accessed 7 June. 2019].

Phillips, T. (2010). Rio slum dwellers face forced eviction after landslides. [online] The Guardian. Available at: <https://www.theguardian.com/world/2010/apr/11/rio-brazil-slum-forced-evictions> [Accessed 17 Apr. 2019].

Prefeitura da Cidade do Rio de Janeiro (2013). Defesa Civil realiza simulado de desocupação na Rocinha. Rio de Janeiro: Prefeitura da Cidade do Rio de Janeiro.

Public Participation in Planning. (2014). Oslo: Ministry of Local Government and Modernisation, p.8. Available at: <https://www.regjeringen.no/en/dokumenter/public-participation-in-planning/id2510931/> [Accessed 4 May

2019].

Robertson, D. (2016). Building the Favela: The Story of Diogo Barbosa in Vila Laboriaux, Rocinha | RioOnWatch. [online] Rioonwatch.org. Available at: <http://www.rioonwatch.org/?p=29485> [Accessed 7 May 2019].

Rodrigues, S. (2017). 'Resistance in Laboriaux, Rocinha, in Light of the Olympic Legacy of Removals'. [online] Available at: <http://www.rioonwatch.org/?p=38617>. [Accessed 2 May. 2019].

Roller, Z. (2011). 'PAC Growth Acceleration Program Hits the Brakes in Rocinha'. [online] Available at: <https://www.rioonwatch.org/?p=1705> [Accessed 15 April. 2019].

SUDERJ. (n.d.). Complexo Esportivo da Rocinha. [online] Available at: http://www.suderj.rj.gov.br/complexo_Rocinha.asp [Accessed 24 Jun. 2019].

The British Broadcasting Corporation. (2014). Favela life: Rio's city within a city. [online] Available at: <https://www.bbc.com/news/world-latin-america-27635554> [Accessed 19 Feb. 2019].

UNESCO. (2017). Inclusion Through Access to Public Space | United Nations Educational, Scientific and Cultural Organization. [online] Available at: <http://www.unesco.org/new/en/social-and-human-sciences/themes/urban-development/migrants-inclusion-in-cities/good-practices/inclusion-through-access-to-public-space/> [Accessed 18 Apr. 2019].

UN-Habitat (2010), The Challenge of Slums: Global Report on Human Settlements 2003. Available at: https://unhabitat.org/wp-content/uploads/2003/07/GRHS_2003_Chapter_01_Revised_2010.pdf [Accessed 20 Feb. 2019].

United Nations. (2018). Goal 11: Make cities inclusive, safe, resilient and sustainable [online]. United Nations. Available at: <https://www.un.org/sustainabledevelopment/cities/> [Accessed 23 Sep. 2018].

Valladares, L. (2006), 'Social science representations of favelas in Rio de Janeiro: A historical perspective', Lanic Etext Collection, viewed 27 February 2019, Available at: <http://lanic.utexas.edu/project/etext/llilas/vrp/valladares.pdf> [Accessed 27 Feb 2019].

INTERNET SOURCES

CatComm (A). (n.d.). About Us. [online] Available at: <http://catcomm.org/about/> [Accessed 22 Apr. 2019].

CatComm (B). (n.d.). Rio Favela facts. [online] Available at: <http://catcomm.org/favela-facts/> [Accessed 17 May. 2019].

Community. (n.d.). In: Cambridge Dictionary. [online] Cambridge University Press. Available at: <https://dictionary.cambridge.org/dictionary/english/community> [Accessed 18 Apr. 2019].

Gentrification. (n.d.). In: Cambridge Dictionary. [online] Cambridge University Press. Available at: <https://dictionary.cambridge.org/dictionary/english/gentrification> [Accessed 18 Apr. 2019].

Mega cities project (2019). Dr. Janice Perlman. [online] <https://megacitiesproject.org/our-founder/> [Accessed 17 May. 2019].

Pacification. (n.d.). In: Cambridge Dictionary. [online] Cambridge University Press. Available at: <https://dictionary.cambridge.org/dictionary/english/pacify> [Accessed 18 Apr. 2019].

Urbanization. (2019). In: Encyclopædia Britannica. [online] Encyclopædia Britannica, inc. Available at: <https://>

www.britannica.com/topic/urbanization [Accessed 18 Apr. 2019].

