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# Mental Mapping the Transformation of Social Space in Rio's Oldest Favela: Morro da Providência

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MENTAL MAPPING THE TRANSFORMATION OF SOCIAL SPACE IN RIO  
DE JANEIRO'S OLDEST *FAVELA*:  
MORRO DA PROVIDÊNCIA

A Dissertation

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

in

The Department of Geography & Anthropology

by  
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To Michael and Barbara  
And to Guilherme

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## Abstract

Amid the 2014 FIFA World Cup and the 2016 Olympic Games, strategic policy reforms at the federal, state, and municipal levels have reordered and re-purposed the social space of Rio's *favelas* through the implementation of social and physical infrastructure. This research project contributes a geographical perspective to the ways in which fast-paced urbanization transforms and produces social space in Rio's oldest *favela*, Morro da Providência. Based on Henri Lefebvre's conceptual triad concerning the production of social space, this research uses mental mapping to understand the disparity between representations of conceived space and representational lived space. It also contributes to perceived social space through participant observations and discussions. The five-month long mental mapping project designed to assess the transformation of social space yielded several results. Methodologically, this research contributes to the literature on mental mapping by identifying three types of mental maps produced by my participants. Practically, this research contributes to the discourse concerning social and political integration within the *favela*-city binary. Ultimately, this project contributes a geographical perspective and methodology to the ways in which fast-paced urbanization can be successfully implemented as long-term solutions in the low-income and irregular communities in Rio de Janeiro.

## Chapter One Introduction

*“Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past.” -Karl Marx*

### Research Topic

In 2016, Rio de Janeiro will be the first city in South America to host the Olympic Games. With an investment budget of R\$36.6 billion, the Olympics have been called the world’s most profound “catalyst for urban change” (Essex & Chalkley, 1998; Comitê Popular Rio Copa e Olimpíadas, 2014). In addition to the 2014 FIFA World Cup which cost R\$25.8 billion, these mega-events will cause the urban landscape to transform considerably. Although Rio is already a popular holiday destination, the pending mega-events will motivate the city to pioneer new and outstanding planning concepts and accommodate an influx of athletes and tourists. Additionally, the city of Rio will need to provide apt planning strategies for its own citizens. Previous host cities have been confronted with similar planning challenges, but the socio-political situation in Rio is unique.

Amongst the backdrop of modern buildings, irregular and under-serviced housing communities called *favelas* pierce the landscape with precarious construction methods and inadequate basic infrastructure. According to the 2010 census, 22 percent of the residents of Rio live in a *favela* (Instituto Brasileiro de Geografia e Estatística (IBGE), 2010). To further complicate matters, 37 percent of *favelas* are violently controlled through the draconian manipulation of drug gangs, while another 45 percent are controlled by militias (Forte, 2013). The remaining 18 percent of *favelas* remain peaceful and are occupied by residents only. In an effort to reduce the prevalence of “crime and criminality” (Arias, 2006: 2) in the occupied *favelas*, the city of Rio has implemented Units of Police Pacification (UPPs) to replace the

organized crime, thus “pacifying” the *favela* communities. In addition to limited state-sponsored social infrastructure, these newly “pacified” *favelas* have also received physical infrastructure including trams, cable-ways, roads, and attraction maps. It is with the new infrastructure in the recently pacified *favelas* that this research is concerned. More specifically, this research project focuses on the transformation of social space in Morro da Providência amid mega-event preparations.

Mega-events attract global attention and financial partnerships which affects the implementation of social and physical infrastructure of the host city. The implementation of government-sponsored infrastructure has started to reorder and re-purpose the social space of Rio’s *favelas*. To understand the perceptions and relations associated with the new production of social space, I implemented a five-month-long residential mental mapping project. This mapping project serves as a qualitative methodology to facilitate semi-structured interviews and produces a tangible and unique historical record of Morro da Providência.

Morro da Providência is the oldest *favela* in the world, and is responsible for the use of the term “*favela*.” Located in the heart of one of the most “expensive and ambitious” urban infrastructural projects associated with the 2014 World Cup and the 2016 Olympic Games, the *favela* Morro da Providência is set to receive nearly R\$131 million (\$65 million dollars) to erect a cable car, build a funicular tram, and to widen roads through the Morar Carioca Program (Antunes, 2013; Secretaria Municipal de Habitação, 2011; Williamson & Hora, 2012). It is my intention to assess the transformation of social space in one of the most clandestine communities in Rio amid this intense period of urban transformation.

The analysis of the transformation of social space in Rio de Janeiro requires two main literature reviews. First, I look into the mega-event literature to determine its affects upon the

host city in terms of positive legacies and negative impacts. I also determine to what extent community participation has played a role in planning. Although the strategic implementation of urban infrastructure occurs regularly, when it occurs alongside mega-events, the results are often expedited. The fast-paced manner in which mega-event transformations occur often lack long-term thinking and community consultation. Although this research project could have been conducted in any number of various cities during any given time period, I chose to implement it in Rio during the mega-event preparations to determine if mental mapping has the potential to provide long-term, sustainable solutions in low-income or irregular communities. I also wanted to collect information from the residents to determine how their lived social spaces were being transformed.

The second literature review necessary for this project concerns the history of map use in geography. Considering that the maps are being used as a tool to redistribute power and restructure the social order of the city, my project involves the democratization of map-making to clarify the social transformation of space. Based on Henri Lefebvre's conceptual triad concerning the production of social space, my research project employs mental mapping to understand the disparity between representations of conceived space and representational lived space. It also contributes to perceived social space through participant observations and discussion. In the following section, I review both literatures to set the foundation for this empirical study.

Considering that Rio is experiencing a period of intense urban renewal due to the 2014 FIFA World Cup and the 2016 Olympic Games, Rio de Janeiro has attracted a number of neo-liberal public and private partnerships which have assured an influx of financial endeavors. Unfortunately, residents are rarely powerful stakeholders during mega-event planning and the transformation of social space is often conceived and controlled by city officials. In this research



project, I intend to redistribute this planning power through the democratization of mental mapping and demonstrate that the methodology of mental mapping can be used to determine just how the residents of Morro da Providência live in and create the social spaces in their community.

By asking the residents to draw important places in their community in the past and in the present, I will be able to understand the transformation of social space until the present. It is my hope that this information conveyed through mental maps will illuminate successful and unsuccessful aspects of lived social spaces in the community. Next, I will ask the residents what kind of infrastructure would be most beneficial to the community. In this way, I will use mental mapping to explore the potential for alternative infrastructural changes. It is my intention to prove the mental mapping is an appropriate platform to extend stakeholdership and to ensure democratization and participation during periods of intense urban renewal.

It is my intention to determine how the residents of the residents of Morro da Providência have used their social space in the past, how they use it in the present, and what type of infrastructure the residents would suggest in the future. Furthermore, in addition to understanding the transformation of social space, I intend to determine if the use of mental mapping facilitates this conceptual planning process. Ultimately, I intend to demonstrate that mental mapping is capable of being used as a powerful methodological tool to influence urban planning amid mega-event production. Using Morro da Providência as a case study, I juxtapose Henri Lefebvre's conceptual triad that demarcates moments of space to contrast conceived, dominant space that is abstractly produced by city officials with the lived, absolute space that is created and lived by the residents. During periods of intense urban renewal, community participation in planning initiatives is fundamental.

## **Literature on Mega-Event Legacies and Impacts**

In order to analyze the transformation of social space amid the 2014 FIFA World Cup and the pending 2016 Olympic Games, this research project must begin with a review of the literature on mega-events as well as mental mapping. In general, mega-events function as an impetus to reorder social space and create future legacies. In the contemporary literature, mega-events are understood as internationally sanctioned, non-religious, secular, ceremonies that mark culture, distance, space, and time (Roche 2000). Mega-events allow host cities the opportunity to construct and present a collective and symbolic representation of an entire nation in one “massive display of prestige” for global recognition (Roche, 2000: 6, 16). During such events, spectators, commentators, and athletes alike, come from all over the world to “to participate in ritualized expressions of nationalism and human performance in a highly scrutinized environment” (Gaffney, 2010: 8). As such, mega-events provide both powerful media occasions and the opportunity for elites to network and present an official hegemonic ideology to the masses (Roche, 2000: 9).

Maurice Roche, a British sociologist, is one of the most well-known mega-event scholars. According to Roche, mega-events, including, but not limited to, the Olympic Games, World Expos, and the World Cup are “charismatic spectacles, products of rational calculation, and functional social rituals” which have contributed to the meaning, development, culture, citizenship, as well as social inclusion and exclusion of people around the globe (Roche, 2000: 1, 7). Serving as temporal, spatial, and cultural markers, mega-events have become an increasingly valid way to understand the world in which we live (Roche, 1992, 2000, 2003; Guttman, 1994, 2002; Pound, 2004).

The Olympics, in particular, have become a marker upon which athletes and cities alike, ready themselves to compete as members of the globalized, modernized world. Victory is not only measured by milliseconds, millimeters, hundredths of a point, fractions of a gram, but is also measured through economic, environmental, and social implementations put forth by the host city. In addition to the competition faced by the athletes, the Olympic host cities also engage in competition. As opposed to rowing or archery, host cities compete in the realms of transformation and modernization in an attempt to fortify their international identities. Just as the Games have become an “integral part of Greece's history, culture, mythology, and psyche,” other host cities have been able to generate national pride through their planning and implementation processes as well (Pound, 2002: 4). The ability to foster national pride through physical and social transformation enables host cities to etch a foothold into the modern global world.

After an absence of about 1500 years, Baron Pierre de Coubertin reinitiated the modern Olympics in 1896. Coubertin believed that organized sports could be “an agent of both physical and cultural renewal” (Essex & Chalkley, 1998: 3). Physically, the Olympics promote a legacy of urban change directed toward progress, improvement, and modernization. Culturally, the Olympics are an “agent of international unity and social equality” meant to foster bonds relating to common interest and talent, rather than nationality, language, religion, economics, and or political affiliation (Essex & Chalkley, 1998: 4). The Olympics is an event so powerful, that it has the potential to profoundly alter the fabric of the current urban landscape through the meticulous choreography of the world’s most powerful elite who strive to reorganize urban space and provide a lavish, newly modernized playground for the finest athletes in the world.

Mega-events such as the Olympics provide an opportunity for the host country to create and recreate a new, modern, and globally competitive image. This image or identity is often

displayed through the production of permanent and semi-permanent infrastructure (Roche, 2000; Searle, 2002; Surborg, 2008). The impact of this new infrastructure is often referred to as a legacy. The term “legacy” was first used in the context of mega-event planning when Lord Mayor James S. Disney suggested that the construction of an Athletic Center would serve as a lasting contribution from the XVI Olympiad (Leopkey, 2009: 14; Kaplanidou & Karadakis, 2010: 111). Since then, hosting the Olympics became incumbent upon the idea of creating a positive lasting legacy for the host city. In 1996, Olympic Organizing Committees even began to both research and plan for permanent post-game contributions (Chappelet, 2008; Kaplanidou & Karadakis, 2010). By 2002, Salt Lake City specifically created a “\$40 million legacy fund” to plan for lasting positive legacies for example (Kaplanidou & Karadakis, 2010: 111).

The literature is filled with many positive legacy examples including the construction of transportation corridors, sports facilities, hotels, and restaurants, metros, stadiums, and international airports (Gratton & Preuss, 2008; Mangan, 2008; Preuss, 2007; Solberg & Preuss, 2007; Kaplanidou & Karadakis, 2010). However, legacies are not limited to hard or tangible construction endeavors. Legacies are intangible or soft “economic, socio-cultural, environmental endeavors” as well (May, 1995; Solberg & Preuss, 2007; Waitt, 2003). Over the years, many scholars including Chalkley & Essex (1998), Cashman, (2005), and Toohey (2008) have even attempted to categorize legacies by larger themes related to sports, economics, urban infrastructure, and social improvements (Kaplanidou & Karadakis, 2010: 112). Albeit difficult to measure, there are no limits or restraining parameters as to what qualifies as a positive legacy.

Over time, almost everything about the Olympics has increased, including its size, scale, prominence, and popularity. Increasingly, policy-makers see the Olympics as a stimulus to support new and outstanding projects within the host country and governments are using this

mega-event as an opportunity to both improve and modernize infrastructure and to garner wealth and prominence. However, hosting mega-events such as this one often bring multitudes of inter-related problems. Although the Games has the power to deliver countless positive legacies for the host city, they are often seen as a risky and an expensive way to promote “physical and economic regeneration” (Chalkey & Essex 1999: 4).

Although most of the legacies planned for the Olympics are overwhelmingly positive, negative unplanned results or impacts are also common. Some of the negative impacts of mega-events are short-term. For example, in preparation for the 2014 Sochi Games some of the short-term negative impacts included increased noise, dirt, and traffic levels (Müller, 2012: 697). Meanwhile, longer-term impacts included damaged ecosystems, increased migratory labor, and increased property values (Müller, 2012: 697). There are many concerns and a multitude of social problems associated with large-scale, fast-paced urban renewal. These negative impacts include, but are not limited to, debt, overshadowing the poor, underutilized facilities, real estate inflation, gentrification, human rights infringement, as well as forced urban housing removal and relocation (Gratton & Preuss, 2008; Mangan, 2008; Preuss, 2007; Solberg & Preuss, 2007; Kaplanidou & Karadakis, 2010).

As the landscape changes, all citizens are undoubtedly confronted with a substantial reorganization of space and strategies of urban catharsis. Drawing from the experience of previous games, policy-makers pay little attention to how these mega-events affect the low-income communities. In fact, “housing advocates and development scholars have criticized large-scale urban economic development projects for their adverse impacts on informal settlements” (Greene, 2003: 162). According to special rapporteur on adequate housing, Raquel

Rolnik, as cities prepare for mega-events, land prices increase and expulsions, evictions, and displacement become all too common.

During the preparation of the Olympic Games in 1988, Seoul forcibly expelled 15 percent of its population. In 1992, Barcelona evicted 200 families. In 1996, Atlanta drove 15,000 low-income residents from their homes while destroying 1,200 low-income housing units. In 2000, Sydney displaced 6 million people. In 2008, Beijing saw a huge expropriation of space which mandated the forced relocation of 1.5 million people and the destruction of entire historical neighborhoods (Rolnik, 2009, 2010; Müller, 2012: 695). Similarly, in 2010, South Africa removed 20,000 inhabitants for the World Cup, while India evicted 35,000 families in New Delhi for the Commonwealth Games (Rolnik, 2009, 2010). Policy-makers provided very few accommodations for the evicted and often infringed upon their basic human rights. In this way, evictions and forced removals are some of the most profound negative impacts of the mega-event preparations.

In Rio de Janeiro, many informal settlements are under threat of eviction due to the construction of sports venues for the 2016 Olympic Games. In fact, part of the 2009-2012 Strategic Plan proposed by the administration of Mayor Eduardo Paes called for the reduction of 1.6 million square meters occupied by *favelas* in Rio (Bastos & Schmidt, 2009). Equivalent in size to two Rocinhas (the largest *favela* in Rio), 1.6 million square meters is approximately 3.5 percent of *favela* area in Rio (Bastos & Schmidt 2009). To fulfill the Strategic Plan, several *favelas* including Morro dos Macacos and Tabajaras expect to lose at least thirty-seven buildings and housing for over 500 families.

To alleviate public sentiment concerning these removals approximately R\$278.2 billion will be invested from 2011 to 2014 for the construction of new homes through the *Minha Casa*

*Minha Vida* (My House My Life) project which is part of the Growth Acceleration Program (PAC) (Skalmusky, 2011; The World Bank, 2010). From 2007 until 2010, PAC I invested R\$503 billion to improve infrastructure throughout the country (Shishiptorova, 2009). In 2011, the city of Rio launched PAC 2 with a total investment budget “R\$1.59 trillion (US\$965 billion), of which R\$959 billion will be invested” until 2014 (Skalmusky, 2011). PAC 2 includes a provision for Minha Casa Minha Vida Program which intends to build 2 million homes throughout Brazil, 60 percent of which are specifically for those earning a salary under minimum wage (Skalmusky, 2011; Ministerio da Planejamento, 2014). The Minha Casa Minha Vida Program allows those earning “less than six times the minimum wage” the opportunity to purchase their house at nearly zero percent interest rate (Skalmusky, 2011).

Although there is a steady downward trend since 2009, Brazil had an estimated shortage of about 5,244,525 million houses in 2012 (Correia, Alves, & Krause, 2013: 4). The Minha Casa Minha Vida Program aims to alleviate the housing deficit by favoring low-interest rates and subsidies to obtain financing. Most of the housing demand is correlated with income as the housing demand comes from households earning up to three minimum wages. The housing deficit is also a largely an urban problem constituting 85 percent of the total number of houses needed (Correia, Alves, & Krause, 2013: 6).

In 2012, “the metropolitan area of São Paulo, Rio de Janeiro, Belo Horizonte, Fortaleza and the Federal District” dominated the housing deficit (Correia, Alves, & Krause, 2013: 10). Although the elderly and disabled in these cities have priority to the new housing provided by the Minha Casa Minha Vida program, it is uncertain when or where the construction of the new houses will take place. In the meantime, thousands of *favela* residents in Rio face eviction due to

the preparation for the Olympic Games. If the major cities in Brazil are suffering such a severe housing crisis, where will the displaced residents in Rio go?

In Rio, many informal settlements are under threat of eviction due to the construction of sports venues. The City Department of Housing announced that 12,196 homes in 119 *favelas* must be removed by 2012 (Bastos & Schmidt, 2010). The city cites reasons of “risk” to justify their removal. According to the officials, “risk” means that these communities exist in places prone to flooding, landslides, or overall need for environmental protection. However, not all of the communities threatened with removal are at risk. Some communities simply exist in areas that will be used by the city amid the mega-event preparations.

For example, Vila Autódromo is located on the shore of Lagoa de Jacarepaguá (Jacarepaguá Lagoon), the future site of the Olympic Training and Media Centers. Vila Autódromo is a forty-year-old fishing village that functions peaceably without militias, without drug trafficking, and without crime. In fact, many residents say that they have moved there to avoid just that. However, Olympic planning often includes waterfront revitalization and docklands regeneration (Chalkey & Essex, 1999: 26). Considered the fastest growing area of the city, Jacarepaguá Lagoon will soon boast a 17,500 bed apartment-style complex, media villages, and hotels capable of providing approximately 9,196 individual rooms (International Olympic Committee, 2008). Vila Autódromo, which is currently home to an estimated 1,200 families, will be removed to accommodate a park, private Oceanside beach, and dedicated training facilities,” cafes, live music, restaurants, and shops. As opposed to improving the landscape, it is feared that the city will use the Games as an impetus to remove and eradicate the urban poor.

Often, the removal of the poor takes place in high profile venue areas while very little thought is given to actual long term solutions to slum problems. In 2014, the Comitê Popular da



Copa e Olimpíadas do Rio de Janeiro (Rio Popular Committee on the World Cup and Olympics) published a dossier to assess human rights violations amid mega-event preparations occurring in Rio. The dossier states that all housing removals and demolitions took place without publically presenting the project to the community (Comitê Popular Rio Copa e Olimpíadas, 2014: 15). According to the Comitê Popular, 4,772 families or 16,700 people in total have been removed from twenty-nine different communities in Rio. Seventy-five percent of which were removed due to mega-event related projects (Comitê Popular Rio Copa e Olimpíadas, 2014: 19).

### **World Cup Preparations**

The Olympic Games are not the only mega-events destined for Rio de Janeiro. This year (2014), Rio spent between 3.5 and 6 million USD on stadiums and 3 billion in airport upgrades in preparation for the 2014 FIFA World Cup (Gaffney, 2014). Meanwhile, regional transportation and integration projects are virtually non-existent with the exception of the Transcarioca, a Rapid Bus Transit system linking Barra da Tijuca in the west zone of Rio to the international airport (Gaffney, 2014). It is rare that local initiatives provide a lasting legacy after the mega-events. Meanwhile, the initiatives that do last usually come at a cost to the communities and the residents who live there. While the private and governmental sectors are concerned with generating economic profitability, especially from tourists, the residents are struggling to formalize, urbanize, and integrate their communities to resist removal (Chang, Milne, Fallon, & Pohlmann, 1996: 299, 297).

Although the official numbers have not yet been calculated, at the time of this writing in spring 2013, the ministry of tourism expects 600,000 foreign tourists during the month-long World Cup event (Spinetto, 2014). The 2014 FIFA World Cup is such an undertaking that all levels of government and private investors spent nearly \$11 billion USD (Spinetto, 2014). Even

though soccer is upheld as a religion in Brazil, the months preceding the 2014 FIFA World Cup (Federal International Football Association) has been met with demonstrations and violent clashes between residents and the police. In adherence to the safety and security plan, 140,000 military police were deployed by the military in twelve cities at a cost of \$900 million dollars (Gorman, 2014). This security plan was one of the largest deployments since the military regime and included all divisions of police, wartime ships, and the use of non-lethal weapons. Despite the non-legal weaponry such as pepper-spray and rubber bullets, 1 out of every twenty-three people that is arrested by the police are killed (Comitê Popular, 2014).

It is not difficult for FIFA and the World Cup to assume much of the blame for unrest in Brazil due to their high profile nature and widespread suspicions of corruption. In fact, one of FIFA's largest sponsors is the American-owned beer company, Budweiser. Together, FIFA and Budweiser leveraged much power during the month-long FIFA event. For example, in 2012, FIFA was able to reverse a 2003 law that banned the sale of alcohol in its sports stadiums. The law was put into effect in an effort to reduce the number of fan and riot related deaths. However, in preparation of the games the city passed the so-called "Budweiser Bill" to resume the sale of beer within the stadiums during both the Confederation Cup that takes place the year before the World Cup, as well as during the World Cup. In this instance, a special commission voted 15 to 9 to overturn a Brazilian law designed to ensure public safety of its people (Chappell, 2011).

Long before the Budweiser bill, Brazil began to take notice that millions of dollars were being spent on opulent planning strategies designed to host the World Cup rather than address their own needs. In fact, the 2014 FIFA World Cup tournament in Brazil cost more than the last three World Cup games combined (Segalla, 2011). The cost of the Cup, mistrust of the government, abuses by the police, a recession, and general inequality has prompted strikes and

protests throughout Brazil. The most recent protests that have been occurring alongside the World Cup have been relatively calm in contrast to the protests that occurred in tandem with the FIFA Confederations Cup in 2013. Or, perhaps, news of these protests was overshadowed by the games themselves.

Monday June 17, 2013 marked the first of several largest protests in which 200,000 people took to the streets in primarily peaceful protests in various cities throughout Brazil. The \$0.9 cent increase in bus fare was the initial cause of the protests. According to Theresa Williamson, “transportation has been the banner of this movement and rightfully so. It represents mobility in the most literal sense. Rio and São Paulo have some of the highest bus fares in the world” (Williamson, 2013). What began as protests over bus fare increases in many Brazilian cities has now grown into a wider expression of public discontent over a variety of issues.

The protests have continued through the World Cup as the bus fare incident was merely the last straw in a long list of public grievances. Other underlying motives for discontent include i) widespread corruption, ii) heavy-handed policing and the lack of public safety, iii) unjust housing evictions, iv) dissatisfaction with politicians, v) heavy tax burdens and, vi) inflation attributed to the billions of dollars spent on the Confederations Cup and the World Cup. Meanwhile, the returns in public education, health, security, and transportation have been woeful. The 2013 protests have been called the “vinegar revolution” or “salad revolution” after protesters began to use vinegar to counteract the often unwarranted pepper spray in addition to rubber bullets, tear gas, and violent beatings used by the police. These decentralized and politically unaffiliated protests are spreading through social media outlets and will ideally prompt timely and appropriate responses.

The pending mega-events are starting to change *favela* life as past policing and integration policies are being recognized as inefficient. According “Brazil’s protest paradox” published by the *Washington Post* in 2003 (the same year that Luis Inácio “Lula” da Silva of the Workers’ Party became president became President) poverty and extreme poverty rates began to decline (Vacano & Silva, 2014). Between 2003 and 2013, poverty rates declined from 35.73 percent to 15.96 percent, while extreme poverty rates declined from 15.15 percent in 2003 to 5.3 percent in 2012. Based on statistics from the IBGE (Instituto Brasileiro de Geografia e Estatística, 2010), authors Vacano and Silva, political science researchers at Texas A&M, define extreme poverty as the “value of a food basket with minimum calories required to adequately support a person based on recommendations by the International Labor Organization (ILO)” while poverty is defined by “the value of two food baskets” (Vacano & Silva, 2014).

Vacano and Silva also suggest that although there have been complaints concerning the large sum of money spent on the World Cup in comparison to the amount spent on social programs. However, “the actual amount spent by the Brazilian government on the World Cup, especially on stadiums, is very small relative to the total amount of social program costs” (2014). Although the Brazilian Development Bank (BNDES) spent approximately 1.76 billion on stadia, their total investment was \$260 billion (Vacano & Silva, 2014).

In Manaus, \$270 million went toward a brand new soccer stadium that hosted only four World Cup Games (McShane, 2014). Manaus is entry point for visitors to discover the rainforest and is so remote that much of the high stadium cost is attributed to shipping the construction material across the Atlantic and then up the Amazon River. Considering that Manaus has no soccer team, the future use of this stadium remains unclear. Meanwhile, statistics produced by

the Comitê Popular suggest that stadiums cost R\$8 billion, which was R\$2 billion over budget (Comitê Popular Rio Copa e Olimpíadas, 2014: 38).

The Brazilian government as well as private entities spent a total of \$11.5 billion on the World Cup (Vacano & Silva, 2014). Meanwhile, between 2010 and 2014, the Brazilian federal government spent a total \$385.4 billion on all social spending. Health and education reforms comprised \$363 billion of this investment (Vacano & Silva, 2014). Thus, although protesters claim that the government is indeed spending a large amount of money on the World Cup, they are spending a considerable amount of money on social programs as well. Figure 1.1 describes the cost of each stadium used for the 2014 FIFA World Cup Games in Rio.

<b>Stadium Name</b>	<b>City</b>	<b>Cost</b>	<b>Seating Capacity</b>	<b>Number of Games</b>
Maracanã	Rio de Janeiro	\$470.6 million	74,689	7
Arena de São Paulo	São Paulo	\$367.5 million	61,606	6
Mineirão	Belo Horizonte	\$311.5 million	58,259	6
Estádio Nacional	Brasília	\$627.5 million	69,432	7
Arena Castelão	Fortaleza	\$232.4 million	60,348	6
Arena Fonte Nova	Salvador	\$309 million	51,708	6
Beira-Rio	Porto Alegre	\$147.9 million	42,991	5
Arena Pernambuco	Recife	\$238.7 million	42,583	5
Arena da Amazônia	Manaus	\$300 million	39,118	4
Arena Pantanal	Cuiabá	\$255.4 million	39,859	4
Arena das Dunas	Natal	\$179 million	38,958	4
Arena da Baixada	Curitiba	\$146.4 million	38,533	4

Figure 1.1 Olympic Stadia. Chart compiled by author.

Critics argue that instead of spending millions of dollars on underutilized stadia, money could have been spent on improving road networks and airports. However, arguably, the crux of the unrest should be directed toward the corruption and failings of the government which has led to rampant inequality and under-serviced populations. While it is one thing to say that the government is spending more on social programs than World Cup infrastructure, the stadia are

visible on the landscape while what is being spent under the heading of "health and education" remains unclear.

According to a 2012 United Nations report, Brazil has one of the highest income disparities in the world. For this reason, perhaps the crux of the protests rests upon corruption and continued inequality rather than the World Cup or the Olympic Games. The inauguration of President Dilma Rousseff in 2012 has set the country off on a trajectory toward "development" the eradication of "extreme poverty" (Amnesty International, 2012). In the seven years since Rio won the bid to host the Olympics, there have been many changes to the social, political, legal status of the *favelas*. It is under these uncertain sociopolitical circumstances that Rio must transform its social space in time for Rio's next mega-event, the 2014 Olympic Games. It is for this reason that I wish to renew an interest in the legacies and impacts of the Games.

### **Favela Commodification, Tourism, and Stakeholders**

While some neighborhoods are being destroyed to accommodate new construction, other urban areas will remain intact and undergo a process of regeneration, as in the case of Morro da Providência. Amid the current limelight, the production of modern infrastructure will draw domestic and international investment and tourists to safely encounter a new and exciting environment in Rio (Britton, Spencer, & Wyly, 2005; Gold & Gold, 2005, 2007, 2008; Hall & Hubbard, 1998; Hall & Page, 1999). *Favela* pacification, and the subsequent implementation of tourist infrastructure, will transform *favelas* into major tourist attractions while simultaneously showcasing their identity and modernity.

The introduction of tourist venues in previously inaccessible parts of the city will undoubtedly impact the lives of the *favela* residents. Although the state is making a concerted effort to urbanize, pacify, and fortify the *favelas* with new tourist infrastructure, mega-events

often result in profound and “temporary regimes of extra-legal governance” (Gaffney, 2008: 7). During Olympic preparations, the “neo-liberal growth machine” (Molotch, 1976) expedites the implementation of infrastructure as the state is pressured into making quick and largely ill-suited decisions that often bypass periods of public scrutiny and debate (Surborg, 2008; Scott, 1998; Roche, 2000). Based on my preliminary research in Rio, even though tourist infrastructure is being built in an effort to urbanize the *favela* communities, these high-powered decisions are reordering social space within the *favelas* without consent of the *favela* residents resulting in ill-suited physical and social infrastructure.

The strategic production of social space is both intentionally and unintentionally embedded with social biases and injustices (Harvey, 1989, 2004, 2009). As the state assumes control over the production of *favela* infrastructure, it is also assuming formulaic and hegemonic control over the gaze and flow of tourists. The tourist gaze is restricted to particular set of actions and experiences designed to contrast the mundane routines of work and home. Tourism entrepreneurs and government officials market unique places to meet the expectations of the tourist. In doing so, they often obfuscate, highlight, and reorder specific aspects of that space (Del Casino & Hanna, 2001: 27).

There is a capitalistic manipulation of power by producers and consumers that direct the expectations and experiences of tourists (Urry, 1990). The desire to transform place and culture into a commodity to be bought and sold is often directed by those who are trying to meet the tourist’s gaze (Britton, 1991: 452; Del Casino & Hanna, 2000: 27). Traditionally, from a Marxist perspective poverty has “no exchange value” as it something that cannot be “bought or sold” (Freire-Medeiros, 2009: 586). However, tourism has been able to transform poverty into “a product for consumption” (Freire-Medeiros, 2009: 586). As such, Rio is beginning to experience

the commodification of the *favelas* through the implementation of infrastructure specifically designed for the use of tourists amid preparation for the mega-events.

Tourism is when people attempt to authentically engage in life outside of their normal realm of experiences by collecting images of a particular tourist gaze (MacCannell, 1976). These new experiences ultimately order and structure their understanding of the world. However, as the commodification of social space occurs, authenticity becomes more difficult to achieve (Medeiros-Freire, 2009: 588). As Frenzel, Koens, & Steinbrink suggest, exploiting residents through “poverty porn” is an inherently dangerous and exploitative process as it turns a community into an exhibit (2012: 57). As *favelas* receive infrastructure and its social spaces transform into a commodity and the authenticity of that place disappears and is replaced by other highly-glorified aspects (Hannam & Knox, 2009).

During periods of high-stake urbanization, popular and profitable aspects of culture and heritage are often glorified (Scheyvens, 2007: 238), manipulated, and enhanced (MacCannell, 1973: 591), while less desirable aspects are simply over-shadowed and ignored. As such, it is often difficult for tourists to experience places as the routine and lived spaces of others (MacCannell, 1973: 601; Andranovich, Burbank, & Heying, 2001: 116). Judd (1999) discusses the “tourist bubble,” a well-defined space within the city that is “secured, protected, and normalized” by the host government while conveying a romanticized and nostalgic “sense of history and culture” (Judd, 1999: 36). In this sense, the implementation infrastructure by the state is often of ill-suited and obscures the authenticity of the *favela* communities.

As Gaffney proposes, “the city is no longer a place to live and work” but it is “a thing to be marketed and sold” (Gaffney, 2010: 16). Mega-event development is “highly uneven and tends to benefit private developers and construction interests while creating spaces of leisure for



wealthy residents and the international tourist class” (Gaffney, 2010: 23). For this reason, stadiums and other physical infrastructure initiatives have become the “central elements of urban redevelopment” in Rio at the expense of the city’s residents (Gaffney 2010: 15).

Since *favela* tourism commenced in 1992 along with the Rio Earth Summit, there have been approximately 480,000 tourist’s visits every year (Frenzel & Koens, 2012: 3; Freire-Medeiros, 2009). *Favelas* have been able to attract tourists and celebrities such as Michael Jackson, Beyoncé, and Lenny Kravitz due to their “unspoilt” and authentic nature that has been dispelled through the internationally acclaimed films such as *Elite Squad “Tropa de Elite”* (2007), *City of God “Cidade de Deus”* (2002), *Bossa Nova* (2000), and *Black Orpheus “Orfeu Negro”* (1959). However, the sudden over-popularization of *favela* life has brought a breadth of adverse impacts for the residents (MacCannell, 1973; Tuan, 1977; Greene, 2003; Scheyvens, 2007: 238). Amid global recognition for hosting the 2014 FIFA World Cup and the 2016 Olympic Games, many public and private investors have turned their interests toward Brazil.

The amount of social and physical infrastructure required for the modern Olympic Games renders them unaffordable and unmanageable without national and international investment. One way to limit the number of negative impacts mega-events have on the host city legacies is to encourage different stakeholders to participate in the creation and management of Olympic plans. Mega-events such as the Olympics are designed to utilize public expenditures to produce new infrastructure and facilities in accordance with a long and short-terms strategic urban renewal plan (Horne, 2007, Bramwell, 2007: 167; Kaplanidou & Karadakis, 2010: 110).

These urban renewal objectives are designed to serve the needs of two types of stakeholders. One on hand, small business owners and some residents are poised to benefit from mega-events through in the influx of tourists. However, the benefits directed toward these

stakeholders are seldom achieved because they are juxtaposed by the needs of larger stakeholders including various levels of government, the International Olympic Committee, FIFA, broadcasting corporations, and corporate sponsors to name a few (Andranovich, Burbank, & Heying, 2001: 127, Short, 2008, Gold & Gold, 2005, 2007, 2008). As opposed to providing “advantages to middle class consumers over low-income residents” efforts must be undertaken to reassert local authority and identity (Andranovich, Burbank, & Heying, 2001: 115).

Strategic planning is vital to the success of mega-events and, subsequently to the “development of tourist destinations” (Bramwell, 2007: 167). Lamberti, Noci, Guo, & Zhu (2011) provide an analysis on the participation of stakeholders in the context of tourism. Lamberti, Noci, Guo, & Zhu (2011) categorize the participation of stakeholders into 1) “genuine” in which the community is both involved and influential, 2) “tokenism” in which the community has limited power, and 3) “nonparticipation” in which the community is manipulated through meaningless formalities (Lamberti, Noci, Guo, & Zhu, 2011:1476). To guarantee long-term sustainable development, promote positive legacies, and to conquer negative impacts, genuine and direct community involvement with all stakeholders during the decision-making process is necessary and required. The engagement of all stakeholders optimizes “the use of human and natural resources” and the legacies become sustainable (Bramwell, 1997; 167).

Genuine community participation is fundamental to both the creation and management of positive legacies and is a valid way to foster a “sense of ownership”, authentic cultural development, and community empowerment skills (Bramwell, 1997: 167). Communities that engage in tokenism or nonparticipation due to the lack of community involvement, expertise, sociopolitical awareness, or (financial) resources are often prone to “bureaucratic paternalism” (Lamberti, Noci, Guo, & Zhu, 2011: 1476). Under bureaucratic paternalism, elite agencies

assume sole responsibility of the initiative and seek to exclusively satisfy their own needs and objectives. The lack of planning and collaboration is detrimental to the host city as expensive white elephants trump sustainable, long-term infrastructure.

Although mega-events are highly and thoroughly planned they are often “not the result of rational decision-making process” (Roche, 2000: 18). Instead, they “grow out of a political process” involving a show of power and wealth (Roche, 2000: 18). Particularly in developing countries, participation concerning collaborative planning is limited due to “poor coordination” and asymmetry amongst stakeholders (Lamberti, Noci, Guo, & Zhu, 2011: 1474). When certain and not all stakeholders are in charge of the decision-making process, the decisions may ultimately be counter-productive, biased, and or exclusionary (Skelcher, 1993; Prentice, 1993; Madrigal, 1994; Taylor, 1995; Jamal & Getz, 1995; Lamberti, Noci, Guo, & Zhu, 2011: 1476). Even though community participation may not be productive at every level of planning, Li (2006) found that positive results do prevail.

Due to the amount of resources necessary to host mega-events, all members of the public sphere are involved in and affected by its production. However, while there have been many studies regarding Olympic legacies, the opinions of stakeholders have not been examined thoroughly in the literature. Strikingly absent is a critique of community participation in the decision-making process of mega-events. Scholars have increasingly found that it is both ethical and imperative to pursue a collaborative and symbiotic approach to decision-making that involves all of the relevant stakeholders (Getz, 1983; Murphy, 1985; Ritchie, 1988; Inskip, 1991; Jamal & Getz, 1995; Archabald & Naughton-Treves, 2001; Tosun, 2006; Lamberti, Noci, Guo, & Zhu, 2011). However, successful examples of community participation in the planning process are notably absent.

Mega-events serve as high-profile events to provide a “stimulus to, and justification for” economic, environmental, and social development strategies (Andranovich, Burbank, & Heying, 2001: 113). The ability of a city to compete in a global marketplace by hosting a world-class event and showcasing the city’s modern infrastructure, guarantees renewed tourism, employment, and future international investment (Greene, 2003). As the landscape changes, many citizens are undoubtedly be confronted with a substantial reorganization of physical space and social strategies of urban catharsis. However, if all stakeholders in Rio are not participating in the planning process, government-led policing policies, subsequent evictions, land value increases, and gentrification could provide very unique and negative impacts on the landscape.

### **Literature on Varied Approaches to Mental Mapping**

*The “visionary intellectuals and planners behind them were guilty of hubris, of forgetting that they were mere mortals and acting as if they were gods” -James C. Scott*

#### **Introduction**

The purpose of this section is to review the literature on varied approaches to mental mapping. First, I introduce the ways in which cartographic theory and method have evolved in both the geographical and anthropological literature. Second, I discuss the literature on the history of maps and map use in geography including the most recent turn in the mapping literature which has been toward accessible technologies and democratic principles. Third, I discuss the merit of three different mapping approaches including mental mapping, community mapping, and participatory mapping in which my research is situated. Finally, I discuss the application of mental mapping in the context of this research project.

Integral to the theory and practice of geographical knowledge has long been the question of what and how to observe, capture, and convey features of the earth and characteristics of societies. Depicted as drawings on cave walls, the earliest known maps serve to explain,

navigate, and locate diverse phenomena. Since then, the academic pursuit of cartography remained constant in its effort to faithfully and accurately represent important features on maps (Kitchin & Dodge, 2007: 331; Crampton, 2001: 237). The purpose of this chapter is to review the ways in which cartographic theory and method has evolved in both the geographical and anthropological literature and to discuss the ways in which the represented image both captures and imprisons reality (Perkins, 2004: 283). Ultimately, the intention of this chapter is to renew interest in mental mapping by demonstrating how this methodological practice facilitates equitable and sustainable infrastructural designs amid large-scale, fast paced urban infrastructural planning.

According to Crampton, the International Cartographic Association defines a map as “a symbolized image of geographical reality, representing selected features or characteristics” of the earth (Crampton, 2001: 240). A fundamental aspect of this definition is that maps include a specific selection of features. Considering that maps are only representations of the earth, they are inherently incapable of reproducing the world in its entirety. It is the decision of cartographers which elements to include and which to omit from their representations. The conscious and unconscious choices of what elements to include are often colored by a bewildering number of internal and external politics which highlight or downplay any number of characteristics.

It is precisely because maps are only one representation of world, that there is a danger in accepting the final map product as truth as opposed to one version of truth. It is important to remember that maps are often created and commissioned by those in power and as such, include aspects of the world that are most important to them. Conversely, those who are marginalized in society rarely have the opportunity to create maps of their own. Thus, it becomes clear that maps

are products capable of ordering the world by reinforcing one particular discourse over another. And, in doing so, maps both create and affect the way people see the world.

As opposed to focusing on what maps do, it also is important to understand how they shape our world (Pickles, 2004). In an effort to minimize the problems and dangers associated with the maps, map-making, and what is portrayed as truth, researchers have increasingly sought to democratize the map-making process. Scholars and researchers have begun to employ a variety of techniques including, but not limited to, mental mapping, Geographic Information Systems, and participatory mapping to distribute the intrinsic power of maps and map-making. In this chapter, I specifically focus of the way participatory mapping has democratized the mapping process and played an essential role in collecting research data in the *favela* Morro da Providência.

During past decades, human methodological research has been based on interviews, participant observation, and textual interpretation of culturally significant material. Meanwhile, mapping has been largely underutilized and virtually absent from the previous research performed in low-income communities. Mental mapping, community mapping, and participatory mapping have the potential to serve as a useful methodologies for scholars seeking to further understand the relationship residents have with their communities. Recent use of participatory mapping has been paramount in qualitative research precisely because the results have been used to develop community planning and solutions to spatial and relational problems.

The use of participatory mapping has two primary advantages. First, as we already discussed, participatory mapping is used to aid in the democratization of map making whereby power is taken away from the map maker and distributed equitably to as many stakeholders wish to participate. As opposed to relying on maps produced by the city officials and elite, the power

to reproduce social order and discourse through maps is extended to those who previously had very little power. Although the issue of what to include and what to omit remains somewhat problematic, participatory mapping permits an equitable and multi-authored mapping process. The democratization during the map-making process improves the equity in the final map.

Secondly, participatory mapping is also effective as a tool to facilitate dialogue and the exchange of information between the researcher and the participant. In methodological research, the mapping process is just as important as the produced map. Particularly in low-income communities, residents may be reluctant to be interviewed or to participate in written surveys. In my own research, I found that residents who were encouraged to participate in a drawing activity which promoted spatial thinking ultimately spent a great deal of time actively engaged and invested in the interview. Additionally, participatory mapping that does not include GIS renders the mapping process infinitely more accessible to low-income community residents who might otherwise avoid more sophisticated and seemingly unattainable technologies.

Considering the increasing use of participatory mapping in qualitative research, it is my intention to contribute an analysis of sixty mental maps drawn over a five-month period in the *favela*, Morro da Providência located in Rio de Janeiro to demonstrate if mental mapping can be used as an effective research and potential policy-making tool. In what follows, I review the ways in which cartographic theory and methods have evolved in both the geographic and non-geographic literature and discuss the ways in which power relations affect the produced map. Finally, I justify my use of mental mapping in Morro da Providência to understand the transformation of social space amid preparations for the 2014 World Cup and the 2016 Olympic Games.

## **History of Maps and Map Use in Geography**

Maps intended as tools commissioned, constructed, and used for precise geographic clarifications. However, because maps contain intentional and unintentional biases and politics, clarity is seldom achieved. In an effort to minimize the embedded biases, scholars have begun to analyze both how and for what reasons maps are created as well as the impact the map's narrative has on the ordering of the world. The way in which maps convey information has the potential to reinforce narratives and a world order created from one particular point of view. In this sense, the author is able to capture one narrative of the reality, while simultaneously imprisoning or obfuscating another. In this section, I discuss the progression of map and map use as it appears in the geographic literature over time.

In the geographic literature, Arthur B. Robinson is an integral figure in mapping history. Robinson taught at the Department of Geography of the University of Wisconsin-Madison from 1945 to 1980 and was the creator of the famous Robinson Projection model circa 1963. Shortly after World War II, long before his map projection which sought to minimize distortion while portraying the entire globe, Robinson was involved with a long-overdue scientific approach to cartography that was to focus on map use (Crampton, 2001: 235). As opposed to focusing on the aesthetics of map production, Robinson was concerned with communicating information for a specific purpose and function. Robinson emphasized basic maps principles to maximize the effectiveness and readability (Kitchin & Dodge, 2007: 331; Crampton, 2001: 235).

Paralleling the broader epistemological revolution occurring in geography and across the social sciences during the 1950s and 1960s—namely the quantitative revolution—cartographers soon replaced Robinson's model with an approach directed toward visualization principles and cognitive science (Crampton, 2001). Moving away from a system of communication that



emphasized map function, this new approach embraced a critical geographical approach that called for the growing consideration of multiple representations of data. As the political dichotomy between maps and map-makers strengthened, simple representations of the world gained an understanding and analysis as sites of power-knowledge (Crampton, 2001).

Today, the entanglement of power and knowledge in map construction is inescapable. Maps are no longer used simply to delineate territory, but are used to conceptualize the world as an “undeniable reflection of the social, cultural and technical relations of specific times and places” (Kitchen, 2007: 332). In order for maps become complex and multivocal social texts “imbued with the values and judgments of the individuals who construct them” (Harley, 1990; Kitchen, 2007: 332) there must be a focus on “relations of power and textuality” (Crampton, 2001: 240). Today, maps are vehicles of vested regimes of power which serve to conceptualize the extent of space and the various objects within that space.

Drawing upon the theories of Michel Foucault and Jacques Derrida, Brian Harley a cartographer and geographer who taught at the University of Wisconsin-Milwaukee from 1986 until his death in 1991, began to trace the relationships of political power and the hidden agendas of the maps during the 1980s and 1990s. Harley understood that “social power is inscribed in maps by cartographers operating within dominant discourses and institutions” (Del Casino & Hanna, 2000: 265). Maps are “laden with power” and do not simply describe the world, but imbue it in terms of culture, power, and politics (Harley, 1990:4; Crampton, 2001: 236; Kitchen, 2007). In other words, in addition to the production of maps which are laden with power relations, the implementation and use of maps also have an effect upon the ordering and reproduction of society.

Critical cartographers like Harley contributed a way to understand social discourses and the employment of power in cartographic representation (Del Casino & Hanna, 2000: 265). Just as places are saturated with notions of power-relations reflective of horizontal connections with the rest of the world, so too are maps. Critical cartography urges a critical analysis on the part of the cartographer and map user to reveal the attributes hidden within the map which may have been intentionally or unintentionally embedded. In doing so, critical geographers like Mark Monmonier (1991, 2005), Denis Wood (1992), Rob Kitchin & Martin Dodge (2007), and John Pickles (2004) demonstrate that maps are created and used as social products and are not simply reflections of the world they intend to mirror. While maps represent the ambiguities and particularities of time and space at the time of their making (Harley, 1988: 71), they simultaneously expose exclusions, margins, and other ambiguities. In this way, maps should not be understood as “mirrors of nature, but as producers of nature” which both modify and are modified by human action (Rob Kitchin & Martin Dodge, 2007: 334).

In a few short decades, the history of cartography shifted its focus away from emphasizing the maps as artifacts or representations and toward an enriched understanding of social and cognitive processes (Perkins 2004, 385; Dodge & Kitchin, 2007: 332). Traditionally, maps were regarded as objective “abstractions of reality” that display data about the world (Soini, 2001: 225). However, increasingly maps are seen as “products of culture” which reflect social processes and personal politics (Soini, 2001: 225; Fahy & Cinnéide, 2009: 167). Maps are not simple reflections of the world as they are imbued with politics that both are created by society and that also impact society. It is for this very reason that the most recent turn in the mapping literature has been toward an alternative, “populist,” “emancipatory,” and “democratizing,” mapping culture based on accessible technologies (Perkins, 2003: 343; Parker,

2006; 471). It is in this recent turn in the mapping literature that my research methodology lies. In what follows, I briefly discuss this new area of mapping which includes mental mapping, community mapping, and participatory mapping as it appears in the literature.

### **Approaches to Mental Mapping**

#### **Mental Mapping**

The practice of mapping is no longer reserved for geographers. According to Karl Offen, “critical scholarship examining the cultures of cartography, map production and circulation, and how maps contribute to the reality they seek to represent, is now commonplace among scholars from many disciplines” (Offen, 2012: 527). In fact, early studies on mental or cognitive mapping originated from the field of behavioral geography before lending into other disciplines including urban planning, anthropology, sociology, and psychology to be used as a successful methodological tool (Moore & Golledge, 1976). Since then, geographers and non-geographers alike have been using mental mapping to order social life as it is perceived by those who live it. Mental mapping refers to the innate ability of people to produce a cognitive or mental image of an environment that defies the allocation of spatial coordinates (Pocock, 1975). In other words, mental maps seek to orient human activity by sorting spatial information retained in our long-term memories (Soini, 2001).

The first study on mental maps and geographic perception and cognition is traced to Charles Trowbridge’s (1913) article “On Fundamental Methods of Orientation and Imaginary Maps.” Trowbridge’s study is one of the very first scientific experiments involving human knowledge and the “large-scale environment” (Moore & Golledge, 1976: 16). However, Edward Tolman popularly receives credit for contributing to the foundation of the modern study of mental maps (Luis da Vinha, 2012). Tolman coined the term “cognitive map” in his study on how

rats learned to “map” the environment of experimental mazes (Tolman, 1948; (Bell, Greene, Fisher, & Baum, 1996; Golledge & Stimson, 1997; Mark, 1999; Saarinen, 1987, Vinha, 2012). However, it was not until Kevin Lynch’s 1960 publication “The Image and the City” that there was a renewed interest in cognitive maps (Bell, Greene, Fisher, & Baum, 1996; Kitchin and Freundschuh, 2002; Saarinen, 1987).

Kevin Lynch is an urban planner who sought to understand the relationship between the use and perception of urban space. In a movement away from positivist thinking and quantification, Lynch’s study focused on five elements of urban life including paths, edges, districts, nodes, and landmarks to understand the structure and function “urban and nonurban environments” (Vinha, 2012: 7). The resulting mental maps reveal a wealth of subjective knowledge. The maps were both a reflection of the individual’s interaction with his or her environment as well as an endowment the use and meaning of space. Ultimately, Lynch’s study produced maps which acted as vehicles through which individual mental images of the physical world aided in the readability of the landscape and encouraged better urban designs (Lynch, 1960: 4).

Anthropological and behavioral studies have familiarized us with the idea that perception and behavior in space differs widely. In the anthropological literature, there are two rival theories concerning how humans orient themselves, the mental mapping theory and the practical-mastery theory (Istomin and Dwyer, 2009). The theory of mental mapping used by Roger Downs and David Stea (1973) suggests cognitive maps are an ideal tool for orientation and for way-finding. The mental mapping theory argues that human orientation or “way-finding” is accomplished by storing spatial information in the form of a mental map and then utilizing this information to undertake practical decisions and actions (Gell, 1985: 272). According to the mental mapping

theory, mental maps are both used and designed to facilitate travel from one object or landmark to another. Thus, mental mapping theory suggests that people perceive space by a set of spatially related objects in Euclidian space.

Rival to this theory, is the theory of practical-mastery which suggests that “way-finding” is not based on “abstract representations of spatial relations” but on “habit and familiarity” (Gell, 1985: 273; Istomin & Dwyer, 2009). As opposed to simply plotting a route based on landmarks in space, the practical-mastery theory suggests that actions are linked to humanistic perceptions and the subject’s sense of place (Gell, 1985; Istomin & Dwyer, 2009). The practical-mastery theory suggests that everyday way-finding is accomplished using a connection of visual and visceral transitions that temporally link different locations. Although both of these theories have strengths and weaknesses, they are in fact complementary, and serve to understand the ways in which they orient human activity.

In addition to anthropological literature, there have been psychological and sociological contributions to the burgeoning field of spatial cognition as well. However, it was the work in geography that spatial cognition studies have been most prevalent. During the 1970s, mental mapping witnesses both empirical and humanistic approaches in geography. Empirical studies such as “*Image and Environment*” (1973), edited by Roger Downs and David Stea sought to employ scientific methods and fact verification in the production of mental maps (Vinha, 2012: 8). According to Downs and Stea, mental maps are snapshots of the spatial environment designed to organize a unique representation of the world at one specific point in time (Downs & Stea, 1977: 6). Meanwhile, humanistic approaches as suggested in “*Mental Maps*” (1974) by Peter Gould and Rodney White, sought to understand how spatial decision-making reflects social

behaviors and perceptions (Vinha, 2012: 8). Ultimately, it was the humanistic approach that sought to understand human knowledge through lived experiences occurring in the world.

Since the 1970s, humanistic geographers like Yi Fu Tuan have utilized empirical and humanistic methods to emphasize the importance of cognitive maps. From a humanistic perspective, mental maps are abstract, mnemonic representations of cartographic space that which store, organize, and communicate disconnected components of spatial knowledge (Tuan 1975, 209-10). The resulting maps, which largely focus on small scale spaces, are social products of human actions, behaviors, routines, memories, and sense of place (Tuan, 1975; Soini, 2001; Crampton, 2001; Potter, 2012).

In the geographic literature, mental mapping refers to the cognitive or mental images of an environment which both defies the allocation of spatial coordinates and is a product of sorted spatial information retained by our long-term memory (Soini, 2001). As such, mental mapping has great value as a research methodology as it combines the use of memory and material culture to construct a representation of the past (Rose, 2003; Tolia-Kelly, 2004; Blunt and Dowling, 2006: 212). Much of the literature on mental maps in geography strives to clarify its conceptual framework. However, “there still persists a good deal of theoretical bewilderment” (Vinha, 2012: 14). In what follows, I cite a few representative examples of current scholarship that deal with the theory of mental mapping.

In an effort to capture human perceptions of the landscape, Katriina Soini (2001) wrote “Exploring human dimensions of multifunctional landscapes through mapping and map making” which reviews the ways that maps are produced and analyzed. Soini provides a discussion of how human and natural sciences are bridged into landscape research using mental maps. Soini focuses on three geographical approaches to mental maps including behaviorism, humanistic,

and cultural geography and how they affect mental mapping and concept mapping. Soini urges that mental mapping does not bridge the gap between human and natural sciences, but that it provides “an alternative way to study human perceptions of the landscape” (Soini, 2012: 237). Thus, as opposed to relying on maps produced by the elite, or even satellite imagery, mental mapping addresses core issues relating to the ways that people perceive their landscape.

Mental mapping is a complementary qualitative research method that is easily combined with other methods to effectively communicate subtle details about place. Elen-Maarja Trelle and Bettina Van Hoven (2010) wrote “Making sense of place: exploring creative and (inter)active research methods with young people” which applies mental mapping by looking at young adults on Vancouver Island in Canada. This 2010 study sought to analyze the contributions and limitations of walks, mental mapping, and photography in addition to interviewing. The study was undertaken in the town of Ceder where it involved four high school students (three male and one female) over the period of nine months. Ultimately, the study concluded that interviews tend to reveal abstract representation of places, while mental mapping draws upon objects, events, the body, and senses to both generate knowledge and communicate a place. Overall, the use of mental maps was used successfully as a tool to facilitate the interviews due to the ways in which places were conveyed through the creations of maps.

Amy Potter (2012) uses mental mapping to understand the attachments Barbudans have with themes of place and home. In a broader study relating to small scale transnational migration patterns, common property, and land tenure, Potter performed a series of 46 mental maps with Barbudans residing on the island in the Lesser Antilles. Potter found that the process and methodology of mental mapping revealed complex discourses that varied by “age, gender, and migratory experience” (Potter, 2012: 95). Potter found that the maps conveyed aspects of land-

use practices, island history and tourism, “Barbudaness”, and even “feelings of immobility” for those Barbudans living abroad (Potter, 2012: 218-19). Although seldom used in migration studies, mental mapping served to foster and identify feelings of place in Barbuda. Potter concludes that “mental mapping is an essential methodology for migration research” as it “reveals individual differences concerning places of importance” (Potter, 2012: xi, 237).

In addition to being an effective research tool, capable of capturing human perceptions and generating knowledge about place, mental mapping is also a foreign policy tool. Luis da Vinha (2012) wrote “Charting Geographical Mental Maps in Foreign Policy Analysis: A Literature Review” which focuses on the role of mental maps in foreign policy-making. Vinha posits that since Alan Henrikson’s (1980) “initial conceptualization over three decades ago the mental map research agenda has adopted several different theoretical and methodological approaches” (Vinha, 2012: 6). Remaining highly theoretical, da Vinha suggests that mental mapping is still a “catch-all term” citing the vastly overwhelming literature and numerous approaches including critical, post-structural, rational, behavioral, empirical, and ecological, (geo) political, cognitive, humanistic, mechanistic, dehumanizing, and decision-making while traversing an assortment of issues. Ultimately, da Vinha suggests that if we apply a single framework to all of these multidisciplinary approaches, “our understanding of the place of geography in international politics” will improve (Vinha, 2012: 14).

Although largely popular, mental mapping is not without its disadvantages and criticisms. In addition to the inherent challenges of representing the three-dimensional world on a two-dimensional piece of paper, concerns relating to the blending of “cartographic language and artistic expression” are all too prevalent (Seemann, 1994: 55). For example, Robin Moore (1986) asked children to draw their favorite places in their neighborhood thus constructing “turf maps”



(Moore, 1986: 32). In this case, qualitatively choosing a favorite or important place may exclude valuable information about locations in their turf (Downs & Stea 1977). Other problems with cognitive mapping include the over popularity of stereotypical objects, the map maker's drawing skills and artistic creativity, as well as the intimidation factor relating to the motivation to draw (Hart, 1997; Blaut & Stea 1974). Finally, some critics suggest that the analysis of mental maps is also problematic as there is no standardized framework. However, people organize space by using paths, edges, districts, nodes, and landmarks, all of which are analyzed topologically or metrically (Lynch, 1960; Soini, 2001).

Despite their disadvantages, maps are often employed as solutions to spatial and relational problems regarding distribution and practice. "Mental maps have been used not only for examining places at an individual level, but also places as constituting social relations" (Soini, 2001: 229). Mental maps have been useful for community planning and development practices as they are known to "bolster public participation in policy-making and improve local communities' trust in the municipal authority, thereby shaping sustainability practices through enhanced governance" (Fahy & Cinnéide, 2009: 167).

Overall, the literature on mental mapping is comprehensive and multidisciplinary. In geography, mental maps defy the allocation of spatial coordinates in Euclidian space by sorting information retained in our long-term memory. In an effort to bridge the gap between human and natural science mental mapping has combined behaviorism, humanistic, and cultural geography to shed light on the ways in which people perceive their landscape and establish a sense of place. In a purely humanistic fashion, mental mapping draws upon material culture, events, as well as the human body to communicate knowledge about a place. The success of mental mapping has

even permits its foray into policy-making. With a cohesive and replicable approach, mental mapping has the potential to profoundly contribute to international politics.

### **Community Mapping**

In response to recent technological and social changes, cartography is undergoing democratization which is a process that has begun to offer formerly marginalized groups new possibilities for articulating specific social, economic, political, and aesthetic needs (Rood, Ormeling, & Van Elzakker, 2001; Perkins 2007, 127). Since the introduction of humanistic and critical approaches in the 1970s, there has been a movement toward the democratization of maps and map-making as “all human beings...have natural mapping abilities” (Rood, Ormeling, & Van Elzakker, 2001; Blaut, Stea, Spencer, & Blades, 2003; Perkins, 2007). The democratization of map making has the potential to better articulate that which has been only previously articulated by cartographers. As opposed to relying on the creation and interpretation by elite cartographers, the advancement and accessibility of technology have opened map-making to the masses so that “formerly marginalised groups can gain a voice” (Perkins, 2007:127).

Community mapping has become a valuable tool to assess local development and to solve other community problems by granting practical agency, decision-making, social inclusion, empowerment, and democracy to locals (Elwood and Leitner, 1998, 2003; Sieber, 2001; Elwood, 2002; Kyem, 2004). Community mapping is a process by which community members locally produce “visual depictions of an area that record and promote social, environmental and cultural resources” which reflect their “values and visions of the future” (Fahy & Cinnéide, 2009; 168). In other words, community mapping is a type of mapping that is “produced collaboratively, by local people” that often incorporates “alternative local knowledge” (Perkins, 2007:127). By giving practical agency through the local level, community mapping has developed as a solution

to the “sustainable development rhetoric” (Fahy & Cinnéide, 2009; 167). In addition to “ecological footprinting, visioning, environmental impact assessment, best practices and sustainability indicators,” community mapping has been identified as a productive and practical tool to administer change amid local development challenges (Fahy & Cinnéide, 2009; 167). While traditional community mapping approaches primarily focused on artwork, newer community mapping approaches utilize GIS.

Justin Wood’s highly referenced paper “‘How green is my valley?’ (2005) focuses on the “growing interest in and literature on ‘public participation geographic information systems’ (PPGIS) and the potential for computerized mapping to benefit and empower communities” (Wood, 2005:159). Wood used a mixed methodology including qualitative semi-structured interviews, comprehensive literature reviews, GIS prototype development, focus groups, as well as GIS experimentation to better understand the limits of community mapping. Wood found that as opposed to using artwork, GIS could be used as a community-based participatory mapping tool to support community mapping endeavors. The objective of Wood’s study was to find a way through which “the researcher” or in this case, the map-making community participant, was not an outside observer but rather an “active participant in the study” (Wood, 2005: 161). Ultimately, Wood found that with adequate GIS support and training, community members could benefit and be empowered through the use of community GIS.

Using the Portland Greenmap as a case study, Brenda Parker discusses the theoretical and empirical tensions relating to community mapping in “*Constructing Community Through Maps? Power and Praxis in Community Mapping*” (Parker, 2006). Linking the literature on critical cartography to objectives of community-mapping, Parker suggests that community mapping is an intimate empowerment tool that includes the community in the transparent production of map.

However, using inclusion, transparency, and empowerment, Parker also highlights some of the inherent challenges in the community mapping realm including methodologies, analysis, and defining community.

Frances Fahy and Micheál Ó Cinnéide (2009) wrote “*Re-constructing the urban landscape through community mapping: an attractive prospect for sustainability?*” in which the authors demonstrate how the city of Galway, Ireland is employing community mapping. The objective of this article is to demonstrate that the use of community mapping is effective in bolstering public participation in policy-making. From winter 2006 until summer 2007, the author established twelve independently organized and recorded mapping workshops the local university, the municipal authority, and with the wider community in Galway. The “participants mapped everyday walking and cycling routes, bottle banks for recycling, organic markets and sites of religious worship” and generated much discussion (Fahy & Cinnéide, 2008: 171). The discussion and resultant mental map was then digitized and analyzed by the city providing a “two-way dialogue between local communities and the municipal authority” (Fahy & Cinnéide, 2008: 172). Ultimately, the authors found that communities in Galway are able to “record and promote the city’s social, environmental, economic and cultural assets” and as a “practical tool to bolster public participation in policy-making” (Fahy & Cinnéide, 2008: 167).

In “*Community Mapping*” (2007), Chris Perkins reviews how community mapping is widely employed in England using five case studies that include “parish mapping, green maps, artistic maps, open source mapping and cycle mapping” (Perkins, 2007: 127). The Parish mapping project is particularly crucial the development of community mapping. In 1985, the charity Common Ground launched the Parish Map Project managed to track down details of around 850 communities. By 2007, 2,000 different communities mapped almost all of rural

England citing details of the environment that were valued by their communities. In this project, all map-makers assumed a role of authority as they had the power to include or omit features in their analysis and subsequent map production (Aberley, 1993). The Common Ground Parish Map Project produced maps that defied cartographic convention. The success of this project was due to such a large community involvement. There are many reasons which suggest that community mapping is a democratic fix for mapping endeavors, Perkins suggests that “in practice...community mapping is much less frequent or emancipatory than might be expected” (Perkins, 2007: 127). Despite the increased number of collaborative community mapping initiatives, there are many barriers that hinder participation in this method of mapping.

One of the major obstacles relating to community mapping relates to power in terms of who and which community members may or may not have access or knowledge of GIS. In literature on participatory mapping, the use of GIS is met with a justification that its use has been in direct participation with government officials and academics that have provided the software and training. Furthermore, in the participatory literature, attention is paid to explain how the application of the mapping process directly affects public policy. In fact, Jeremy Crampton warns that in the case of “participatory GIS” or (PGIS), academics continue to function as the mediator and limit the ability for communities to produce themselves.

In recent years, rapid technological changes and the demand for GIS have considerably shrunk the traditional distinctions between geographers and non-geographers ushering in an era of “neogeography” (Turner, 2006; Graham, 2009; Rana and Joliveau, 2009; Goodchild, 2007, 2009; Hudson-Smith et al., 2009; Elwood et al., 2012, 573). In this new geographical era, “user-generated Web content” is contributing “patchworks of voluntary,” geo-referenced information through what is being described as volunteered geographic information (VGI) (Goodchild, 2007;

Elwood, Sui, & Goodchild, 2012: 572). Under this new paradigm, a vast number of new maps and map makers are contributing to the accessibility and distribution of geographical information. Although there are many questions regarding why people contribute, the accuracy and quality of the maps, as well as the accessibility of the mapping software, both neogeography and VGI methodologies are beginning to offer unparalleled opportunities for geographic research on various topics and scales (Elwood, Sui, & Goodchild, *Researching Volunteered Geographic Information: Spatial Data, Geographic Research, and New Social Practice*, 2012: 572).

In the developed world, the democratization of map-making has been largely centered on the burgeoning technology of participatory mapping which includes, although not exclusively, Geographic Information Systems. In addition to Geographic Information Systems which gained popularity during the 1980s, participatory mapping has emerged as a way to protest the production of top-down maps. In less developed countries, community mapping, also known as local mapping has emerged to produce collaborative local maps that incorporate local knowledge while at the same time attempting to reverse (Perkins, 2007: 127).

### **Participatory Mapping**

There have been many scholars to call for a social justice revolution to reverse the elitist cartography caused by the uneven distributions of power (Harley, 1989, 1991; Monmonier, 1991; Wood, 1992; Aberley, 1993). With the increasing popularity of the democratization of mapping, both community-led GIS and participatory mapping development initiatives have been able to cultivate a collaborative mapping process (Perkins, 2003: 344). During the 1990s, community mapping developed an off-shoot called counter or participatory mapping and is “often used interchangeably with participatory mapping and indigenous mapping” (Mollett, 2013: 1228). I will refer to this mapping method as simply participatory mapping.

Participatory mapping is an alternative mapping methodology that refers to the “cartographic interventions” that mediate an asymmetric dialogue between state and indigenous groups in an attempt to “identify and delineate political boundaries in ways that may allow local or indigenous groups some measure of autonomy” (Bauer, 2009). In other words, participatory mapping combines various local interests to oppose hegemonic and “state-sanctioned” maps (Kitchin & Dodge, 2007: 332; Wood, 2002). While mental mapping is quite distinct, community mapping does not vary significantly in theory or method from participatory mapping yet they appear in the literature as separate entities.

Participatory mapping has been an important resource for scholars working with indigenous peoples facing tenuous land reform (Harris & Wiener, 1998; Anderson, 2000; Perkins 2003; Offen, 2003; Smith 2003; Mollett, 2013). In an effort to clarify the mapping process by which communities “represent themselves and stake claims to resources” Nancy Peluso (1995, 387) coined the term “counter-mapping” (Peluso, 1995, Parker, 2006: 741). Peluso’s (1995) article, “Whose woods are these?” highlights the production of NGO maps commissioned by the local Dayak people of the Kalimantan forest in Indonesia in to contest the landownership as it was been depicted on maps produced by the state and state agencies. In this instance, participatory maps successfully guarded the forest from encroaching palm plantations and logging efforts (Peluso, 1995).

Kenneth Bauer employed participatory mapping in Porong, Tibet to depict “toponyms, pasture boundaries, built elements, and landscape features” (Bauer, 2009: 233). These cartographic exercises were conducted as collaborative efforts with “several different people wielding colored pens and markers” (Bauer, 2009: 233). The project participants were asked to draw prominent features of the landscape and to locate livestock corrals. The participants drew

physical features of the land as well as architectural features. In this project, participatory map making helped to initiate conversations about the local landscape. “The act of drawing maps became a visual form of conversation that precipitated many ‘floodgate’ moments of information capture” (Bauer, 2009: 247). Ultimately, Bauer concludes that participatory mapping has political applications in terms of land use and boundary-making, facilitates dialogue, and limits subjectivity in the interpretation of landscapes.

J. C. Gaillard and Maria Lourdes Carmella Jade D. Pangilinan wrote "Research Note Participatory Mapping for Raising Disaster Risk Awareness Among the Youth" (2010). The authors conducted research at the City College of San Fernando established in 2009 to gather for the needs of the poor youth of province of Pampanga in the Philippines. The focus of this research employed in 2009 was disaster risk reduction. The research was conducted during 90-minute classes with thirty-five first-year students who were approximately 16 years old. In this context, “participatory mapping was used as a medium for making disaster-related concepts and disaster risk tangible to the students” (Gaillard & Pangilinan, 2010: 176). Ultimately, the authors found that participatory mapping proved to be a valuable tool to enhance youth awareness of disaster risk as it facilitates dialogue between stakeholders and professionals.

Just as community mapping was fraught with problems, participatory mapping is also not without its dilemmas (Peluso, 1995; Rocheleau & Edmunds, 1997; Kosek, 1998; Hodgson & Schroeder, 2002; Parker, 2006; Mollett, 2013). In particular, it is apt to mention the 2009 controversy involving a group of American scholars led by Peter Herlihy and Jerome Dobson, geographers at the University of Kansas. Herlihy and Dobson embarked upon a participatory mapping project in Mexico called the Mexico Indigena/Bowman Expeditions research project. In brief, some affected communities or factions within communities in rural Mexico might not have



been fully aware that the Mexico Indigena project, supported by the Bowman Expeditions research project, was partially funded by the United States Army's Foreign Military Studies Office (Bryan, 2010; Craib, 2014). When the indigenous groups discovered the financial and political ties the researchers maintained with the United States military, they publically denounced the project leading to critical discussions concerning the ethics and transparency of participatory mapping projects. Furthermore, the controversy sparked "accusations of geopiracy, counterinsurgency, and deception" (Craib, 2014: 86).

Critical geographers assert that any researchers involved in collecting "sensitive" information about indigenous groups in Latin America, or elsewhere, should be bound by "professional ethics and common sense" (Bryan and Wainwright, 2009 as cited in Mollett, 2012: 1236) to divulge their funding and other affiliate sources. However, the Bowman controversy exploded amid accusations of "geopiracy" in which the collection of data from people is stored in such a way that it is readily available a foreign military intelligence agency (Mutersbaugh, 2014). The primary critique is that sensitive information was unethically gained through participatory mapping and that this information could serve to exploit, threaten, and subvert indigenous communal landholdings rather than uphold them.

In "Geopiracy," author Joel Wainwright (2012) asserts that the error of the Bowman Expeditions was failure to communicate the source of funding with the indigenous groups, thus allowing researchers to engage in militant empiricism. Even though Dr. Geoffrey Demarest, a US Army "careerist," did suggest that expedition investigate the "interplay between cadastral modernization and land titles" held by indigenous groups (Gade, 2014; 94), it remains entirely unlikely that the expedition was funded for this explicit purpose. However, this does raise questions concerning military motives for funding this project, the military's influence over the

research, as well as the political outcomes of having obtained this information. At its best, participatory mapping is used for purposes of “social justice” and to reinforce “ethnic identity and territorial empowerment” (Craib, 2014; Gade, 2014: 95). However, in the Bowman Expedition controversy, critics like Gabe (2014) argue that the military appears to be gaining considerably more insight and value than is what is being returned to the indigenous communities.

Critical geographers argue that there is no neutrality in participatory mapping as the “insistence on mapping “foreign lands” rises from a heritage of whiteness” and empiricism (Mollett, 2013: 1236). For this reason, there has been a larger debate about “neutrality” or the lack thereof in participatory mapping projects (Mollett, 2013). While mapping is productive and has “the power to empower” (Craib, 2014: 87), the process of mapping land and property is never void of “ethnographic and strategic knowledge” embroiled in that place (Craib, 2014: 88). Thus, participatory mapping becomes a means by which to acquire “the ‘situated knowledge’ necessary for a broader set of purposes” (Craib, 2014: 88). For this reason, it is apt to ponder the empirical merits of each participatory mapping project. Who calls for and designs the research project? For what purpose is the data collected? What relationships are being forged as a result of this research? Whom does this research exploit? And with whom will the data be shared?

Mollett suggests that there is a “silence” surrounding the ways in which white male researchers embed their biases into participatory maps. Despite “hemispheric critique,” very few people are publically “appalled” by this silence (Mollett, 2013: 1236-7). As such, very little is done to limit the hegemonic construction of participatory mapping (Mollett, 2013: 1236-7). For this reason, Mollett posits, how do participatory maps “drawn for the purpose of satisfying state spatial imaginaries, actually counter dominant property regimes endorsed by the state?” (Mollett,

2013: 1237). After all, once a map is produced, within any legal paradigm, it begins to express a particular version of reality depending greatly on the specifics related to the map's production. In this way, Mollett is correct to question the emancipatory and resistant nature of participatory mapping. However, in order to increase the effectiveness of participatory mapping and to help the "disadvantaged communities reclaim their heritage and defend their lands" (Herlihy & Knapp, 2003: 308), I urge that a greater emphasis be placed on project methodology rather than the ontological merit of participatory mapping as a whole.

Nevertheless, both community mapping and participatory mapping serve to discern the "social order of the city" and to protest the hegemonic state-sponsored maps and "dominant representations of property regimes and land use practices" (Soini, 2001: 229; Hodgson & Schroeder, 2002: 80). Participatory mapping, just as community mapping, emerges by and for the community with an objective to aid in policy creation and bridge the gap between stakeholders and professionals. Ultimately both mapping strategies aim to "persuade local authorities to improve" the world by using "Western cartographic techniques" (Perkins, 2007: 136; Mollett, 2012: 1228).

### **Application and Discussion of Mental Mapping**

In my own research, the idea of democratizing map-making through community and participatory mapping is an attractive notion. As opposed to relying on tourist maps constructed by the elite government and tourism agencies, *favela* residents have the opportunity to construct their own identities. Through community and participatory mapping, perceptions of the residents create their own identity and reveal the reality of the city's social order. Building on the critical cartography literature, I suggest that it may also be possible to use the community's maps for planning and development practices.

Historically, *favelas* in Rio were “seen in the political arena, among public and health officials and in the press and non-*favela* communities as synonymous with violence, immorality, and disease” (Vargas, 2003: 39). The state considered *favelas* to be “aberrations within the modern city, refused to list them on city maps, and slated them for removal” (Arias, 2006: 23). As recently as 2005, widely distributed tourist maps continued to misrepresent *favela* communities as they appeared as unlabeled grayed-out polygons. In the academic literature, scholars often criticize tourist maps due to their obvious biases and the disregard for cartographic rules. However, due to their accessibility and wide distribution, tourist maps are actually exceedingly valuable tools for research due to the ways in which they represent and engage with map space. In their representation, tourist maps fix the identity of specifically marketable tourist areas. As such, tourist maps identify sites that are further analyzed in terms of the process of its formation (Del Casino and Hanna, 2001: 43).

Human methodological research is largely based on interviews, participant observation, and textual interpretation of culturally significant material. Meanwhile, mapping has been largely underutilized. Despite its restrictions, mental mapping is proving to be a valid methodology and a natural way to express a vision of landscape. Combined with other qualitative methodologies, mental mapping is a valuable addition as well as the basis for my empirical research project. Thus, it is my intention to utilize mental, community, and participatory mapping to assess the use of the newly implemented *favela* infrastructure. Owing to the fact that place is a politicized social and cultural construct, attention to cognitive mapping encourages the understanding of the construction of spatial meaning.

The democratization of mapping offers new possibilities for articulating social, economic, political, and aesthetic claims. “It is the democratisation of cartography, taking place

as a result of scientific progress and technological change, which is fuelling these calls for plural ways of understanding map use. When local contexts of map use are explored the potential of alternative approaches beyond science becomes clear” (Perkins, 2008: 157). My mental mapping research project, devoid of GIS, empowered the community residents to create their own maps concerning the past, present, and alternative uses of social space.

In addition to understanding the transformation of social space, which includes understanding the past and present aspects of lived social space, I also wanted to understand the future of social space. However, as I came to understand, it is difficult for Brazilians to conceptualize the future. Therefore, since the residents could not predict how the social spaces in the community might transform in the future, I asked them to ponder alternative infrastructural plans. These alternative plans contrasted both the infrastructure that had been planned for the community and the infrastructure that had been implemented in the community. The resulting mental maps are both tremendously creative and insightful (refer to methodology section). By working with community members to draw mental maps in these three different moments of time, this project was able to capture the transformation of urban social space over time.

### **Objectives and Outline**

There are several studies relating to the Olympic Games (Leopkey, 1999; Guttman, 2002; Pound, 2004), as well as their influence on event tourism (Roche, 1992; Hiller, 1998, Shaw & Williams, 2004; Roche, 2000; Getz, 2008), globalization (Tajima, 1998; Bernstein, 2000; Smart, 2007; Nauright, 2004; Roche, 2000, 2003; Short, 2008), planning and urban assessment impacts (Lesjø, 2000; Hiller, 2000; Hotchkiss, Moore, & Zobay, 2003; Andranovich, Burbank, & Heying, 2001; Horne & Manzenreiter, 2006; Gold & Gold, 2007; Stevenson, 2009; Leopkey & Parent, 2009), as well as how the built environment is used to support urban change

and regeneration (Essex & Chalkley, 1998; Chalkley & Essex, 1999; Searle, 2002; (Whitson & Macintosh, 1996); Muñoz, 2006; Gaffney, 2008). However, remarkably absent in the literature is a discourse concerning how the implementation of large-scale tourism infrastructure during mega-events alters the use and perception of social space in previously excluded and informal urban residential communities. Similarly, absent is a literature on the community participation during the mega-event planning process.

Host cities have an opportunity and an obligation to utilize the limelight and subsequent capital to prepare for the pending mega-event. However, all too often host cities spend billions of dollars on temporary white elephant urbanization infrastructure rather than focusing on the long-term needs of their population. Furthermore, residents are forcibly evicted from their homes to make room for the new infrastructure and are passively evicted from their homes due to increasing real estate prices. As opposed to making long-term investments in infrastructure, the newly-built structures often suffer from a sharp decline in use after the mega-event.

To minimize the negative social consequences related to the “influential cultural movement” known as mega-events (Roche, 2000: 5; Guttmann, 2002; Pound, 2004) my research explores how the implementation of infrastructure during periods of intense urbanization can be influenced by the residents of the host city to provide positive legacies and impacts. I argue that it is possible for residents to actively engage in the transformation of social spaces in their communities. One way participation can be achieved is through the implementation of a mental mapping initiative. Overall, this dissertation contributes a geographical perspective to the ways in which fast-paced urbanization might result in long-term solutions in the low-income communities of Rio.

My primary objective is to understand the transformation of social space in the community of Morro da Providência. From February until July 2013, I interviewed sixty residents ranging in age from 18 to 73-years-old. In addition to the standard qualitative research methods including ethnographic interviews, participant observation, and archival data, I employed mental mapping to understand the transformation of social space in Morro da Providência. Using mental mapping as my primary research method, I asked each resident to draw a map of their community from memory using three different colors to represent the past (blue), present (orange), and alternative plans (green). Through the activity of mental mapping, I was able to assess how the social space in Morro da Providência physically changed from the past to the present and how the residents would have influenced the transformation of social space in their community in the future.

My secondary objective is to explore how the residents perceive the transformation of social space in their community. I asked my participants if they had been consulted during the infrastructural plans and if they were inclined to use the new infrastructure once it had been built. Finally, I asked the residents to recommend alternative infrastructural projects that would have been beneficial to the community. The resulting sixty maps are a compilation of historic information fused with current perceptions and alternative desires of the community residents which I discuss in chapter five.

In chapter two, I discuss the conceptual underpinnings and theoretical framework for my research project. First, I introduce the production of culture through the evolution of landscape, humanistic geography, new cultural geography, and practice, performance and non-representation. Second, I introduce the concept of social space as well as the production of social space as defined by neo-Marxist and French sociologist, Henri Lefebvre. Henri Lefebvre

categorizes the moments of space by unifying three conceptual moments including conceived space, representational lived space, and perceived social space. “Abstract” designed by the elite are also those spaces in which the hegemonic forms of capital, commodities, and information flow. Resultantly, it is in within the parameters of this dominant space in which everyday life is lived. In an effort to reclaim these “abstract” dominant spaces for the people who live within them, this research relies on Lefebvre’s conceptual triad to examine the production of space in Morro da Providência.

In chapter three, I discuss the history of the *favelas*. First, I discuss the evolution of the *favela* from its onset until the most recent social development occurring there including the newly implemented Units of Police Pacification. Second, I discuss the significance of choosing Morro da Providência as the optimal study site for this project.

In chapter four, I discuss my project methodology including my issues with my own data collection, organization, and identity. This project uses a combination of methods including ethnographic interviews, participant observation, and the production of mental maps to clarify the dialectical relationship between conception, practice, and perception concerning the production of social space in Morro da Providência while simultaneously contributing to understanding the *favela*-city spatial binary.

In chapter five I discuss my analysis, and discussion regarding the successes and failures of mental mapping and the impact of mega-events in Rio. First, I present my analysis of sixty mental maps used to assess the transformation of social space in Morro da Providência. Through a detailed map analysis I record changes in the most important or commonly cited features and themes and verify its historical significance to the community. Second, I discuss how conceived spaces differ from the lived representational spaces in Morro da Providência and add my own



commentary concerning perceived space as well.

Finally, in chapter six, I conclude with my final remarks and discussion and provide several avenues for future research. Overall, the purpose of this research project is to clarify the discourse concerning *favela* urbanization and integration as a state-sponsored ideology and to critique the role of government in the mega-event planning.

## **Chapter Two**

### **Conceptual Underpinnings and Theoretical Framework**

#### **The Production of Culture and Landscape**

*“A cultural landscape is fashioned from a natural landscape by a culture group. Culture is the agent, the natural area is the medium. The cultural landscape the result” - Carl Sauer*

This chapter introduces the production of culture through the evolution of landscape, humanistic geography, new cultural geography, and practice, performance and non-representation. The first half of this chapter situates my research within the current geographical literature. The second half of this chapter, introduces the concept of social space and its production as defined by neo-Marxist and French sociologist, Henri Lefebvre. In this section I also discuss how Henri Lefebvre categorizes the moments of space by unifying three conceptual moments including conceived space, representational lived space, and perceived social space. According to Henri Lefebvre, the elite design “abstract” spaces in which hegemonic forms of capital, commodities, and information flow. Resultantly, life is lived within the parameters of this dominant space. In an effort to reclaim these “abstract,” dominant spaces for the people who live within them, this research utilizes Lefebvre’s conceptual triad to examine the production of space in Morro da Providência.

Landscape is a term that has been infused into the English language from the German word, *landschaft*. In *Kosmos* (1845), Alexander Von Humboldt cites landscape as one of the primary pillars upon which geography is based (Cosgrove, 1985: 56). Over time, the idea of landscape has influenced generations of geographers from around the globe who have since attempted to reinvent and reify the term with differing degrees of success. In what follows, I briefly outline the progression of the cultural geographic landscape in four phases as it applies to the orientation of my field research project. The evolution of landscape and the attempts to

analyze the patterns that occur across it have profoundly influenced and informed my research goals and methodology for this research project.

It would be nearly impossible to explore the evolution of the culture landscape without starting with the foundational work of bellwether, Carl Ortwin Sauer. Early in his career, Sauer was influenced by Ellen Churchill Semple, a student of Friedrich Ratzel, who was largely interested in the theory of environmental determinism (Denevan & Mathewson, 2009: 38, 44). Environmental determinism is a theory which suggests that culture and human behavior is determined by the physical landscape. However, through his own experiences while serving on the Michigan Land Economic Survey, Sauer became increasingly dissatisfied with the merits of environmental determinism as it became clear to him that humans had control over the environment and therefore must be responsible for the creation of their own cultures (Kenzer, 1985).

Considering that the environment could not be responsible for determining culture (Denevan & Mathewson, 2009: 4; Corrêa & Rosendahl, 2011: 25), Sauer developed into a fierce and powerful critic of environmental determinism and took his new theories concerning landscape to the department of Geography at the University of California at Berkeley in 1923. There, Sauer sought “the study of man in comparative historical and ecological terms” (Denevan & Mathewson, 2009: 6) citing that culture was likely to have been cultivated through a combination of factors. Eventually, Sauer became credited for founding the Berkeley School of geographic thought which drew on the work of German geographers, Otto Schlüter, Friedrich Ratzel, and Eduard Hahn (Duncan, 1980). Leaving environmental determinism behind, the Berkeley School’s objective was to explain regional and physical geography through the history and culture of people.

Specifically, the Berkeley School encouraged identification of “the regularities and recurrences from place to place which permit the formulation of generalizations” (Martin, 2005: 386). Through chorographic study, Sauer attempted to understand human and natural processes which transform the physical and cultural landscape of the earth (Sauer, 1925). Central to the Berkeley School of thought was the idea that “distinctive geographical areas (landscapes) could be identified and described by mapping physical elements of material culture produced by unitary cultural groups” (Cosgrove, 1987: 96). Thus, “Sauerian geography” promoted the systematic ordering and mapping of distinct physical and cultural phenomena in space and time. Through chorographic and cosmologic acquisition of knowledge, connections and associations which produce culture and the landscape could be discerned.

In 1925, Sauer published one of his most influential papers, “The Morphology of Landscape.” Still highly cited today, this article outlines how Sauer perceived the field of geography in terms of regional phenomenology (Martin, 2005: 385). Sauer insists that scholars trace and interact with diverse phenomena in the field “to observe the facts and then draw conclusions from them” (Martin, 2005: 387). Ultimately, Sauer was able to conclude that culture is both the agent through which the physical landscape is built, and also that the physical landscape is the material out of which humans build culture (Kenzer, 1985; Sauer, 1925: 340). As such, there is a duality between the production of the physical landscape and the interactions upon the landscape that produce culture.

According to Richard Peet, the discipline of “geography” examines two aspects of interrelated life: “the aspect of nature, that is, the relations between societies and environments, and the aspect of space, that is, the regional variations in societies” (Peet, 1999: 3). In other words, geography is the study of people’s interactions with their environment, and how this

environment differs from place to place. Thus, geographic analysis rests upon the ways in which people transform both nature and space to produce a specific landscape.

For the purpose of this project, it is my intention to examine the production of landscape as it exists in the *favela* Morro da Providência, located in the Port Area of Rio de Janeiro. Considering the recent and widespread access of global satellite imagery, it is relatively easy to describe and map the physical elements and the material culture of Morro da Providência. As opposed to acquiring knowledge based on mapping physical elements of the landscape alone, it is my intention to delve deeper into reasoning, considerations, and use of the current landscape and social space. In the Sauerian tradition, this research project attempts to parse the production of landscape by analyzing the relationships between the residents and their environment, as well as the variations and nuances of space that make Morro da Providência unique.

### **“Humanistic” Geography**

Moving away from the morphology of the landscape and the superorganic as introduced by Hebert Spencer, the 1950s, 1960s, and 1970s brought humanistic and radical geographers like William Bunge, Marwyn Samuels, Courtice Rose, Edward Relph, Donald Meinig, Yi Fu Tuan, and Pierce Lewis to the forefront of the landscape discourse (Cosgrove, 1985). Straying from ideas of positivism and cultural Marxism, humanistic geographers suggest that the analysis of cultural artifacts in relation to their production could provide context for their diverse manifestations. As such, humanistic scholars began to focus on understanding landscape through structuralist and humanist trends (Denevan and Mathewson, 2009: 14). In a “humanistic renaissance” (Cosgrove, 1985: 45), geographers began to recognize the importance of human agency, politics, and social class in the creation of the landscape. By employing different ways of seeing, viewing, and ordering specific phenomena, the idea of landscape began to combine

hermeneutic aspects of symbolic cues to create meaning much like an interpretive image that can be read as text (Wylie, 2007; Duncan & Duncan, 1988: 121).

Under the guise of humanistic geography, scholars even began to read the landscape as text. According to Peirce Lewis' "Axioms for Reading the Landscape," the landscape as a text includes physical and cultural phenomena that are "unintentionally reflected" in the "ordinary vernacular landscape" (Lewis, 1979: 15). Thus, the ability to read the landscape is fundamental to understanding the processes involved in its creations and transformation. Once cultural groups attach meaning to the landscape, it can be studied through a variety theories and methods (Cosgrove, 1987). However, because the landscape is not a text, it cannot be easily read by the unaccustomed viewer. Therefore, geographers must learn to read the landscape by posing appropriate questions and assuming the proper perspectives. Once geographers can situate the text in a historical and physical context, the landscape will divulge the humanistic corollaries and the patterns that shape it (Lewis, 1979: 12, 18).