Wallenfeldt, J. (2019). Favela. In: Favela. [online] Encyclopædia Britannica, inc. Available at: <https://www.britannica.com/topic/favela> [Accessed 31 Jan. 2019].

ORAL SOURCES

Guided tour with Fernando Ermiro, director of Rocinha Histórica and a former Vila Laboriaux resident that now lives in another sub-neighbourhood in Rocinha. The tour in Vila Laboriaux was performed February 21, 2019.

Interview with architect Luiz Carlos Toledo, that has worked with the planning of favela Rocinha since the 1980s. Professor Sergio Fagerlande helped us with translation during the interview that was performed on March 22, 2019.

MAPS

Esri (2019). ArcGIS World Imagery satellite, aerial. Rocinha, Rio de Janeiro. [Cartographic material]. Available at: <https://www.arcgis.com/home/webmap/viewer.html> [2019-05-14]

Google Maps .(2019). Vila Laboriaux. [online]. Available at: <https://www.google.se/maps/place/Rocinha,+Rio+de+Janeiro,+Brasilien/@-22.9851744,-43.2497837,17z/data=!4m5!3m4!1s0x9bd427adbbaeb:0x4cf95af6dc0096b9!8m2!3d-22.9879841!4d-43.2479825> [Accessed 5 May 2019].

IMAGERY

Chensiyuan (2014) Rocinha favela main road [photography] Available at: https://upload.wikimedia.org/wikipedia/commons/4/4c/1_rocinha_favela_main_road_2014.jpg

Costa Silva, F. (1980). Varal de lembranças : História da Rocinha [photography]. Varal de lembranças : História da Rocinha. Rio de Janeiro: Tempo e Presença Editora Ltda, p.45. [2019-03-19]

Lobo, R. (2011). Ocupação Rocinha Rio de Janeiro - Brasil [photography]. Available at: https://www.flickr.com/photos/rodrigo_lobo/6343096608/in/photolist-aEv4tQ-aEw3eY-aEw3k9-aEw2CC-aEwm6C-aEspwe [2019-05-10]

Medeiros, J. (2011). Cnidoscolus phyllacanthus flowers [photography] Available at: <https://www.flickr.com/photos/cerrados/5564562338/in/photolist-9tHQvY> [2019-05-10]

VIDEO

Al Jazeera English. (2014). Rebel Architecture - The pedreiro and the master planner, YouTube, online video, viewed 13 February 2019, <https://www.youtube.com/watch?v=kv0_ELupyxs&fbclid=IwAR07oM5INdNkj-9A0I0uvno4VkdNA4EE6ULGdfBrqImhMjMLbT7umehC3fg>. [Accessed at 15 Feb 2019]

INTERVIEW QUESTIONS:

QUESTIONS: INTRODUCTION

Perguntas: Introdução

“What is your name?”

“Qual é o seu nome?”

“How old are you?”

“Quantos anos você tem?”

“Where do you live?”

“Onde você mora?”

“How long have you lived there?”

“Há quanto tempo você mora lá?”

“What do you do for a living?”/“What do you work with?”

“O que você faz para viver?”/ “O que você trabalha?”

QUESTIONS: GENERAL OPENING QUESTIONS, BACKGROUND

“How long have you (and your family) lived here in Laboriaux?”

“Há quanto tempo você (e sua família) moram aqui na Rocinha?”

“How would you describe that a normal day in your life would look like?”

“Como você descreveria o seu dia-dia?”

Follow-up question: “Do you work or study in Laboriaux, or in another part of the city?”

“Onde acontecem as atividades diárias, no Laboriaux ou em outro lugar?”

“What is your opinion in general on this area?”

“Qual é a sua opinião em geral nesta área?”

QUESTIONS: TRANSPORTATION/TRANSPORTE

“How do you usually transport: is it by walk, car, motorbike, train, bus or something else?”

“Como você costuma se deslocar: a pé, de carro, moto taxi, trem, ônibus ou algum outro meio de transporte?”

Follow-up question: “Why do you choose that transportation?”

“Por que você opta por este tipo de transporte?”

Follow-up question: “Is that transportation option working well for you?”

“Essa opção de transporte está funcionando bem para você?”

Follow-up question: “How could it be improved?”

“Como poderia ser melhorado?”