The sub-discipline of humanistic geography has brought individual human experience, subjectivity, and emotion to the understanding of the meaning of places and landscapes. According to Yi Fu Tuan, professor emeritus at the University of Wisconsin-Madison, humanistic geography achieves understanding of landscape by examining the relationship between people and their environment. In "Humanistic Geography" (1976), Tuan suggests that landscape must be understood through the behavior, feelings, and ideas that purport humans and their condition. Tuan suggests that for wild animals like migrating birds, geography relates biologically to survival, and therefore, all animal locations are inherently instinctual. However, for humans, geography is something "highly conscious and specialized" (Tuan, 1976: 268). Using qualitative techniques such as observation, humanistic geographers epistemologically

examine human behavior, emotions, and agency to enhance the understanding place, time, and landscape beyond that of pure biological science.

Geography has had a longstanding relationship with the science of landscape description and the art of visual representation. In an attempt to further understand humanistic involvement, professor of Geography at Syracuse University, Donald Meinig relates the idea of landscape to that of science and art in “Geography as an Art” (1983). Meinig argues that although geographic work is “grounded in science” and aims to provide a “systematic presentation of measurable facts,” there are no scientific rules by which to organize culture and its effects of the landscape. While scientific methods generally require duplication, descriptions that underscore the characteristics of place are always different, “speculative, reflective, and critical” (Meinig, 1983: 319). In this sense, Meinig recognizes the futility of empirically gathering earth descriptions that underscore the characteristics of place. Due to human bias, emotion, and individuality, it is impossible to empirically describe the characteristics that create place. Place is shaped through its description and cannot be separated from the way it is perceived by those who describe it.

Humanist geographers argue that landscapes are products of culture. Culturally, landscapes are artistic and literary representations of the world that must be analyzed through the structures of power and influence that embodies its construction. In other words, landscapes are also communicated, reproduced, and explored as “transformations of social and political ideologies” (Duncan & Duncan, 1988: 125). As Denis Cosgrove suggests, social scientists add an “extra layer of meaning” in the process of recording the data because images and language have become a mechanism to represent ideology (Cosgrove, 1987: 97). Because people and the meaning they intentionally or unintentionally infuse into the landscape are constantly in flux, the interpretations of the landscape will continue to change as well. Thus, the humanistic approach to

understand landscape provides alternative ways to theorize about the “cumulative texture of the local urban culture” (Cosgrove, 1987: 98).

Conditioned by new ways of thinking about the world, humanistic geographers begin to distance themselves from the landscape in order to read and understand nature. Because the landscape is produced, understood, and represented by biased, “detached” observers (Cosgrove, 1985: 52), understanding of the landscape must begin with understanding human corollaries. By relying on the “certainties of geometry” individual spectators observe and structure the composition of space through unique Marxist illusions of “order and control” (Cosgrove, 1985: 55). However, I argue that there is no better way to understand human corollaries, than through the attachments established by those produce and live them.

Through the production of mental maps, I intend to analyze the relation individuals have with their environment. Just as there are no scientific rules by which to organize aspects of culture or material culture, the creation of mental maps, is an artistic representation with no rules, but immense value. Trapped within a map are endless human relations, connection, and emotions that relate to the physical world. Considering that place cannot be divorced from the way it is perceived and utilized by those who describe and live in it, mental maps are the ideal tool to facilitate the understanding of place. Mental maps become a tool by which the lived space is understood by those who occupy it.

In this instance, the methodology of mental mapping becomes particularly attractive. As opposed to reading the landscape as a text and assigning importance to material culture and the relations individuals have with a place, mental mapping allows the researcher to rely on a text created by the residents themselves. By forfeiting a scholarly “reading of the text,” the residents are able to produce their own text imbued with meaning. Thus, my analysis of the landscape of



Morro da Providência is based on the important places and subsequent relations identified first-hand by the residents.

As I have addressed in this section, the second phase of the evolution of landscape is marked by the rise of humanistic geographers. Humanistic geographers understand that the production of landscape is not ordered or controlled by science, but by the unpredictability of human culture and agency. Considering that landscapes are constructed within a socio-political time and space, and are perceived differently by those who add meaning through their own interpretation. Thus, the methodology of mental mapping becomes a particularly interesting strategy. As opposed to relying on the researcher or the interviewee to read the landscape as text, mental mapping allows the participant to construct part of this text. Thus, the only layer of meaning the researcher and the participants are adding is the primary layer of analysis which directly implies the first-hand importance and utility of a space.

### **Transition to New Cultural Geography**

The next turn in understanding the evolution of landscape evolved with “new cultural geography,” a term that is not fully embraced in the field of geography. However, during the late 1970s and the 1980s, cultural Marxists scholars like Denis Cosgrove, Stephen Daniels, and Peter Jackson began to move away from the “traditional” geography practiced by Sauer, beyond the humanistic geographers, and toward a new identity-based and politically-based tradition (Denevan & Mathewson, 2009: 16; Daniels, 1989). Traditional geographers were criticized for downplaying historical and material aspects of culture, while new cultural geographers focused their ideology on the ways landscapes are coded by these and other humanistic, symbolic, and material dimensions of culture. During this shift, there was a dramatic emphasis on “culture as a

medium of social power” and the resulting representations on the landscape (Daniels, 1989: 196).

According to Stephen Daniels from the University of Nottingham (1989), although landscape is a central theme in “traditional” geography, there is very little discussion about the politics involved in its creation. Often, the systems of political decision-making and economics of maintenance were obfuscated in the creation of landscape (Daniels, 1989). Prompted by Marxist and radical geographies, new cultural geographers sought to better understand landscape by enacting new ways of seeing the dialectical productions as a result of existing social structures and power relations. According to John Berger, “Landscapes can be deceptive. Sometimes landscapes seem to be less a setting for the life of its inhabitants than a curtain behind which their struggles, achievements, and accidents take place” (Berger & Mohr, 1969: 12, 13). Thus, landscapes contain symbolic qualifiers that are interpreted through many different perspectives to unpack social meaning. Rather than understanding landscape as a fixed product, geographers should approach the landscape as if it were a process, not an object (Daniels, 1989).

It was in this third stage of the landscape evolution that there was a transition from the traditionalist Berkeley School of thought to the “avant-gard” new cultural geography. This transition did not occur without rising tension between “traditional geographers” and “new cultural geographers” and the fact that the distinction between these two sides had been made. Don Mitchell points out the danger of allowing “new cultural geography” to reify culture and assign it ontological status. Mitchell is concerned that aspects of the political economy might be portrayed as culture and that “new cultural geography” falls into the ontological trap of being socially causative (Cosgrove, 1996: 574). While Mitchell is sympathetic to the current scholarship of new cultural geography, he argues that “culture is not causative and cannot be

used as an explanation for social differences in the material world” (Jackson, 1996: 573). In other words, there is “no such thing as culture, only the *idea* of culture” (Duncan, Johnson, & Schein, 2008: 15). Therefore, to understand culture, one must not work to reify it, but focus on reifying the idea of culture which ultimately categorizes people, orders the world, and reinforces power relations.

While culture might seem to obfuscate that which it is meant to describe, it is important to investigate how culture functions and becomes “socially solidified” in the process of social reproduction (Mitchell, 1995: 113). As “landscape becomes part of the hegemonic culture,” it is important to recognize the history, culture, identity, and politics which shape the process by which landscape is constructed. Mitchell suggests a focus on the production, construction, and destruction of the landscape helps to contextualize its meaning (Mitchell, 2003: 787; Rose, 1993: 344).

In a nod to Carl Sauer, culture appears to be the medium by which landscape continues to evolve. Meanwhile, geographers use humanistic and radical techniques to clarify individual perspective and political bias embedded in the landscape and the observer. In new cultural geography, the contextualization of the material culture, and the alignment of human corollaries with hegemonic social structures, evoke meaning in the landscape. In this way, the idea of landscape has been approached and debated well into the late twentieth century.

In order to contextualize the production of social space in Morro da Providência, it is my intention to reify the relations residents have with the spaces in their community. To do this, I must look beyond mental mapping and ethnographic interviewing and analyze the socio-historical situation that gave rise to *favelas* in Brazil. Understanding the origins and power relations in Rio, will undoubtedly shed light upon its current geo- and socio-political situation.

Additionally, looking forward to the city's pending mega-events will clarify the relations that reproduce space in the *favelas* of Brazil.

Additionally, as I discuss later in the methodology section, there are many variables that inhibit the production of mental maps. However, interviewing a participant while having them draw a mental map turned out to be a successful methodological approach. Not only was I able to understand that landscape is a flowing process, I began to understand that the goal of mental mapping was not simply to produce a mental map. More often than not, the process of drawing the mental maps with the participants is what contributed to a beneficial methodological strategy.

### **Practice, Performance, and Non-representation**

Just as the landscape evolves, so too do the ways in which it is studied. At this point in the evolution of landscape, we take one more turn in the approach to understanding the production of landscape through practice, performance, and non-representation. More than a readable text or a backdrop for action, landscape is “a cultural production composed of actions, beliefs and practices” and a “milieu of engagement and involvement” (Wylie, 2007: 115, 149). By focusing on bodily practices, performativity, and human agency, feminist and post-structuralist geographers have begun to explore human characteristics that impact the production and perception of space (Nelson, 1999: 331; Rose, 1993; Cresswell, 2004). Geographers are now suggesting that consideration of social structure, gender, racial identity, and cultural phenomena that is grounded in a temporal and historical context is necessary for a complete landscape analysis.

Beyond observation of the relationships that exist between people and their environment, new critiques on landscapes suggest a renewed emphasis on visual ontology as well as on practice. Visual ontology suggests that there is bias in the ways that landscape is both constructed

and perceived. Along with understanding that the landscape is constantly in flux, it is also fundamental to understand that all representations and gazes upon the landscape are partial and incomplete (Rose, 1993). Identity is framed through the recognition of multiple and fractured ideas concerning performance, agency, and authenticity (Wood, 2012).

Feminist geographers such as Mona Demosh (1990), Judith Butler (1990), Catherine Nash (1996), and Dydia DeLyser echo the importance of gaze partiality (1999, 2008). These geographers remind us to reconsider the gender biased forms of representation that have been embedded into the landscape. Throughout history, ideological categories concerning gender, culture, social structure, and economics prevail as embedded vernacular of the landscape. Due to the inseparability of history and representation, we must critically negotiate meaning of the landscape and reposition our understanding of past events that reinforce stereotypes and oppressive and dominant discourses prevalent today (Nelson, 1999; DeLyser, 1999). The landscape as it exists today not only comprises identities from the past, but also functions to create new and current identities.

The landscape is a repository for the ongoing discourses concerning social life and is constantly being defined by hegemonic ideology which negotiates and categorizes aspects of “social action and political practices” (Anderson, 1987: 594; Duncan & Duncan, 2001). Using Chinatown as a case study, Kay Anderson demonstrates that the formal and institutional categorization of race provides “context and justification” for the symbolic and bounded ethnic presence on the landscape. In Anderson's example, the process of categorizing people by race, practice, and politics is a way through which identity is constructed on the landscape. Subjects are bound by structures of meaning to participate in reproducing dominant discourses of identity which are then represented on the landscape.

Ideas concerning identity are created, negotiated, regulated, or censored through dominant discourses and lived experiences. In one of their studies, James and Nancy Duncan use the aestheticism of Bedford and the creation of nature preserves to demonstrate how “landscapes can become possessions that play an active role in the performance of elite social identities” (Duncan & Duncan 2001: 387). “The seemingly innocent pleasure in the aesthetic appreciation of landscapes and the desire to protect nature can act as a subtle but highly effective mechanism of social exclusion and the reaffirmation of elite class identities” (Duncan & Duncan 2001: 387). In this manner, landscapes act like non-fixed objects upon which “place-based identities” are created and performed as people are both included and excluded in the preservation of these preserves (Duncan & Duncan, 2001: 406). In both of these examples, practice and production are performative social concepts that continually shape the landscape and the identities of those who inhabit it. Thus, the study of landscape must embrace the process of its production as well as the identities embedded within its subsequent representation.

Performance and ideas concerning non-representation permit geographers to engage with and encounter landscape differently and diversely. “Recent work in cultural geography has concerned itself, in particular, with the contested meaning of history and its representation in the built environment” (Lees, 2001: 53). The construction of landscape, place, and space is a product that reflects historical and social relations. Landscapes are no longer simply read or understood through the intentions of the architect. Landscape and its meaning are in a constant state of production and everyday practice. Thus, the lived spaces of landscape help to depart from the hegemonic ideas concerning established design, and move more toward the understanding of practice based consumption (Kraftl, 2009). Performance and consumption should be seen as activities “through which social relations and identities are forged” (Lees, 2001: 55).

Landscapes and material artifacts of place provide a spatial context within which “stories and rituals of citizenship” are enacted, understood, contested, and performed in an intricate counterpoint to the practices of everyday life (Hoelscher, 2003: 661). Practice becomes more complex as they combine with the dynamic and embodied ways in people engage with and move through the landscape. Tangible artifacts such as monuments or forgotten materials “left to rot in a dank shed or an airless attic once occupied a place in an active web of social and material relations” (DeSilvey, 2007: 403). These materials act as accidental archives that can be used as evidence in the present to interpret political discourse of the past (DeLyser, 1999; Johnson, 1995). By studying material on the landscape, histories and identities of those who once entwined themselves with these objects are revealed (DeSilvey, 2007). Thus, landscape acts as a theater of memory through which identities are constructed and performed (Hoelscher, 2003). In this way, cultural performance is not only an active binding force of group identity, but a means through which collective memory and place authenticity is sustained (Thrift & Dewsbury, 2000: 420); Endensor, 1997; Osbourne, 1999).

According to John Wylie, landscape has come to be understood as “mutual embeddedness and interconnectivity of self, body, knowledge and land” (Wylie, 2007: 12). In order to distinguish between the banal everyday practices and those that contribute to the production of something “extraordinary,” there must be a renewed focus on representational practices and embodied engagement with lived spaces (Kraftl, 2009:129; Lees, 2001: 51). The study of landscape must focus on the process of creating lived spaces to serve as “a disciplinary mechanism and a potentially liberating medium for social change” (Schein, 1997: 664).

In 2000, Nigel Thrift pioneered non-representational theory. The diverse gamut of literary authors has made non-representational theory a tricky concept to pin down. “Non-

representational theory has become an umbrella term, for diverse works that seek to better cope with our self-evidently more-than-human, more-than-textual, multi-sensual worlds” (Lorimer, 2005, 83). Non-representational theory uncovers meaning in the ordinary actions that give rise to the different experiences which shape our space and place. Thrift suggests performance “allows no hiding place. You must be in it.” Thrift goes on to suggest that researcher cannot simply be “an observant participant”; he or she must instead be a participating observer (Thrift, 2000: 556).

In 2005, Hayden Lorimer published “Cultural Geography: the Busyness of Being ‘More-Than-Representational.’” Lorimer found the teleology of the original “non” in non-representational theory, an unfortunate hindrance. Instead, Lorimer proposes the use of “more than” so that non-representational theory becomes multifarious and draws upon encounters in the realm of practice.

In 2005, John Wylie employed non-representation theory as he spent three weeks walking along the South West Coast Path in North Devon, England to “explore issues of landscape, subjectivity and corporeality” (Wylie, 2005: 234). Wylie describes how he accrued the bulk of the information for the paper over the period of one day, an appropriate unit to measure time, practice, and experience. The purpose of his paper is to “spotlight tones, texts and topographies from which distinctive articulations of self and landscape arise within the course of a day’s walking” to understanding the capacity of affecting and being affected” by the landscape (Wylie, 2005: 236). The trick is to embody the emerging landscape *in situ* while avoiding the over-intellectualization of everyday practice (Wylie, 2005: 245). Ultimately, Wylie concludes that “landscape might best be described in terms of the entwined materialities and sensibilities *with which* we act and sense” (Wylie, 2005: 245). Thus, non-representational theory should be applied *in situ*, as processes and events emerge and affect the landscape. Ultimately, as Thrift argues,



“day-to- day improvisations” are all “means to produce the here and now” (Thrift, 2000: 577).

By recognizing that “the world is more excessive than we can theorise,” non-representational scholars are attempting to investigate the realm of practice either in the precognitive state or simply when words fall short to describe an event or process (Dewsbury, Harrison, Rose, & Wylie, 2002: 437). Non-representational theory is “characterized by a firm belief in the actuality of representation. Humans feel, sense, and express emotions in ways that are unspeakable and unwritable (Laurier & Philo, 2006). “Dance, tears, shock, touch, faces, gestures and more that are indeed aporias, puzzling and yet fundamental to life (Lorimer, 2005; McCormack, 2002; Thrift, 2003), but trying to say or write them, so it goes, inherently loses them” (Laurier & Philo, 2006: 354).

Thus, non-representation scholars seek to explain that representations are not “a code to be broken or...an illusion to be dispelled” (Dewsbury, Harrison, Rose, & Wylie, 2002: 438). Representations are not masks, gazes, reflections, veils, [or] dreams” which serve or distract from specific ideological interests (Dewsbury, Harrison, Rose, & Wylie, 2002: 438; Laurier and Philo, 2006). Representations are in fact, performative and should be used as a focus to present the world, rather than trying to explain that which covers the ontic (Laurier & Philo, 2006; Dewsbury, Harrison, Rose, & Wylie, 2002: 438). The idea is to accept representation as one of many possible, “expressive practices, one correlate of which is greatly to expand our understanding of the terrain of representation beyond the word spoken or written (something we see in research on materiality, embodiment and so on)” (Laurier & Philo, 2006: 355).

My research cannot fully embody non-representational theory, as the production of mental maps is inherently an effort of performance to understand the construction of political, social, and physical relations individuals have with their environment. However, by analyzing

the use of past, present, and alternative space in the community *in situ*, I gauge political influences, meaning, and use associated with particular spaces. Beyond that, the process of creating mental maps with the community residents improves my ability to be an effective participant observer. As a researcher, I affect the community with my presence and contribute to the material culture by encouraging the production of mental maps. Thus, the action of map-making, draws out new ways in which people engage with and reproduce their landscapes. The process of mental mapping in the context of Morro da Providência gives me considerable insight into the importance of lived spaces amid an intense period of transformation.

### **Summary**

During the 1920s, Carl Sauer developed “traditional” geography and the Berkeley School of thought which sought the chorographic and cosmologic acquisition of knowledge of human and natural processes which transform the earth by mapping of distinct physical and cultural phenomena in space and time (Cosgrove, 1987; Sauer, 1925). Then, in a “humanistic renaissance” (Cosgrove, 1985: 45), geographers began to recognize the importance of human agency, politics, and social class in the unpredictably created landscape that can be read as text. Next, “new cultural geographers” suggested that the landscape be understood as a result of existing social structures and power relations emphasizing that the landscape is not a fixed object, but should be understood as a process. Finally, post-structuralist geographers insist that landscape is a “milieu of engagement and involvement” (Wylie, 2007: 115, 149) which combine performative aspects of practices, social structure, gender, racial identity, and cultural phenomena which must be analyzed in a temporal and historical context.

To an extent, all of the ways in which landscape has been analyzed throughout the years are both valid and significant. Today, a combination of these theories and methods to understand

the world is necessary. One must be able to engage in participant observation and collect ethnographic data from interacting with people in the field (Herbert, 2000). After all, "order should emerge from the field rather than be imposed on the field" (Herbert, 2000; 552). One must be able to recognize the influence of human agency and read the landscape as text as the humanist geographers. One must also realize that this text is alive, and it affects and is affected by the human experience like the "new cultural geographers." Finally, one must also be able to recognize that symbols within the landscape are representative as well as performative because they are produced and perceived by humans like the geographers from the performative turn.

With an understanding of how to perceive and gaze upon the cultural landscape, I entered Morro da Providência with the intention to unpack the landscape and its meaning. Considering that the landscape and the social space in Rio are undergoing intense urban transformation, I focus on the human-environment interaction. I focus on how actors within the community are creating a space which is utterly unique to the rest of the city. I address the political factors concerning the transformation of social space by asking the residents about the infrastructural changes in the community. I also engage in and simply gaze performativity within the community by analyzing how people use, produce, and perceive this social space.

### **Introduction to Social Space**

*"The space of a (social) order is hidden in the order of space..."-Henri Lefebvre, 1991:289*

The relationship between space and place is a complicated one permeated by overlapping themes, attributes, and historically defined relations. Dominated by a hegemonic force of production, space is a "passive receptacle" (Lefebvre, 1991: 90) in which the flows of capital, commodities, and information occur. In this way, "the material landscape (as fixed capital) is produced of necessity, as a thing in *place*, and becomes imbued with meaning in everyday place-

bound social practices” (Merrifield, 1993: 520). Everyday practices, including class-struggles are embedded within particular places and are fundamental in ensuring cohesion of a capitalist space. Places, on the other hand, are spaces filled and created by people confined within specific social and spatial parameters. In this way, social actions are intrinsically bound to particular places as places are where everyday life is carried out. For this reason, place “is not equivalent to any other” and “cannot be exchanged with any other without everything changing” (Farinelli, 2003: 11).

As a means of appropriating space, the landscape is impregnated with hegemonic symbols and imagery that have explicit and insidious impact on the spatial practices. Although symbols are put in place by dominant spatial practices, they are often imbued with meaning through daily life and use. The people contained within a space, acting under a specific spatial climate, come to represent the idea of place. Places represent more than the loci of lived everyday life, but also constitute the moment when the conceived, perceived, and the lived experiences attain structural coherence within a larger framework (Merrifield, 1993: 525). This framework is a balance between the conceived, perceived, and lived world as it was theorized by Henri Lefebvre in his conceptual triad.

Andre Merrifield suggests that a “space-place dualism” exists through the ways in which space is perceived in place, and plays out in daily life (1993: 526). The space place dualism suggests that there is disconnect between hegemonic dominance (space) and the experiences of everyday life (place). The dualism of space and place cannot be bridged, as Entrikin (1991) suggested in his *Betweenness of Place*, but should instead be considered as different aspects of a whole. “The space of the whole this takes on meaning through place; and each part (i.e. each place) in interconnection with other parts (places) engenders the space of the whole” (Merrifield,

1993: 520). Thus, in order to understand the progressive politics of space and place, unification of the two concepts is vital.

We all live in socially produced spaces that change by means of social action. Edward Soja's idea of urban spatial causality suggests that socially produced spaces within cities inherently and consistently change (Soja, 2010). Depending on the power structures that enact this change, the landscape will be rebuilt, reordered, and embedded with inherent meaning. As such, the purpose of using mental maps as my primary methodology is a way to capture how the experiences, control, and manipulation of places affect the transformation of social space within the *favela* community.

The social manipulation of space produces places that are saturated with notions of power and identity. As such, places are not only produced by social relations, they also produce social relations (Lefebvre, 1991). Considering that the production of place is social, the humanistic approach is employed to emphasize how the acts, feelings, and behavior of people construct place and ultimately produce culture and identity. Critical geography is also employed to ascertain the role of power and politics in which places are made.

Class-based social constructions and the appropriations of spaces reflect the economic and political forces of a society. Considering that social “injustices and oppression” (Soja, 2009: 32) intentionally and unintentionally infuse the landscape, it is important to analyze the motives of those involved in the implementation of change (Lenskyj, 2008). With an investment budget of R\$141 million (Rio Social Prefeitura do Rio de Janeiro, 2011), tourism, and increased global attention, have already begun to transform Rio into a “site and symbol of power, identity, and meaning” (Gaffney 2008: 5, 24). Although several *favelas* have already received state-sponsored

infrastructure, for the purpose of this project, my research focuses on the oldest *favela* in Rio, Morro da Providência.

Places have the resources and capacity to transform spaces, although they cannot do so without the hegemonic powers which dominate space. Space is divided into different moments of a single contradictory and conflicting process. Thus, considering this period of intense social and physical transformation in Rio, it is my intention to understand the capacity and influences of spatial transformation in Rio. Considering that spatial practices are fundamental in ensuring cohesion of a capitalist space, I investigate these modes of life by deciphering spatial practices and their influence over the production of space. Social space, after all, is the outcome of many contributing currents which I attempt to decipher in this dissertation.

### **Introduction to the Production of Social Space**

Since the dawning of the so-called ‘new’ cultural geography stemming from the 1980s, the idea that “place matters” has redirected and perhaps made more sophisticated the theoretical basis for understanding space. The understanding of space is traditionally bound by a strict Cartesian ontology. Within this reductionist and mathematical perspective, objects are discrete and arranged in a logical, linear order. However, in an effort to revive the notion of relational ontology, Henri Lefebvre, a French sociologist and Marxist thinker moves us away from the idea that the material world and human consciousness exist on opposite ends of the spectrum. Instead, Lefebvre joins seemingly separate aspects of space and society into a unified social theory which he dubs his conceptual triad (Schmid, 2008: 27).

In this section, I discuss how Lefebvre’s conceptual triad fits as the theoretical basis for my research project. This chapter is divided into four parts. First, I introduce Lefebvre’s negotiation of social space as it is outlined by his conceptual triad and how recent scholarship

surrounding these theories has helped to further the conceptual analysis of the production of social space. Second, I provide an apt justification for utilizing Lefebvre's theory to confront the current power-relations affecting the production of social space in *favelas* of Rio de Janeiro amid its urban mega-event transformations. Third, I legitimize the use of mental mapping and the subsequent categorization of space through mapping as the basis for my research project. Finally, I discuss the merits of my role as a participant observer in order to garner a broader perspective of lived social spaces. Together, it is my intention to rely on Lefebvre's theories concerning the production of social space to analyze the ways that residents in Morro da Providência conceive, experience, and perceive the changing social spaces in their community. Furthermore, it is my intention to contribute to the revival of Lefebvrian scholarship by paying particular attention to the considerable modern application of theories that are concerned with power-related mapping and its influence upon the production of social space.

Henri Lefebvre wrote some of his most influential work during the 1960s and 1970s. However, it was not until *The Production of Space* (1974) (*La production de l'espace*) was translated from French into English one year before his death in 1991 that his scholarship began to attract significant attention in the English-speaking world (Buser, 2012; Brenner, 2000; Soja, 1980, 1989, 1996, 2000; Harvey, 1976). Since 1990, critical and Marxist thinkers including, Soja (1996), Shields (1991, 1999), Elden (2001, 2004), and Mitchell (1995) began to grapple with Lefebvre's theories in terms of its meaning and application. However, it was not until 2000, that new scholarship began to use Lefebvre's theories to understand the production of social space through the lens of power-relations, planning, and preservation (Buser, 2012; Palmer, 2010; Leary, 2009; Lim, 2004; Carp, 2004).

In classical location theory, space is understood to be a something empty which must be filled. However, Lefebvre's conceptual triad works to explain that social space is not simply a neutral container inherited as a remainder of the past or determined by any spatial geometry (Molotch, 1993: 887-8). Social space is not a final product, but is a process in which space and society cannot be separated (Swyngedouw, 1992: 317-318). In order to construct an effective theory about space we must first understand that social space is a product of human interactions which combines the realms of space and society. Second, we must also understand that because individuals produce and reproduce social space through an intricate web of relations, social space is never static. Thus, by employing Lefebvre's conceptual triad, we begin to see how social space produced through the constant negotiation of the material world and human consciousness.

Traditionally, dialectical thinking is based on the comprehension of reality and its direct contradiction. Under this conventional paradigm, the resolution of the dialectic does not negate the old contradiction but produces "the germ" of a new contradiction (Schmid, 2008: 31). Based on the work of Hegel, Marx, and Nietzsche, Lefebvre attempts to add a third dimension to dialectical thinking. Central to Lefebvre's urban theoretical debate is that social space should be analyzed using a spatial trialectic of his own design. This trialectic unifies three distinct moments of spatial life including 1) representations of space (conceived space), 2) representational or lived space and 3) spaces of representation (perceived space). Although Lefebvre is "tantalizingly vague" on how his triad interrelates, all three interconnected moments or modalities must be present in order to unpack the meaning behind the production of the social spaces in which we live (Merrifield, 1993: 524). In this chapter, I argue that all three modes of Lefebvre's triad are exceedingly applicable to the deconstruction of social space in Rio's *favelas*.



Below, I describe each modality of Lefebvre's trialectic in detail:

- First, representations of space (conceived space), refers to the conception of abstract physical, mental, and social space as it is ordered and represented in the form of plans, maps, and other instrumental and often power-laden tools. Often conceptualized by planners, geographers, engineers, developers, representations of space influences objective expression found in the material world. Representations of space acknowledge abstract spaces that are “tied to the relations of production and to the “order” which those relations impose” (Merrifield, 1993: 523). Since representations of space are the abstract spaces of planners, these spaces often become the dominant spaces in society as it they are also considered the spaces of capital.
- Second, representational or lived space refers to directly lived spaces and processes involved in the formation of place through human action. Representational space is “experienced through the complex symbols and images of its ‘inhabitants’ and ‘users’ (Lefebvre, 1991: 33) and, as such, uses physical objects to symbolize lived experiences (McCann, 1999: 172). In this way, representational space produces meaning, discourse, and “counter-discourse” (McCann, 1999: 172) by delineating spatial practice and the spaces that people use. Alive and embracing the “loci of passion” (Merrifield, 1993: 523), representational space also denotes a measure of time as it links the symbolic use of the space with the experiential side of societal life.
- Third, spaces of representation (perceived space) refer to the observable perceptions of reality that arise through everyday life and use. Lefebvre posits that everyday routines which continually negotiate conceived and lived space “secrete” their own

social spaces which can be deciphered by patterns of interaction. Thus, spatial practices lend considerable insight into how daily life and urban reality is actually structured and used.

Lefebvre's conceptual triad "facilitates the understanding of modern urban landscape" by analyzing the ways in which the landscape is produced and reproduced through material and social relations (McCann, 1999: 167). Considering that social space is produced and reproduced, "both a condition for action as well as a product of action" (Molotch, 1993: 887, 891), Lefebvre suggests a focus on the "generative process" through which perceived, conceived, lived aspects of society and space contribute to produce space (Swyngedouw, 1992: 317). Even though spatial moments or "fields" often appear to separate in "normal theoretical practice" (Swyngedouw, 1992: 318) they are often "interrelated parts of a whole" (Merrifield, 1993: 517). As opposed to focusing on the production of space through separate aspects of reality, we must focus on how reality is constantly being constructed through these conflicting fragments (Merrifield, 1993: 517; Swyngedouw, 1992: 318; Sluyter 1999, 2000, 2002).

Under this paradigm, Lefebvre's trialectic joins three separate moments or modalities of space in a conceptual triad to understand the production of social space in one unified social theory. Together, representations of space (conceived), representational spaces (lived), and spaces of representation (perceived) exist as a way to unpack the constantly changing "product" of social space. Lefebvre's trialectic also reveals the politics and contradictions contained in social space. Due to the fact that space is produced as a direct result of humans and their interactions with the material world, social spaces change and are imbued with meaning and culture. Material culture, and its presence and influence on the landscape, is an important reflection of a dominant social production of space. Thus, the ability for people to inscribe their

values on the landscape is what maintains the uniqueness and heterogeneity of social space.

Social space is “always in a process of being shaped, reshaped, and challenged by the spatial practices of various groups and individuals whose identities and actions undermine the homogeneity of contemporary cities” (McCann, 1999; 168). It is exactly the social tensions and relations which produce and maintain the idiosyncrasies of space. Ultimately, this conceptual triad demonstrates that the production of space is a social process which combines an amalgamation of social relations and the space in which these actions take place. Thus, as opposed to focusing on individual aspects of space, we must focus on the genesis of social interactions in space which ultimately affect its production and reproduction. By exposing the genesis of various kinds of interrelated space, social space amalgamates as an indistinguishable, yet contradictory social product that incorporates social action.

In sum, social space is not a static or final product. Social space is a process in which the negotiation of space (aspects of the material world) and society (human consciousness) is produced and reproduced. In order to unpack the meaning behind the production of the social spaces, I adopt Lefebvre’s spatial trialectic which identifies three interconnected moments or modalities of spatial life including 1) representations of space (conceived space), 2) representational or lived space and 3) spaces of representation (perceived space). Lefebvre’s trialectic is a way to unpack the constantly changing “product” of social space. In practical terms, I concentrate primarily on the disparity between conceived and lived spaces to understand the transformation of social space amid infrastructural changes induced by the 2012 FIFA World Cup and the 2016 Olympic Games.

The production of space as theorized by Henri Lefebvre provides an ideal lens through which to examine the production of space in Morro da Providência. It is through the analysis of

this theory that I understand the process by which people, spatial practice, representations of space, and spaces of representation are brought into being. Furthermore, it is through mental mapping that I am able to explore my specific research question relating to how the transformation of social space affected spatial practices of the residents of Morro da Providência. The bulk of this chapter is devoted to the clarification of Lefebvre's conceptual triad by separating each moment to correspond with different moments of my own research project as they are separated into 1) representations of conceived space, 2) representational lived space and 3) spatial practice and perceived social spaces below.

## **The Categorization of Space**

### **Representations of Conceived Space**

I begin with the representations of conceived space. In addition to outlining the interconnected moments responsible for the production of space, Lefebvre's trialectic lends itself to a discussion of how social space reveals the social politics and contradictions contained in space (McCann, 1999; 164, 181). Contentious class struggles and social resistance combine to create and maintain social space. The contentious social relations, as well as social, cultural, and historical characteristics that produce the heterogeneity of space and are ultimately reflective of a very specific set of power-relations (McCann, 1999; 164; Molotch, 1993: 887-8; Swyngedouw, 1992; 317-18). Corresponding with the spaces of representation and conceived spaces of Lefebvre's triad, I contribute to the discourse surrounding power-relations and the production of social space in Rio's *favelas*.

In alignment with Marxist thought, labor is "abstract" or "absolute" depending on whether that labor produces exchange value or use value (McCann, 1999; 169). The difference between exchange and use value exemplifies the type of labor that corresponds with abstract

domination or absolute appropriation (Molotch, 1993: 889). In a similar way, the production of space can also be categorized as “abstract” or “absolute.” Spaces that are produced abstractly for desire or absolutely for need are inherently different. In what follows, I describe the intrinsic power relations surrounding the ways in which space is produced both abstractly for exchange value and absolutely for use value. It is my intention to discuss how power relations define the characteristics of produced social space.

In an effort to create space for the social elite, “Abstract spaces” are violently produced by the state. The resulting abstract spaces which become dominant spaces in society which are often wrought with homogenous and ahistorical characteristics as they are produced to promote exchange value rather than use value (Lefebvre, 1991: 387; McCann, 1999). Echoing the “abstracted hell laid on by planner’s schemes” (Molotch, 1993: 890), abstract spaces reorganize the physical city for the benefit of the state. Often, this reorganization occurs at the expense of the socially and politically marginalized or those who are unable to produce or maintain their own spaces (McCann, 1999; 170). The resulting narrative of producing abstract space lends itself to unsuccessful state-sponsored designs that are “increasingly exclusionary” (McCann, 1999; 164-168).

For example, in Rio planners designed a strategic project to erect a cable car system in Morro da Providência. This infrastructural project is fundamentally tied to the implementation of state order and spatial domination in the quest to transform and rebrand *favelas* as new social spaces throughout the city. According to the literature published by the city, the cable car system is to physically integrate the *favela* community with the downtown Port Area to accommodate increased tourism in light of the World Cup and the Olympic Games (Prefeitura do Rio de Janeiro, 2012). However, conceived by the state, with little or no public discourse between

policymakers and the community residents, I argue that this project was implemented as a way to reclaim space for an alternative use and for an alternative public other than those currently residing in Morro da Providência. In addition to implementing such a user-specific design, the cable car itself detracts from the authenticity of the community by offering state-of-the-art technology in an otherwise historic region of the city. In this instance, the cable car promotes the needs of the state while the needs and use of the residents are unsolicited and therefore unheard.

Abstract space is reminiscent of conceived space as it exists in Lefebvre's triad due to the way that space is conceived by planners and represented in the form of power-laden plans. Implicitly tied to the social relations pertaining to production and order, these dominant spaces are often considered spaces of capital. Abstract spaces are where capital is invested and exchanged as in the case of the increased number of tourists the city expects to visit Morro da Providência. However, while abstract spaces are imprinted by capitalistic state action, the authentic racial, social, and historical aspects of space are ignored and replaced (Lefebvre, 1991: 326; Molotch, 1993: 890). The cable car that was implemented as per the designs of the state was erected on the site of a long-standing social space of leisure in the community called Praça Américo Brum. Without this plaza, the residents no longer have a place to congregate and the children no longer have a space in which to play. In this way, it becomes clear that abstract or dominant space serves the desires of the state (elite), and not necessarily, the needs of the people.

Due to the ways in which the "production and maintenance" of social spaces fundamentally relate to relationships of power, there is often little room to negotiate the "continually reconstructed" city (McCann, 1999: 168). As in the case of the residents of Morro da Providência, the marginalized often do not have the recourse to defend their rights against such homogenous reorganization. They also may not have sufficient knowledge concerning their

own legal status and rights. Not only is the ability to retrain and create social space jeopardized, but the implementation of new, dominant, and abstract social space often occurs at the expense of their historic identity inscribed on landscape. Often, the state is responsible for the fast-paced urban transformation resulting in forced eviction and razed houses in order to implement sports arenas and modern transportation technology. Meanwhile, other practical and beneficial infrastructure like sewage, drainage, illumination, and garbage disposal is ignored.

Meanwhile, “absolute space” represents use value and is constructed organically through human need (Molotch, 1993: 890). Closely related to perceived spaces, absolute space is created and understood through everyday use and interaction. As opposed to relying on the desired schemes of planners, absolute space is appropriated through need and use of the people. The difference between abstract and absolute space is in the way spatial practices structure daily life and urban reality. In order to understand the production of social space, or perhaps to argue for sustainable and equitable social space, one must focus on the ways that absolute spaces are managed and created.

In societies around the world, dominant actors are most successful in producing space reflective of their own personal and cultural histories. However, as the dominant forms are and produced and reproduced, those who are unable to influence or transform space exist at great peril. Those who cannot etch their social-spatial practices onto the landscape are at risk of losing their social influence, and more importantly, their historical significance. As Eric Swyngedouw explains,

“Both capital and its engendered oppositional forces are, therefore, deeply engaged geographical projects in which homogenization (through the abstract force of money) and differentiation (through spatial struggle over and through the practice, representation, and symbolic meaning of space) constitute a dialectic through which space is produced and perpetually changed.” (Swyngedouw, 1992; 319).

In this way, the production of social space is largely determined by the ability of social classes to “inscribe their own social vision onto territory as a vehicle to sustain and build a culture” (Molotch, 1993: 889). For this reason, it is important for the socially marginalized to be able to influence the production of the social spaces in their community amid its current transformation.

Social space is a repository for the ongoing discourses concerning social life and is constantly being defined by hegemonic ideology which negotiates and categorizes aspects of “social action and political practices” (Anderson, 1987: 594; Duncan & Duncan, 2001). Don Mitchell, a professor at Syracuse University and a Marxist thinker, tells this story about the importance of the struggle over public space in his article, “The End of Public Space? People’s Park, Definitions of the Public, and Democracy.” Mitchell uses Lefebvre’s ideas of representations of space and experienced representational space in a discussion concerning a parcel of land which had been acquired through eminent domain in 1967 by the University of California.

Due to the lack of university funds this land in the city of Berkeley, California sat vacant and soon attracted local students, activists, and community merchants who turned the land into a public park. When the university attempted to develop the land, they were met with considerable violence between protesters and police (Mitchell, 1995:108). Eventually, the protesters did claim the land, which thereafter became known as the People’s Park. To ensure that the park was properly policed and maintained, the park was briefly owned and operated both by the University as well as the City of Berkeley. Nevertheless, the park was soon overrun with the homeless, drug users, and street people. In an attempt to take back this space, the city and the University proposed and implemented infrastructural changes that would in effect change the use of the



park. The installation of volleyball courts, basketball courts, and additional police sought to drive out the homeless community who had long been using this park to sleep and congregate.

The People's Park had come to represent much more than a park. It was a place of political action and social stronghold in which the marginalized were able to dispute exclusionary plans of the government and elite. For activists and the homeless the park "promoted a vision of a space marked by free interaction and the absence of coercion by powerful institutions" (Mitchell, 1995:115). Meanwhile, the University sought to implement infrastructure to promote what they deemed suitable and appropriate activities for a very specific public. These two ways of approaching the distinction and use of public space corresponds with Lefebvre's theories concerning the representation of space as it is designed by the elite, and the representational space as it is appropriated for use.

Beyond mere usage, the ability to control or live in a space has a direct correlation with maintaining democratic politics. Mitchell argues that without this park or other public spaces, the homeless would be unable to "represent themselves as a legitimate part of 'the public'" (Mitchell, 1995: 115). While occupying this space, the homeless retained the leverage to legitimize themselves as a tangible and important social group. The homeless used and lived in this space, and therefore were perceptible upon the landscape and in the social sphere. However, if they were to have been removed, they would have fallen silent to those in power because they would no longer have been linked or associated with a public space of concern.

Since the Greek's agora, members of the public met in a public space to express to exchange their goods, political ideas, and social concerns. This idea of a public space in which to exchange has been extremely vital to the prosperity of individuals and social groups as it provides a forum in which to "mediate the relations between society and the state" (Mitchell,

1995: 116). However, even in the “Greek’s agora, Roman forums, and eventually American parks”, have never been entirely inclusionary (Mitchell, 1995: 116). Although present, “women, slaves, and foreigners” were often excluded and disenfranchised in the social or political aspects of these spaces (Mitchell, 1995: 116). In fact, many people are often excluded from the public sphere by “*inter alia*, gender, class, and race” (Mitchell, 1995: 116). Thus, in order to gain back democratic citizenship in public spaces there has been countless struggles for inclusion within space, which is ultimately a struggle for rights as citizens and members of society.

Controlling order in space has to do with the control of acceptable or legitimate behavior to be performed in space. As dominant actors produce space, they do so in a planned homogenous nature designed to incite predicted and carefully surveyed behavior. Recent urban and corporate plans have been implemented to replace social difference with a “constrained diversity” of their own design (Mitchell, 1995: 120). Consequently, while spaces are designed for specific purposes, people, and activities they also exclude other purposes, people, and activities. It is in this way that people become excluded from certain places and their status and rights as citizens placed in doubt. It seems as though the creation of planned spaces obfuscate the ownership space by lauding privatization by the wealthy, and denouncing it when it is accomplished by the poor.

This reality of privatizing and revamping public space for restricted uses prompts Mitchell to pose the question and title of his article, “is this the end of public space?” to which I would answer, no. If the current case of Rio de Janeiro is any indication, this is not the end of public space. However, this could be the continuation of the displacement of public space as people are being forcefully evicted from certain places in the community and relocated hours outside the city. Based on the current events in Rio, the city is constructing abstract spaces and

pushing marginalized people and communities farther away from the city center. It is for this reason I argue that public space will always exist, but that it will exist in the urban periphery, far away from the eyes of the more prominent “public.” The new infrastructure associated with the World Cup and the Olympics seem to echo the fast-paced, large scale urban representations of space.

The controversy in People’s Park echoes the theoretical divide between those who desire spaces for political, democratic representation and those who implement representational spaces designed to simulate diversity. On one hand, people are vying for political democracy and a space in which to live, while others are striving to produce a controlled, orderly, safe, and manageable urban space. The struggle over public space is not only about the struggle for social space, it is about the struggle for representation. Engagement in political discourse might very well safeguard individuals and social groups from being deliberately excluded from the land they wish to occupy. In sum, the struggle for social and political recognition and representation is necessary to spark the beginning of other long struggles for the right to the city.

Analysis of the production of social space begins with the understanding of whom the space was created by and for what purpose. As discussed, cultural identities are produced on the landscape through an endless negotiation of social, economic, political, and historical factors. People primarily act and live within social spaces produced by the elite. In doing so, they are intentionally and unintentionally reproducing dominant discourses of identity which are represented on the landscape. For this reason, it is imperative for all social groups to influence the landscape by constructing structures of meaning specific to their needs and desires. In this respect, representation of conceived spaces as outlined by Lefebvre’s triad reveals the social

politics and contradictions contained in space and is necessary for the analysis concerning the production of social space in Morro da Providência.