QUESTIONS: VALUABLE/VALIOSO

“Is there any specific place or area in Laboriaux that you usually use in your daily life?”

“Existe algum lugar ou área específica no Laboriaux que você costuma frequentar ou utilizar na sua vida cotidiana?”

“Is there any specific place or area where you usually meet up friends and family in Laboriaux?”

“Existe algum lugar ou área específica onde você costuma encontrar amigos e familiares no Laboriaux?”

Follow-up question: “What activities do you usually do there?”

“Quais atividades você costuma fazer lá?”

“What is the nicest area of Laboriaux in your opinion?”

“Qual é a área mais legal do Laboriaux na sua opinião?”

Follow-up question: “Why do you like that part?”

“Por que você gosta dessa parte?”

“What part of Laboriaux do you like the least?”

“Que parte do Laboriaux você gosta menos?”

Follow-up question: “Why do you not like that part?”

“Por que você não gosta dessa parte?”

QUESTIONS: CHANGES/ALTERAR

“Has there been changes regarding infrastructure/ buildings/social structures in this area that has affected you?”

“Houve mudanças em relação a infraestrutura/ construções/estruturas sociais nesta área que te impactaram?”

Follow-up question: “Who has made changes to the community’s physical and social environments? (residents themselves, an NGO or community association, a school or university, a specific government agency?)”

“Quem fez alterações nos ambientes físicos e sociais da comunidade? (os próprios moradores, uma ONG ou associação comunitária, uma escola ou universidade, uma agência governamental específica?)”

Follow-up question: “In which way has it affected

you?”

“De que maneira isso te afetou?”

QUESTIONS: PUBLIC PARTICIPATION/ PARTICIPAÇÃO PÚBLICA

“When there has been changes to this area, were you informed about it before it happened?”

“Quando houve mudanças nessa área, o governo entrou em contato com você?”

Follow-up question: YES: “Do you feel like you were being heard by the government/municipality?”

Você se sente como se estivesse sendo ouvido pelo governo / município?

Follow-up question: NO: “Why do you believe you were not being contacted?”

“Por que você acha que não foi contatado?”

“Would you have liked to have been involved in the planning process of Laboriaux?”

“Você gostaria de ter sido envolvido no processo de planejamento no Laboriaux?”

QUESTIONS: SAFETY/SEGURANÇA

“Are there any specific public spaces, roads, paths or places where you feel unsafe in Laboriaux?”

“Existem espaços públicos, ruas, caminhos ou lugares específicos onde você se sente inseguro no Laboriaux?”

“How has the landslides affected you regarding your safety?”

“Como os deslizamentos de terra te afetaram em relação à sua segurança?”

QUESTIONS: FUTURE AND DEVELOPMENT/ FUTURO E DESENVOLVIMENTO

“If you could add anything in Laboriaux comunidade, what would you choose?”

“Se você pudesse trazer alguma coisa para a comunidade do Laboriaux, o que você escolheria?”

“If you could change anything in Laboriaux comunidade what would you choose?”

“Se você pudesse mudar alguma coisa na comunidade do Laboriaux, o que você escolheria?”

“Is there something in Laboriaux outdoor space that you think is missing, in that case what?”

“Falta alguma coisa no espaço público no Laboriaux? , No caso, o quê seria?”

SURVEY QUESTIONS:

Before handing out the survey:

“Do you live in Laboriaux?”

“Você mora em Laboriaux?”

YES NO

“Has there been any change with houses, roads or outdoor space made by the government during the last ten years in Laboriaux?”

“Houve alguma mudança nas casas, estradas ou espaços ao ar livre feitos pelo governo nos últimos dez anos em Laboriaux?”

SIM NÃO

If the answer is YES, follow-question:

“Do you think the change has been positive or negative?”

POSITIVE NEGATIVE

“Você acha que a mudança foi positiva ou negativa?”

POSITIVO NEGATIVO

“If the government makes changes in Laboriaux, do you feel that you are involved and can affect the decisions that are being made?”

YES NO

“Se o governo fizer mudanças no Laboriaux, você se sente envolvido e acha que pode mudar as decisões que serão feitas?”

SIM NÃO

“Are you aware of any change in the nearby future in Laboriaux, that worries you?”

YES NO

“Você está ciente de alguma mudança no futuro próximo no Laboriaux, que preocupa você?”

SIM NÃO