### **Representational Lived Space**

Second, relying on the representational lived space, this section examines the experiential aspects of social space in Morro da Providência. The mental maps drawn by the residents, and their reactions to the new infrastructure in their community, are both processes indicative of the absolute spaces in which the residents live their everyday lives. By paying specific attention to the places, physical objects, and symbols the resident chose to include on their maps and other responses to the new infrastructure, I assess the representational spaces in Morro da Providência as residents use and create them. In this section, I discuss the categorization of space as it relates to Lefebvre's conceptual triad and the artistic science of mental mapping.

Maps have long been as tools to facilitate the “practical exercise of power” (Harley & Zandvliet, 1992: 17). Consciously or not, maps support authority over a claim or for management purposes (Harley & Zandvliet, 1992: 17). Historically, maps have been utilized for cadastral, military, treaty, planning, boundary, tax, and legal purposes. Early cartographic endeavors corresponded with various levels of inharmonious central and regional powers that produced and reproduced the dominant values of society. Maps were “remarkably pictorial” and artistically adorned with the use of symbols, coat of arms, engravings and other decorative emblems designed to intentionally reflect a religious or political allegiance (Harley & Zandvliet, 1992: 11, 12).

Conceptual understandings of cartography “is often polarized on a simplistic dichotomy between art and science” (Harley, 1990: 1). However, considering that cartography is a discourse created and used by social actors, it is therefore, by definition, much more complex. “Maps

represent the world through a veil of ideology, are fraught with internal tensions, provide classic examples of power-knowledge, and are always caught up in wider political contexts” (Harley, 1990: 2). In fact, because lived spaces reflect post-political regimes and deny democratic conditions the cartographer is largely and actively engaged in spatial as well as “the social construction of race and ethnicity” (Buser, 2012; Harley, 1990: 3).

When cartographers label physical areas on maps as Chinatown or Little Italy, or perhaps more racially contentious names such as Nigger Hill, in Colorado, they remind us that maps contain more than the spatial data they were designed to convey. On one hand, cartographic innocence is demonstrated by the surveyor’s innocuous attempt to interfere as little as possible while “collecting culture” (Harley, 1990: 4). However, on the other hand, the complexity of power-knowledge is underscored as soon as the map is published and the names of places on maps are legitimized and given authority (Harley, 1990: 3). It is in this way that maps and cartographers both mirror and reinforce the spatial and socially constructed social order of the world.

Since 1962, the U.S. Board on Geographic Names mandated that racially offensive names be replaced. However, since many of these derogatory names have been reproduced on official maps over the years, agreement from private property owners and within various levels of government are needed to modify them. Sometimes, the names of maps have been restored to its original name as “an act of social justice” and as a tribute to the former colonizers or the ethnic minorities of modern society (Harley, 1990: 4). However, even these place name changes are not without their drawbacks. “In seeking to destroy the past, we are in danger of destroying a witness to the roots of a racial bigotry that still divides our society” (Harley, 1990: 16). In other words, Harley argues that even when authentic place names are restored, the danger is silencing that

which we now omit. In this case, what we omit is the period of racist ideology that has long marked the historical development of the United States.

The silent omission of things, places, and place names is a phenomenon not limited to the United States. James Brooke (1990), a writer for *The New York Times* from Rio de Janeiro writes:

“A tour of Rio's India starts where the maps end...Airbrushed out of the minds of the affluent, most favelas do not appear on city maps. Indeed, many maps paint Santa Marta pastel green, implying perhaps that the hill, home to 10,000 poor people, is a park.”

Santa Marta is one of the more well-known *favelas* located in Botafogo, a working-class neighborhood of Rio de Janeiro. For years, when tourists landed in the Rio de Janeiro International Galeão Tom Jobim airport, they were handed a tourist map of the city detailed with points of interests, shopping centers, and beaches. However, Santa Marta is noticeably misrepresented. Along with the over 1,000 other *favela* communities like it, Santa Marta appears on the map as a solid green polygon. Published tourist maps have the ability to misrepresent and omit certain aspects of reality. In this instance, these tourist maps render communities like Santa Marta completely inaccessible and unimportant.

However, “if we care about raising consciousness—as a prelude to political action—then we need to face the conclusion that maps are often inadequate as a way of seeing” (Harley, 1990: 6). Or, at least, we must understand that maps are inadequate in the way we currently understand and draw them. Communities filled with people cannot and should not be interpreted as vacant space or a park when clearly they are not. Along with understanding that the landscape is constantly in flux, it is also fundamental to understand that all representations and gazes upon the landscape are partial and incomplete (Rose, 1993). The recognition of multiple and fractured

ideas concerning performance, agency, and authenticity frames identity and understand the production of social space (Wood, 2012).

As in the case with Santa Marta, internal struggles are often clearly depicted on maps as they mirrored the power struggles involved in its representation. Based on those producing and publishing the maps, certain aspects of Rio de Janeiro are produced and reproduced for a specific audience while others aspects are omitted. In this way, maps do not necessarily depict the landscape as it really is or was. Maps are “redescription[s]” of the landscape that have been scrutinized and controlled by the cartographer so that the final map adheres to the desires of those who commissioned them (Harley & Zandvliet, 1992: 16). Thus, as opposed to seeing maps trapped within the discourse of art or science, the alternative is to view maps as tools of power-knowledge by those who commissioned, constructed, and use them.

Maps are subjective and culturally determined records produced by cartographers that choose which information is presented and which is omitted. Cartographers collect objects from an ever-changing landscape to record visual images of achievement and conquest. In this way, cartographers are charged with producing social discourse, order, and classify clues regarding the social order of the world as they choose. As Harley and Zandvliet argue, the most critical aspect of depicting the production and reproduction of social order is determined by the classification of objects recorded on the landscape (Harley & Zandvliet, 1992: 16). Thus, it is the cartographer who garners immense responsibility as they represent their own perspective of the complex world in which we live and present it as truth in the form of maps.

If it is true that “the world begins where the map ends” (Harley, 1990: 6), there must be a way to embrace a socially constructed yet scientifically valuable way to create and represent cartographic knowledge. One such way, I argue, involves the ability of cartographers to “see

their place in these ambivalent acts of communication” (Harley, 1990: 8). If maps are a form and representation of power, cartographers should be cognizant about their own place in the map’s political design as well as what they choose to include in their maps. After all, true knowledge is a product which combines different aspects and versions of reality. “If we accept that silence is an affirmative statement, we will be more careful” about our omissions as well as our inclusions (Harley, 1990: 12).

Another aspect relating to mapping power and ethics is the accessibility of minorities. Considering that cartography is “never merely the drawing of maps: it is the making of worlds” (Harley, 1990: 16), it is paramount for minorities to gain equity in representation. Political consciousness and historical representation are values that should continue to be reproduced on maps that represent our world. While it is true that all two dimensional images of the socially constructed world are reductionist, they are entirely necessary to understand the present and to plan the future. Cartographers may or may not be consciously grappling with the ethics of what or what not to show on their maps, yet the “crisis of representation is universal” and the socially and politically marginalized are at the most risk as they have the least recourse, access, and influence (Harley, 1990: 18).

In an effort to free ourselves of the “unproblematic, “value-free” innocence of maps” it is necessary to foster an analytical awareness of a map’s intention and production (Harley & Zandvliet, 1992: 11). The purpose of mental mapping is to introduce maps as agents of “internal power” that “impose a reality” through art and science that other maps “only pretend to mirror” (Harley & Zandvliet, 1992: 11). By removing the layers of symbolism, overtly artistic representations, and other Foucaultian manifestations of omnipresent power, maps resume their



roles as “humanly constructed images of the world” that more accurately reflect the context of society (Harley & Zandvliet, 1992:10).

Mental mapping is an important tool for the marginalized to express their concerns and desires in the political sphere. It is the grass-roots opposition that must provide the impetus to “confront the state in its role as organizer of space, as the power that controls urbanization, the construction of buildings and spatial planning in general” (Molotch, 1993: 892). It is the responsibility of the marginalized to produce “counter-plans and counter-projects designed to thwart strategies, plans and programmes imposed from above” (Molotch, 1993: 892). In applying such social pressure to the forces that control and dominate the production of space, there is a shift to a more conscious production of equitable and sustainable social space for all (Molotch, 1993: 891).

Mental maps drawn by the residents become increasingly important in the effort to “take back” space (McCann, 1999; 179). It becomes essential for geographers and map-makers to “point the way toward different space, toward a space of different (social) life and to a different mode of production” (Lefebvre, 1991: 60). The right of the city calls for the rights for “every social group to be involved in all levels of decision-making which shape the control and organization of social space” and for these group not to be excluded from spaces in the city (McCann, 1999; 181).

In the words of Maya Sonenberg, “it has always been this way with the mapmakers: from their first scratches on the cave wall to show the migration patterns of the herds, they have traced lines and lived inside them” (Harley, 1990: 19). The crisis facing traditional cartographic mapping may not come from computer-based technologies, as Harley suggests. It comes from the era when cartographers cease to reason or live within the maps they create (Harley, 1990:

19). It is for this very reason I chose to employ the residents of Morro da Providência as the cartographers in this project. The residents of Morro da Providência never cease to live within the maps they create. The residents of Morro da Providência never cease to produce space base on their interactions with the material world.

Thus, using the modality of representational lived space, mental mapping and the subsequent categorization of space through mapping is vital to the basis of my research project. The purpose of creating mental maps as a space of representation is to allow the residents of Morro da Providência to “insert themselves in the discourse of the bourgeois public sphere” (McCann, 1999; 168). Owing to the fact that, “public spaces gain political importance when they are *taken* by marginalized groups and restructured as “spaces *for* representation” (McCann, 1999; 181), it is my suggestion that the marginalized groups assert their claim to the social spaces in their community. Echoing a primary theme in David Harvey’s “Social Justice in the City” (1976), revolution, in all its political, economic, social, and spatial form, must come from the proletariat. Or, in this case, political, economic, social, and spatial equity must begin with understanding the needs of the people and providing them a vehicle for their inclusion.

### **Spatial Practice and Perceived Social Space**

Finally, my own observational fieldwork and analysis of the mental maps constitute perceived space. Constrained by Marxist ideas concerning abstract representations of space and absolute spaces of representation, Lefebvre adds a third dimension to his conceptual triad, spatial practice or lived spaces. Spatial practices are designed to illuminate the observable patterns and perceptions of reality that emanate from everyday life and use of social spaces. While the other two realms of space are determined by desire or need, perceived social space has a particular emphasis on use and practice.

As opposed to relying on the modes of production to explain how spaces were planned or the needs that these spaces sought to address, the final modality of Lefebvre's theory attempts to explain how those spaces are used in everyday life. In order to assess the final modality of Lefebvre's triad, I pause to consider the reality of what I have observed and how my own perception might differ from both the conceived and lived experience as it is presented on the city maps and the mental maps drawn by the residents. Through my own observations, I hope to include an informal assessment concerning the observable patterns of residents and how they relate to the production of social space in the community.

Beyond observation of the relationships that exist between people and their environment, new critiques on landscapes suggest a renewed emphasis on visual ontology as well as on practice. Visual ontology suggests that there is bias in the ways that landscape is both conceived and represented. However, more than a readable text or a backdrop for action, social spaces are a set of culturally produced "actions, beliefs and practices" which constitute a "milieu of engagement and involvement" (Wylie, 2007: 115, 149). By focusing on bodily practices, performativity, and human agency, feminist and post-structuralist geographers have begun to explore the social characteristics that impact the production and perception of space (Nelson, 1999: 331; Rose, 1993; Cresswell, 2003).

Performance and ideas concerning non-representation permit geographers to engage with and encounter landscape differently and diversely. "Recent work in cultural geography has concerned itself, in particular, with the contested meaning of history and its representation in the built environment" (Lees, 2001: 53). The construction of landscape, place, and space are all products that reflect historical, political, and social relations. Social spaces are no longer simply read or understood through the intentions of the architect. Social space and its meaning are in a

constant state of production and everyday practice. Thus, understanding lived spaces help to depart from the hegemonic ideas concerning established design, and move more toward the understanding of practice based consumption (Kraftl, 2009). Performance and consumption should be seen as activities “through which social relations and identities are forged” (Lees, 2001: 55).

In an intricate counterpoint to the practices of everyday life, social spaces provides context within which “stories and rituals of citizenship” are enacted, understood, contested, and performed (Hoelscher, 2003: 661). The complexity of practice is coupled by the dynamic and embodied ways in which people engage with and move through their social spaces. Tangible artifacts such as monuments or forgotten materials “left to rot in a dank shed or an airless attic once occupied a place in an active web of social and material relations” (DeSilvey, 2007: 403). These materials act as accidental archives are used as evidence in the present to interpret political discourse of the past (DeLyser, 2009; Johnson, 1995).

By studying material on the landscape, histories and identities of those who once entwined themselves with these objects are revealed (DeSilvey, 2007). For this reason, I asked my participants to draw mental maps using three colors to indicate their perceptions of social space in the past and present as well as their suggestion for alternative infrastructure. The artifacts, buildings, and social gathering points trapped within their mental images shed light upon the construction of the social space in their community. In this way, the social spaces drawn by the participants act as theaters of memory through which their identity and culture is constructed, performed, and sustained (Thrift & Dewsbury, 2000: 420); Endensor, 1997; Osbourne, 1999; Hoelscher, 2003).

According to John Wylie, landscape has come to be understood as “mutual embeddedness and interconnectivity of self, body, knowledge and land” (Wylie, 2007: 12). In order to distinguish between the banal everyday practices and those that contribute to the production of something “extraordinary”, there must be a renewed focus on representational practices and embodied engagement with lived spaces (Kraftl, 2009: 129; Lees, 2001: 51). The study of social spaces must focus on the process of creating lived spaces to serve as “a disciplinary mechanism and a potentially liberating medium for social change” (Schein, 1997: 664).

Non-representational theory seeks to uncover meaning in the ordinary actions and practices that take place in and give meaning to the world in which we live. By focusing on the intertwined actions of practice *in situ*, one can better understand how both affect and are affected by the actions that emerge upon the landscape as opposed to overanalyzing individual aspects of practice that are enacted upon the landscape (Wylie, 2005). The goal is to analyze the realm of practice in the basic sensory state which is both precognitive and pre-verbal state (Dewsbury, Harrison, Rose, & Wylie, 2002; Laurier & Philo, 2006). According to non-representational theory, the attempt to write or say these practices loses or detracts from their meaning. (Laurier & Philo, 2006). Thus, non-representational theory seeks to prove that which is presented on the landscape is more than what appears. Representations are performances which must be understood as highly biased and non-fixed processes.

In this sense, the third modality of Lefebvre’s triad includes an analysis of performed, lived space *in situ* in order to understand the production of social space. Spatial practice seeks to understand the patterns of everyday practice and experience. It is not concerned with the representations of conceived space to determine the motive or mode of production. Nor it is

concerned with the symbols and objects used to forge representational space. Instead, spatial practice seeks to map the patterns formed through the actions and experiences observed in everyday life.

Differing from the conceived and lived experience as it is presented on the city maps and the mental maps drawn by the residents, my own observation illuminate the observable patterns that emanate from everyday life and use of social spaces. Moving away from hegemonic construction of social spaces, it is my intention to expose the patterns and social characteristics responsible for practice based consumption. In this way, I attempt to prove that performance within social space is at once proof of its historical origins and responsible for the heterogeneity and authenticity of social space. In this way, my fieldwork and observations are vital to the final point of analysis in my research project as they provide another lens through which to analyze the production of social space in Morro da Providência.

### **Summary**

In second half of this chapter, I discussed Lefebvre's conceptual triad and how it is used as the theoretical basis for my research project. By understanding the social space in these terms, the categorization and analysis of the production of space in Morro da Providência becomes manageable. First, I introduced Lefebvre's negotiation of social space as it is outlined by his conceptual triad and attempted to show how recent scholarship surrounding his theories has helped to further the conceptual analysis of the production of social space.

Second, I used the negotiation of representations of conceived space to provide an apt justification for utilizing Lefebvre's theory to confront the current sociopolitical situation in Rio's *favelas*. In doing do, I included an analysis of power-relations including the primary distinction between abstract and absolute space. Ultimately, I was able to demonstrate that

abstract space, represented in the form of power-laden plans, lends itself to unsuccessful state-sponsored designs that are “increasingly exclusionary” (McCann, 1999: 168). Meanwhile, abstract spaces, as they are created and used by the people, are necessary for the legitimization and representation of social and political interests.

Third, using the modality of representational lived space, I legitimized the use of mental mapping and the subsequent categorization of space through mapping as the basis for my research project. The “socially constructed nature of the map making” lends tremendous control over the production and reproduction of features in space to the cartographer (Palmer, 2010: 865). It is for this reason, I chose to shift the responsibility of map-making from trained geographic professionals, to the residents themselves. It is important for marginalized groups to maintain and create representational spaces in their community to guarantee their legitimacy as a social group. As Lefebvre suggests, “...authentic knowledge of space must address the question of its production” (Lefebvre, 1991: 388).

Finally, for spatial practice and perceived social space, I suggest that as opposed to accepting abstract innovations in the form of new social spaces, policy-makers and planners should be urged to consider how absolute spaces are sustainably and equitably created and maintained. In order to do this, I suggest that my own fieldwork, taking a non-representational perspective, could help expose the patterns and social characteristics responsible for practices performed within social spaces. After all, these are the actions responsible for the heterogeneity and authenticity of social space. Insights concerning these observable patterns can and should be used to implement new, educated, and sustainable infrastructural designs amid Rio’s current urban transformations.

While mental mapping is a great theoretical approach to attend to this particular research project, it is not the only one I considered. However, the advantages of employing this theoretical approach over others are as follows. In contrast to employing a quantitative, social survey of residents mental mapping allowed me to assess the true spatial interaction with the landscape in a way that simple quantitative surveys would not have afforded my research. I wanted not simply to gather numerical data, I wanted to have the participants think about the three dimensional mental maps that exist in their brains, and translate that to paper. I wanted to gather information that would translate to more than statistics. I wanted to spend time with the residents to access the spatially of their own memories, which would not have been possible using another theoretical framework.

French geographer Paul Vidal de la Blache describes geography as a “science of places” (Vidal de la Blache, 1913: 297). As such, it was my intention to understand the geography of space and place in the context of Rio de Janeiro. Overall, my goal in this research project is to utilize Lefebvre’s theories concerning the production of social space to “demystify not only the physical arrangements of the city, but all modes and institutions that those arrangements sanctify and support” (Molotch, 1993: 892). Together, using the three modalities of Lefebvre’s triad, it is my intention to provide insight into how, why, and by whom social spaces in Morro da Providência are produced. Ultimately, it is my intention to showcase Rio de Janeiro as a case study for future equitable and sustainable urban infrastructural endeavors.



## **Chapter Three**

### ***Favela History in Context***

“You cannot imagine what government neglect of the favelas has done to this city. It is a failure of public service.” –Secretary of Security of Rio de Janeiro, José Mariano Beltrame, Wikileaks, 2009.

#### **Historical Background**

*Favelas* are precarious irregular housing settlements characterized by low levels of government support, poor political representation, and the stronghold of organized crime (Perlman, 2010; Dowdney, 2003; Freeman, 2014). In Rio, networks of relationships exist between the primary actors in the *favela* arena. These actors include drug traffickers and organized criminals, police, politicians, local leaders as well as *favela* residents. The intertwined nature of these relationships has historically permit “crime and criminality” to exist as integral components of *favela* and *Carioca* life (Arias, 2006). Populated by the poor and marginalized by society, *favelas* are further demonized by corruption and misinformation. In order to prepare the city for the 2014 FIFA World Cup and the pending 2016 Olympic Games, these complex social relationships and the landscapes they produce must be understood before a model for sustainable development in the underserviced urban regions can be implemented with any degree of success.

Social landscapes and social spaces exist as both the precondition and as the result of the interaction between individuals, objects, and social networks. In Rio de Janeiro, the way in which *favelas* formed permitted the production and reproduction of social inequality throughout the city (Pino, 1997; 111). Before I explain the recent transformation of social space in Rio’s *favelas*, it is important to understand the historical evolution of *favelas* and how their evolution has shaped and been shaped by the complex and volatile socio-political landscape of Rio.

Ontologically, the emergence of *favela* communities directly correlates with the end of slavery. After the emancipatory *Lei Áurea* (Golden Law) passed in 1888, the promise of housing,

community, and employment drew former slaves and northeastern migrants into the city of Rio de Janeiro. Eager to earn wages, emancipated slaves readily accepted the position of federal soldiers during the Canudos War (1895-1897) and fought to quell a political uprising presented by “mystic” religious leader, Antonio Conselheiro and his followers in the state of Bahia (Pino, 1997: 111). When the brutal civil conflict ended, the federal soldiers traveled back to Rio and awaited remuneration and housing which had been promised by the government. Compensation never came. In protest, the soldiers established a temporary settlement on Morro da Providência across from the War Ministry originally called “*Morro da Favela*” in 1898.

The hill was dubbed a “*favela*” based on the common name for a thorny, white-flowering plant (*cnidoscolus quercifolius*) that grew on the outskirts of the city of Canudos in Bahia where the soldiers had served. Back in Rio, the government failed to acknowledge the demonstration by those occupying the hill (*favelados*), and it was not long before the temporary settlement became permanent. Morro da *Favela* transitioned in name to Morro da Providência and became the first *favela* recognized by the 1920 census which identified the existence of 839 houses on the hill (Perlman, 1979: 13).

*Favelas* soon spread to several locations marking the physical landscape of urban Rio contiguously by low-and-high-income settlements (Perlman, 2010: 53). Despite the destruction some *favelas* and tenement buildings (*cortiços*) by former mayor Francisco Perreira Passos (1910) to mimic the urbanization efforts carried out by Georges-Eugène Haussmann in Paris, *favelas* continued to grow. *Favelas* formed organically like islands within the formal city, wherever vacant land was available or where land was too steep for legal construction. Initially, *favela* residents used crate wood, corrugated tin, and cardboard for housing construction and then later transitioned to more permanent building materials like mortar, bricks, and tiles (Conde &

Magalhães, 2004). In time, initiatives headed by the Catholic Church, *Fundação Leão XIII*, non-governmental organizations, and resident's associations encouraged the use of sturdier building materials, thus improving the speed and quality of *favela* construction.

During the 1930s and 1940s, *favela* communities grew both horizontally and vertically, shaping the physical landscape of the city (Leeds, 1996: 29). Despite the immense growth in size and population of the *favela* communities, the government did very little to absorb the *favelas* residents or formally integrate them into the social fabric of the city. In fact, the antithesis was true. In 1937, a building code actually forbade the construction of new and the improvement of old *favela* communities thus any new development would be done very quickly at night so that structures would be built by the morning.

According to sociologist Janice Perlman, policies that are imposed on the *favelas* are dependent entirely upon how they are perceived, especially by those in power (Perlman 1976: 14). During the authoritarian *Estado Novo* government led by former president Getulio Vargas (1937 to 1945), "*favelas* were seen in the political arena, among public and health officials, and in the press and non-*favela* communities as synonymous with violence, immorality, and disease" (Vargas, 2003: 39). Furthermore, the state considered *favelas* to be "aberrations within the modern city, refused to list them on city maps, and slated them for removal" (Arias, 2006: 23).

*Favelas* and their residents have long been associated with poverty and violence. Due to their tenuous legal status and close proximity to areas of prime real estate, the densely populated *favelas* were seen as temporary and were constantly threatened by "public evictions, use of military and police force, and unexplained night violence and fires" (Anthony, 2013; 345). Many communities in the south zone of the city succumb to these violent eradication methods and

initiatives like the 1947 Commission for the Eradication of the *Favelas* and their residents were rather forcibly sent out of the south zone and into the north and west zones of the city.

Considered “dens of thieves and eyesores by the upper classes” the military dictatorship (1964-1985) razed hundreds of *favelas* and relocated hundreds of thousands of residents to the city’s less desirable areas (Freeman, 2014:8). Despite the military dictatorship’s best efforts for complete eradication, 13 percent of Rio’s population, nearly 500,000 people, lived in 162 recognized *favelas* by 1970 (Anthony, 2013: 347). Eventually, government eradication efforts were replaced by broader schemes of clientelism (vote seeking) and increased social efforts sponsored by the Catholic Church. It was this way that many *favelas* were able to resist removal.

The general and “selective” absence of the government has led to deficiencies in basic urban services, citizenship, and inclusion. “Negligent and inefficient” state services like education, policing, and government indirectly supported the unregulated expansion of the *favelas* which only continued to grow in size during the industrialization push of the 1960s and 1970s and in delinquency, as residents were stigmatized, marginalized, and socially excluded from the public sphere (Leeds, 1996: 29; Pino, 1997: 11; Silva, 2005; Frenzel & Koens, 2012: 3). By failing to provide basic services or legislation for these communities, *favela* residents were forced to forge their own illegal and informal connections to the city largely through unregulated construction. Residents often engage in “unregulated construction” methods and make “illegal connections to electricity, water, sewage, and cable television services” (Dowdney, 1996: 62-63; Handzic, 2010: 11; Freeman, 2014: 8, 13). Meanwhile, unlawful evictions persisted as property ownership rights were largely undocumented and unattainable (Freeman, 2014: 8).

As the number of *favelas* increased, so too did the informality and illegitimacy of *favela* residents who organized Resident’s Associations to safeguard their rights and collectively call for

improvement to their communities through the Federation of *Favela* Residents of the State of Rio de Janeiro in 1964 (*Federação das Associações de Moradores de Favelas do Estado do Rio de Janeiro*). Despite their internal organization, most infrastructural improvements in the *favelas* such as road paving, soccer fields, clinics, water lines, power lines, and schools ultimately came to the communities through strict “patron-client relationships” with the city (via clientenistic vote-seeking) or through the means of drug traffickers (Anthony, 2013: 347; Arias, 2004: 1).

The introduction of cocaine and drug-trafficking during the 1980s continued to complicate matters of governance and development. Illegal narcotics quickly became a lucrative business as drug traffickers began to offer a “parallel state structure and alternative rule of law” (Goldstein, 2003: 200). Without public services like schools and police, drug-traffickers established a parallel and alternative government in select *favelas* to provide the residents with basic amenities and order. The drug gangs thrived in the densely populated hills, winding streets, and obscured alleyways of the *favelas*, and soon there were three primary rival drug factions vying for space in the city in which to sell their drugs. Once dangerous communities, the presence of drug traffickers made crimes such as adultery, rape, and theft punishable through their own draconian judicial system. In exchange for their loyalty and keeping the police out of their communities, the traffickers provided limited government and infrastructure through mediating of disputes, hosting parties, and building plazas. During this era, *favelas* transformed. Once considered dangerous places to live, *favelas* thrived under the rule of the drug traffickers. As respect for the drug traffickers grew, respect for the police diminished.

The three primary drug trafficking factions in Rio *Amigos dos Amigos* (Friends of Friends), *Comando Vermelho* (Red Command), and *Terceiro Comando Puro* (Pure Third Command) use a hierarchy of lookouts and an intricate communication system involving radios

and fireworks to communicate with other drug traffickers located in different regions of the community. The rival drug factions also defend their operations through regular bribes to the police and the purchase of illegal military-grade weaponry (Foek, 2005). The purchasing power of the drug traffickers is so great that their weaponry often exceeds that used by the local authorities in both power and number. For example, in 2009, drug traffickers were able to shoot a police helicopter out of the sky when it tried to intervene during a shootout between rival drug factions in *favela* Morro de Macacos (OGlobo, 2010).

During the 1980s, militias also rose to power in the *favelas* to guard against drug-trafficking rule. Comprised of “off-duty and retired police officers, prison guards and firemen” (Freeman, 2014: 14) militias imposed their own arbitrary and violent regulations that varied in each community. Both the militias and drug traffickers restricted the mobility of people and exacerbated levels of crime and criminality through extortion and other means. Although these alternative governing bodies were successful in providing limited governance and stability, they ultimately hindered the integration of *favela* residents and the establishment of formal state government.

Corruption and violence further complicate the politics of Rio which are rampant in the ranks of nearly all state police. Under the Brazilian bifurcated system, the state Military Police (*Polícia Militar*) carries out the ostensible duties, while the Civil Police (*Polícia Civil*) perform investigations (Arias, 2006). A third battalion, Special Police Operations Battalion (*Batalhão de Operações Policiais Especiais*), also called BOPE, is equivalent to the SWAT teams in the United States. Owing to the ineffective management of the police in Rio, compounded by their inferior wages, the police seldom enter the *favelas* except to take bribes and to execute poorly organized repressive operations that result in the deaths of innocent people (Arias, 2004).

According to Janice Perlman, “the only regular contact the people have with the state apparatus is the police, who enter the *favelas* with their weapons loaded and follow the motto ‘shoot first, ask questions later’” (Perlman, 2010: 202). In addition to cultivating an air of distrust, this fatal police practice results in stray bullets and many innocent victims.

Most of the lethal force is carried out by the Special Police Operations Battalion (BOPE) whose motto translates to “knife in the skull” (*faca na caveira*) and whose logo depicts a skull impaled by a dagger in front of two crossed pistols. Many military police act with disregard as immense corruption among the ranks has skewed and clouded the perception of punishable activity. According to a 2009 statistic revealed by the New York-based Human Rights Watch, 7,611 people in Rio died at the hands of the police (Human Rights Watch, 2009). A substantial portion of these deaths came from the off-duty or “extrajudicial” killings performed by the police who purposefully act outside the law in “self-defense.” Human Rights Watch discovered that many of the self-defense mortalities were the results of multiple gunshot wounds and bullets in the back of the head (Ashcroft, 2014).

Due to the rapid population growth and the pace in which *favela* politics fluctuate, internal community development has consistently reflected oppressive Brazilian inequality and social exclusion. Social exclusion for *favela* residents is not a new occurrence but has been embedded in Brazilian society since the early 1800s. In 1808, under the impending threat of Napoleon in Europe, the Portuguese royal family moved its court and nearly 15,000 people with them to Brazil making Rio de Janeiro the first city in South America to house a monarchy (Chartrand & Younghusband, 2000: 8; Schultz, 2001:10). During this time, half of the Brazilian population was comprised of slaves (Conrad, 1972: 6). In light of the Haitian Revolution (1791-1804) and the resulting slave uprising, the state formed “the Military Division of the Royal

Police Guard of Rio de Janeiro” in 1809 to ensure public order and any potential slave revolts (Shahidulla, 2012: 320). For the next thirty years, the Royal Police Guard headed by Miguel Nunes Vidigal, was responsible for the highly selective and arbitrary enforcements of laws many of which involved “raids on encampments of escaped slaves” (Roth, 2001: 372). In fact, the majority of arrests and violators were race-related and found to be slaves, free men of color, and mulattoes.

The rules and regulations enforced to maintain social order have long been strict and repressive. Long before the abolition of slavery, the Philippine Code, a law enforced by Portugal and its colonies, legally permitted torture and various forms of physical punishment that was often documented and executed by the state and slave owners (Caldeira, 2000: 151). Throughout the 1800s, punishable offenses included breaking curfews, gambling, drinking alcohol, and begging (Ashcroft, 2014). In an attempt to obfuscate governmental inadequacies, the mandate of the Brazilian police force has been historically focused “colonial notions of citizenship” (Ashcroft, 2014). While the rich and powerful are favored, the poor have been marginalized by the police and judicial system and continuously presented as a dangerous class. Meanwhile, the spaces of this dangerous class, namely the *favelas*, have become “spaces of the enemy” (Ashcroft, 2014).

Over the years, the force of the police has been increasingly fatal as “law enforcement officers continue to use excessive force and carry out extrajudicial executions and torture” (Amnesty International, 2012). During the military dictatorship (1964-1985), thousands of citizens and internal political opponents of the regime were taken into custody, tortured, and killed at the hands of the police and death squads such as the Scuderie Detetive Le Cocq which are considered the antecedents of the modern-day militias (Ashcroft, 2014). When the military



dictatorship came to an end, the violence did not diminish. However, the type of violence shifted from the torturing and killing of political dissidents to drug-related violence and indiscriminate violence against the poor.

On January 10, 2006, I attended a lecture given by Maria Helena Alves at the non-governmental organization, Viva Rio. Ms. Alves spoke about the how many of the NGOs in Rio formed during the 1980s and 1990s in direct response to unprovoked physical violence against the poor by the state. Ms. Alves referred to the Candelária Massacre as one of the major turning points in public opinion. On the night of July 23, 1993 approximately seventy street children were sleeping in front of the Candelária Church, located in downtown Rio when a group of armed policemen arrived around midnight, got out of their unmarked police car, and opened fire. The off-duty police officers killed eight children and adolescents ranging in age from 11 to 20 years old. Only three policemen were charged in the killings, and only one was convicted.

It is interesting to note that one of the massacre survivors Sandro Rosa do Nascimento later hijacked a city bus on June 12, 2000. This incident was made famous by the subsequent film about the event titled *Bus 174*. Caught on national television, the culmination of Nascimento's four-hour-long standoff with the police resulted in the fatal shooting of his hostage and his own death by asphyxiation later at the hands of police. The Candelária survivors, street children, and *favela* residents were all accustomed to violence at the hands of the police. As such, many NGOs formed during the 1990s to provide justice and provision for those most affected by the corrupt, prejudiced, and violent criminal justice system and to prevent future massacres and hostage situations.

The military police are still “responsible for most of the atrocities, tortures, brutalities, extrajudicial killings, and gross violations of human rights in Brazil” (Shahidulla, 2010: 320). A

2010 Amnesty International on Brazil found that in Rio de Janeiro, “Between January 1998 and September 2009, 10,216 people were killed in the state in accidents registered as ‘acts of resistance’” (Amnesty International, 2010: 3). Irrespective of increasing numbers of NGOs, law enforcement practices are continually “characterized by discrimination, human rights abuses, corruption and military-style policing operations” (Amnesty International, 2012).

Over the years, *favelas* have become a seemingly viable long-term settlement option for generations of low-income residents in Rio and throughout Brazil. According to the 2010 Census, 11.25 million people, or six percent of the Brazilian population lives in 6,239 *favelas* throughout Brazil. Nearly 42 percent of *favela* dwellings are concentrated in Rio de Janeiro and São Paulo (Instituto Brasileiro de Geografia e Estatística, 2010; Spinetto, 2014; Carneiro, 2014). It should be noted that exact population statistics are difficult to calculate, evident from the Instituto Brasileiro de Geografia e Estatística’s official population estimates for *favela* Rocinha. According to the 2010 census approximately 70,000 people live in Rocinha, Rio’s largest *favela* community. However, unofficial estimates are closer to 180,000 people, a figure that is more than double the official count. Nevertheless, it is clear that despite their political complexity, *favelas* have survived and been able to etch themselves into the permanent landscape of Rio.

In particular, Rio has evolved into a divided city where pockets of *favelas* have developed amid the rest of the legal city (*asfalto*) visually distinguishing the rich from the poor. In Rio, approximately 22 percent of the *Carioca* population lives in approximately 1,020 *favelas* (Prefeitura do Rio de Janeiro, 2012: 152; Instituto Brasileiro de Geografia e Estatística, 2010). In Rio, there are 539 grouped *favelas* (*agrupadas*), of which 144 are officially considered complexes (*complexos*), while 481 are isolated *favelas* (*isolados*) (Prefeitura do Rio de Janeiro, 2012: 152). Although marginalized and stigmatized for most of their history, *favela* residents

have simultaneously become the backbone and cultural hearth of Brazilian society as they comprise the majority of informal sector employment and are prevalent and necessary actors in the city (Freeman, 2014). In fact, new studies indicate that 65 percent of *favela* residents constitute Brazil's new middle class as many of the residents are formal service sector employees such as barbers, tour guides, maids, domestic workers, police officers, daycare workers, taxi drivers, waiters, and construction workers (Carneiro, 2014).

Notwithstanding the misconception that the majority of the *favelas* are slums, the vast majority of homes today have running water, electricity, refrigerators, and televisions. With average salaries close to \$240 dollars, residents barely make enough to build their home in a self-help construction method in which brick and cement are slowly accumulated and built with the help of their friends, family, and neighbors. While the construction of private homes continues in the *favelas*, public services including lighting, drainage, and garbage removal remain highly irregular and problematic.

Since their origins, *favelas* have been ignored, removed, and relocated by the government, bribed by politicians, self-governed, state-governed, and eventually governed through the manipulation of organized crime. Thus, the socio-political landscape of Rio today is the result of a complex and contentious history. Many actors including local leaders, politicians, drug traffickers, militias, NGOs, residents, and the police have tried to govern these sprawling communities with varying degrees of success. Wrought by police corruption and draconian violence perpetuated by organized crime, *favelas* exist as social places that function through danger and isolation. Even though *favelas* residents found temporary solace in the unofficial governments, they have become actively and passively excluded from the participation in social, economic, and political realms of society. Amid the limelight of two consecutive mega-events, it

is my intention to analyze the most recent transformation of social space in Rio's *favelas* as they receive new physical and social infrastructure.

### **Implications of the Units of Police Pacification**

The pending mega-events in Rio have prompted strategic policy reform in the federal, state and municipal levels (Freeman, 2013: 8). The crux of this reform rests with the implementation of the Police Pacification Units program “*Unidade de Polícia Pacificadores*” (UPP). First inaugurated in the *favela* Santa Marta in 2008, the UPPs were designed to regain control of the *favelas* that had previously only been governed through the draconian rule of the drug traffickers. As opposed to the sporadic and violent raids conducted by the police to seize drugs and arms, the establishments of UPPs have been designed to facilitate the peaceful introduction of police into the *favelas* and to “promote socio-cultural activities” (Oglobo, 2010).

During the fall 2014, the state government had approximately 5,000 pacification police and is “on track to achieve its goal of 40 UPPs by the World Cup” and its goal of 100 UPPs in time for the 2016 Olympics (Freeman, 2014: 8; Michaels, 2012). Considering that there are over 1,020 *favela* communities in Rio and only thirty pacified communities, the UPPs still only exist in a small fraction of Rio's *favela* communities. Although UPPs were designed to foster social cohesion and promote integration, they were soon seen as a force of “indefinite military occupation” that uses repressive means to maintain public order (Freeman, 2014: 8).

As James Freeman explains, the state has started to “colonize” strategically located *favela* communities through violent militarization efforts and the implementation of bureaucratically controlled infrastructure (Freeman, 2014: 8). Since 2008, the UPP police have imposed militaristic curfews, party restrictions, and banned even certain types of music. Abuses in power, human rights infringement, and their uncertain role in the community only perpetuate the feeling

of insecurity and the idea that the police are there to control rather than to protect or help integrate the residents.

In my own research, residents denounced the UPP officers for harassing and humiliating the residents as well as ogling young female residents and using offensive language. One participant even told me that they witnessed UPP officers buying and using cocaine while on the job. Despite a decrease in arbitrary police violence and brutality, residents still live in communities filled with militaristic oppression, corruption, and abuse.

In July 2013, 300 UPP police officers launched an operation called Armed Peace “*Paz Armada*” to arrest fifty-seven drug traffickers on outstanding warrants. Over the course of two days, a total of thirty people were arrested however only twenty-two of which had warrants. One of those arrested without a warrant was a Rocinha resident named Amarildo de Souza. An illiterate assistant bricklayer, Amarildo lived in a one bathroom home in the *favela* that he shared with his wife and six children. Amarildo was taken in for questioning by the UPP police and never returned.

According to the police, Amarildo was released after being questioned however the security cameras that were supposed to corroborate this story were suspiciously vandalized. Conflicting reports also surfaced from the arresting officers themselves, some of which claimed Amarildo has never been apprehended at all. Despite prior complains has been filed against the officers who arrested Amarildo, they were only temporally suspended and made to a refresher police course before returning to the job.

Themes of police corruption and abuse still exist in the *favela* arena, even in the pacified communities. Amarildo, it seems, was just another victim. News of his disappearance had earned some media attention as no less than three protests organized by the community residents who

demanded to know what happened to Amarildo. In fact, many international celebrities soon joined the cause by posting post images of themselves on Twitter and Facebook with signs asking, “Where is Amarildo?” “*Onde está Amarildo?*” To date, the circumstances surrounding Amarildo’s disappearance remains a mystery but the incident has prompted further distrust of the UPP officers.

Much of the discourse concerning the UPPs stems from their effectiveness, or lack thereof. In 2009, there was no hard evidence to support the fact that the UPPs suppress crime. Between the first ten months of 2008, and the same period in 2009, the overall number of homicides actually increased by 4 percent, assaults increased by 7 percent, and attempted murders increased by 17 percent (Barros, 2009). However, a more recent study by Rio's Public Security Institute (ISP) found that the UPPs have in fact yielded overwhelmingly positive results.

According to the Institute of Public Security, between 2008 and 2012 the number of homicides in the twenty *favelas* included in the study fell by 65 percent (Cawley, 2013; Hearst, 2013). However, while some of the communities included in the study had zero homicides, the study itself has been criticized for not including statistics for all forty *favelas* with UPPs. Many of the omitted communities are notably larger and more violent. Additionally, although homicides have been decreasing, it should also be noted that at least twenty-one homicides that occurred in all of the pacified communities between June 2011 and May 2014 were actually committed by UPP officers (Comitê Popular Rio Copa e Olimpíadas, 2014).

Although homicide rates are decreasing in pacified communities throughout the city, this reduction is likely due to fewer indiscriminate invasions by the police coupled with fewer rival drug gang raids. Meanwhile, homicides of residents by the police continue. In fact, according to the Analysis of Violence Laboratory (LAV) of Rio de Janeiro State University, militias which

are largely composed of many police officers, “have become more discreet, hiding the corpses of their victims instead of leaving them to be found” (Stone, 2012; Werneck, 2012). In this way, the statistics related to organized crime are being underreported.

The effectiveness of the UPP is also called into question because a reduced homicides rate is only one indicator of a success. While homicides may have experienced a 7 percent reduction from 2011 through 2012 and street robberies have experienced a 7 percent reduction, kidnappings has almost doubled and disappearances have increased by 10 percent statewide (Stone, 2012; Merola & Ramalho, 2012; Werneck, 2012). Additionally the neighborhood of Copacabana has experienced an “advancement of the homeless population and an increase of 123 percent in assaults on pedestrians” (Amorim & Nascimento, 2014). Thus, despite decreasing homicides rates, other crimes and negative indicators are increasing throughout the city.

It is also feared that the drug gangs are simply relocating. UPP police publish their intentions to enter and then establish a police presence in an effort to reduce the likelihood of conflict. However, this advance warning also gives traffickers the opportunity to relocate to other parts of the city, and other cities altogether. From 2011 to 2012, violence has increased by 8 percent in Minas Gerais. In Minas, there were 71,500 reported violent crimes, 5,700 more than in 2010 to 2011 (Cawley, 2013). According to Secretary of Social Defense Romulo de Carvalho Ferraz, the term “violent crime” includes murder and attempted murder, rape and attempted rape, theft, kidnapping, and extortion. There were also 62 more homicides than 2011 which all correspond with the increasing drug trade (Cawley, 2013).

São Paulo also saw an 18.2 percent increase in homicides in 2012. That same year, the Ministry of Justice published a list of Brazilian States that had the highest homicide rates in 2012. Sergipe, Alagoas, Espirito Santo, Paraíba, Para and Parnambuco ranked in the top five,

while Rio and São Paulo were not listed at all (Antunes, 2012). Even though decreasing crime rates may indicate improving conditions in twenty of the pacified *favelas* in Rio, evidence exists that these results may be highly localized.

The UPPs have been effective on drug crackdowns, and making it more difficult for organized crime to function openly in these communities. As opposed to operating openly in the street, most of the drug trafficking operations as well as their weapons, remain behind closed doors. The presence of the UPPs has sparked an increase in land value and real estate prices in the “pacified” *favelas*. Benjamin Mandel noted that with every 10 percent reduction in homicide, there is a corresponding 1.8 percent increase in property price. Mandel dubbed this, the UPP Effect (Hearst, 2013). In certain cases, real estate prices have soared by 400 percent (Oglobo, 2010).

Due to the implementation of UPPs, certain *favelas* are also undergoing gentrification, where high real estate prices are pushing low-wage earners out of the community. Often, the rush of urban renewal accelerates the process of more passive and organic method of securing and gentrifying vulnerable low-income neighborhoods. With the impending Olympics, the fear is that *favelas* are gentrifying at a rapid pace. Suddenly, real estate moguls are investing in areas of land that had been “previously considered of low market value” (Rolnik, 2009: 7). This sudden real estate interest combined with the newly instituted safety measures is likely to raise property and rental prices, and ultimately, impact the affordability of housing in these areas. If not checked, this subsequent process of gentrification has the ability to result in the de facto eviction of low-wage earning residents from the south zone and city center. For this reason, *favelas* in the north and west zones of Rio are likely to increase in size as these areas will become repositories for the evicted. Figure 3.1 lists the order, inauguration date, and location zone of each UPP in Rio.



Inauguration Date	Unit Number	Favela	Zone
11/28/08	1	Santa Marta	South
02/16/09	2	Cidade de Deus	West
02/18/09	3	Jardim Batan	West
06/10/09	4	Morro da Babilônia / Chapéu Mangueira	South
12/23/09	5	Cantagalo-Pavão-Pavãozinho	South
01/14/10	6	Ladeira dos Tabajaras / Morro dos Cabritos	South
04/25/10	7	Morro da Providência	Center
06/07/10	8	Morro do Borel	North
07/01/10	9	Morro da Formiga	North
07/28/10	10	Morro do Andaraí	North
09/17/10	11	Morro do Salgueiro	North
09/30/10	12	Morro do Turano	North
11/30/10	13	Morro dos Macacos	North
01/28/11	14	Morro de São João / Matriz / Quietto	North
02/25/11	15	Morro da Coroa/ Fallet / Fogueteiro	Center
02/25/11	16	Morro dos Prazeres / Escondidinho	Center
05/17/11	17	Complexo do São Carlos	Center
11/03/11	18	Morro da Mangueira	North
01/18/12	19	Vidigal	South
04/18/12	20	Fazendinha	North
04/18/12	21	Nova Brasília	North
05/11/12	22	Morro do Adeus / da Baiana	North
05/30/12	23	Morro do Alemão	North
06/27/12	24	Morro do Sereno / da Fé	North
06/27/12	25	Morro da Chatuba	North
08/28/12	26	Parque Proletário	North
08/28/12	27	Vila Cruzeiro	North
09/20/12	28	Rocinha	South
01/16/13	29	Manguinhos	North
01/16/13	30	Jacarezinho	North
04/12/13	31	Complexo do Caju	North
04/12/13	32	Barreira do Vasco	Center
06/03/13	33	Morro Cerro-Corá	South
09/06/13	34	Parque Arará/Mandela	North
12/02/13	35	Complexo do Lins	North
12/02/13	36	Camarista Méier	North
02/07/14	37	Mangueirinha	Baixada Fluminense
05/15/14	38	Vila Kennedy	West
03/30/14	39	Complexo da Maré	North

Figure 3.1 UPP Locations in Rio. Chart compiled by author, 2014.

### **Case Study: Morro da Providência**

Morro da Providência is the oldest *favela* in Brazil—approximately 110 years old—and sits on a hill in the heart of the Porto Maravilha Project “the country's first public-private partnership (PPP) for the urban revitalization” (Odebrecht, 2011). In November 2010, Odebrecht Infraestrutura, OAS, and Carioca Engenharia formed the Porto Novo Consortium and signed a \$7.6 billion contract which included a 15-year concession to redevelop three neighborhoods in the Port Region including Santo Cristo, Gamboa, and Saúde all of which share their northern boundaries with the Guanabara Bay in the Port Region (Odebrecht, 2011). Piauí Magazine has called Porto Maravilha one of the “most expensive and ambitious” urban infrastructural projects associated with the Rio 2016 Olympics.

Together, the Porto Novo Consortium and Morar Carioca, a *favela* upgrading program funded by the municipal and federal governments, plans to invest a combined total of between R\$119,200 and R\$131,000 to transform the Port Region “Região Portuária” into a tourist destination within the next fifteen years (Secretaria Municipal de Habitação, 2011; Prefeitura do Rio de Janeiro, 2012: 156). Morar Carioca or the Municipal Plan for the Integration of Informal Settlements is a development project implemented through the Municipal Secretary of Housing (SMH) and funded by the city government, the federal government, and the Inter-American Development Bank (Banco Interamericano de Desenvolvimento). The upgrading works of Morar Carioca are part of the investment plan of the second phase of the Growth Acceleration Program (PAC) of the federal government. Between 2007 and 2011, PAC invested R\$ 27.2 billion in 3,760 projects between 2007 and 2011 (Neele, 2012). According to Sérgio Magalhães, President of the Institute of Architects of Brazil, the Morar Carioca project intends to formalize all *favelas* in the city and guarantee public services for an estimated 89,000 domiciles (Secretaria Municipal

de Habitação, 2011). Figure 3.2 indicates the location of Morro da Providência (in red) inside the Porto Area (blue) as it is defined by UPP jurisdiction.

*Morar Carioca* was announced in 2010 as an ambitious method to “re-urbanize” all *favelas* by 2020 and to integrate them socially and physically into the fabric of the city (Prefeitura do Rio de Janeiro, 2012: 152; Steiker-Ginzberg, 2014). As of 2012, *Morar Carioca* has already spent R\$2 billion in 55 different communities. *Morar Carioca* has plans to spend an additional R\$8 billion by 2020 to build and improve services throughout the city such as lighting, paving, drainage and sewage systems, street cleaning, housing upgrades, tunnels, plazas, viaducts, community facilities, and regularize land tenure for 320,000 households (Prefeitura do Rio de Janeiro, 2012: 153; Secretaria Municipal de Habitação, 2011; Prefeitura, 2010; Steiker-Ginzberg, 2014). In a “social revolution” *Morar Carioca* also promotes social, cultural, and leisure activities to increase the Human Development Index (Steiker-Ginzberg, 2014).

In Morro da Providência specifically, the Porto Novo Consortium and *Morar Carioca* were expected to deliver several renovations including a Historical and Cultural Center, an amphitheater, an Area of Child Development, a Sports Center, and a Center for Labor, Employment and Income. In addition to paving sidewalks and pathways, the cornerstones of these renovation projects in the community were 1) the cable car (*teleférico*), 2) the funicular tram, and 3) an internal road to accommodate cars and motorcycles. Overall, this dramatic infrastructural transformation was set to “improve the quality of life” and “help transform the Morro da Providência a new tourist attraction” (*a intenção do teleférico e do plano inclinado é ajudar a transformar o Morro da Providência numa nova atração turística carioca*) “without the use of public funds” (Prefeitura do Rio de Janeiro, 2012: 156; Odebrecht, 2011).

On paper, Morar Carioca was an ideal strategy to achieve the goal of complete *favela* integration by 2020. In 2010, the Institute of Brazilian Architects (IAB) chose 40 architecture firms to implement infrastructural improvements in selected *favelas* with the help of a social organization called iBase. iBase was contracted by the Municipal Secretary of Housing (SMH) to provide a participatory on-the-ground presence to gauge the needs and desires of the residents. However, three years later in January 2013, the city terminated iBase's contract and citing lack of funds. Suddenly, Morar Carioca as an ideal solution to *favela* upgrading began to disintegrate as funds were being siphoned to other political agendas. Meanwhile, Morar Carioca continued without a proper social methodology proving detrimental to both the Morar Carioca Program and the residents of Morro da Providência (Steiker-Ginzberg, 2014).

Despite Morar Carioca's intention to provide positive social and infrastructural changes, the Municipal Secretary of Housing (*Secretaria Municipal de Habitação-SMH*) threatened to forcibly evict 832 families from their homes in execution of these municipal plans (Comitê Popular Rio Copa e Olimpíadas, 2011). In 2011, using blue spray-paint the Secretary of Municipal Housing drew the letters "SMH" on several houses in Morro da Providência to indicate the city's plans for their removal. However, according to residents, the SMH incursion "occurred without giving residents any official document with guarantees, commitments, deadlines, functional identification of personnel responsible for the care" (Comitê Popular Rio Copa e Olimpíadas, 2011). And, in at least one case, the city forced a child to sign the official documentation for the removal process (Comitê Popular Rio Copa e Olimpíadas, 2011).

On Friday June 10th, before the erection of the cable car station, the UPP Social Program hosted a public meeting on Praça Américo Brum where approximately 200 attendees sat on rented plastic chairs. Most people inside the plaza were representatives from outside the

community, while many of the residents sat, as spectators, on concrete benches on the other side of the fence. During the course of the meeting, which started an hour late, several municipal officials spoke eloquently on behalf of the revitalization projects including Rio's housing secretary Jorge Bittar, President of the Instituto Municipal de Urbanismo Pereira Passos and Coordinator of the UPP Social program Ricardo Henriques, and the Municipal Secretary of Labor and Employment Augusto Ribeiro. Also in attendance was Paul Vidal, the Municipal Secretary of Culture, Alberto Silva of the Urban Development Company of the port region, Joaquin Miller, the secretary of the Municipal Department of Conservation, as well as several UPP Captains, NGOs, researchers, and myself.

Just as the administrative officials went to work on this Friday morning, so too did many residents. In this respect, the lack of community residents during the meeting only underscored its absurdity. Officially, the purpose of the meeting was to open a dialogue between residents and city officials about the current Morar Carioca upgrading project's plans which seek to unite the divided city and to bring transparency to the pacified regions. Although city officials emphasized the importance of citizenship and participation during the project finalization, the only vocalized concessions on behalf of the government concerned the specific location of the cable car which was moved from the right side of the staircase to the left. Meanwhile, when resident leaders including Rosiete Marinho and Maurício Hora expressed their concerns about social infrastructure and the lack of accessible information, officials were disrespectfully looking at their watches and laughing amongst themselves.

The residents of Morro da Providência are not opposed to the infrastructural plans. In fact, many residents are quite content to receive a cable car and a funicular tram to facilitate their daily commutes as many residents who live higher on the hill are elderly, handicapped, and have

young children. However, residents complain that the government is treating them like “invaders” and denying them timely and accurate information.

Moreover, the underlying problems are three-fold. The first problem is that the Morar Carioca plans were based on a land survey completed for the Favela-Bairro project that cited that houses were “at risk” despite having undergone renovations years ago. The second problem is that the residents were never consulted and those residents whose houses that had been marked for removal were not properly informed about their relocation options, legal rights, or a timeframe for when they would have to vacate their homes. And thirdly, although 1061 families living in at risk areas were to be relocated under the Minha Casa Minha Vida program in Morro da Providência or in surrounding areas, the new homes would only be built two years after demolition of their old ones (Secretaria Municipal de Habitação, 2011).

The 665-meter-long *teleférico* (cable car) has recently been built and connects the newly renovated Cidade do Samba in the Port Area to Providência, and Central do Brasil Metro and SuperVia train stations. The cable car, which accommodates up to 1,000 passengers each hour, has sixteen gondolas with an eight-person seating capacity with room for an additional two people on-foot. Unlike the state-run cable car in *favela* Complexo de Alemão which has been operational since 2011 and cost R\$210 million, the cable car system in Morro da Providência cost R\$75 million to build and will be run by Companhia de Desenvolvimento Urbano da Região do Porto (CDURP) a public company bound to the municipality (Gurgel, 2013). The city has not yet disclosed how much the cable car’s operation and maintenance is likely to cost the taxpayers. Although the location of the cable car station in Morro da Providência is also accessible by car, mototaxi, and kombi, the cable car serves the community residents for free and provides a new

option for mobility and transportation. Hours of operations are likely to be extended in September when the testing phase is complete.

The cable car was inaugurated on July 2, 2014 nearly fifteen months after its construction was complete. The delay, in part, was due to an August 2013 court action filed by the Public Defender's Office. The Public Defenders represented the community residents who lived in an area of risk or in an area needed for the implementation of the funicular tram. In a project that sought to relocate at least 600 families—nearly 1,500 people—from Morro da Providência, the public defenders argued that the city did not perform the proper Environmental Impact Assessment study nor did they attain a Neighborhood and Environmental Impact License (Pontes & Magalhães, 2013).

Additionally, the civil action suit against the city argued that construction for the Morar Carioca project began without public consultation in which neither the project nor alternatives were presented to the community residents (Comitê Popular Rio Copa e Olimpíadas, 2014: 29). According to a dossier published by the Comitê Popular in 2014, despite “the amount of resources and the impact of interventions in the city...decisions regarding these investments did not undergo a broad democratic discussion, involving all segments of society, putting in question the design of the city it is built” (Comitê Popular Rio Copa e Olimpíadas, 2014: 6). Residents are lawfully entitled to participation in the decision-making process of planning projects that affect their community. Thus, the way in which the Olympic planning took place was authoritarian and “contrary to the guidelines of the City Statute (Law 10257/2001)” (Comitê Popular Rio Copa e Olimpíadas, 2014: 68). Ultimately, court action was successful in suspending construction associated with the Morar Carioca project.

Despite appeals by the city who argue that pamphlets had been distributed, the prosecutors also demanded new environmental impact studies to better assess these areas and to render Morar Carioca more transparent to the residents. The court action froze all public works construction projects in the community including the construction of a sports center, the funicular tram, and seven affordable housing units provided through the *Minha Casa, Minha Vida* program, as well as new sewage, drainage, street lighting, and paving initiatives. However, the completion of the cable car was allowed. Construction of the cable car continued because the city alleged that the equipment was bought before the court action and that its completion would not jeopardize the community or its residents. Furthermore, it was suggested that the R\$75 million dollar project and its equipment would deteriorate if not used.

On one hand, the suspension of Morar Carioca prevented the removal of 832 families in Morro da Providência, nearly 380 of which were at risk due to “landslides or unsound construction” (Atunes, 2013; Constancio, 2014; Santos & Asevedo, 2011). After a series of meetings to reassess the Morar Carioca project, only fifty-six families were living in areas of risk (Constancio, 2014). In fact, a 2011 report on technical visits in the communities of Morro da Providência and Pedra Lisa by local engineer Maurício Campos dos Santos and local architect Marcos de Faria Asevedo encouraged families living in “at risk” areas not to leave their homes because city reports have long been “inaccurate” and “inadequately studied” (Santos & Asevedo, 2011). To date, the number of families threatened by removal has been significantly reduced and only sixty families have actually been removed (Comitê Popular, 2014: 20).

On the other hand, along with the ill-compensated removal of homes and businesses, Praça Américo Brum, the largest and most utilized public square in the community, was razed by the city to accommodate the cable-way station. In the original plan, the plaza was supposed to be



rebuilt in a different location in the community, however all construction work has ceased.

Although construction on the cable car is now operational, the construction of the funicular tram (*plano inclinado*) which was to link the Ladeira do Barroso to the Praça da Igreja do Cruzeiro never began.

It should be noted that while the cable car provides alternative transportation to a mid-way point on the hill, the only way to reach the top neighborhoods of Morro da Providência is by walking up the historic 165-step staircase. The funicular tram was supposed to run alongside the south side of the staircase and connect the cable car station to the century-old Penha chapel, leaving only a short walk to the Capela das Almas, an oratory built by *favela* residents in 1902 to honor the soldiers who died in the Canudos War. The residents living in the space alongside the staircase opposed the tram because many of their houses would have had to be removed. Meanwhile, other residents who lived beyond the staircase suggested that the tram would have been useful, but not at the cost of their neighbors losing their homes. Ultimately, the tram and the 1.5 meter wide internal road “to facilitate the circulation and the access of residents” (*facilitar a circulação e o acesso de moradores*) were also abandoned (Prefeitura do Rio de Janeiro, 2012: 155).

Morar Carioca was not the first infrastructural project to be implemented and then abandoned in Morro da Providência. The 180 million USD Favela-Bairro Program, funded by Inter-American Development Bank (1994-2008) intervened in seventy-three communities to make minor housing and environmental improvements (Inter-American Development Bank, 1995; Fiori, Riley & Ramirez, 2001: 48). However, as opposed to a sustained state presence this and many other initiatives have often been considered make-up “*maquiagem*” for the English to see “*pra os Ingleses ver*” (Perlman, 2010: 278). *Favela* projects, like the Favela-Bairro Program,

are not based on priority of services or infrastructure and is regularly “abandoned or begin to degrade soon after completion” (Freeman, 2014: 13).



Figure 3.2 Morro da Providência Within the Port Area. Google base map modified by author, 2013.

The Favela-Bairro program did have some positive effects in Morro da Providência however. The program helped pave some of areas of the higher portions of the hill, introduced sturdier building materials, and built three view-points in conjunction with an Open Air Museum. The Open Air Museum did not consist of informative panels, but was a self-guided tour that followed a metal inlay in the stone flooring. By following the inlay, you would walk around the upper part of the hill seeing two churches, the water tower, and the three overlooks built for the museum. Like most *favela* interventions, the museum was short-lived and did not attract many participants. Meanwhile, the benefits of sturdier housing benefitted a limited few.

In 2010, Morro da Providência had 1,720 houses and a population of 5,500 (Secretaria Municipal de Habitação, 2011). Only 36 percent of residents have documentation titles for their land. In other *favelas*, between 70 to 95 percent hold their titles (Williamson & Hora, 2012).

Approximately 98 percent of the homes in Providência which house on average 3.7 people per household “are made of sturdy brick and concrete and 90 percent have more than three rooms” (Williamson & Hora, 2012). While 92.9 percent of the community has access to water and 86.8 percent of sewage is collected by a regular network, 3.8 percent of the community still only has access to an open ditch and 1.3 percent of the community does not have a bathroom. Lighting is also only available to 37.6 percent of the community, while 57.3 percent officially utilize electricity. Only 35.4 percent have regular garbage removal and the accessibility to daycare centers, schools, and grocery stores remain challenging.

With the consent of the residents, I have implemented a mental mapping project as a way to assess the social and spatial change in the community. The mental mapping project as a methodology have facilitated semi-structured interviews and produced tangible and unique historical records in the form of maps, which illustrate how state-sponsored infrastructure has reordered the physical and social spaces of the *favelas* in Rio. “Ethnographic research methodologies are increasingly judged by the ability to portray...the lived experience” (Low, 2011: 127). Thus, my research integrates the perspectives of social production and social construction which contextualize people as social agents (Low, 2000). Ultimately, my research project clarifies the state-sponsored ideology of *favela* integration and also contributes a model for successful and sustainable urbanization projects in high-profile, low-income urban communities.

## Chapter Four Project Methodology

*“The brick walls are there for a reason. The brick walls are not there to keep us out; the brick walls are there to give us a chance to show how badly we want something. The brick walls are there to stop the people who don't want it badly enough. They are there to stop the other people!” -Randy Pausch*

### Introduction

Since I was first introduced to *favelas* in 2005, I have traveled to Brazil seven times and spent nearly three years studying, volunteering, and working with various geographically and thematically distinct non-governmental organizations in upwards of twenty-five distinct *favela* communities. In my work to increase the global visibility, networking capability, and capacity building of *favela* residents, I could not escape the constant discourse surrounding the complex and multi-faceted problems associated with *favelas*. As opposed to reiterating the problems, I have devoted much of my graduate research to the study of the production of social space as well as the approaches and consequences to *favela* urbanization in order to implement apt solutions. I wanted to analyze if and how community solutions would be resolved considering that Rio's landscape would inevitably transform as a result of the 2014 FIFA World Cup and 2016 Olympic Games.

My doctoral research project rests at the intersection of mega-events, development, and urban transformation. In preparation for the 2016 Olympic Games, the city of Rio de Janeiro has implemented Units of Police Pacification (UPPs) in *favelas* that are currently controlled through the manipulation of drug traffickers and militias. In addition to receiving a police presence in the form of UPP officers, these newly “pacified” *favelas* are receiving state-sponsored infrastructure including trams, cable-ways, roads, and attraction maps.

At present, the Units of Police Pacification have pacified thirty-nine *favela* communities (Rio Prefeitura Instituto Pereira Passos, 2014). Each pacified *favela* is in the process of receiving various levels of state-sponsored infrastructure. In the North Zone, Complexo de Alemão has acquired an elaborate cable car system, while in the South Zone, Santa Marta has received a tram and accompanying tourist maps. Babilônia has received paved pathways, staircases, and plazas, and Cantagalo has received an elevator to facilitate the movement of its residents from the hillside down to street level. As mega-events transform social spaces and displace people, *favela* residents develop new relationships with the newly implemented infrastructure. In order to capture the perceptions and relations associated with the production and transformation of social space, I spent nearly five months conducting a mental mapping exercise with the residents of Morro da Providência.

Morro da Providência is located in the neighborhood of Gamboa in the heart of the old Port Region. Before Rio's Port Region fell into disuse and abandonment, the Port Area is where the sugar, salt, and slave trade first began. Although the existence of *favelas* was not recognized in the area until the 1920 census, the Port Region has been continuously occupied since the early 1800s. Some of the houses dating back to the 1840s are still in use. Irrespective of its current dilapidated nature, the Port Region is still regarded as the cultural hearth of the city, the birthplace of samba, and the oldest *favela* in the world, Morro da Providência. Morro da Providência which received a UPP unit in 2010 is also located within the heart of the Porto Maravilha renovation project.

According to *Piauí Magazine*, Porto Maravilha is one of the “most expensive and ambitious” urban infrastructural projects associated with the Rio 2016 Olympics. Combined with funds from Morar Carioca, a *favela* upgrading program run by the municipal and federal

governments, Porto Maravilha has plans to spend approximately R\$164 million (US\$80 million) dollars to erect a cable car, build a funicular tram, and widen roads in Morro da Providência.

Along with ethnographic interviews and participant observation, my objective is to evaluate the success of large-scale, fast-paced urbanization strategies implemented in under-served communities in Rio de Janeiro using mental mapping as a strategic methodology. In what follows, I describe the methods that structured my research project from February until July 2013. In this chapter, I discuss the methods I chose to employ during my field research.

### **Language of Fieldwork in Morro da Providência**

The relationship between humans and their environment has been assessed through a multitude of methodologies. To better understand the world as it is experienced by those who live it, “an increasing number of researchers in human geography have drawn on qualitative methods in their work” (Crang & Cook, 2007: 1). Throughout my research, I have primarily used qualitative methods in my inquiry to elucidate my understanding of how social space in Morro da Providência is given meaning through its experiential use. While being cognizant of my own relationships, biases, and situational constraints, I employ qualitative research methods such as participant observation and ethnography to understand “the socially constructed nature of reality” (Denzin & Lincoln, 2005: 10).

Additionally, I also employ mental map-making as an unexpected, yet integral and powerful methodological tool (Soini, 2001). Although there is much literature in regard to what and why people map, very little is said concerning how one should map. In this section, I discuss the methodologies used for my mental mapping project in Rio. Specifically, I discuss the rationale for employing participant observation, ethnography, and map-making in the field.

Participant observation is the primary method through which geographers have tried to “understand the world-views and ways of life of actual people in the context of their everyday lived experiences” (Crang & Cook, 2007: 37). To do so, I arrived in Rio during the height of Carnival 2012 ready to immerse myself in the *favelas* of Rio. However, before heading into the community to implement my project, I wanted to make sure my ideas were timely, culturally, and contextually appropriate. Although I have been studying *favelas* in Rio since 2004, it is always a good idea to brainstorm with an involved contact on the ground.

During the two-week celebration of Carnival, I met with Theresa Williamson, my former employer and founder of the non-governmental organization Catalytic Communities. Daughter to an English father and Brazilian mother, Theresa Williamson is a third-culture child born in Brazil and raised outside of Washington D.C. Theresa earned her Ph.D. in urban planning from the University of Pennsylvania and now lives in Rio de Janeiro with her daughter. For her dissertation project, Theresa created the NGO Catalytic Communities to promote the exchange of ideas between *favela* residents during the dot-com era boom. Since then, her organization has transformed into a community leadership platform aimed at debunking the myth of marginalization in *favelas* by empowering residents through training and social media.

I met Theresa in her Ipanema home to discuss spending the next five months doing field research. I explained that I wanted to assess the transformation of social space in Morro da Providência by asking the residents to draw mental maps. Together, we discussed what kinds of documents I might need to prepare before entering the community and also about the logistics of how to phrase things in a culturally appropriate manner in Portuguese.

In an attempt to “conceptualize my subject” I needed to make my intentions clear and accessible to the residents of Providência (Crang & Cook, 2007: 8). For instance, Theresa and I

discussed talking about “future” infrastructure, which is often difficult for people to conceptualize, we decided that “alternative” infrastructural plans might be more effective. We even discussed choosing a field name for me as “Jamie” is neither common nor easy to pronounce in Portuguese. Ultimately, I decided to continue using my real name, although it was indeed difficult for the residents to pronounce. In fact, with the Carioca accent, the “j” sound is often pronounced as a “d” sound. Thus, in the field, most of the residents understood my name to be “Dimi,” similar to the dimmer-switch one might find on a light fixture.

By the end of our collaborative meeting, my ideas had been polished into a feasible and valuable project. Any doubts that I had chosen the wrong *favela* or that my project was not culturally appropriate had disappeared. Upon Theresa’s suggestion, I prepared two documents in anticipation of my fieldwork: an introduction to the project itself and a set of location maps (Documents 1 and 2. See appendix for original in Portuguese).

The introduction served three primary purposes. First, it stood to introduce myself. In a tight-knit community with a drug trafficking presence (*Commando Vermelho*), it was important to communicate clearly about my identity and employer. Universally, it is rare that people are willing to answer your questions if they do not know why the questions are being asked or with whom that information will be shared. Second, the introduction served to introduce and to clarify my research intentions. In creating an introduction, I was able to very plainly and concisely lay out the objectives and ordered instructions for my project. Lastly, the written introduction helped me memorize a standardized script. Although my interviews were predominantly unscripted and unstructured, this written introduction reminded me that there was an order to the project and that there were certain words and phrases to avoid. Sometimes the use of the wrong vocabulary would result in the refusal of a resident to participate.



It should also be noted that beyond knowing what I could and could not say to the residents of Morro da Providência, the color pens that I used could also be considered controversial. Shortly after my arrival in Rio, I told my Carioca flat-mate Mariana about my mental mapping project. I explained that in addition to the clip-boards I brought from the US, I would need to buy three different colored pens so that my participants could draw their maps. Considering that paper is particularly vulnerable to wind, dirt, rain, and sweat, I half-jokingly explained the gravity of choosing good pens. I began to comment—at length—about the importance of choosing quality pens with an adequate line thickness that would not smudge or bleed too easily. While Mariana completely disregarded my pen quality requirements as absurd, she did insist that I think very carefully about my color choices.

Black and red are associated with the soccer team Flamengo, while green and red are associated with a rival team, Fluminense. Although I knew that allegiance to soccer teams often starts in the womb, I had not considered that people would be more or less likely to participate in my project based on the colors of pens I had available. In addition to the colors associated with soccer teams, I also had to be conscious about the association of colors and drug trafficking.

Like with soccer teams, drug trafficking factions also have identifying colors. For instance, Morro da Providência is controlled by the drug trafficking faction, *Commando Vermelho* or the Red Command. While red may have been a safe color choice in this particular community, I did not want to align myself too closely with the Red Command. Nor did I wish to be aligned to any other drug trafficking faction. Thus, considering the religious allegiance Cariocas have with their soccer teams and the political alignments some have to drug trafficking factions, I finally decided that blue, orange, and green would be the safest and most appropriate color combination.

In the introduction to the project, I introduced myself as a researcher from the geography department from the the Louisiana State University in the United States. I very clearly explained that I was there in the community to learn more about the use of social space and how that space is changing. I then asked the residents to participate by drawing a simple map of their community—from memory—indicating places of importance including where they live, shop, spend leisure time, and enter and exit the community. To exemplify and differentiate the transformation of social space, I divided the research project into two distinct stages understanding the 1) past and the present and well as 2) alternative infrastructural plans.

In the first stage of the project, I asked my participants to use the blue pen to represent the past. I asked the participants to indicate places in the community that they remembered from when they were a child or from when they first moved to the community. I assured them that these places need not exist today. I suggested that they begin with an "X" by marking where they used to live and then draw four of five important places that they would frequent in relation to their homes. For example, important places might include where they used to buy food or where they used to spend leusire time. Then, I then asked them to use the orange pen to represent the present. Using orange, I asked the participants to indicte where they currently live as well as the places that are important to them today.

In the second stage of the project, I informed the participants that the city government (*aprefietura*) has plans to reorganize social space in their community. I asked the residents if they had seen the city plans for this reorganization and if they had been consulted in the process. I then asked the participants to think of an alternative plan. If the participants had been given the opportunity to suggest an alternative plan, what suggestions would they make and where would

those changes be located? Using a green pen, I asked the residents to draw or list an alternative plan to reorganize the social space in the community.

In order to “render the world transparent and coherent” (Pratt, 2000: 641) through ethnography, my original objective was to have the residents use all three colored pens. However, in practice, this was not always possible. As a researcher, I had foreseen the resistance to drawing mental maps. To facilitate the drawing process I brought two light-weight clipboards, colorful pens, and off-white recycled paper to make the blank paper less intimidating. I even made a note to mention that real drawing skill or talent was optional. Even though I assured my participants anonymity, during the research process I heard countless participants say, “I will talk to you, but I’m not going to draw anything.” Most of my participants were exceedingly self-conscious and insisted that they did not know how to draw.

After a knee-jerk resistance, many residents did eventually draw a map. However, because it was so difficult to convince the residents to draw, if a reluctant participant began to draw, I did not want to distract his or her efforts by suggesting that they change the color of their pen. Additionally, some of the older residents did not fully understand the instructions and chose a pen at random. For these reasons, twenty-four of the mental maps are drawn in just one color. Ultimately, it was important that the residents were drawing; the color of pen they used was not as important.

Even though I took the typed, printed, and laminated introduction document into the field with me every day, I hardly ever used it. Although it was essential to prepare, reading this document aloud to residents proved cumbersome and time-consuming. It was simply not pragmatic. Thus, I often opted to recite a shorter, unrehearsed version of the document to my participants.

In the beginning, the unrehearsed version did cause problems. For example, while it was perfectly legitimate to say that I wanted to talk to the residents about “changes in social space”, it was not okay to say that I wanted to talk to them about “the new infrastructure” (*obras*). The word *obras* conjured feelings about the city officials and forced evictions after which the residents refused to be interviewed. As such, I quickly learned to soften my approach. I learned that it was okay to talk about the *obras*, but this particular word could not be included in my introduction. I had to start out slowly and gain the trust of my participants before moving onto such a sensitive topic.

Being able to speak and understand the language is a huge asset and practically “imperative” in the field (DeWalt & DeWalt, 2002: 57). Although I have never taken a formal Portuguese class, I have spent nearly three non-consecutive years in Brazil learning the language. During this time, my Portuguese has markedly improved and I am now considered fluent. Considering the abundance and variety of slang words and some very heavy accents from Portugal and northeastern Brazil, I often had to ask for clarification during my interviews. However, the fact that I had to ask the meaning of certain words only underscored the fact that I was listening, understanding, and cared about what my participants were saying. I was often complimented in the field for being able to speak Portuguese so well even though I knew I constantly made small errors.

Despite my errors, it was important to me that I was able to speak and understand Portuguese without the aid of a translator. Employing translators is tricky. Translators often have preceding reputations or standings in the community that may affect the responses I get from my participants. Translators may also confuse or obfuscate the situation due to their own biases or misinterpretation. Translators may also intentionally or unintentionally dilute the complexity or

ignore subtleties of language. I simply did not want to have another person in between me and my participants. I wanted to foster trust and nurture the delicate and authentic relationships that I was able to forge with my participants. With ethnography, there are many ways for meaning to become lost or misinterpreted (Crang & Cook, 2007: 24). Thus, I chose to rely on my own interpersonal skills and Portuguese language skills to eliminate the unnecessary and provide consistency during the translation process.

Additionally, being able to speak and understand Portuguese was so important because I wanted to be attuned to my surroundings and be able to understand peripheral conversations. Eavesdropping, in this case, was not to pry into the business of others; it was a necessary safety mechanism. In the event of a crisis, I would not have to rely upon others to tell me what was going on, I would be alerted to danger firsthand. Being able to speak and understand Portuguese would also safeguard me against any potential gossip, exploitation, or inappropriate behavior.

When I was in the community, I would try to speak Portuguese exclusively. I knew that speaking English, or any other language that the residents did not understand, would only breed distrust. However, I frequently guided friends and other researchers through Morro da Providência who did not speak Portuguese. Before I entered Morro da Providência with a non-Portuguese speaker, I always informed them about my one rule: never say the word “*favela*.” Although Morro da Providência is indeed the oldest *favela* in the world, the term does not come without connotation, especially while spoken in the *favela* in English by *gringos*. As a sign of respect, I suggested we use the word “communities” instead.

After several weeks, I started to feel more comfortable speaking English with non-Portuguese speakers while in the community. On one occasion, a fellow researcher and I were speaking English, and as I could have predicted, it was not long before a teenage girl from the

community approached us and asked, quite condescendingly in Portuguese, “Do you even speak my language?” Luckily, I was able to quip back at her immediately. In Portuguese, I joked, “oh, I didn’t know it was *your* language.” And of course, we both smiled and had a laugh. I used this opportunity to introduce myself and explain why we were in the community. It was on these types of occasions that I was pleased to know the language so well. Once I was able to demonstrate that I could understand and could speak Portuguese, those who had doubted or perhaps even disrespected me, began to speak with me very seriously.

Thus, the language of fieldwork in Morro da Providência extends far beyond being able to speak Portuguese. Subtleties of language and culture, of knowing what to say, what not to say, and when to say it, are all extremely important aspects of cultivating a strong qualitative research methodology. Even though I took great care to construct a culturally and textually appropriate introduction document, the research process seldom goes as planned as there are many surprising and unforeseen complications in the field. “Every ethnographer makes mistakes” and luckily, these mistakes are “rarely fatal either to the individual or to the research” (DeWalt & DeWalt, 2002: 19).

Ultimately, I chose to use paper and colored pens, some of the most accessible materials to make the mental maps. I did not want to enter the community as a foreign researcher with a valuable piece of technology like a hand-held GPS device. Not only does the average *favela* resident not have access to this type of high-level technology, I would have been met with suspicion and evaded. By using relatively inexpensive materials demonstrated that this mapping project could be replicated with basic materials. I also had no desire to use a GPS device to recreate a map whose coordinates already exist on the satellite images published by Google. This would have defeated the purpose of my research project. Although I did indicate where each

interview took place and places in interest on a Google map that I created (Figure 5.1), I could easily do this from home, after I left the community. However, while this was a strategic methodology to facilitate note-taking, this was not my focus of my research project. The purpose of my project was to translate the mental maps of the residents to understand the interactions that residents have with their transforming social spaces. This would not have been possible using a GPS.

### **Location Maps**

The second document I prepared before entering the community was a set of location maps. Very few Morro da Providência residents have regular access to the internet and even fewer are adept map readers. Therefore, I was concerned that when I asked them to draw a mental map, they might not know where to begin. Originally, it was my idea to have a set of location maps so that I could situate the residents and give the residents a base from which to form their own mental maps. I even included one example map with some important places already identified.

However, similar to the introduction, even though I produced a set of location maps to locate and establish physical boundaries of the community, I never showed it to the participants. “Geographers have long been exercised by the problem of defining regions, and this question of ‘definition’ has almost always been reduced to the issue of drawing lines around a place” (Massey, 1994: 152). Instead of succumbing to a fixed idea of where or what Morro da Providência is, I decided it was better for the participants to tell and show me. Ultimately, I thought that providing a set of location maps might be detrimental to the mental mapping process. As a geographer, I believe that every person has a map or a set of maps in their mind that describe the world around them. A mental map is not a perfect map, but it is also not

supposed to be perfect. The inclusions, omissions, and the distortions are all what makes the mental map so interesting. I explained this idea to my participants, and they all agreed they had a map of their community in their own minds.

As Cook and Crang suggest, “people cannot simply be expected to report all the ‘facts’ of their lives. In their telling, life stories involve a recasting of the past, omitting some elements, stressing other, ‘forgetting; much more and constantly referring outside the frame of the research encounter” (Cook & Crang, 2007: 11). Drawing maps is very much like telling a story. Map-makers similarly cannot be expected to transmit all the facets of their lives onto a two-dimensional piece paper. Some elements are augmented, omitted, or forgotten. However, while the participant’s maps were often incomplete and imperfect, every map was unique and told a story of about their personal histories and the social spaces in their community. It was through these maps based on their own mental images that I was able to see and learn about the community.

Thus, although it seems ironic from a geographic standpoint, I did not want to contaminate the mental orientation of my participants by showing them a set of maps made from actual satellite imagery. Beyond contamination, the actual satellite image would create an unrealistic expectation of what the mental maps were supposed to look like. I did not need a “perfect” map of the community. I already had access to satellite imagery. I wanted to garner a map depicting the places and spaces, twists and turns, that were important to the people who lived them.

### **Access Data**

My first visit to Morro da Providência in 2012 was on Saturday February 23. In addition to accompanying Theresa who was guiding an Australian television crew through the



community, it was an opportunity to re-introduce myself to photographer and informal community leader, Maurício Hora (aka Maurício da Costa Moreira Silva). I overtly told Maurício about my project and asked him if I could start conducting interviews. Although I could have entered the community alone at any time, it was extremely important to gain access to the community first by asking a respected resident. For me, both Theresa and Maurício were the essential “gate-keepers” to Morro da Providência (Cragg & Cook, 2007: 18).

According to Cláudia Antunes’ 2013 article, “*Os discontentes do porto*” “The Port’s Discontents,” Maurício was born and raised in Providência and still lives there with his wife and son. “Maurício inherited his green eyes from his Portuguese grandmother” while the majority of his ancestors were blacks who have long lived in the Port Area (Antunes, 2013). Luizinho, Maurício’s father, ran a drug-dealing point (*boca de fumo*) in the community before he was arrested in the late 1970s (Antunes, 2013). Before becoming a famous photographer whose work has been on exhibition in the Paris subway and a character in the comic book by André Diniz called “Morro da *Favela*”, Maurício held many jobs including “mechanic and goldsmith” (Antunes, 2013). Today, Maurício heads a cultural center located at the top of the historic staircase in Providência called Casa Amarela (Yellow House).

Casa Amarela was initially bought by JR, a French artist and photographer who visited the community in 2008 after three residents were killed at the hands of a rival drug gang. JR and Maurício completed a project called “Women are Heroes” where photos were taken of the female residents and then plastered on the walls of nearly 40 houses in the community. The purpose of the project was to illustrate that there are real people living in houses in the *favela* communities. Maurício has been doing, collaborating on, and promoting similar art projects with Casa Amarela ever since. As such, Maurício and has become a very popular and respected figure

in the community. In fact, because most of the “gringos”, artists, and researchers who enter the community go directly to Casa Amarela to meet Maurício, I was frequently stopped by residents who were concerned that I was lost and headed in the wrong direction! I had to explain that Maurício knew I was in the community but he and I were working on separate projects.

In addition to speaking with Maurício, it was also my intention to introduce myself to the Resident’s Association. However, before the July 2013 election to institute new leadership in the Association, most residents spoke so critically about the Association that I actually thought it was best to avoid them. With Maurício’s consent, I returned to the community on Monday March 4, 2012 to officially begin my research project.

### **Data Collection**

It is the goal of “qualitative research is to understand something meaningful about the lives of other people” (Crang & Cook, 2007: 23). In order to attain this understanding, the researcher must be able to observe and participate in the lives of those they wish to understand. At its core, a “trained observer” is simply one who pays attention to the nuances of everyday life (DeWalt & DeWalt, 2002). However, a qualitative researcher is one who is able to both pay attention to the observable of everyday life and reflect upon how these gradual observations color our understanding of a society. Combining the field methods of Anthropologists Margaret Mead and Bronisław Malinowski, I chose to qualitatively employ participant observation as one of my primary ethnographic research methods.

Participant observation is the “foundation of the ethnographic research design” (DeWalt & DeWalt, 2002: 16). Contemporarily, participant observation is considered both an approach to understanding the “holistic description of a culture” as well as an approach to address a particular problem or aspect of social life (DeWalt & DeWalt, 2002: 8). In respect to my research

project, participant observation aided in the understanding of both the culture of the use of social spaces in the community as well as the problems associated with the production of new social spaces in Morro da Providência.

Additionally, participant observation is a valuable data collection and analytic tool that permits non-verbal communication. It is possible to gather and discern valuable information without speaking with or interviewing participants. Participant observation allows for a trained observer simply to examine the relationships that play out on the landscape. Therefore, in addition to entering the community to speak with individuals and have them draw maps, I also entered the community to observe how people interacted with others as well as with their environment.

Both ethnography and participation are active and engaged processes rather than products “to be read off” (Lees, 2001: 56). To engage in participant observation, I left my apartment located in the middle-and-working-class neighborhood of Botafogo and took the metro nine stops to Central Station located northwest of downtown Rio de Janeiro. Central do Brasil is one of the most important transportation hubs in the city. Not only does Central link the subway system with the terminus Rio’s Railway network called the SuperVia, it is also one block away from the second largest bus station in Rio. Until 2011, an informal set of stands called the “*camelódromo*” provided cheap shopping for the constant flow of passengers going to and coming from the northern and northwestern reaches of the city.

However, in 2011, a massive fire ripped through the *camelódromo* destroying both the shops and the livelihoods of those who worked there. One year later, in 2012, a new, formalized *camelódromo* called the *Mercado Popular* was inaugurated two blocks down the street. Some merchants who have moved their shops to the new *Mercado Popular* complain that they now

receive far less foot traffic and far fewer patrons in than they did at their previous location between the bus terminal and Central Station (metro and train). For this reason, many informal sellers now hawk their goods on the street rather than use the new formalized space which is virtually abandoned. During informal interviews, many shop owners were outspoken about their suspicions concerning the fire as the site of the old *camelódromo* has now been transformed into the first stop of the new cable car (*teleférico*) station. These shop owners strongly suggested that the city intentionally burnt down the *camelódromo* to make way for the more lucrative infrastructural project.

In addition to being a transportation hub, Central is one of the dirtiest and seediest parts of the city. Lined with homeless, semi-conscious drug addicts and street hawkers by day, open fires in the street and transients dominate the nights. Although accessible by several modes of transportation, Central is a location where people are always in transit. Very few people venture out on foot, because geographically, Central is impeded by a highway called Presidente Vargas, a swatch of historic houses and buildings that have predominantly been abandoned and or turned into warehouses or mechanic garages, and a not-so-pedestrian-friendly tunnel that connects Central to the Port Area. It is above this tunnel that Morro da Providência is perched.

In order to gain knowledge through participation observation, one must learn to move, experience, and engage with the world around them (DeWalt & DeWalt, 2002: 10). As I exited the metro at Central Station, I walked with a herd of people passed the construction site of the new *teleférico* station, in the direction of the bus station. As many of these people stopped at the bus station, which would distribute them to various parts of the city and state, I would continue walking toward Providência. Just beyond the Mercado Popular and just before the tunnel, I would walk up a set of stairs leading into the community. On one occasion, I did walk through

the tunnel to reach the other side of the community and it was neither a pleasant nor safe situation. Long, dark, loud, and polluted with garbage and feces, I decided that I would never again venture through the tunnel on foot even though many residents brave the walk daily.

After I walk up the first flight of stairs, there is another staircase lined by two-story houses. It is interesting to note that this staircase has a visible line that runs down its middle and is indicative of the differences in maintenance that it receives from the state and from the city of which each claims to own half. This staircase ends on the turn of a cobblestone road, Ladeira do Faria that inclines steeply as it turns into the community. Ladeira do Faria is a steep and windy street lined with bars and historic houses, one of which dates back to 1884 as it is indicated on the building's façade. On the other side of the community, closer of the Port Area, I was able to observe dates on the buildings from as early as 1861. In the lower reaches of the community, the houses are generally very old, fairly large, and well built, although many of them have not received much maintenance over the years. The quality of housing generally degrades as you continue higher into the community.

As I walked up Ladeira do Faria, I would eventually arrive at the intersection of another street called Laderia do Barroso. Ladeira do Barroso marked the middle of the community as there was a substantial portion of the community both above and below this point. This is also the level at which the second *teleférico* station is being built. Generally, once I arrived at the site of the second *teleférico* station (the former Praça America Brum, one of the only gathering and leisure areas in the community), I would stop at the bakery, one of the most frequented places in the community, to buy a soda. Due to the heat, I usually took a break here to drink my soda, catch my breath, and stop sweating profusely.

During this rest, I would sit on a concrete bench in the most active hubs on the community and observe. Sometimes, I would even draw. It was my hope that being visible would attract people to ask me what I was doing. Some people did approach me and offered information regarding the places I was drawing. And, albeit infrequently, this did also lead to people drawing their own maps as well. However, on the whole, this location was not ideal for finding participants. Once a point of leisure, now many people simply walk through this area to catch a *kombi* (van service) or to simply arrive at a different location in the community. Coupled with the noise and the dust from the construction, after I was done with my soda, I would walk to quieter areas of the community looking for keen participants.

After several trips into the community at various times during the day, I noticed that the morning was very quiet. It was difficult to find participants in the morning as most people over the age of 18 went to work, and those who worked at night were often still sleeping. There was considerably more movement in the community in the afternoon and early evening. However, once it got too late in the day, the lack of illumination made the surrounding too dark for people to draw maps. Thus, I generally frequented the community between the hours of 12:30 and 7:00 p.m. Although I did spend time in the community at night, it was strictly in a social capacity.

One night, for example, I ventured into the community to attend the one-year anniversary of a *lanchonete* (snack restaurant) called Favela Point which was initially founded by seven female entrepreneurs with the help of a non-governmental organization aimed at helping women. I would frequently stop Favela Point to buy water, and in doing so, I was invited by the three remaining female entrepreneurs to help celebrate their first year anniversary in which they had invited a samba band to play in the community while they catered the event. I was also invited to the launch of a book featuring Favela Point entitled, “*Guia Gastronômico das Favelas do Rio*” or

“Rio’s *Favelas* Gastronomy Guide” by Sérgio Block, Ines Garçon, and Marcos Pinto. In April, I went to the Livraria Cultura book store located in the neighborhood of Cinelândia to celebrate with the women as they were both honored and catered the event.

It was particularly important for me to participate in community activities outside of my primary research objective. “The fieldworker who does not attempt to experience the world of the observed through participant observation will find it much harder to critically examine research assumptions and beliefs, and themselves” (DeWalt & DeWalt, 2002: 11). Participation in social life enhanced my credibility and served as an opportunity for more residents to recognize me as I walked through the streets during the day. Not to mention, being involved in the community in different capacities prompted additional research questions and potential avenues for future research as I met and interacted with different people. It was from of these outside events, that I met some of my interviewees.

My very first interviewee, Zezinho, was a contact given to me by Theresa Williamson. Zezinho is the owner of the only hardware shop in the community. Although it is currently marked for removal, because it is the only hardware shop in the community, Zezinho is entitled to have his business relocated by the city. For this reason, he had already been interviewed by Theresa. Not only did Zezinho draw me a great map, he also introduced me to his cousin, Julio. Julio also drew me another great map, he sat for one of my longest single interviews which lasted over five hours. I originally thought most of my interviews would occur like this through word-of-mouth or at the very least by those who curiously approached me to ask what I was doing. To my surprise, very few adults referred me to others or approached me to see what I was doing. Mostly, I would approach individuals and was often met with apathy and resistance once I told

them they would have to draw. Many participants even attempted to pass the buck onto other friends or family members who, unlike them, “knew how to draw.”

Some days, I received as many as four mental maps, while on other days, I did not get any. As Crang and Cook posit, “How on earth do you approach (almost) complete strangers and persuade them to talk to you about their thoughts, feelings and actions?” (2007: 61). Beyond that, I was asking them to perform a task they were not comfortable doing. It is not easy. Even though I would sometimes enter the community with other researchers for moral support, I would often end up performing the interviews alone. In fact, “fieldwork is traditionally portrayed as a solitary endeavor” yet it is very difficult to do alone (DeWalt & DeWalt: 2002: 71). My shyness certainly did not help. Residents who had previously interacted with other researchers would frequently ask me where my partners were located; noting that other researchers often arrived in pairs. I would have to explain that I did not have any research partners and that I was working on this mental mapping project alone. On the days when it was more difficult to find willing participants, I assumed the spectator role and “passively observed” the community by sketching, taking photos, or simply drinking water on a bench (DeWalt & DeWalt, 2002: 23).

On days when it was easier to find participants, I often approached individuals sitting or walking alone through the community. Ethnography is not simply collecting data, “it is rich in implicit theories of culture society and the individual” (Agar, 1980: 23). For this reason, I rarely approached groups because I wanted to give my full one-on-one attention to every participant. Although all of my interviews began one-on-one, several of them ended in group interviews as neighbors and passers-by were happy to join in the discussion. Unfortunately, very few of the participants wanted the responsibility of drawing. Although I was able to convince some to draw, others still refused.



On the rare occasion that a participant refused to draw a map, I would ask them if I could draw the map while they spoke. I made this uncommon proposition only if I knew the participant had valuable information to share. This type of participation always resulted in a highly collaborative map. As I would draw, they would say things like, “No, no...this is not over there. It is over there”! Under these circumstances, I would either redraw the map to meet their specifications or they would literally take the pen from my hand to draw the map themselves.

There were other instances of collaborative maps as well. Some of my map-drawing participants could not read or write. Sometimes they would begin by writing certain letters, hesitate, and then give up. To encourage their continued participation, it was sometimes necessary to assume responsibility. For example, I would ask if I could fill in the rest of the words they were trying to write so that I could remember all the information they were trying to convey. By transferring the blame, in this case to a false faulty memory, my participants became more comfortable working with me to produce their mental maps. Although I tried not to disturb the authenticity of their maps, it appeared that all of these participants were very happy to have been able to contribute. Ultimately, I performed over sixty-five interviews and received exactly sixty mental maps. The majority of the maps I collected were drawn solely by the residents themselves.

### **Identity**

At times, I was worried that my status as a female foreign researcher would be problematic. I could not, as the anthropologic literature on methodology suggests, “go native.” In fact, I would be highly skeptical of anyone who claims they could shed their identity as researcher and assume the role of pure participant (DeWalt & DeWalt, 2002: 22). Most obviously, I am a *gringa*. I look and dress differently, and I speak Portuguese with an accent.

However, even if I could alter these cultural characteristics, I have been raised and educated with very specific world views and biases that would be nearly impossible to ignore. Although my task was to remain objective, I had to “come to terms with” my own “partial and situated ‘subjectivity’” (Crang & Cook, 2007: 13). Thus, instead of ignoring my identity, I decided to embrace it—and mostly, my status as a single *gringa* and identity as a female, American, researcher worked in my favor.

Researchers and journalists often target and exploit certain high-profile communities. Considering its reputation as the oldest *favela* in Rio and due to its location within one of the largest and most expensive urban infrastructure projects associated with the Rio 2016 Olympics, Morro da Providência was certainly no exception. Rightfully, residents of Morro da Providência were initially skeptical of me because they did not want to be taken advantage of or exploited. *Favela* residents have consistently been taken advantage of by politicians, researchers, and journalists, and, as a result, a small portion of these residents did not want to talk to me. To them, my status as a foreign researcher meant that I was “powerless” to change their situations and that I was only in the community to perpetuate this oppressive exploitative behavior.

It is “the responsibly of the investigator to describe” the nature of the research project and the intentions for the information gathered (DeWalt & DeWalt, 2002: 52). As such, I did my best to build rapport and trust by clearly explaining my research objectives and intentions. Even though I went to Morro da Providência almost every day, because I did not live in the community, it was sometimes difficult to establish rapport and trust. However, when residents were skeptical to speak with me, I often shared my views and opinions first. I found no need to hide behind a “veil of objectivity” (Crang & Cook, 2007: 28). Ethnographies often involve relationships between people of different “cultures, classes, genders, sexualities, (dis)abilities,

generations, nationalities, skin colours, faiths and/or other identities” (Crang & Cook, 2007: 9). The ways that these relationships develop over time have a profound effect on the quality and quantity of information garnered by them. By opening up to my participants, I was also to share with them my own research goals, and this in turn, helped them open up to me. In order to establish trust with the residents it was often imperative that I share my opinions with them so that they knew my feelings concerning the situation often coincided with their own. Even if my opinions did not coincide with theirs, I tried to approach the topic as nonthreateningly as possible. It was constantly a balancing act to not say too much so as to lead them to a certain conclusion or say something blatantly offensive or contradictory to their beliefs.

Fortunately, not many of the residents needed to me open up first. The majority of residents were more than willing to talk to me. Specifically, they were willing to talk to me because I was a foreigner. Residents of this group felt that my status as a non-Brazilian would guarantee that there were few, if any, negative consequences resulting from our conversation. Additionally, these residents realized that publicity from domestic and foreign journalists and researchers who are sympathetic to their cause often draws positive attention and results. It was these participants who realized my intersubjectivity (Crang & Cook, 2007: 37, 60). I was not there as a researcher to exploit. I was immersed there, as part of their everyday lives, to gather and construct an understanding of the situation so that I could inform others. For this reason, many residents wanted me, the well-intentioned outsider—the *gringa*—to hear their stories so that I could use my skills (and status?) to inform a wider base of others.

Just as my status as a *gringa* often aided my research, so too did my gender. There were several occasions that I felt that certain members of the community were speaking to me simply because I was a girl. Whether it was easier for me to gain access to the community because I was

able to create a rapport or because of my anatomy, my gender certainly had an impact in the field (DeWalt & DeWalt, 2002: 100). At times, performing interviews alone was difficult to navigate because I was regularly asked if I had a boyfriend or if I had intentions to date anyone in the community. Although I could have invented a husband or boyfriend, I did not want to lie and I never did. Although in hindsight, lying may have been easier than dealing with sexual harassment and assault.

As it was noted by DeWalt, “sexual relationships may be important to acceptance in a community and the development of rapport” (DeWalt & DeWalt, 2002: 106). Furthermore, intimate relationships “provide access to information that might not have been available otherwise” (DeWalt & DeWalt, 2002: 106). This is almost exactly how intercourse was proposed to me in the field by certain male members of the community. Fortunately, no one ever acted maliciously.

On the contrary, the majority of residents were exceptionally friendly. On several occasions I was invited inside people’s homes to perform interviews. Although I had resolved to remain outside of people’s homes for safety reasons, I was constantly invited inside for water, coffee, and cake. Although I was hesitant to enter, because it was often difficult to leave, I did want to engage in participant observation (DeWalt & DeWalt, 2002: 14). Engagement with the community and adherence to social protocol in the *favela* meant that I was obliged to graciously accept any items that were offered to me. And, I did, genuinely appreciate all efforts of hospitality, and the glasses upon glasses of cold water.

It should also be noted that, in addition to my gender, ethnicity, and accent, my dress and behavior was at times unavoidably American. On one hand, I did my best to blend. I did not wear flashy or provocative clothing or jewelry and I often walked into the community wearing

simple shoes such as flip-flops. On the other hand, cultural mannerisms are decidedly more difficult to change, or even to recognize.

For example, most people in Brazil drink soda from aluminum cans with use of a plastic cup or a straw. I assumed that people were trying to avoid drinking directly from the dirty can. In the community, I regularly bought a soda in a plastic twist-cap bottle from the bakery. It never occurred to me that drinking from a can or from a plastic bottle would have the same cultural implications. I wrongly assumed that the plastic twist-cap bottles were regarded as cleaner and therefore did not necessitate a plastic cup or straw. Moreover, my culture permits me to drink directly from the plastic bottle. One day, I was speaking with a resident and he said, “Oh yes, I know you! You are the *gringa* who drinks soda directly from the bottle.” Not only had he noticed my *faux pas*, it was so strikingly to him that he remembered. Luckily, although some social errors are unavoidable, few are serious enough to permanently damage the project or reputation of the researcher (DeWalt & DeWalt, 2002: 64). Suffice to say, I learned from my mistake of attempting to reify culture and always accepted a straw thereafter.

### **Data Organization**

After I was done performing my interviews for the day, I would walk out of the community and take the metro home. Once I arrived home, I would number, date, and scan the drawn mental maps into the computer. I would then upload them to a Facebook group I created called “*Mudanças no Morro*” (Changes on the Hill). It was my intention to use this group as a space to facilitate a dialogue between my participants.

To date, *Mudanças no Morro* has nearly thirty members comprised of community residents, community activists, university professors, university students, NGO leaders, journalists, and researchers. In addition to posting the maps and writing relevant comments, I

regularly scan the news and upload relevant news articles and videos (mostly in Portuguese and produced by the city) which specifically mention Morro da Providência. In this way, I am able to observe various phenomena from outside of my research setting and engage with the residents of Morro da Providência through a different degree of participation (DeWalt & DeWalt, 2002: 22). Although I no longer add mental maps to the Facebook group (as I am no longer collecting them), I continue to add photos, videos, news, and scholarly content in Portuguese.

While *Mudanças no Morro* remains a public venue to facilitate a dialogue between participating members, I also created a private map using Google Maps. Because I had promised my participants anonymity, I did not share the Google map, but kept it as a note-taking platform. “Social research is both a process and a product” (Wolcott, 1990: 7) and, as such, I recorded every interview by placing a marker on the satellite image of the community. I would later expand upon that marker with interview notes and reactions.

Not only did I try to select a random group of participants through “*theoretical sampling*” (Crang & Cook, 2007: 48) which varied in age and gender, I also wanted the group of participants to be from different areas of the community. Too many interviews in one particular location within the community actually led to “theoretical saturation” the point at which I was not receiving enough new information (Crang & Cook, 2007: 15). The Google map helped me “map the scene” and achieve a spatial diversity by keeping track of where I had performed each interview (DeWalt & DeWalt, 2002:81). Eventually, when I noticed spatial holes, I would try to perform interviews in these neglected areas. Figure 5.1 is a map indicating all interview locations.

Before I left Brazil to return to the Louisiana State University, I made one final trip to Morro da Providência to deliver some of the kitchen utensils that I acquired to a resident who

recently opened a restaurant on the top floor of her home. I had only recently made the acquaintance of Dona Jura, but I was able to interview her twice in her home and was provided with free lunch on both occasions. Although I tried to pay her for the food, as she was running a restaurant, she modestly denied payment on both occasions. Therefore, on my last visit to the community, I left two large bags filled with cooking utensils with members of her family who were already preparing food for weekend customers. It is my hope that the donated materials help ensure the success of her restaurant.

In addition to donating materials, posting photos of the community and its residents on the Facebook group Mudanças do Morro my intention is to make my final dissertation available for the residents. In an effort to reward the community, or at least reciprocate their generosity, I intend on giving both Theresa Williamson and Maurício Hora a copy so that it will be translated and distributed (DeWalt & DeWalt, 2002: 51). I may also post a copy of the dissertation online so that members of the community have access to the information that they helped me put together.

### **Themes and Summary**

Strictly from participant observation, I was able to observe some common themes that exist in virtually every part of the community. The first is the constant running of raw sewage water as it overflows from the manholes and down the steep descents of the community. Aside from making the road slick and smelly, some of this water is actually pooling at the base of one of the concrete pillars erected to hold the *teleférico*. Even though residents regularly report the problem to the city the problem has not been resolved.

Another prevailing theme is garbage. There is scheduled trash pick-up three times a week throughout the community, yet several residents claim the garbage is not adequately removed. In

fact piles of garbage line many of the streets and smaller alleyways even though there are just as many hand-made signs calling for people not to throw trash in specific locations. Beyond the ill-functioning garbage removal, there is a widespread lack of community consciousness where community members throw trash on the ground or over fences leaving garbage sliding down the hillside. One day, I was talking through the community I was shocked to stumble upon four large pigs. I asked some of the children who the pigs belonged to, and they looked at me questioningly. “They’re everyone’s pigs” one of the girl finally explained, “They eat the garbage.” Slightly nauseated, I was able to look beyond the pigs to notice the enormous mound of trash they were munching on behind a dilapidated wall in the community.

On several occasions, I also observed the police. Morro da Providência is a pacified community with a functioning Unit of Police Pacification (UPP). Theoretically, this means that drug traffickers have been removed and the police now patrol the community. In practice, the presence of the UPP means that the drug trafficking has been relocated from the streets to inside people’s homes. If anyone thinks that drug trafficking has been completely removed from the hill, they are mistaken. Points of drug sale (*boca de fumos*) and armed residents still exist, although they are not as prominent as in previous years. Today, UPP officers enter the community by driving their cars to the *teleférico* station where they park and begin to harass the residents by ogling the women and frisking the men. Although they are supposed to patrol and walk around the community, at best, I was able to observe them standing with their AK-47s and bulletproof vests in large groups. Residents even tell me they are some of the largest cocaine purchasers in general and use while on duty.

During my time in the community I was constantly harangued by children who are curious and friendly. They would walk right up to me and ask if they could take some paper and



my pens to color. They asked where I was from. They asked what I was doing. They asked if I spoke Portuguese. They asked what their names translated to in English. They would hang on me and shout “Auntie, Auntie.” They even wanted me to give them the kite I bought for 1 Real (.50 US cents). However, in the entire time that I was in the community, I did not see one child interact with any UPP officer. It was even rare to see an adult acknowledge them. Thus, from observing the police and the relationships they maintained with the community, I knew that if I wanted to gain the trust of the residents, I too, would not be able to talk to the UPP officers.

Most aspects of what I observed were later confirmed by the residents including the very apparent problems with sewage and garbage disposal. Even problems with the police which are considerably more difficult and risky to discuss became strikingly evident simply by observing how they interacted with the residents. It was through participant observation and that I was able to approach successful aspects of my ethnographic research methodology.

In sum, the greatest asset of a researcher is the ability to garner the perspective of the participants. Ethnography, including participant observation, interviews, and mental mapping served as the basis of my research project’s methodology. Open-ended, quantitative interviews that focused on life histories would not have been as valuable to my research as mental mapping proved to be. What made the use of mental mapping so valuable is that each participant was able to converse with me and answer my ethnographic questions while drawing their mental map. It was the action of drawing maps together with the residents that made my interviews so successful. Using mental mapping as a research tool, I was able to give my participants something to do while they spoke. Because they had a task to complete, many participants took their time drawing, interacting with me, and developing a rapport. I argue that this time was fundamental to establish the necessary amount of trust with my participants. Without this trust,

both the quality and quantity of data I could collect would suffer. Ultimately, statistical and discursive analysis of these maps clarify the dialectical relationship between perception, practice, and the production of social space, and also contribute understanding to the *favela-city* spatial binary (Crang & Cook, 2007: 60).

## Chapter Five Results, Analysis, and Discussion

*“You can discover more about a person in an hour of play than in a year of conversation.”  
-Richard Lindgard in D’Angour, 2013: 293.*

### Introduction

Since 2012, public policies in Rio including the implementation of the UPP have been moderately successful in integrating clandestine and informal spaces into the formal city. Continued police presence has challenged the sovereignty of drug traffickers, thus opening up to the *favelas* to varied aspects of the formal city including businesses, banks, non-residents, and tourists. The movement of outsiders through the *favelas* today is no longer restricted and residents are closer than ever to public acceptance and social integration. To parallel this recent surge of social integration, the onset of both the 2014 FIFA World Cup and the 2016 Olympic Games has also prompted the acceleration of physical infrastructure in selected *favelas* throughout the city.

For five months in spring 2013, I performed a mental mapping exercise with the residents of Morro da Providência, Rio’s oldest *favela*, to understand the transformation of social space associated with the implementation of this new physical infrastructure. Amid large budgets that coincided with the World Cup and Olympic Game preparations, Rio has begun to implement tourist and transportation infrastructure in the community including a state-of-the-art *teleférico* (cable car) funded by the Morar Carioca Program. It is my intention to understand how these infrastructural transformations influence and affect the production of social space in Morro da Providência. Relying on Henri Lefebvre’s triad for conceptualizing the production of social space, I too, recognize his three modalities of space: conceived, lived representational, and perceived.

In this project, I intend to contrast conceived spaces and lived representational spaces in the context of Rio de Janeiro. Often, there is a strong disconnection between how space is designed and how the space is actually used. People primarily act and live within social spaces produced by the elite. In doing so, they are intentionally and unintentionally reproducing dominant discourses of identity which are represented on the landscape. Thus, as opposed to glorifying the planned Cartesian space produced by the city, I aim to understand how the implementation of conceived space transforms the lived social spaces in the *favela*.

By concentrating on the representational lived space, it is my intention to downplay the importance of the conceived space or what is produced for the residents. Instead, I wanted to concentrate on how the residents produce and give meaning to their own social space. Furthermore, in this project I wanted to allow the residents an opportunity to reinforce their own authentic discourse of identity through both the creation of their own mental maps as well as through a discussion of alternative ideas for the implementation of infrastructure in their community. By taking control of their own lived social spaces, the *favela* residents can assume their stake hold and assert political power and ensure their inclusion in the formal sphere.

In the case of Morro da Providência, the residents were not consulted in the state plan to implement the *teleférico*. However, the presence of the *teleférico* has already begun to transform the lives of the residents as well as the social space of the community. Abstract spaces, including spaces like the *teleférico*, which the state proposed, are often unsuccessful and exclusionary. In an effort to transfer the power from the state back to the hands of the residents, I asked the residents to indicate the spaces they use and create through the production of their own mental maps. In order to assess their “authentic knowledge of space” (Lefebvre, 1991: 388), I asked the residents to indicate places that were important to them in the past and in the present. I also

gained an understanding of important places by asking the participants to suggest alternative infrastructure. Asking about alternative infrastructure provided an insight into the kind of social space that is actually desired.

Considering that social space is the product of human interactions and never static, each of my sixty participants created a unique and temporal artifact using three colors to capture the transformation of the lived representational social spaces in their community. While ages and genders have remained intact, all names used in this project have been changed to protect the identity of my participants.

First I discuss the lived representational spaces described by the residents. Absolute spaces created and used by the people, are necessary for the legitimization and representation of social and political interests. By looking at the past, present, and alternative social spaces as illustrated by the residents, it should become evident which spaces are, and continue to be, important social spaces in the community. Additionally, the alternative plans indicate what infrastructure could, and perhaps, should have been possible, had the state consulted the residents during the transformation process.

Second, I focus on Lefebvre's third modality concerning the production of social space, perceived space. As opposed to relying on the conceived hegemonic construction of social spaces by the state or the lived representational spaces drawn by the residents, perceived space is deciphered through use. My own fieldwork and observations concerning the maps and the dialogues with the residents during the process of mental mapping examines the observable patterns that emanate from everyday life and use of social spaces in the community. Analysis and discussion in this section provides another lens through which to understand the transformation of social space in Morro da Providência. Ultimately, this research project relies on Lefebvre's

modalities concerning the production of space to reveal the newest reality of the Rio's social order and the production of social space.

### **Approach to Mental Mapping**

The highly collaborative process of mental mapping served as the methodological basis of my research project in Morro da Providência. As a methodology, the solicitation of mental mapping was met with a considerable amount of resistance. Nevertheless, mental mapping proved to be an effective and powerful tool to assess the transformation of social space in Morro da Providência. In what follows I discuss the mental mapping process.

During the mapping and interview process, I asked each participant to use three different colors to represent past, present, and alternative visions of social space. Out of sixty maps and interviews, fourteen maps contained all three colors and therefore, all three perspectives. Meanwhile, twenty-four maps only contained two colors, while an additional twenty-four maps only contained one color. However, irrespective of the final number of colors used by the participants, each map was created during a one-on-one interview session. The interview process ensured my ability to ask the same set of questions to each individual participant. Thus, even if the final map contained only one color, the interview questions ensured that all time periods were discussed and recorded either on the map itself or in my field journal notes.

Additionally, the process of map making also allowed to me to prolong the interview with each of my participants. The longer I spent talking to my participants and the more times they saw me in the community, increased my credibility and trustworthiness. Fostering trust ultimately allowed me to ask more questions and receive more detailed responses. With consent of my participants, I was also able to take notes or write labels on the mental maps in addition to asking questions. Although I encouraged my participants to draw the maps themselves, in certain

rare instances—including illiteracy (May 22, Map 57), a broken hand (Map 14), and extreme brevity (Map 21)—I asked if I could write labels on the maps. None of the participants opposed, and in this way, the maps more clearly stated the information shared by the participant.

In even rarer instances, some residents that I approached refused to participate altogether. If I sensed that a particular person had valuable information to share, I asked if they would feel more comfortable if I drew the map. In this way, they could divulge information by directing what and how I should draw the mental map. In these rare instances, all of the participants agreed to the modified mapping process and valuable information was gained. I wish to be clear that even in the instances that I assisted in the drawing process, all final maps were deliberately produced upon the direction and under the strict supervision of each of my participants.

In total, I collected sixty maps from twenty-six women and thirty-four men between the ages of eighteen and seventy years of age. Every map and corresponding interview, with the exception of six, were conducted with residents of Morro da Providência. Of the six non-residents that I interviewed, three were foreign researchers, one was a free-lance videographer working for a local NGO called O Comitê Popular da Copa e Olimpíadas, one was an Odebrecht construction worker, and one was a cemetery groundskeeper who has been working in the Cemitério dos Ingleses which abuts the community for over thirty years. While it was important to concentrate primarily on the residents and their produced maps, it was also interesting to interview a few non-residents. I discuss the non-resident perspective later in this chapter.

Below is map that I created using Google maps. Each blue pinpoint represents the location of each interview that I performed. The fire symbols represent locations in which I witnessed drug sales or arms wielded by those other than the police. The camera symbol represents three viewpoints (*mirantes*) built through the Favela Bairro Program. The milk and

apple symbol represents the two closest supermarkets to Morro da Providência. The tree symbol represents the cemetery Cemitério dos Ingleses, and the hollow yellow house symbol represents the land owned by the city (*prefeitura*) and is the space nominated by the residents to be transformed into a mixed-use development specifically to include both apartments and a supermarket.

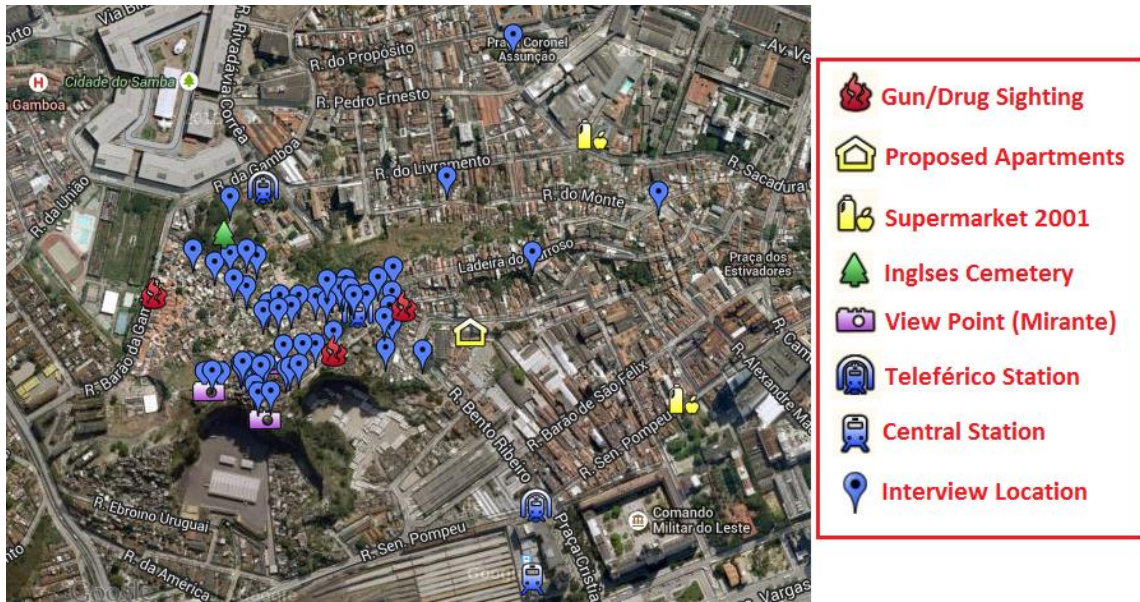


Figure 5.1 Interview Locations. Google map produced by author, 2014.

The creation of this Google map was three-fold. First, I was able to use Google maps as a note-taking platform for each participant. After conducting the interview, I could embed my research notes inside of the pin. Second, using Google maps I was also able to make sure that the locations of my interviews were distributed throughout the community. If I began to see a cluster of interview points too closely together in a certain region, I made a conscious effort to collect interviews in a different region. Finally, visually identifying the locations of my interviews as well as the location of important features, I was able to understand which amenities were missing from the community. From this point, I could also begin speculation as to where new amenities could be placed.



## Mental Map Types

Each resident designed a unique mental map and three types of maps emerged. The first type of map was the most common. In Type 1, residents used up to three colors to draw the important places in their communities on one sheet of paper and in one general design. In this case, if more than one color was used, the colors were drawn on top of one another. Meanwhile, alternative infrastructural plans drawn in green appear most often in the form of a worded list.

In the second type of map, the participants used all three colors and designed three separate images of the past, present, and alternative social space. In Type 2, three separate images appear either on one or on three separate pieces of paper. For example, Bruno (Map 8), a 34-year-old father of two drew a Type 2 map. Bruno drew the same curve of the street where he lived three different times. In addition to changing color each time to represent a new time period, Bruno also added certain elements in each new image.

In his first drawing, Bruno drew a gun to symbolize a “*boca de fumo*” or the drug trafficking point of sale on the same road as his home. At this point, Bruno insisted that any information concerning the on-going drug trafficking was conveyed in English. As he had previously worked in the tourism industry, Bruno had a working-knowledge of English. In fact, he was the only participant who spoke any English during an interview. Bruno explained that even though the use of this *boca* has declined since the implementation of the UPP, there are still drugs sold by armed men from this point. There are also cars filled with drugs that enter the community through this road. “I want my children to play outside the house. In the past, it was very dangerous. But now, things are improving”, “*Eu quero que meus filhos brincarem fora da casa. No passado, isso era muito perigoso. Mas, agora, as coisas estão melhorando*” he urges.

In the present, Bruno drew his kids playing in the street in front of his house with a soccer ball and a kite. He also drew dirty sewage water running down the street and already pooling at the base one of the structural poles of the *teleférico*. Figure 5.2 is a photograph of leaking sewage water. Although it was not indicated on the map, it should be noted that the base of the actual *teleférico* pole was indeed covered with a thick layer of slimy dark green sludge. Sewage often flows up and out of the manholes and down the cobblestone street causing pedestrians to hop over the puddles. Bruno said that he often calls the city to repair the sewage system but the repair men either do not come, or they do come and fail to fix the problem.

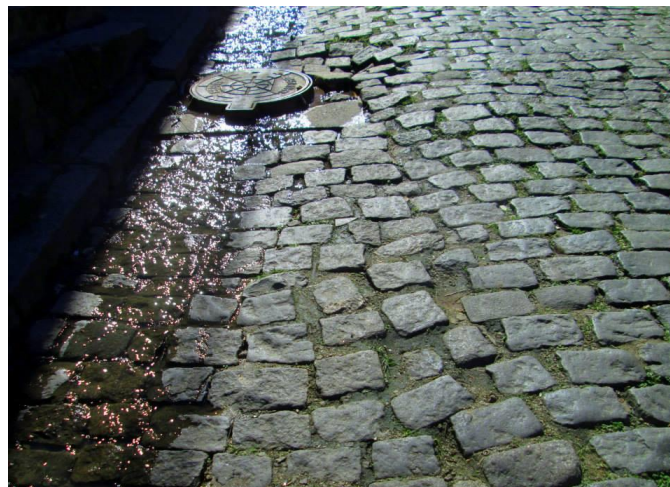


Figure 5.2 Sewage Water on Laderia do Barroso. Photo taken by author, 2013.

Finally, when I asked Bruno what alternative plans he would have liked implemented in the community he wrote, “street without *buracos*.” “What is *buracos* in English?” he asked. “Holes”, I replied. “Yes, I want to see streets without [pot] holes.” Bruno also drew a manhole to suggest that the city implement better systems of sewage disposal and a soccer field to suggest that there should be more places to practice sports. Finally, Bruno listed additional features he would like to see implemented in the community such as public gardens, a public health system, public schools, and hospitals.

The only other instance of a Type 2 map was drawn by an 18-year-old father of two, Leonel (Maps 40a, b, c). Leonel insisted that he receive three separate pieces of paper so that he could draw all three time periods accurately. Leonel meticulously drew all three time periods as he discussed the current socio-political situation of the *favela*.

Leonel drew the past as a scene with trees, grass, a farm animal, and a few houses scattered throughout the hill. With the sun and clouds in the sky, Leonel drew Morro da Providência in the past when it was known as Morro do Livramento named after the historic road in the Port Area that connected the community with Morro da Conceição (another community farther east). During this time until the mid-1850s, Morro do Livramento was also known as the birthplace of Machado de Assis, a well-known Brazilian literary, poet, and playwright. In addition to labeling the home of Machado de Assis, Leonel also drew the Cemitério dos Ingleses (the English Cemetery) located on the north side of the community. After the Decree Opening Ports to Friendly Nations in 1808, a British community took hold in Rio and built what is now known as the oldest Protestant cemeteries in Brazil. Inside the bucolic cemetery is an Anglican church. This cemetery was strategically built on the high ground of Morro do Livramento to avoid it being washed to sea. Over time, the land was taken from the south side of Morro do Livramento and brought to the north side of the cemetery. This extension of land to increase the size and stability of the Port Area further protected the Cemetery from the natural sea level rise of Guanabara Bay.

After being known as Morro do Livramento, the community briefly adopted the name Morro da *Favela* before becoming known as Morro da Providência in 1897 with the return of the soldiers from the War of Canudos. In the present, still with the sun and clouds in the sky, Leonel painstakingly drew the community as he saw it today with many houses in close proximity to one

another connected by a series of paths and electrical wires. Rising above the community are common sights such as the Central Station's iconic clock tower, the CEDAE water tower, the Nossa Senhora da Penha church, the Capela das Almas (Chapel of Souls), and Casa Amarela (the only local NGO). The bakery (*padaria*) is also buried between the houses as are the names of other vernacular sub-regions within the community including, Largo, Cruzeiro, Pedreira, Toca, Barão, and Pedra Lisa. Leonel also drew the newest feature of the community, the *teleférico*.

In his third map, Leonel did not draw a vision for alternative infrastructural plans, but a vision of the future. Leonel suggested that imagining alternative plans was not necessary because in the future, only the rich will be able to afford to live in Morro da Providência. For this reason Leonel drew a sun that bears a melancholy face and fewer, but larger, houses on the hill. The *teleférico*, the Nossa Senhora da Penha church, and the Capela das Almas (Chapel of Souls) are the only features still represented in Leonel's final map. However, he continued to draw a public plaza (*praça*), a school, and a hospital with the words, "former slum will be dominated by wealthy homes that enjoy the beautiful scenery that we had" "antiga *favela* dominada por casas ricos que desfrutam da linda paisagem que tínhamos" (Map 40c).

When I asked Leonel what he would like to see in the community he said he would like to see infrastructural improvements that did not take precedent over the current residents. There is a long history associated with Morro da Providência that the residents wish not to lose. They want to be informed of projects so that they have input. They want safety, garbage, sewage, and electrical systems that work and many people want the same opportunities offered to them as they exist for other members of the formal community. They are residents and contributing members of society who no longer wish to be treated like "invaders" "*invasores*." In these two

Type 2 examples, both residents were able to parse unique visions of the past, present, and alternative social space as separate mental maps.

Finally, in Type 3 there were four residents who did not create traditional mental maps. As opposed to drawing the physical features spatially, three participants chose to write their responses as sentences, while one participant simply drew her mental map as an aspatial checklist. In what follows, I briefly describe their contributions to this mental mapping project and explain why their maps remained in the study.

There were several obstacles that I faced during the course of this research project. The primary obstacle was that there were also people who were quite serious about their objection to drawing. Additionally, during the interview process it was sometimes unclear as to the mental capacity of the participant until after the interview was underway. In some cases, there was evidence of mental illness or substance abuse. In other cases, there were simply a handful of participants who did not seem to understand the parameters of the mental mapping project. While most of these participants were omitted from the final study, I did choose to include the mental maps of Renata (Map 41), Johnson (Map 35), Paulo (Map 43), and Omar (Map 44).

In her mental map, Renata (Map 41) drew her house, her psychiatrist's office, the bakery, the health post, and the houses of her two children. All of the features that Renata mentioned were indicated with an "X". While Renata's oral interview was informative, her map did not provide spatiality to the features she mentioned as all of her "X" marks were drawn in a straight line. Fabio (Map 21) was the only other participant to construct a map consisting of only "X" marks. However, in Fabio's case, the "X" marks were spatially distributed according to the direction of the features he mentioned. Thus, Renata's mental map was more like a check-list

rather than a spatial depiction. Nevertheless, because her interview was both coherent and insightful, I chose to include her map in the project.

In addition to Renata (Map 41), Johnson (Map 35), Paulo (Map 41), Omar (Map 44) also drew a different kind of mental map. All four of these participants chose to write their answers responses as sentences rather than symbolizing their responses on the mental maps. Johnson (Map 35) wrote “the toca only has workers” “*a toca só tem trabalhadores.*” Paulo (Map 43) wrote,

“I live on the slope of the Barro 224c/1. It is high on the hill. I descend to buy bread at the bakery in the Plaza Américo Brum. I spend all day on the hill where I live. I descend by *kombi* to go to hospital and go to town and the supermarket once a month. I prefer to go up the hill by van.” “*Moro na ladeira do Barro 224c/1. Fica no alto do Morro. Deço para comprar pão na padaria na Praça Américo Brun. Paço o dia no alto do Morro onde moro. deco de kombi para ir para hopital e ir para cidade e para o mercado de mes e mes...prefiro para subir o morro a kombi.*”

Finally, Omar (Map 44) wrote “nothing public” “*nada publico*” referring to the absence of public social spaces in the community in reference to the recently repurposed Praça Américo Brum. In three of the aforementioned instances, Type 3 mental maps use words to describe features and themes as opposed to pictorial depictions.

Although all of the Type 3 maps are aspatial, they are also the product of this mental mapping exercise. Renata was able to indicate places that were important to her through a series of “X” marks. Johnson was able to explain details about a region of the community in which he lived. Paulo was able to describe the places that were important to via through an explanation of his daily routine. Finally, Omar was able to express his anxiety over the current state of the community and the lack of social space and knowledge. All of these mental maps and corresponding interviews were valid contributions to my mental mapping study and it was for these reasons they were included in this study.

In what follows, I analyze the results of the Type 1 mental maps. As opposed to analyzing each Type 1 map individually, I group the dominant features depicted in the past, present, and alternative suggestions to offer a conglomerate vision of the transformation of social space. This rest of this chapter is organized into three subsections by color: the past, the present, and alternative infrastructural plans. In each section I discuss some of the major themes and insights that emerged from my collection of fifty-six Type 1 mental maps and their corresponding interviews. It is my intention to contrast the conceived spaces and lived representational spaces in Morro da Providência through the maps and interviews. I also provide my own discussion and analysis of the emerging themes and how they relate to the perceived production of social space in Morro da Providência. In a chronological fashion, I begin with the past.

## **In the Past**

### **Praça Américo Brum**

Praça Américo Brum appears in thirty-six of the mental maps produced by the residents of Morro da Providência. In addition to the historic staircase (*escadaria*), bars, and small stores that used to exist, Praça Américo Brum stands out as one of the most important social spaces in the community. According to Cristiane (Map 15), as the community began to attract more inhabitants the transformation of its social space started to change. First, the *praça* was filled with trees, benches, and children playing (Map 55). People throughout the city came here to enjoy the city views. Next, the *praça* transformed to a covered leisure space before it became the site of the *teleférico* station. Over time, Praça Américo Brum has been at the center of change in Morro da Providência.

March 23, 2014 was my second day in Morro da Providência. It was also the first and last day that I forgot to bring all three of my colored pens to the community. Although this was a mistake that I never repeated, it became clear at this point that all three colors were not necessary to produce effective mental maps. On this day, I spoke with Marcelo (Map 3), a 70-year-old who was born in Portugal. Marcelo has lived in Morro da Providência since he was 12-years-old. Today, he works as an electrician although he claims he was the first kombi driver in the city, given special permission to operate the vans by the mayor. Marcelo lives in one of the oldest houses in Morro da Providência with his wife and son. Figure 5.3 is a photograph of the *teleférico* station taken from Marcelo's home.



Figure 5.3 Construction of the *teleférico*. Photo taken by author, 2013.

My first participant, Miguel (Map 1), introduced me to his cousin's husband, Marcelo (Map 3). Owing to the fact that Praça Américo Brum is both adjacent to Marcelo's home and to Miguel's store, we spend the majority of our five-hour-long interview discussing the *Praça*, the construction of the *teleférico*, and mobility. When I first arrived at Marcelo's house, he took me to the back where we climbed a rickety ladder leading to his roof in order to watch the construction and take in the view. Marcelo explained that people used to drive into the community and circle around the Praça Américo Brum. "People used to come for the view and



then leave again” “*As pessoas vieram para a vista e saíram de novo*”, he explained. However, once the drug traffickers began to control the community, this was no longer possible. Marcelo drew the *Praça* as it once was, filled with trees and benches at a time before drug trafficking made it impossible for non-residents to enter the community.

During the oral part of our interview, long after Marcelo completed his mental map, Marcelo exclaimed in a very serious tone while pointing at the *Praça*, “Well, this used to be a cemetery” “*Bem, este era um cemitério.*” After having spent so much time talking about the history of the *Praça* I was shocked to hear that it had actually been a cemetery. After a moment of confusion, Marcelo clarified that he was only joking. Marcelo called it a cemetery because of how many people over the years had been shot by the drug traffickers and left to die in the *Praça*. In this instance it became clear that the presence of the drug traffickers had actually transformed this social space from a bucolic and public view-point into a restricted repository for the dead. It was probably for this reason that the social space of the *Praça* transitioned once again from a park that lured in non-resident tourists into a paved, fenced, and covered leisure area for residents only. It is not to say that the new *Praça Américo Brum* did not also collect the dead, but it was perhaps an effort to increase the *Praça*’s use as a space of leisure.

### **O Alto do Morro**

Largo and Cruzeiro are two regions of Morro da Providência located at the top of the historic staircase “*no alto do Morro.*” These two regions of the *favela* are particularly difficult to access. The only way to reach this high portion in the community is by negotiating many stairs. The historic staircase is the best known way to the top of the hill. There are other staircases, but there are no roads, ramps, trams, elevators, or even *teleféricos*. The most common way to arrive to the top of the hill is by foot.

Julio (Map 7), who died a few short months after our interview, lived at the highest point on the hill. Julio was a paraplegic and thus required wheelchair to get around. In order to enter and exit the community, Julio had to wait until he could assemble a team of four men to carry him and his wheelchair up or down the stairs. During the *Favela Bairro* upgrading process certain parts of the community were paved and stairs were installed. One day Julio went to a physical therapy session outside of the community and upon his return home there was a construction crew building stairs on the alleyway that led to his home. Julio told me that if he had not returned home just then that he would not have been able to arrive home at all. “I told the construction workers, I needed to go home, and, in the end, they built a ramp on the other side of the stairs. No one told us that they were going to build a staircase” *“Eu falei aos trabalhadores, eu preciso ir para casa, e, no final, eles construíram uma rampa do outro lado da escada. Ninguém disse que eles vão construir uma escada.”* Figure 5.4 is a photograph of the staircase.



Figure 5.4 The Historic Staircase of Morro da Providência. Wikimedia Commons, 2008.

Julio was just one of the handicapped people I met living in Largo and Cruzeiro. Many people, including the elderly, complained that the stairs were a daily impediment to their daily

lives but simply could not afford to live anywhere else. Other people were similarly dissatisfied with the stairs but did not want to move because Morro da Providência was their home.

Although it is not a steadfast rule, the houses located in the highest regions of the *favelas* are often both the youngest and the poorest. In the case of Morro da Providência, although the families might be poor, the houses located in the *alto do Morro* are certainly not young. Figure 5.5 is a map indicating the location of the *alto do Morro*. Many homes are occupied by families who have been living there for generations. According to Leandro (Map 36), most of the houses in this region have been rebuilt over the years with increasingly sturdier materials with the aid of the *Favela Bairro* Program as well as during political campaigns.



Figure 5.5 O Alto do Morro. Google Map modified by author, 2014.

Before the Favela Bairro program, houses in Largo and Cruzeiro were historically shacks “*barracas*” made of stucco and corrugated zinc roofs (*folha de zinco*). According to Fabio (Map 21), these houses were made even more precarious due to the fact that they were built on

top of rock and mud. Claudio (Map 6) explained that, “when the wind blew, the roofs would blow away and people had to run after them” “*quando o vento soprava, os telhados iria soprar e as pessoas tinham que correr atrás deles.*” The Favela Bairro Program helped residents fortify their homes with sturdier material and poured pavement to decrease the risk of mudslides. Even though the pavement often becomes slippery when it rains, it is otherwise very nicely done and has been cited as significant improvement by several residents.

Residents of Morro da Providência built the Capela das Almas (Chapel of Souls) on top of the community in 1902 to commemorate the former soldiers who died in the Canudos War. Initially, the chapel was built on a rock which was surrounded by mud before the city poured concrete at its base. Sections of the original rock are still visible although the majority is indeed covered with concrete. According to Manuel (Map 12) and Paulo (Map 43) the Chapel used to be adorned with a large cross until it was stolen in the 1960s. No one knows who took the cross as it has not yet been recovered.

According to Cristiane (Map 15), there were a set of houses located behind the Chapel on the south side of the community that no longer exists. In fact, several residents including Claudio (Map 6), Gabriela (Map 12), Cristiane (Map 15), Gabriela (Map 16), and Rosane (Map 49) mentioned living in areas high on the hill that had succumbed to landslides during periods of heavy rain. After the houses which were built precariously on a muddy precipice fell, many residents, including Cristiane (Map 15), moved to sturdier houses or vacant locations near the Chapel. Cristiane, a 73-year-old resident, explains that after her home fell down, she moved into her current house when she was only 19-years-old. When she moved 54-years-ago, her house was in a state of repair. She jokes that it continues in this state of construction today. Figure 5.6 is a map that indicates the location of important features in the the *alto do Morro*.



Construction in the community occurs at a constant but slow pace. When residents have money, they buy bricks. When they earn more money, they assemble those bricks with mortar. When the bricks are assembled, they buy material for a roof, and so on. Beyond the self-help construction method, all materials are carried up the stairs by hand. In fact, on any given day, it is possible to see teenage boys and young men carrying sacks of cement and bricks up the hill.

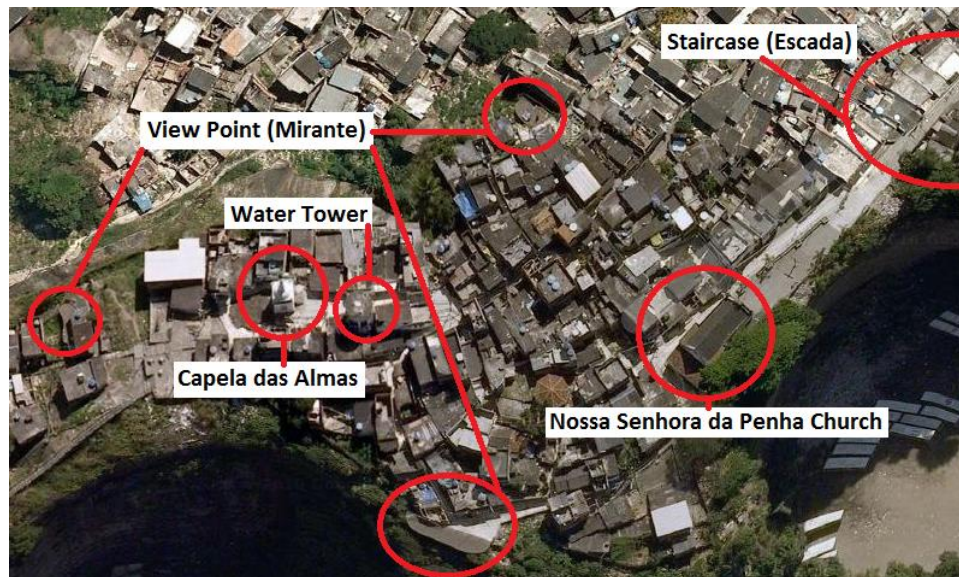


Figure 5.6 Detailed Satellite Image of O Alto do Morro. Google Map modified by author, 2014.

To the south of the Chapel and behind the Nossa Senhora da Penha Church is the location of the south-facing viewpoint *mirante* also built by the Favela Bairro Program in 2005. The *mirante* is a built over the old quarry used to provide landfill for the northern side of the community is now a sheer rock face. Fernando explained that his neighbor's home occupied the space where the *mirante* is currently located, but it had collapsed and fell down the hill during a period of heavy rain.

In the past, Fernando (Map 30) a resident living over the quarry precipice told me that they could hear the gunshots echoing from the *favelas* in Estácio and Santa Teresa located across Avenida Presidente Vargas all night long. In fact, during the interview, Eduardo, Fernando's

grandson asked, “there was gun fire the other night, did you hear it?” “*houve tiros na noite passada, você ouviu?*” And Fernando replied simply, “Yes” “*Sim.*” Fernando explained that his house was often caught in the crossfire between drug traffickers and police and proceeded to show me the bullet holes in his neighbors’ houses. Before the installation of the UPP in Morro da Providência, there were a lot of more shootings, but now some residents are beginning to feel safer even though guns, drugs, and police still regularly infiltrate the community.

### **The Present**

Just as Christ and Sugar Loaf are iconic features of Rio de Janeiro, there are several identifying features of Morro da Providência that my participants indicated on their mental maps. In that follows, I identify the most commonly cited places of interest that were determined by counting how many times they appeared in the maps of my participants in the present. These places of interest are further categorized by common features and themes. In this section I discuss the common features and themes as well as introduce relevant information that I gathered from interviews during the production of the mental maps.

When I asked my participants to draw their mental maps in the present, I suggested that they could begin by indicating where they currently live with a simple “X”. In total, twenty-four participants chose not to indicate their homes at all. Meanwhile, out of the thirty-eight people who did draw their homes, twenty-nine participants added much more detail than the simple “X” that I had originally suggested. In addition to details including paths (Map 24), cobblestones (Map 9), trees (Map 6), plants (Map 19), windows (Map 46), doors (Map 25), and bullet holes (Map 18), eleven participants included their house numbers on their mental maps.

Even though I stressed that the participants could remain completely anonymous, eleven residents proudly wrote their house numbers into their maps. In one case, I also received a

telephone number. However, it should be noted that even though people drew in their house numbers, none of the participants included their SMH number that was spray-painted onto their homes by the Secretary of Municipal Housing which ultimately slated their home for removal. Figure 5.7 is a photograph of a resident in front of her home that is marked for removal. Residents of Morro da Providência are extremely proud of their homes and the work that they put into its construction. Residents are also proud of their family member's homes which they also included in their maps as places of importance.



Figure 5.7 Resident in Front of her Home Marked for Removal. Photo taken by author, 2013.

In addition to indicating their homes, twenty participants made reference to the smaller vernacular sub-regions that exist within Morro da Providência. These regions do not appear on city maps but are referred to by the people to live in the community. The first time that I realized the community of Morro da Providência was divided into sub-regions Johnson (Map 35) wrote, “the toca only has workers” “*a toca só tem trabalhadores.*” When I asked him what the “*toca*” was, he proudly said, “here” “*aqui.*” However, it was not until Luiza (Map 57), that a resident drew and named all of the sub-regions in the community. Luiza is a 58-year-old returning student who drew a wonderfully creative map after mentioning that she recently learned how to draw

maps in school. In addition to the bakery (*padaria*), Luiza had me label all of the vernacular sub-regions of the community including Toca, Cantão, Pedra Lisa, Cruzeiro, Escada, Praça do Teleférico, Nova Brasília, Barroso, Barão, Faria, and Ingleses. “I think that this is all of them” “*Eu acho que isto é tudo*”, she said.

In order to approach potential participants, I tried to spend my time in the important social spaces in the community. Figure 5.8 is a map that identifies the most common themes identified in the mental maps. Each region of the community had different important spaces making it easier or more difficult to approach residents outside of their homes. I did not want to knock on doors. Perhaps the largest impediment to both my research method, as well as the quality of life of the residents, is that public social spaces are rare and there are no public parks. Thus, at times, it was difficult to linger in particular regions of community to find participants because there was no place to linger.

<b>Common Themes:</b>	Garbage Removal	Leaking Sewage	Lack of Social Spaces	Mobility Issues	Lack of Amenities
<b>Number of times Identified:</b>	9	7	21	24	24

Figure 5.8 The Most Common Themes Identified in the Mental Maps. Table compiled by author, 2014.

The absence of public social space quickly became one of the most common themes repeated throughout my research project, cited by twenty-one participants. Mobility was another common theme, cited by twenty-four participants. Garbage and sewage collection, cited by nine and seven participants, respectively, were also popular themes. Many of the participants drew the community as a series of houses connected by small paths and intricate and exposed electrical systems. However, despite numerous exposed and leaking pipes no participant mentioned any problems with freshwater or electricity. However, Fernando (Map 30) did mention that unlike in



other *favela* communities, no one in Morro da Providência pays for electricity or for water. He further explained that if the city starts to charge people, many of his neighbors would be unable to afford their utility bills. One final theme suggested by twenty-four residents is that the community is lacking basic amenities such as supermarkets, pharmacies, and hospitals and health posts. Figure 5.9 and Figure 5.10 list the most common features located inside and outside of the community.

<b>Total Number of Maps</b>	<b>Nossa Senhora da Penha (Church)</b>	<b>Capela das Almas (Church)</b>	<b>CEDAE Water Tower</b>	<b>Ladeira do Barroso (Road)</b>	<b>Ladeira do Farias (Road)</b>	<b>Bars</b>
62	14	7	6	12	6	12

<b>View Point</b>	<b>Bakery</b>	<b>Kites</b>	<b>Kombi</b>	<b>Praça Américo Brum</b>	<b>Teleférico</b>	<b>Historic Staircase</b>
5	14	4	4	8	23	21

Figure 5.9 The Most Common Features Located Inside the Community Identified in the Mental Maps. Table compiled by author, 2014.

<b>Super-market</b>	<b>Pharmacy</b>	<b>Hospital/ Health Post</b>
23	8	11

Figure 5.10 The Most Common Features Located Outside the Community Identified in the Mental Maps. Table compiled by author, 2014.

There are several other features located inside and outside of the community that were cited by a large number of my participants. Some of these features include roads, churches, bars, Praça Américo Brum, the *teleférico*, the bakery, the historic staircase (*escadaria*), *mirantes* built by the Favela Bairro program, as well as the pharmacy, and the Supermarket 2001

(*supermercado*). In what follows, I discuss both the most common themes and features as cited by the participants of Morro da Providência in the present.

### **The Teleférico and Praça Américo Brum**

In the central region of Morro da Providência, there are two main roads. Twelve participants mentioned the road Laderia do Barroso while six participants mentioned the cobblestone road Ladeira do Farias. At the intersection of these two main roads, and in front of the *teleférico* station, is the van stop (*kombi*) mentioned by four participants. There are also several bars including Bar Pará, Bar China, Bar Deus Dêde, Bar Preto, and Bar Neto as cited by twelve participants, and the bakery (*padaria*) cited by fourteen participants. There are also a handful of small-business restaurants including Favela Point, Laje da Dona Jura, and Pensão Sabor do Anais, a hardware store, and one hairdresser.

The central region of the community is probably best known as being the former site of Praça Américo Brum. While the former Praça Américo Brum was only cited by eight participants, the *teleférico* station was cited twenty-three times. The *teleférico* station was under construction during my field work. For this reason, the Google satellite image has not yet been updated. Nevertheless, judging by its new name, it is clear that the *teleférico* station is already an important feature and social space in the community. Figure 5.11 indicates the location of the *teleférico* station, the former site of Praça Américo Brum.

Before the construction of the *teleférico* began, the *Praça* was one of the only public gathering places in the community. While I was performing interviews, the noise, dust, and constant stream of construction workers kept many participants from comfortably gathering in this space. Furthermore, the noise and dust made it difficult for me to perform interviews during the work week. On the weekends when the construction work was mostly suspended, I was able

to catch a few people in this part of the community. However, due to the lack of public seating many of my weekend participants were patrons from the nearby bars.



Figure 5.11 Site of the Former Praça Américo Brum. Google Maps modified by author, 2014.

On Saturday June 30, I interviewed Waldecy (Map 56), a 50-year-old resident who drew the historic staircase, his home, and his route to the bakery as places that were important to him. After he drew his map, he told me that he was the owner of the small shop next to the bakery, a location he had failed to include in his map. Waldecy said he that he recently purchased the shop because the previous owner did not want to deal with the dust caused by the *teleférico* construction. When I asked him if he was having a difficult time because of the *teleférico* construction he said, “Everything is alright. I stay because I am a warrior” “*Tudo está bom. Eu fico porque sou um guerreiro*” (Map 56). Beyond the dust and noise associated with the new construction, the plight of being a warrior was one many residents share. Residents are

threatened by removal, inundated with corrupt police, and are subjected to the disappearance of important social spaces in the community.

Owing to the disappearance of the Praça Américo Brum, many participants have noted that there are currently more children playing on the streets rather than a designated leisure area or park. Figure 5.12 is a photograph of children flying kites on the rooftop. It is interesting to note that three participants drew kites as a symbol of play on their mental maps. More interestingly, Luis (Map 42) drew a kite being flown by children perched atop a rooftop, while Bruno (Map 8) drew a child playing with a kite in the street. If kite can be interpreted as a symbol of play, clearly Morro da Providência is lacking adequate spaces in which to play. This exact sentiment is echoed by Rosane (Map 49) a 44-year-old mother of four children, one with special needs, who explains that “the children don't have a childhood” “*as crianças não têm uma infância.*”



Figure 5.12 Children Flying Kites on the Rooftop. Photo taken by author, 2013.

In the week or two before I interviewed Silvia (Map 50), a 46-year-old mother of four, I began to notice that the children in the community had started flying kites. The weather had not changed so I was very curious what brought on this surge of buying and flying kites. When I

asked the children, they simply said explained that was kite season. As the season continued, it seemed as though there were more and more children crowding the *mirantes* and rooftops flying kites. Figure 5.13 is a photograph of a kite that I flew on the north-facing viewpoint.

What I had not realized is that kite season corresponds with a vacation from school. When I was interviewing Silvia, she mentioned that because it is kite season, there have been more frequent injuries among the children including a boy who had recently fallen from a rooftop and broken his arm. “There are not enough places for children to play and fly their kites” “*Não há lugares suficientes para as crianças brincarem e voam seus pipas*” she explained. Silvia continued to say that her children have bicycles. This is a luxury that not many people in the community can afford. However, now that the *Praça* Brum Américo is gone, the children have nowhere to ride them. “To take the children with their bikes out of the community is a huge pain” “*Para levar as crianças com suas bicicletas fora da comunidade é uma grande dor*” she exclaimed. It is evident that there needs to be more places for the children to play.

While the lack of leisure spaces has been a recurring theme throughout my research project, participants have been more content with allowing their children to play outside. According to Bruno (Map 8) because there are an increased number of police officers on the street, there are also fewer drug traffickers and fewer shootouts. Additionally, the drug traffickers who used to man the *boca de fumos* are no longer there. Although some participants have said they feel safer including Fernando (Map 30), others like Gustavo (Map 31) and Liane (Map 27) continue to be fearful because the UPP exert a strong militarized presence and because there are still guns and drugs in the community. Over the course of five months, I personally witnessed two instances of guns being wielded by non UPP officers and one drug sale.

The UPP are present to restrict the drug trafficking activity. However, despite the implementation of the UPP, drug traffickers still have a presence in the community. One day I entered the community to interview participants and I noticed that everything was closed. There was an eerie feeling that settled over the community and I asked what had happened. Rafael (Map 46) told me that a drug trafficker was shot by police in the early hours of the morning. “Everything is closed today out of respect. I would like for the bakery to be open, but that is not how things work” “*Tudo está fechado hoje por causa de respeito. Gostaria que a padaria ser aberto, mas não é assim que as coisas funcionam*”, he told me. I did not stay very long in the community that day but asked for our interview to be rescheduled.



Figure 5.13 Flying Kites on the North-Facing *Mirante*. Photo taken by author, 2013.

Another day, as I was walking down the stairs, I stopped for a moment to write a note in my notebook when I saw some young men with radios saying, “police” “*polícia.*” From the stairs, I looked in the direction of the cable and saw two police approaching with their lights flashing. The young men were encouraging each other over the radio to remain calm, act normally, and to use alternative paths to exit the community. Eight police officers got out of the car and slung their AK-47s over their backs. Feeling exposed on the staircase, I started to walk

down in the direction of the *teleférico*. I could have left the community entirely by escaping through one of the staircases or simply by descending by Laderia do Farias. However, I wanted to bear witness to interaction between the police and the community. Instead of leaving, I walked toward the police on Laderia do Barroso and sat down on the steps of a bar near the *teleférico* station.

All eyes were on the police. I asked the residents if this was normal and Liane (Map 27) said that “yes, very normal” “*sim, super normal.*” After a while, the heavily-armed police officers broke from their group to frisk a teen-aged male resident. They even opened his pants to see if he was hiding something. It all seemed like farce. I could not help but feel like this boy was sent there by the drug traffickers as a distraction so that others could casually leave the community unnoticed. No one was able to confirm or deny my suspicions.

As I had been sitting there, Liane (Map 27) told me about the police. Liane was 26-year-old mother of five who was nine months pregnant with her sixth child. With a headache, she explained to me that a police officer was shot in the leg earlier that morning. She said that the police were there to make the community safer, but that she did not feel safe. “I am constantly afraid for my children” “*Estou sempre com medo sobre meus filhos*” she said. When I asked Liane what she would change about the community, she said it would be the police. In accordance with Gustavo (Map 31), Liane explained that the police constantly harass the residents, are disrespectful to the women, and use drugs on the job. Eventually, the tension in the community subsided without incident and the residents resumed their business.

Despite increasing efforts in safety, trash collection also continues to be problematic. Silvia (Map 50) was born and raised in the community. In fact, she lives on a street near the *teleférico* that was named after her grandmother. Silvia suggests that community needs to



collaborate about the trash problem. Figure 5.14 is a photograph that depicts three pigs, owned by the community, eating trash in Ingleses. Not only are there not enough bins to collect all garbage, sometimes the city trash collectors refuse to take the trash out of the community. Instead, people throw their trash on the streets, over the ledge of the quarry, or on a piece of land called Ingleses, Figure 5.15, which is technically separated from the community by a dilapidated concrete wall.



Figure 5.14 Pigs Eating Garbage in Ingleses. Photo taken by author, 2014.



Figure 5.15 Location of Ingleses. Google Maps modified by author, 2014.



This garbage-filled land is called Ingleses due to the proximity to the cemetery of the same name. Silvia (Map 50) and Simone (Map 52) both made reference to at least three pigs that live in Ingleses that feed on the garbage. While seven participants mentioned a problem with open sewage, nine residents mentioned that they would like to see increased consciousness and improvements in cleanliness and garbage removal. If people are walking through garbage landfills to arrive home, not only is there a trash problem there is a mobility problem too.

### **O Alto do Morro**

Morro da Providência literally means “the hill of Providence” in English. According to the 2010 Census performed by the IBGE, there are nearly 4,889 men, women, and children living in 1,465 houses on a very steep hill in the Port Region (Instituto Brasileiro de Geografia e Estatística, 2010). While Laderia do Barroso, Ladeira do Farias, and the *kombis* facilitate movement into the community, these features only service a small portion of the community. Most residents must walk into the community and navigate the stairs on foot. Twenty-four residents cited a problem with mobility ranging from the inability to negotiate the stairs, inability to bring home large amount of groceries or construction materials, slow and crowded vans, and the fact that amenities are far away.

Meanwhile, the second most common feature of Morro da Providência identified by twenty-three mental maps is the historic staircase (*escadaria*) that connects the center of the community with top of the hill (*o alto do Morro*). Along with the Capela das Almas built in 1902, the staircase is one of oldest features of the hill. There are houses on both the north and south side of the stone staircase. There is even a small bar and snack shop (*lanchonete*) called Favela Point which opened in 2012 by seven women through a program called Elas em Movimento. Sponsored by the Elas Social Foundation, this program was designed to provide

entrepreneurial and financial opportunities for women in pacified *favelas* to open their own businesses. Today, the *lanchonete* is run by three of the original founding women and was recently featured in a book called “Guia Gastronômico das *Favelas*” by Sérgio Bloch, Ines Garçoni, and Marcos Pinto.

In addition to the *teleférico*, the Morar Carioca Program had plans to build a funicular tram on the south side of the staircase. These plans would necessitate the removal of a number of homes on the hill including that of Roberto Marinho a 37-year-old father of two. Marinho’s grandfather Bernardino came to Morro da Providência from Alagoas in 1942 and began to build a home with his wife Aurora in which they raised twelve children. Roberto still occupies the house with his own family and is at risk of being removed along with two of his neighbor’s homes that are still standing. Originally built with mere bricks, the home is now built with concrete and reinforced steel and stands three stories high. Echoing the sentiments of seventeen other participants including Fabio (Map 21), “it would be a shame for the city to remove all of the residents simply to complete another construction project” “*seria uma pena para a cidade de remover todos os moradores simplesmente para completar um outro projeto.*”

In total, there are three *mirantes* on the *alto do Morro* drawn by five participants. The three *mirantes* facing north, west, and south were constructed through the Favela Bairro program. The northern-and-southern-facing *mirantes* are widely used and provide a little more space for children to fly kites and to view the city down below respectively. The western-facing *mirante* is smaller and underutilized. Even though these *mirantes* have provided additional spaces, several participants complained that they are unstable and have not been fortified since they were built in 2005.

Fernando (Map 30) suggests that even though southern-facing *mirante* receives maintenance in the form of painting, the floor boards are missing, and the safety railing is appallingly loose. Similarly, Nina (Map 38) mentioned that the lights around the *mirante* were not working and that is currently needs to be strengthening because it is used so often. While I was performing an interview on the *mirante*, a group of young girls came to dance on the flat platform. At the same time, Fernando walked me over the edge and started shaking the fence and platform which extends over the precipice. While this *mirante* has been a valuable addition of space for the community, it is indeed in dire need of maintenance. It is also arguable as to whether or not this space was successful as a viewpoint, or simply as additional flat and open feature. Figure 5.16 is a map of important spaces in the community.

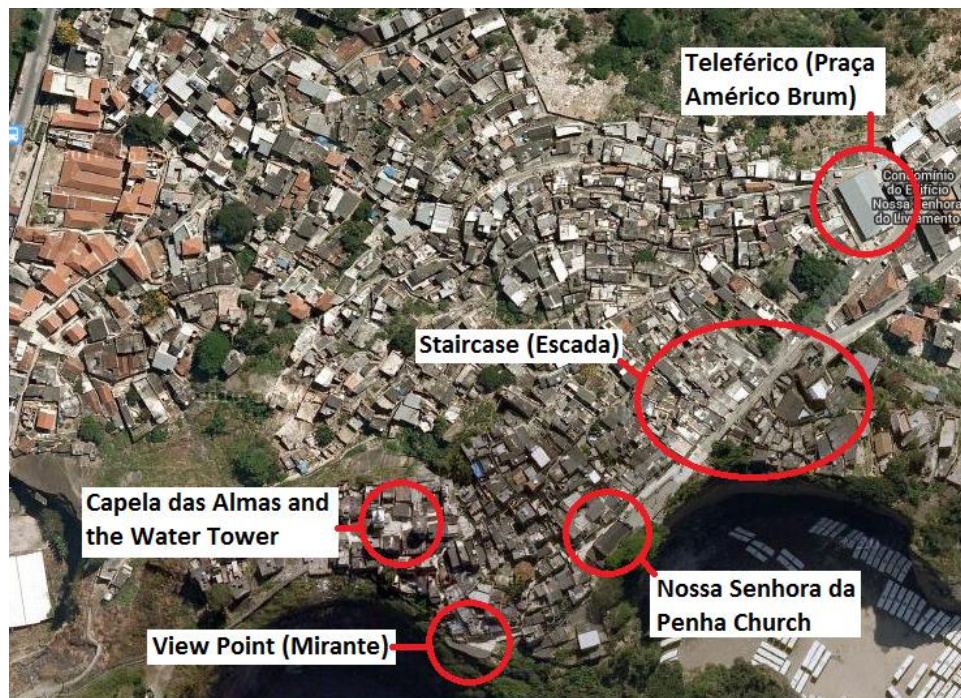


Figure 5.16 Map of Important Spaces. Google Maps modified by author, 2013.

Although there are no grocery stores in the community, there are smaller stores that sell snacks and refreshments. Omar (Map 44), a 42-year-old small shop owner, adamantly opposed participation in my research project and was perhaps my most hostile participant. Omar said that

he did not want to participate in my project because I did not have the power to affect his situation. I explained that while that might be true, I was, however, willing to listen. I must have asked him four or five times on separate days and he always refused, but finally, one day he conceded.

When I ask Omar (Map 44) about spaces that were important to him, he said that there were no more public spaces, "nada publico." He also mentioned that approximately twenty families have already moved out of the *alto do Morro* because their houses were considered "at risk" and marked for removal are now receiving social rent offered by Secretary of Social Assistance. Social rent is usually a stipend in the amount of R\$400 during the time of eviction and resettlement in a nearby housing unit. However, this stipend is not enough to support a family and pay rent in most communities in Rio de Janeiro. For this reason, many of the people who accepted social rent moved to other locations within Providência while they await new housing.

According to the city, the houses marked for removal were "at risk" of environmental factors. However, Omar (Map 44) argued that this was simply not true. A 2011 report performed by local engineer Maurício Campos dos Santos and local architect Marcos de Faria Asevedo proved that the houses were in fact not at risk. City reports in regard to communities designated "at risk" are often inaccurate (Campos dos Santos and Asevedo, 2011). Omar (Map 44) and Claudio (Map 6) told me that the city wants to remove people from their homes by saying they are at risk, when, in reality, they want to use that space to build a hotel and casino for tourists. Considering the palpable distrust that exists between the residents and the city is likely why Omar (Map 44) initially did not want to be interviewed. When I asked Omar (Map 44) about improvements, he said that he would like to see visitors to his shop every day. "I want the

*teleférico* to bring more tourists than to Christ” “*Eu quero que o teleférico trazer mais turistas do que para o Cristo.*”

In the *alto do Morro* there are also two iconic churches worthy of tourists. Igreja Nossa Senhora da Penha was drawn by fourteen participants and the historic Capela das Almas built in 1902, was drawn by seven participants. Aside from Praça Américo Brum, the only other *praças* in the community exist near these two churches. Figure 5.17 is a photograph depicting children playing soccer in front of Igreja Nossa Senhora da Penha.

The space in front of the Nossa Senhora da Penha church is bounded by the historic staircase on the east, the quarry precipice on the south, and a row of houses, including Vera’s corner store and the NGO Casa Amarela, on the north. This narrow and slanted plaza is often slippery with dog feces, sewage water, and garbage. Without a designated place for garbage many participants throw their trash over the ledge of the quarry and some of it blows back into the *praça*. Since this *praça* is one of the only open spaces in the community it is often a gathering place for children to play, often barefoot.



Figure 5.17 Children Playing in Front of Igreja Nossa Senhora da Penha. Photo taken by author, 2013.

There is also a small *praça* directly behind the Capela das Almas that was built during the Morar Carioca Program. In addition to housing a spectacular view of the city, this space is filled with several dilapidated concrete chess tables and three seesaws as depicted in Figure 5.18. According to Adriane (Map 4), this *praça* is much smaller than it was before the Morar Carioca Program and gets much less use. It is also interesting to note that zero participants drew this space as a space of importance. Meanwhile, six participants drew the CEDAE water towers located directly in front of the Capela das Almas. According to Adriane, the water company CEDAE bought the property, which used to contain a house to build the tower. The bottom half of the tower works, but the top was never completed but has served as a hideout for the drug traffickers for fifteen years.



Figure 5.18 Capela das Almas and the CEDAE Water Tower. Photo taken by author, 2013.

I was also told by Carlos (Map 24) and Adrian (Map 5) that the Morar Carioca Program also included a plan to build a road behind the Capela das Almas. In addition to the *kombi* system which shuttles people from the center of the community to the city, this road was supposed to extend throughout the community and be large enough to accommodate motorcycles. The existence of roads is common in many *favelas* throughout the city and many



*favelas* with roads often employ a system of *mototaxis* (motorcycle taxis). *Mototaxis* are another form of short distance transportation for the community residents which usually cost around R\$ 2.00 per ride. However, to date, construction on the road had not yet been completed.

### **La Embaixo**

Morro da Providência is located on a hill in the center of downtown Rio in the South Zone (*Zona Sul*). From the top of this hill it is possible to see the Port Area including Cidade do Samba and Cidade Olimpica, the Bay of Guanabara, Sugar Loaf, Christ, Parque da Tijuca, Avenida Presidente Vargas, the SuperVia Train station, and the clock tower of Central (Maps 19, 38, 40, and 51). Although all of these features are located outside of the community, they all appeared in several mental maps, thus orienting the participant geographically within the larger city.

Morro da Providência is not an inclusive or self-sustaining neighborhood as it is missing certain fundamental amenities. As Larissa (Map 25) explains, everything is located outside the community “*tudo e la embaixo.*” Participants leave the community daily to take their children to pre-school, to school, and to the health post. They also take their elderly to the hospital and to the pharmacy cited by eleven and eight participants respectively. All of these amenities are located outside of the community. And perhaps most surprisingly, all participants of Morro da Providência have to leave the community to go to the grocery store.

The supermarket is another feature located outside the community that appears in twenty-four separate mental maps. There are two grocery stores that the participants frequent and both are named Supermercado 2001. One is located on Ladeira do Livramento and the other on Rua Senador Pompeu. However, both supermarkets are over half-a-mile away. According to Claudio (Map 6), if a resident needed an ingredient like a tomato, they would need to exit the community

to buy one. Considering that the *kombis* are often crowded and have limiting hours from 10:00am to 12:00pm, as Luiza (Maps 27, 59) pointed out, a trip to the supermarket could take at least 40 minutes, if there are no lines at the market, which is unlikely. Tania (Map 53) works at the *padaria* in the community. Even though the *padaria* sells a variety of things, she says a supermarket closer to the community is a “necessity” “*necessidade.*”

The community has many residents who find it difficult to negotiate the stairs and the steep hills in the community. For this reason, going to the grocery store is often a tremendous chore. One day I witnessed a taxi drop off a woman at the bottom of the historic staircase, as depicted in Figure 5.19. This female resident had nearly twenty grocery bags and waited patiently for her family members and neighbors to help her take the bags up the hill. However, not every resident has the money for a taxi and not every resident is able to rely on family members to help carry the groceries up the hill. According to one of the grocery delivery men, if a resident buys more than R\$ 100 worth of groceries, the supermarket delivers the groceries to the resident’s homes for free in blue plastic crates. However, most residents cannot afford this minimum purchase of R\$ 100 to merit the free delivery and therefore rely on the *kombis* to help bring their groceries home.

In addition to leaving the community for shopping and leisure, Waldecy (Map 56) explains that the community lacks so many things. In comparison to other communities like Rocinha, Morro da Providência has no bank, no clothing stores, supermarket, and the closest post office is located in Praça Maua. “We don't have anything! Where is the sports plaza they promised? They took away the plaza, and now the children have nowhere to play. They didn't put any social programs or classes like theater, only police!” “*A gente não tem nada. Cadê a praça de esportes que eles prometeram? Eles tiraram a praça, e agora as crianças não têm onde*



*brincar. Eles não colocam nenhum programa social ou classes como teatro. Eles somente colocam a polícia!”*

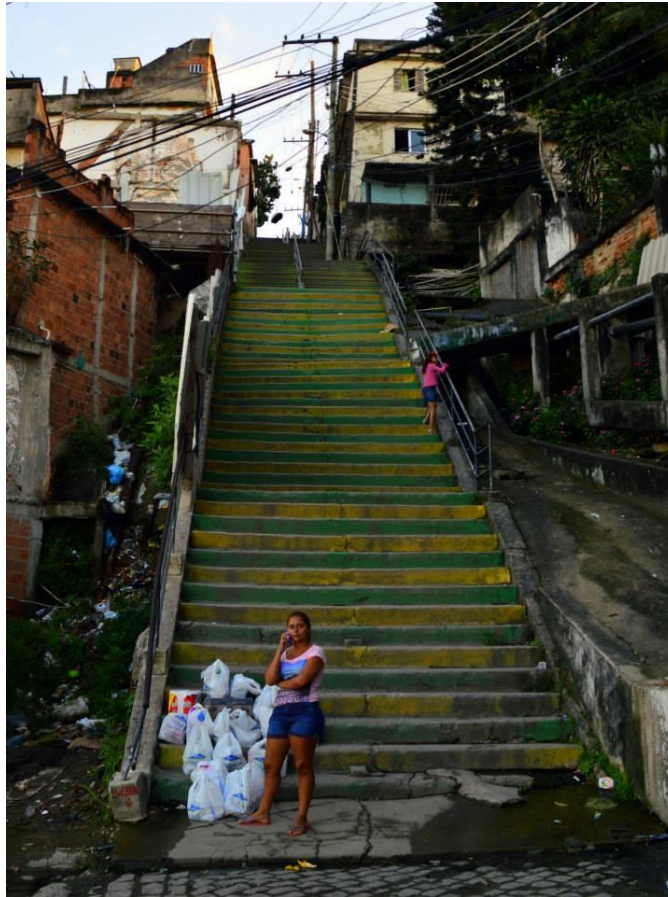


Figure 5.19 Woman Waiting with Groceries on the Historic Staircase. Photo taken by Guilherme Dias da Fonseca, permission granted, 2013.

I should note that the original Morar Carioca plans did call for the construction of a new sports plaza as well as a park. In total, the unfinished Morar Carioca projects include a sports center, a funicular tram, seven affordable housing condominiums, sewage, as well as drainage, street lighting, and paving. When I approached an Odebrecht construction worker to ask if there was anything planned for the vacant lot in front of the *teleférico* he said, "Look ... I think it will be a park. But I do not know if we [Odebrecht] will build it." "*Olha...eu acho que vai ser um parque, sim. Mas eu não sei se a gente [Odebrecht] vai construí-lo.*" I had also seen the plans for

a park via an informational video published by Morar Carioca. In the video, the park was located on the west of the *teleférico* station, where in reality, there is no room. For this reason, many residents—who are still expecting the park to be built—assume it will be located in the small vacant lot across the street on the southern side of the *teleférico* station. Mariana (Map 20) said that she is very excited about the park but suggests that more houses and an apartment building would have to be demolished before it could be built. Ultimately, she told me that she thinks the community will become more beautiful with all the changes.

After an interview I was leaving the community when Mariana (Map 20) asked me why I was going the wrong way. When I told her that I was unaware of any other way to arrive at the metro station, she walked with me down the hill passed the *teleférico* station. As opposed to walking Laderia do Faria until a staircase that would take me to Rua Bento Ribeiro (the road which leads to the metro station) she took me down Ladiera do Barroso. We did not walk too far before she stopped and she pointed to a doorway. When I went through the poorly lit threshold, I realized the doorway led to a staircase that led under a handful of homes before connecting to Ladeira do Faria. Figure 5.20 depicts a family sitting next to the hidden staircase.



Figure 5.20 Family Posing by the Hidden Staircase. Photo taken by Guilherme Dias da Fonseca, permission authorized, 2013.

The staircase not only shortened my journey out of the community, but also avoided the steepest and often most slippery (wet with sewage) part of the road. When the staircase connected to Laderia do Faria I noticed that I was at the *boca de fumo*. Despite spray paint in the stairwell suggesting that it was private property, I learned that the staircase is widely used in the community. After this day, I used the staircase often. Without speaking to Mariana, I would have never known that this staircase existed as another route through the community.

The community and Central station are separated by four city blocks. As you leave the community and walk in the direction of Central you immediately pass the Popular Market (*Mercado Popular*). Figure 5.21 is a map that depicts feature locations outside of the community.



Figure 5.21 Map of Features Located Outside Morro da Providência. Google Maps modified by author, 2014.

The Mercado Popular is a semi-vacant concrete building that was built after a suspicious fire destroyed the *camelodromo* a permanent flea market that used to exist next to the train station.

The Mercado Popular is a complex with two buildings on both sides of Rua Bento Ribeiro.

Inside there were many abandoned and locked stalls. The idea was to offer the venders with

booths in the former *camelodromo* a space in the Mercado Popular to sell their wares. However, owing to the lack of foot-traffic, the Mercado Popular today is virtually abandoned.

After passing the Mercado Popular, if you walk two more blocks in the direction of Central you arrive at the Terminal Rodoviária Coronel Américo Fontenelle, one of the two bus stations located downtown. Alfredo, (Map 19) informed me that there are plans to renovate the bus station and clean the surrounding area. Although I could not find any plans to support this claim, Alfredo insisted that the construction of a new bus station was part of the plan to build the *teleférico* station. From the bus station, if you walk one more block in the direction of Central, you arrive at the former *camelodromo*, which has been transformed into the first *teleférico* station. I should be clear that there are three *teleférico* stations: one is located in the location of the old *camelodromo* next to central. The second *teleférico* station is located in Morro da Providência on the site of the former Américo Brum. The third *teleférico* station is located on the northern side of the community in Gamboa.

### **The North to Gamboa**

Considering that many important places exist well outside of the community, mobility is still a large problem. Although the *teleférico* may be helpful to some residents, others like Rosane (Map 49) claim “the *teleférico* is in the wrong place because it only serves one part of the community” “*o teleférico está no lugar errado, porque ele só serve uma parte da comunidade.*” People who live in the northern side of the community are unlikely to benefit at all.

Between the central part of the community and the Port Area is the northern side of the community. Here, there are larger houses and paths until you reach Gamboa at the bottom of the hill. While some residents like Lourdes (Map 28) climb the hill is to buy bread at the *padaria*, most participants who live on the north side of the community rarely climb the hill at all. As



Rodnei (Map 48) and Simone (Map 52) explain, there are people who pass in front of their houses selling bread so there is no need to climb the hill. Additionally, Rodnei explains that there is a bar at the bottom of the hill where buys beer. “I always pay on time” “*eu sempre paga na hora*”, he added.

Furthermore, when participants living in the northern side of the community exit the community, they generally walk down to Rua Barão de Gamboa or Rua de Gamboa. In order to arrive in the city center, the participants pass by the English Cemetery (Cemitério dos Ingleses) figures 5.22a and 5.22b, and walk through the tunnel João Ricardo which passes under Morro da Providência. After clearing the dark, damp, and garbage-filled tunnel, they continue on Rua Bento Ribeiro before connecting to the south side of the community and places like the Metro and SuperVia train station in Central. It is for this reason there are separate vernacular sub-regions in the community. Each region has a different geography and different needs although they are all part of Morro da Providência.



Figure 5.22a (left) and Figure 5.22b (right) The English (Ingleses) Cemetery. Photo taken by author, 2013.

After hearing so much about it, I finally decided to walk this path. I walked from the *teleférico* station, down the hill, passed the cemetery, through the tunnel, and arrived at Central Station. However, before I completed this route, I made a point to visit the Cemitério dos

Ingleses that I had heard so much about. It was an absolutely stunning and clean wooded area and it surprised me to see children playing inside. While I was there discovering historic headstones, many of which quite descriptive and written in English, I met Pedro (Map 45) the 75-year-old caretaker. Although Pedro was not a resident of Morro da Providência, his 46-year tenure working as the caretaker alongside the community was more than enough to merit an interview.

Pedro told me that he arrives in Central station every day and walks to the tunnel to work. Right after the tunnel, on the right, there is a bar where he sometimes eats lunch. Pedro drew his route to work while telling me stories about the cemetery's role in the community over the years. Apparently, many drug traffickers would often try to flee the community during raids by the police and other drug trafficking factions and end up in the cemetery. Many of these traffickers sought refuge inside the church. While some traffickers hid inside the church and managed to survive, others were not as lucky and were shot to death inside the cemetery. Since the UPP, things have been much calmer, and there are fewer criminals running through the cemetery. Now, it seems, there are mostly children in the cemetery seeking places to play.

I should also mention that I was not able to interview many people living on the northern side of the community. In comparison to the number of interviews I gathered in the center and in the *alto do Morro*, the number of participants I had in the north was admittedly very few. Figure 5.23 depicts the name, sex, age, and number of colors used for each of my participants. The primary reason for this is because there are zero social spaces in this side of the community. Although there are a few bars, they are very small and do not offer much in the way of seating. Their hours of operation were also not very convenient. Thus, as I entered the northern side of

Map Number	Code Name	Sex	Age	Number of Colors Used	Map Number	Code Name	Sex	Age	Number of Colors Used
1	Miguel	M	61	3	31	Gustavo	M	27	1
2	Aline	F	21	3	32	Fatima	F	72	2
3	Marcelo	M	70	1	33	Jerônimo	M	29	2
4	Adriane	F	55	3	34	Clara	F	32	2
5	Adrian	M	48	1	35	Johnson	M	31	1
6	Claudio	M	46	1	36	Leandro	M	28	1
7	Julio	M	39	2	37	Maristela	F	32	2
8	Bruno	M	34	3	38	Nina	F	54	2
9	Anelise	F	58	2	39	Patrícia	F	64	2
10	Beatriz	F	22	1	40	Leonel	M	18	3
11	Marcio	M	59	2	41	Renata	F	62	1
12	Manuel	M	59	1	42	Luis	M	18	1
13	Camila	F	70	2	43	Paulo	M	79	1
14	Carla	F	44	3	44	Omar	M	42	1
15	Cristiane	F	73	3	45	Pedro	M	75	1
16	Gabriela	F	73	3	46	Rafael	M	38	1
17	Alexandre	M	48	2	47	Paula	F	28	1
18	Karina	F	67	2	48	Rodnei	M	36	2
19	Alfredo	M	43	3	49	Rosane	F	44	2
20	Mariana	F	20	3	50	Silvia	F	46	1
21	Fabio	M	37	2	51	Tiago	M	55	2
22	Artur	M	40	2	52	Simone	F	66	1
23	Arão	M	30	3	53	Tania	F	32	1
24	Carlos	M	58	1	54	Vagner	M	28	2
25	Larissa	F	25	1	55	Yuri	M	67	3
26	Bernardo	M	50	1	56	Waldecy	M	50	2
27	Liane	F	26	1	57	Luiza	F	58	1
28	Lourdes	F	38	2	58	Guilherme	M	21	2
29	Daniel	M	23	2	59	Conçeissao	F	57	2
30	Fernando	M	60	3	60	Washington	M	30	3

Figure 5.23 Table of Participants. Chart compiled by author, 2014.

the community, I was limited to asking for participants from the people walking the street. In total, I gathered ten mental maps from this portion of the community.

### **Alternative Infrastructural Suggestions**

All of my participants had at least one alternative suggestion for either physical or social infrastructure to be implemented in Morro da Providência. These alternative infrastructural ideas and plans were either listed on the mental maps, or drawn in spatially. In what follows, I describe the alternative ideas presented by my participants.

The future was a difficult concept to approach in the *favela* realm. Although I asked my residents to imagine the future, many of them said they could not imagine it, because it had not happened yet. Considering that the future was a vague and abstract concept to conceptualize in a two-dimensional map, I asked people for alternative ideas instead. First, I asked if the participants had been consulted in the planning process. Only three people mentioned that they had actually seen plans for the community. Two people had seen some plans online in promotional videos published by the city and one person worked for Odebrecht, the construction company hired to build the *teleférico*. Second, I asked the residents what kind of infrastructure they would have chosen to implement in their community. With this slight modification in word choice from “future” to “alternative” I was able to engage my participants in conversation about the transformation of social space in their community. Thus, as opposed to asking what will be done, I changed the conversation to ask, what could have been done instead.

During my interviews, I was also careful not to use the word “*obras*” which literally translates to “construction works” in English. The word “*obras*” is implicit with the entire Morar Carioca project including the proposed and actual decisions that were made for the community without proper consultation. When speaking about “*obras*” almost every person I approached



refused to talk with me and refused to draw a map. It was much for effective to use to the word “*construção*” which translates to “construction” in English. Although the word change is subtle, construction refers simply to the reality of what was currently being produced in the community. By focusing on the construction at hand, as opposed to what could be, or what could have been, I was able to focus on an a concrete aspect of change that my participants could conceptualize.

### **Non-Spatial Alternatives**

Alternative plans were also difficult to conceptualize spatially. While many participants could speak about the features they wished to see implemented in the community, many participants were unable to tell me where this feature should be located. For example, eleven residents told me that they wanted to see a hospital or a health post located in the community. However, no participant was able to suggest a location for this hospital. Thus, when participants suggested a particular feature they would like to see implemented in the community, but they could not determine where this feature should be located, they often wrote these features as a list.

More often than not, my participants spoke broadly about the things they wished to see in the community. Residents listed “*melhoramentos*” or “improvements” in the fortification of their houses, the pavement of roads, the repair of sewage pipelines, and the implementation of public lighting. Residents wanted to see an improvement in health services including better pharmacies, doctor’s offices, public health posts, and hospitals with pediatric and geriatric wards. For the children, the residents wanted stronger educational system with more childcare centers, pre-schools (*crèches*), schools, and universities. Finally, many residents urged the necessity of leisure spaces, including soccer fields, small parks, or green spaces for the children to play. Almost everything that was deficient in the present required an alternative solution in the future.

Residents did not just want physical improvements, but also improvements in quality of life. Even though improvements in quality of life and other kinds of social infrastructure are strong and valid ideas, they proved to be exceedingly difficult concepts to draw spatially. For example, some residents suggested that the UPP officers should offer classes for the residents as they do in other pacified *favela* communities. UPP social was specifically designed to help integrate a police presence into the community. However, none of UPP officers offer social programs in Morro da Providência. Nevertheless, residents like Silvia (Map 51) think that courses taught by the UPP officers or by other NGOs would be beneficial.

According to Vagner (Map 54) children need something to “occupy their minds” “*ocupar suas mentes*” and to keep them out of trouble. Specifically, residents asked for music, swimming, ballet, judo, language, and computer classes. According to Camila (Map 13), anything that helps children “play and learn” “*brincar e aprender*” would be an improvement. Specifically, Camila (Map 13) suggested that a social program involving the production of kites could build upon an existing hobby and incite entrepreneurial skills. “If children learned how to make them, they could also learn how to sell them” “*Se as crianças aprenderam a fazê-los, eles também poderiam aprender a vendê-los*” she said.

In addition to asking for classes for children, other participants suggested that classes for adults. Bernardo (Map 26) and Gustavo (Map 35) suggested culinary classes, language classes, and even vocational training. Having access to vocational schools such as SENAI (Serviço Nacional de Aprendizagem Industrial), a non-profit run by Brazilian Confederation of Industry, would help the residents learn skills to apply as stone-workers (*pedreiras*) or electricians. Thus, in these instances, the implementation of classes for children and adults to be run by UPP officers or NGOs are valid contributions to alternative social features residents would like to see

in their community. The space needed to host these classes would depend upon the type of class being offered and upon who was offering to host the class. For this reason, it was difficult to represent this idea for social infrastructure spatially on the mental maps.

Similarly, the desire to have increased “public power” “*poder publico*” is another aspect that was difficult to represent spatially. According to Miguel (Map 1), residents of Morro da Providência want a greater ability to make decisions for themselves and their community, especially on a small scale. This sentiment was echoed by Karina (Map 18) who said that she would have liked to have been more involved with the Morar Carioca plans. “If they had asked us, we could have told them what we wanted” “*Se eles tivessem nos perguntado, poderíamos ter-lhes dito o que queríamos.*” Furthermore, Karina explained that she offered to donate her plants to the *teleférico* station. After noticing that the planters had been empty for weeks, Karina asked the construction workers if they could use her plants. “I really wanted to help and I was really disappointed when they said no. They would rather buy plants than use my plants” “*Eu realmente queria ajudar e eu fiquei muito decepcionada quando eles disseram não. Eles preferem comprar plantas do que usam as minhas plantas.*”

In this instance, the refusal of plants to fill two small planters in the *teleférico* station was a huge missed opportunity for the city and for the residents. Allowing the residents to participate in the creation of the *teleférico* is a tremendous idea which was also very difficult to represent spatially. The addition of a few plants, the construction of a community vegetable garden, or the creation of a mural created by the residents could have all been powerful ways to include the residents in the transformation of their social space. Participation is a fundamental aspect in acceptance of transformed social spaces, especially if these social spaces transformed without the consent of the community. Allowing the community to participate and embed their own identity

into this new social space could have resulted in the short-term creation and beautification of the *teleférico* station and a long-term mechanism for social cohesion.

In sum, alternative ideas proposed by the residents proved difficult to represent spatially. Either the participants were unsure as to where the feature should be located, or the alternative plan simply did not have a strong spatial component. Nevertheless, ideas concerning social infrastructure, improvements in quality of life and increased public power are valid and important ideas. For this reason, listing alternative features was the most common type of mental maps drawn by the participants.

### **Spatial Alternatives**

While some participants struggled with the spatial aspects of alternative infrastructure, other participants were more successful. The second type of mental map that the residents drew did include a spatial component. Several residents were able to identify what type of infrastructure they wanted to see implemented in the community as well as where they would like it to be located.

For example, the absence of leisure space was one of the most commonly cited themes occurring in the present. Since the Praça Américo Brum transformed into the site of the *teleférico* station, very few places of leisure continue to exist in the community. Nevertheless, residents suggested that leisure spaces were indeed necessary and suggested they be built in two locations. The first location is the across the street from the *teleférico* station. The original Morar Carioca plans called for a park to be built in conjunction with the *teleférico* station, however due to a collective action suit filed by several residents, not even the Odebrect construction workers knew if the park would indeed be built.

The second space is *praça* in front of the Igreja Nossa Senhora da Penha in the *alto do Morro*. Although this already exists as a space of leisure, several residents suggested that it should be fortified with a proper playground with gymnastic and workout equipment. One residents even suggested that public telephone implemented in the *praça* to facilitate the transformation of this space into a social one fit for the community.

Another common theme that appeared in the present was the location of the supermarket. Due to the physical parameters of the community, a trip to the supermarket outside the community often proved to be quite the endeavor. Thus, several residents suggested that they would like to see additional supermarkets that were closer to the community and stocked with a better variety and quality of food.

In the map below, the two supermarkets 2001 are indicated by a yellow milk and apple symbol inside a yellow circle. As opposed to going down the hill to Supermercado 2001, Fernando (Map 30) who lives in the *alto do Morro* suggested that a supermarket would be extremely well-located in the *praça* located in front of the Igreja Nossa Senhora da Penha. Although a supermarket in this location would be extremely convenient for those living in the *alto do Morro*, the population density in this particular region is likely too high to accommodate this type of infrastructure. However, even though the spatial suggestion of a supermarket is not feasible in this particular location, the necessity of a supermarket in a different part of the community is still extremely valid.

In separate interviews, both Patrícia (Map 39) and Rafael (Map 46) suggested that a supermarket be built on the land owned by the city where there was previously a Brinks security and protection company. The former Brinks security company is indicated by a hollow yellow house encircled in red. Before the injunction initiated by the public defender's office of the

Morar Carioca Program, this this land was slated to become housing units associated with the *Minha Casa Minha Vida Program*. At the time of this interview, Patrícia (Map 39) suggested that the proposed apartment building should be built with a supermarket on the ground floor. Although the proposal of a supermarket in this location is still at the bottom on the hill, it is much closer than the current supermarkets.

Another common theme in Morro da Providência was a problem with open sewage and garbage. In reference to the latter, Alexandre (Map 17) explains that “they [the kids] do not realize that when they throw garbage on the ground, it will not be cleaned up and eventually they are playing in garbage” “eles não percebem que quando eles jogam lixo no chão, ele não vai ser limpado e eventualmente, eles estão brincando no lixo.” Rodeni (Map 38) points out the unsanitary conditions also lead to rats and sickness. Thus, the nine participants who mentioned that garbage was a problem also suggested that social program be implemented to increase awareness and consciousness concerning cleanliness and garbage removal. Simone (Map 52) suggested that there should be at least one garbage bin on every street. In this instance, both social and physical infrastructure was suggested to reverse the behavior of throwing trash on the ground.

In addition to the problems associated with the inadequate system of garbage and sewage collection, there is a problem with transportation and the ability to access the community. While the *teleférico* is helpful for those who wish to arrive in the center of the community, much of the higher portions of the community, as well as the northern Gamboa side of the community, are left underserved. In order to arrive at the *alto do Morro* for example, one must climb the historic staircase which starts in the center of the community at the intersection of Laderia do Barroso and Laderia do Farias. According to Carlos (May 24), for many residents who have

children, who are buying groceries, who are elderly, or who are sick, the stairs are simply “too much.” For this reason, Morar Carioca planned to build a funicular tram to ride along the southern side of the staircase.

Although funicular trams are often slow and crowded, they do already exist in other *favela* communities such as Santa Marta located in the neighborhood of Botafogo in the South Zone of Rio. Some residents suggested that they would accept the construction of a funicular tram to facilitate their mobility to the *alto do Morro*. However, every participant who said that they would allow the funicular tram also stipulated that they would only accept the plan if none of their neighbors would have to be removed. So, how do you build a funicular tram with a limited amount of space without removing residents? The simple answer is that you do not. The more complicated answer is that you find an alternative solution.

One of the most unique maps I received was from Marcio (Map 11), a man who described himself as handicapped and adamantly did not want to draw. Once I convinced him that artistry was not necessary, he drew one of the most insightful maps I received. Marcio said that he wanted to see an elevator in the community to extend from the bottom of the hill in the old quarry, up the precipice, and connect to the Igreja Nossa Senhora da Penha *praça* located in the *alto do Morro*. This elevator would extend vertically along the precipice created by the old quarry. The idea of an elevator brilliantly negated the need for a funicular tram which would necessitate the removal houses along the historic staircase.

Furthermore, the elevator would also provide a solution to the garbage removal problem. Marcio explained, “The elevator will have two parts. One part will be social [for people], and the other part will be for trash.” Although six residents living in the *alto do Morro* suggested that an elevator be constructed on the south side of the *praça* in front of the Igreja Nossa Senhora da

Penha, only Marcio suggested that the elevator could also be used for garbage removal. Figures 5.24 and 5.25 are maps that depict the location of alternative infrastructure including the locations of supermarkets and elevators as suggested by the residents.

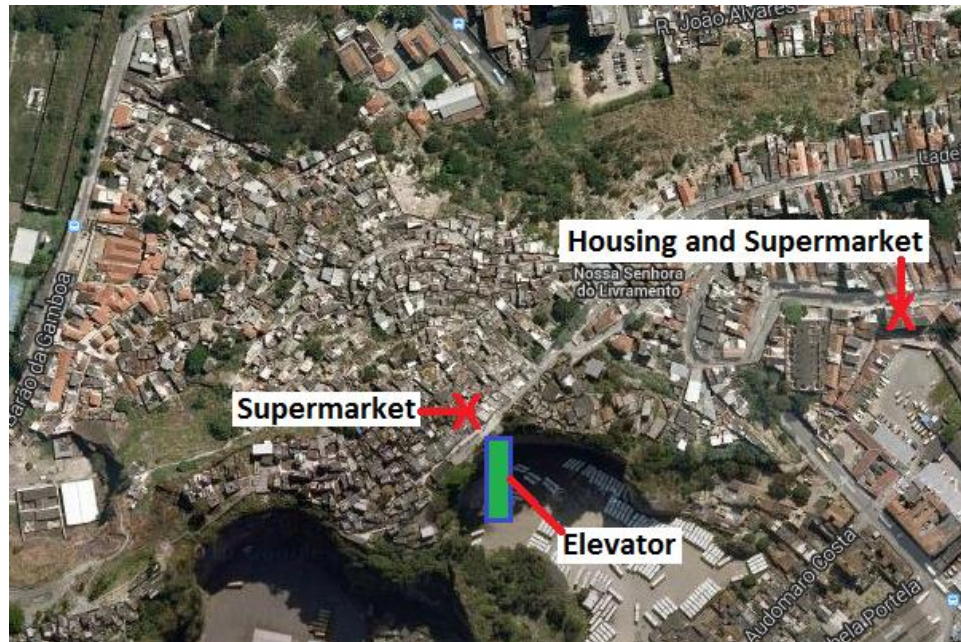


Figure 5.24 Location of Alternative Features. Google Maps modified by author, 2014.

Elevators as mobility solutions are not new to the *favelas* of Rio de Janeiro. In Ipanema, there is a 64-meter elevator that connects the General Osório Metro station with the Cantagalo and Pavão/Pavãozinho *favela*. This R\$48 million dollar elevator was inaugurated in 2011 (Marqueiro, 2011). Although this elevator is strictly reserved for the transportation of people and not garbage, it is a quick, clean, and efficient elevator that offers fantastic views of Ipanema beach and has increased nearby real estate by 40 percent (Marqueiro, 2011). If the city has been looking to use the funicular tram as a tourist attraction, an elevator is able to similarly transport many tourists and residents into the community. In this instance, the implementation of an elevator has the potential to eliminate problems with trash and mobility in Morro da Providência and the idea came directly from the community residents.



In addition to the elevator, it should be noted that Carla (Map 14) had two other ideas for alternative infrastructure. First, Carla (Map 14) suggested a chute could also be built along the precipice of the old quarry to facilitate the removal of trash from the community. Second, Carla (Map 14) also suggested that the city could build an escalator or “*escada rolante*” instead of the funicular tram. While there are no escalators in any other *favela* in Rio, there is an outdoor escalator at Christ the Redeemer Statue located on Corcovado Mountain. In the case of mobility, six different participants suggested an alternative infrastructural plan such as an elevator or escalator and included its location spatially on the map.



Figure 5.25 Proposed Location of the Elevator. Photo taken by author, 2014.

For comparison, there are two other examples of outdoor escalators worth mentioning. In 2011, the Colombian city of Medellin built a 385-meter outdoor escalator in the slum of Comuna Trece (Henley, 2013). This escalator was one of the very first urban regeneration initiatives of its kind to be implemented in a low-income community. The other example of an escalator is an

800-meter outdoor escalator that was built in Hong Kong in 1993 (Gold, 2001). Located in the wealthy neighborhood of Mid-Levels, the escalator is the largest covered outdoor escalator in the world. Thus, irrespective of the income-level of the community, an escalator also appears to be another viable solution to Morro da Providência's mobility problem.

### **Thematic Fear**

In this project, I was able to interview sixty participants, and not one person reported having been consulted in the Morar Carioca planning process. However, once the residents were informed of the project, only four participants opposed the plans. Naturally, most residents want to see improvements made in their community. Regardless of whether or not they would directly benefit from the plans, most residents wanted the Morar Carioca plans to be incorporated into their community taking into account the people who live there. Everyone wanted to see improvements, but no one wanted to see improvements at the expense of their neighbors. When asked what types of infrastructure they wanted to see, many participants provided insightful alternatives to necessary features and themes.

All four participants who opposed the construction cited “fear” “*medo*” as their primary concern. In fact, seventeen participants, including those who were in favor of the new construction, used the word “fear” during their interviews. The three primary fears I encountered when talking to residents were the lack of communication, the lack of trust, and the lack of funding. In what follows, I discuss the most common theme that emerged from assessing the future in Morro da Providência, fear.

In Morro da Providência, there are several fears concerning the construction plans. The first fear exists due to the manner in which the plans occurred. Many of the houses in the community were spray-painted for removal without as much as a word between the residents and

the Secretary of Municipal Housing. Residents like Manuel (Map 12) and Larissa (Map 25) did not know why their houses had been marked for removal, how long they would be allowed to stay in their homes, where they would be forced to live, and whether or not they would receive compensation. Meanwhile, residents like Claudio (Map 6) and Omar (Map 44) believed their homes were marked for removal so the city could build a luxury hotel. Aside from the lack of prior consultation, there was also a lack of communication and information.

Many residents were convinced that the infrastructure was not being built for them but rather for the tourists resulting from the 2014 FIFA World Cup and the 2016 Olympic Games. This fear led the residents to question the city's commitment to the project. First, residents feared that both the funicular tram and the *teleférico* would not continue to receive sufficient funds after the mega-events to be properly maintained. According to Daniel (Map 29), "When the city does not have more money to finance the *teleférico*, they are going to abandon the project and then they will have removed the Praça Américo Brum for nothing" "*Quando a cidade não tem mais dinheiro para financiar o teleférico, eles vão abandonar o projeto e eles vão ter removido a Praça Américo Brum sem razão.*"

Second, several residents also feared that after the 2014 FIFA World Cup and the 2016 Olympic Games the funding for the UPP would also disappear. According to Bruno (Map 8), "I think the UPP is temporary...when the Games end, things are going to go return to how they were" "*Eu acho que a UPP é temporário...quando os jogos terminarem, as coisas vão voltar.*" In these two instances, residents fear that the money allotted for their infrastructural improvements will be revoked when the mega-events come to an end.

At present, the *teleférico* does not limit the number of rides per day and it is free of cost for residents and non-residents. However, if funding for the *teleférico* is compromised, many

residents like Cristiane (Map 15) fear that they may not be able to afford an increase in price. It was also suggested that the cable car might have restricted hours of service or stop during periods of inclement weather. For this reason, Cristiane (Map 15) also hopes that the *kombis* continue to be allowed to serve the community. Another fear concerning the *teleférico* is the fear of heights and confined spaces. Although there were several residents who suggested that the *teleférico* would be beneficial, there were also several residents who said they would refuse to ride in the cable car due to their fear of heights.

Gentrification is one final thematic fear. The implementation of the *teleférico* combined with the community's recent pacification, makes residents like Leonel (Map 40) suspect that the number of residents in Morro da Providência are likely to decrease. Leonel thinks that the community will become too expensive for its current residents and many of his neighbors will be forced to move away from the city center. Thus, many residents are concerned an increase in land value will price them out of their community.

In sum, almost all the participants are in favor the infrastructural transformations. Ideally, the new infrastructure will both facilitate mobility and stimulate the local economy by bringing in tourists. Nevertheless, almost all of the participants suggested that if they had been consulted in the planning process, they would have demanded different forms of infrastructure. As one respondent suggests, "The *teleférico* will be nice, but this is not what the community needs" ("*O teleférico vai ser legal, mas a comunidade não precisa*").

In the case of Morro da Providência, the transformation of social space in was not met with excitement. Instead residents were wrought by misinformation, mistrust, uncertainty, and fear. Although most residents are in favor of the infrastructure, they do not want to see their neighbors removed or the funding to disappear. While the residents generally seem content to

use the infrastructure that was built, there are also many features they would have rather seen implemented in the community.

## **Discussion and Conclusion**

Through the analysis of sixty mental maps I was able to assess the transformation of social space in Morro da Providência by allowing the participant to draw a mental map of important places in the community. Using the common themes and features presented in the mental maps of the past, present, and alternative suggestions, I recorded changes in the most commonly cited features and themes during that era. By counting the number of times certain features appeared in the data, I began to understand how participants used the lived spaces and how conceived spaces differ from the lived representational spaces in Morro da Providência. I also began to understand some of the major themes and fears expressed by the participants. By adding my own commentary and discussion, it was also able to add an understanding of perceived space in my discussion as well.

Participants in this study produced three types of mental maps. In Type 1, fifty-six residents used up to three colors to draw the important features on one sheet of paper. Type 1 was by far the most common type of map produced. In Type 2, two participants drew three separate images either on one or on three separate pieces of paper. Finally, in Type 3, four participants drew aspatial maps, three of which, used words rather than pictorial depictions. Although there were different type of maps produced analysis of the maps was very similar. The purpose was to identify the transformation of importance spaces in the community over time.

In the past, I was able to construct a brief history of existing and non-existing features in Morro da Providência that are categorized by regions within the community. In the center of the community, many participants cited Praça Américo Brum as one of the only leisure spaces in the

community. Historically, this Praça was an inviting park with trees and benches before drug traffickers transformed from a space of leisure to one of illicit behavior. It transformed again into a fenced pavilion before it became the site of the *teleférico* station. Even though the *teleférico* station had not yet been completed at the time of this project, twenty-three participants cited the *teleférico* station as opposed to eight participants who continued to call it Praça Américo Brum.

The region of *alto do Morro* is literally located on the top of the hill. For this reason, young and elderly residents alike cited a problem with mobility. Owing to the fact that the *alto do Morro* has no roads, residents are forced to carry their groceries and construction materials by hand. Although many residents have been living in this region all of their lives, some residents were forced to move to different houses because their houses had deteriorated or succumb to mudslides.

Residents here have witnessed their community become more permanent through self-help construction methods and aid from the Favela Bairro program. The Favela Bairro Program also built a small playground, an open-air museum, and three viewpoints in the region, the legacy of which has yet to be determined. The Chapel located in the *alto do Morro*, identified by seven participants, is one of the defining features of this region as it was built to honor those who died in the Canudos War. The CEDAE Water Tower cited by six participants was also built to provide the community with water but is only half-functional. Most famously, the water tower provided a hideout for the traffickers.

In the present, eleven participants indicated where they lived by writing their house numbers and twenty participants informed me that the community is divided into vernacular sub-regions. Additionally, many of the residents spoke about thematic problems occurring in the community. Nine participants cited inadequate garbage removal and seven participants cited

overflowing sewage as some of the thematic problems. Meanwhile, twenty-one participants cited the absence of social space and twenty-four participants cited the lack of major amenities such as supermarkets, pharmacies, schools, and hospitals and health posts.

Aside from thematic problems, residents also indicated important features inside the community. Those features included roads, churches, bars, Praça Américo Brum, the *teleférico*, the bakery, the historic staircase, the viewpoints, handful of small-business restaurants, a hardware store, and one hairdresser, the pharmacy, and the Supermarket 2001. Residents also cited features outside the community including the Port Area, Cidade do Samba, Cidade Olimpica, the Bay of Guanabara, Sugar Loaf, Christ, Parque da Tijuca, Avenida Presidente Vargas, the SuperVia Train station.

The present is also categorized by region. In the center of the community, residents cited the dust and noise associated with *teleférico* construction, the inundation of corrupt police, inadequate garbage removal, and the disappearance of social space as the primary problems. In the *alto do Morro*, residents continue to struggle with sewage and garbage removal, the threat of removal, and mobility. In fact, the Morar Carioca plans included a funicular tram to facilitate mobility and to bring in tourists. However, the residents did not want the funicular tram if that meant their neighbors would have to leave their homes. Considering that the *mirantes* have not been fortified since their inauguration in 2005, the residents fear that any new construction will similarly be neglected when the mega-events come to an end in 2016.

The number of participants I had in the north was very few because the only social spaces in this part of the community are a trash heap and a cemetery. Nevertheless, residents living on the northern Gamboa side of the community mentioned that they are unlikely to benefit from the *teleférico* as they are unlikely to use it. To enter and exit the community, the majority of these

residents walk through the tunnel João Ricardo which passes under Morro da Providência. This tunnel has not yet been renovated. Thus, the problem with mobility is not restricted to the higher parts of the community.

In the alternative plans, the participants spoke about the strengthening of their houses, the pavement of roads, the repair of sewage pipelines, the implementation of public lighting, better schools, and better health services, and the necessity of leisure spaces. Generally, these ideas for alternative plans were categorized as either non-spatial or spatial.

Some alternative ideas were non-spatial for two reasons. First, even if residents thought of an alternative infrastructure, they were unable to place their ideas spatially on the map. Second, many social improvements simply could not be represented spatially or pictorially. Thus, these alternative ideas were categorized as non-spatial and normally were listed on the mental maps as opposed to being drawn.

The second type of mental map did include a spatial component. There were three primary spatial alternatives suggested by the participants. First, was the construction of two leisure spaces in the community that should be fortified with play and exercise equipment and public phones. Second, two residents suggested that a supermarket be built on the land owned by the city where there was previously a Brinks security company. Finally, an elevator or escalator was suggested by six residents to improve mobility and to facilitate the problem with garbage removal. The elevator would extend vertically along the precipice created by the old quarry and negate the need for a funicular tram which threatened to remove houses along the historic staircase.

While most residents welcomed infrastructural plans when they were not described as *obras*, the residents wanted the plans to incorporate the people who live in the community.



Ideally, the new infrastructure would facilitate mobility and stimulate the local economy by bringing in tourists. Nevertheless, almost all of the participants suggested that if they had been consulted in the planning process, they would have asked for a different type infrastructure. Finally, seventeen participants, including those who were in favor of the new construction, used the word “fear” during their interviews. The lack communication, the lack of trust, and the lack of funding were the three primary fears that I encountered when talking to residents.

In sum, the process of mental mapping allowed me to map the transformation of social space in Morro da Providência. While mental mapping is the creation of maps from the mind, mental mapping was using these images in an attempt to prove the validity of participatory planning. Even at times when mapping proved very difficult, the result of each map and corresponding interview allowed me to discuss the most poignant features and problematic themes in the community in the past and present. It also provided insight into alternative infrastructure desired to modify social space in the community. Furthermore, this project proved that community involvement is able to influence the type of infrastructure necessary to successfully integrate the *favela* into mainstream urban life.

## Chapter Six Conclusions

### Overview

Amid preparations for the 2014 FIFA World Cup and the 2016 Olympic Games, I designed and implemented a five-month-long mental mapping research project with residents of Morro da Providência, the oldest *favela* in Brazil. As the urban landscape of Rio began to transform under the influence of these mega-events, I sought to understand how the transformation of social space affects the *favela* residents during this period of intense urban renewal.

In response to my research objectives, I wanted to understand how the residents of Morro da Providência have used their social space in the past, how they currently use it in the present. Considering current policy and infrastructural transformations, I also wanted to understand what type of infrastructure the residents would have wanted in their communities instead. Furthermore, in addition to understanding the transformation of social space over time, I sought to determine if the use of mental mapping could facilitate this conceptual planning process.

I chose to implement this project in Morro da Providência for several reasons. First, the city of Rio de Janeiro would be the host for two consecutive mega-events. Mega-events such as the World Cup (R\$36.6 billion) and the Olympic Games (R\$25.8 billion) provide host cities with a financial incentive to implement policy reforms as well as social and physical infrastructure. Second, while many *favelas* were removed or threatened with removal to open space for rapid transit bus lines or Olympic structures, Morro da Providência, a historic, pacified community was situated well within the Porto Consortium and Morar Carioca projects (R\$131,000). Thus, as opposed to facing an immanent and violent removal, the city planned to implement social and

physical infrastructure in this *favela* community. It is for these reasons, I chose to investigate the transformation of in Morro da Providência amid the mega-event planning in Rio.

Mega-event construction endeavors are not rationally planned, but are constructed through highly-politicized processes. These construction endeavors are often overwhelmed by temporary white elephant urbanization solutions rather than appropriate long-term infrastructure. Although there have been countless academic studies on the urban influences of mega-events, this research project contributes a geographical perspective to the ways in which fast-paced urbanization transforms and produces social space.

In particular, this research project looks at the differences in the production of space. As opposed to conceived space produced by the elite, I wanted to see how lived space would be created by the residents. In an effort to more evenly distribute stakeholder power from the elite to the residents, this research project provides an opportunity for the community to participate in the planning process. I theorize that community involvement can yield long-term, sustainable solutions during the fast-paced urban transformation influenced by mega-events. I also theorize that mental mapping can, in fact, facilitate this process.

Maps are more than simple reflections of the world they wish to mirror. Each map is one representation of the world and is inherently imbued with politics and bias that are created by society and that also impact society. Opposed to focusing on what maps do, it also is important to understand how they shape our world (Pickles, 2004). The most recent turn in the mapping literature has been toward an alternative mapping culture based on accessible technologies and democratic principles (Perkins, 2003; Parker, 2006). For this reason, I review of the various approaches to mental mapping and introduce the ways in which cartographic theory and

approaches to mental mapping have evolved in both the geographical and anthropological literature.

Specifically, I describe three alternative mapping approaches including mental mapping, community mapping, and participatory mapping. Mental maps are primarily used to defy the allocation of spatial coordinates in Euclidian space and are based upon information retained and sorted by our long-term memory. Community mapping is a collaborative process in which community members use local knowledge to create visual depictions of resources or features in their community that reflect a particular vision of the future that overcome development challenges. Finally, participatory mapping, which developed as an off-shoot of community mapping, is used to protest the production of top-down maps.

Many scholars have called for a social justice revolution to reverse the elitist cartography caused by the uneven distributions of power (Harley, 1989, 1991; Monmonier, 1991; Wood, 1992; Aberley, 1993). With the increasing popularity of the democratization of mapping, both community-led GIS and participatory mapping development initiatives have been able to cultivate a collaborative mapping production (Perkins, 2003: 344). The democratization of mental mapping is fundamental to understanding the disparity between representations of conceived space and representational lived space in Morro da Providência. As opposed to relying on conceived, abstract maps produced by the city officials and the elite, community and participatory mental maps effectively empower stakeholders and redistribute social order.

This research project provides an avenue for *favela* residents to participate in the planning process by drawing mental maps of the social spaces in the community. The mental maps produced in this research project combines aspects of community and participatory mapping. Community members were involved in the creation of maps that relied on local

expertise to overcome development challenges. For example, to overcome a transportation issue, some residents suggested an elevator instead of a funicular tram. When the residents suggested an elevator as a new infrastructural solution, they were also protesting the previously conceived top-down, elite decision-making that had originally suggested the funicular tram. In this sense, the mental maps drawn by my participants protested the conceived, choreographed production of social space.

This research project was an attempt to work with the community to collect authentic data that could be used to aid in the decision-making of the city. I wanted to show that mental mapping is capable of being used as a powerful methodological tool to influence urban planning amid mega-event production. By democratizing the map-making process through stakeholder participation, the final map is a more accurate representation of reality and can provide informed decisions about the community and their resources.

In chapter two, I discuss my theoretical framework. People often act and live within “abstract” social spaces produced by the elite (Elden, 2004; Lefebvre, 2009; Agnew, 2011). Under capitalism, places are often imbued with hegemonic symbols and imagery that have explicit and insidious influence over the spatial practices performed there. In this way, space is often commoditized, planned, and controlled through elite bureaucratization. Even though cultural identities are produced on the landscape through an endless negotiation of social, economic, political, and historical factors, the people living within abstract spaces intentionally and unintentionally colonize or reproduce dominant discourses of identity. In this way, abstract spaces become the dominant spaces embedded in the landscape.

Henri Lefebvre proposes an effort to reclaim these “abstract” dominant spaces. Figure 6.1 Henri Lefebvre’s Conceptual Triad Concerning the Production of Social Space. Lefebvre’s

conceptual triad analyses the production of social space by unifying three types of social space: 1) representations of conceived space, 2) representational lived space and 3) perceived social space. There is a strong contradiction between the hegemonic spaces that are planned and the places that are created by those who live there. As opposed to relying on the abstract, conceived space designed by the elite, this project focuses on the representational lived space created and used by the residents. The democratization of map-making, specifically through the creation of mental maps reclaim and restructure the social spaces in the community (McCann, 1999).

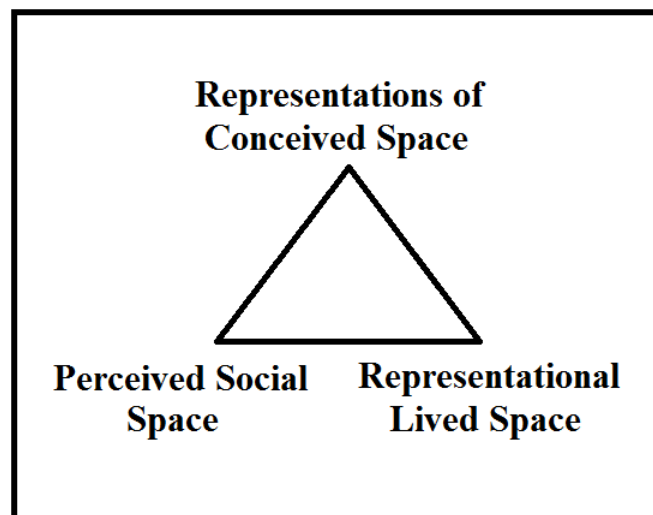


Figure 6.1 Henri Lefebvre's Conceptual Triad Concerning the Production of Social Space. Image composed by author, 2014.

Additionally, it was my intention to use my own participant observation to illuminate the patterns that emerge from lived and perceived social space. I suspect that there is also a disparity between how people say they use their social space, and how people actually use their social space. Although I asked people how they might use the new social spaces, my research project ended before the new infrastructure was complete. For example, although I asked residents if they would use the *teleférico* once it was completed, I was unable to follow-up on this inquiry. However, this would be a great topic for a full follow-up study.

In order to create political, economic, social, and spatial equity, the needs of the people must be understood. The best way to understand the needs of the people is to include them and provide them a vehicle for their inclusion. Successful and sustainable infrastructure cannot be achieved by relying on abstract and conceived production of spaces alone. Lived representational spaces, combined with perceived spaces is the key to successful urban transformation amid mega-events or not. In this way, mental maps are powerful methodological tools used to gather authentic data, empower stakeholders, and inform policy-makers to promote sustainable urban transformation.

In chapter three, I discuss the history of the Brazilian *favela* and its socio-political context. Amid police corruption and draconian violence perpetuated by drug traffickers, *favelas* have become a viable long-term settlement option for low-income residents in Rio. In an effort to resolve the deficiencies in basic urban services, improve citizenship, and facilitate inclusion, *favelas* have recently prompted strategic policy reforms at the federal, state, and municipal levels. The crux of these city-wide reforms is the Police Pacification Units program and the Morar Carioca Program. As a follow-up to the *Favela Bairro* program, the Morar Carioca Program seeks to re-urbanize and socially integrate its residents into the formal city through the implementation of social and physical infrastructure, including the infamous *teleférico*, by 2020.

Morar Carioca began as an exemplary, and perhaps idealized, strategy for *favela* integration both socially and physically. However, in Morro da Providência the program's implementation paralyzed construction due to a legal injunction filed by the Public Defender's Office. The public Defender's Office claimed that the community was excluded from the planning process. The result of this lawsuit was the virtual abandonment of all social and physical infrastructural projects in the community with the exception of the *teleférico*. The

*teleférico* station was built on top of one of the only leisure spaces in the community forcing children to play in other precarious places in the community. Although plans for Morar Carioca were not fully executed, Praça Américo Brum was replaced with a functional *teleférico* station which considerably changed the way that residents use this and other social spaces in the community.

Furthermore, the Public Defender's Office successfully filed a suit against the unlawful actions taken by the city successfully challenging the conceived production of social space in the community. When I asked the residents what they thought about the *teleférico*, it became clear that the conceived spaces constructed by the city were not the representational lived spaces that were actually needed by the community. At this point, the alternative infrastructural suggestions became an exceedingly important aspect of my research.

In chapter four, I discuss the methodological foundations for my research project. I discuss the issues of data collection, organization, and identity related to my own position in this project. In addition to the standard qualitative research methods including ethnographic interviews, participant observation, and archival data, mental mapping serves as the primary research method for this project. Unexpectedly, this innovative methodology was one of the major contributions of this project.

Methodologically, I contribute to the literature on mental mapping by identifying three types of mental maps produced by my participants. First, I identify a Type 1 Overlay Map. In Type 1, the most common type of map, fifty-six residents used up to three colors to draw the important features on one sheet of paper. If more than one color was used in an Overlay Map, the colors were overlain on top of one another. Generally this type of map was a holistic view of



their entire or a portion of the community. Figure 6.2 below is an example of a standard Type 1 Overlay Map.

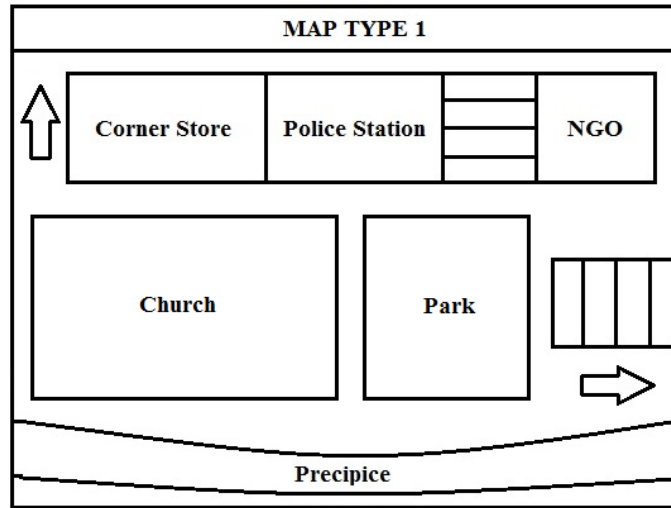


Figure 6.2 Overlay Map. Image composed by author, 2014.

Second, I identify a Type 2 Map. In Type 2 or a Progression Map, two participants drew three separate images either on one or on three separate pieces of paper. In a Progression Map, participants drew the same image multiple times to represent how the social space appeared in different stages over time. Figure 6.3 below is a standard example of a Type 2 Progression Map.

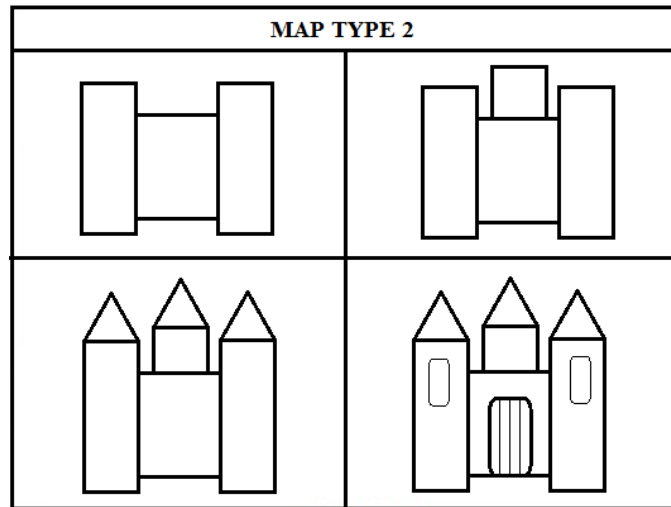


Figure 6.3 Progression Map. Image composed by author, 2014.

Finally, I identify an Aspatial Type 3 Map. In an Aspatial Map, participants were unable to represent their ideas spatially, but created a checklist or simply wrote out their responses instead. Figure 6.4 is an example of an Aspatial Map. Four participants drew Aspatial Maps, three of which, used words rather than pictorial depictions. In alternative plans, the participants spoke about the reinforcement of their houses, the pavement of roads, the repair of sewage pipelines, the implementation of public lighting, better schools, and better health services, and the necessity of leisure spaces.

<b>MAP TYPE 3</b>	
<b>X</b>	<b>Art Programs</b>
<b>X</b>	<b>Garbage Cans</b>
<b>X</b>	<b>Public Lighting</b>
<b>X</b>	<b>Closer Supermarkets</b>
<b>X</b>	<b>Better Hospitals</b>
<b>X</b>	<b>Leisure Areas</b>
<b>X</b>	<b>Language Courses</b>
<b>X</b>	<b>Vocational Training</b>

Figure 6.4 Aspatial Map. Image composed by author, 2014.

Alternative maps are categorized as either spatial or non-spatial. In the spatial maps, the alternative ideas are depicted spatially within the map. Meanwhile, alternative ideas without a strong spatial component are listed on the mental maps as opposed to being drawn. For example, many social infrastructural improvements could not be represented spatially or pictorially. In fact, many participants used an aspatial method when referring to alternative ideas in the future. Although residents could list improvements, very few participants were able to spatially incorporate their responses into the map. Above is an example of a Type 3 Aspatial Map. While

this research project successfully produced three different types of maps, additional research project could identify other mental map types.

In chapter five, I present my results, analysis, and discussion. By analyzing sixty mental maps I assessed the transformation of social space in Morro da Providência. Each mental map is drawn in up to three different colors to capture transformations of the most important features and themes in the community in the past, present, and alternative infrastructural designs. By counting the number of times certain features of themes appeared in the data, I was able to identify different places in the community and understand its significance to the community.

My data was categorized by features and themes. Features of the community included, churches, water towers, roads, bars, bakery, viewpoints, the historic staircase, the *teleférico*, Praça Américo Brum, the kombi stop, and children flying kites. My participants also identified features of the community that were located outside of the community. Features outside the community included supermarkets, pharmacies, and hospitals and health posts. Beyond features located within and outside the community, my participants also identified common thematic problems or issues. These problematic themes included garbage removal, leaking sewage, the lack of public spaces, mobility issues, and the absence of public amenities.

Morro da Providência did receive social and physical infrastructure. Together, the UPP and the *teleférico* improved certain aspects of transportation, mobility, and safety. These infrastructural improvements were largely hailed as a success by the residents because almost every participant wanted to see their community to receive improve.

The transformation of social space in Morro da Providência also incurred criticism however. First, many participants explained that the new infrastructure is shrouded in fear. There is tremendous fear that the *teleférico* will stop being maintained, stop running, or simply run at a

cost to the community. Second, although the *teleférico* will improve aspects of transportation and mobility for a portion of the community, it became clear the type of infrastructure being implemented in the community was not desired. For example, although the *teleférico* will improve transportation, the *teleférico* station assumed the location of the only social leisure space in the community.

Through interviews and the mental maps, I was able to identify alternative social and physical infrastructure that would have more appropriately benefitted the community. These types of infrastructure included an elevator, a supermarket, amenities, social programs, health centers, lighting, sewage repairs, regular garbage removal, and community participation. Owing to the fact that my participants were able to identify alternative infrastructural solutions on their mental maps, I will argue that mental mapping was indeed a successful methodological tool.

### **Contributions**

My contributions are three-fold. First, this research project contributes to two streams of research including the literature on mega-event planning and mental mapping. Although there have been several studies in mega-event planning, very few of them provide examples of positive legacies resulting from community participation in the planning and decision-making process. Utilizing mental mapping as a collaborative exercise, I prove that community participation during event-planning is possible and productive. This project contributes to the literature on mental mapping. This project contributes a concrete case study in which mental maps were drawn by low-income residents to analyze and reproduce the social space in their community. Ultimately, three different types of mental maps were created to understand the transformation of social space during a period of intense urban renewal.

My second contribution is that practically, this research also demonstrates that mental mapping is an accessible and effective methodological tool to facilitate dialogue and the exchange of information between the researcher and the participant. Participants who were reluctant to be interviewed or to participate in written surveys ultimately spent a great deal of time actively engaged and invested in this drawing activity that promoted spatial thinking. This mental mapping research project, devoid of GIS, empowered the community residents to create their own maps concerning the past, present, and alternative social space.

Finally, this research project contributes to the discourse concerning social and political integration within the *favela*-city binary. Utilizing Henri Lefebvre's conceptual triad, I was able to analyze different moments of social space and suggest that because social spaces are constantly being produced and reproduced, it is important to redistribute the power of mapping to all stakeholders to ensure that conceived hegemonic representations of space become lived and practiced space. Overall, this research project demonstrates that mental mapping is a successful methodological tool to assess the transformation of social spaces over time and could be used as a collaborative platform for future urban planning.

### **Future Avenues of Research**

In the future, I will continue to utilize mental mapping as an innovative research methodology. The analysis of urban transformation and the methodology of mental mapping are both thriving avenues of future research. Considering that this research project uncovered several thematic issues and apprehension about the future, the application of mental mapping will aid in the planning and development of the natural environment to accommodate sustainable growth and promote urban social justice. There are several areas of future research that still need to be explored.

Particularly in Brazil, mental mapping can be used to critically assess the extent to which *favela* residents adopt and combat strategies regarding the implementation of social and physical infrastructure. In order to understand the dynamic of urban change it is imperative to continue researching the intended and actual policies associated with the implementation of social and physical infrastructure. In addition to exploring the politics surrounding their implementation, future research should continue to analyze as to how the residents respond to these issues. Furthermore, each community develops unique strategies to combat and resist gentrification, evictions, and police violence. For this reason, future research should address how these issues continue to manifest in the communities as well as how the community is responding to them.

In addition to how communities handle negative thematic problems, research should also analyze how communities and nongovernmental organizations positively mobilize public support for sustainable community development, affordable housing, and public policies. Politically, it is also noteworthy to explore the outcome of the lawsuit filed by the Public Defender's Office, as well as future policies that are implemented in the community. Political analysis should not stop with Morro da Providência but should extend urban change in all of the *favelas* throughout the city.

Although my previous research has focused largely on Brazil, my particular knowledge and skillset including community-engaged research within the urban setting is applicable to other regions. Additionally, my personal and long-term research goals extend beyond the *favelas* of Rio. First, I would like to embark on an international comparative poverty study involving low-income, irregular, and refugee settlements located in several countries throughout the world. Simultaneously, I would like to continue analyzing the political and social implications

associated with mega-events. In this way, my career in geography will forever bridge the extremes of fast-paced global innovation and gradual local community development.

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## Appendix I: Field Materials

### Mapeamento do Espaço Público

Olá! Tudo bem? Meu nome é Jamie e eu sou uma pesquisadora de geografia da Universidade Estadual de Louisiana nos Estados Unidos. Eu estou aqui para aprender mais sobre o uso do espaço público na sua comunidade e como ele está mudando. Eu gostaria de pedir a sua participação para desenhar um mapa simples da sua comunidade. Não se preocupe! Você não precisa ser um artista! Eu também não sou uma artista! Todos os participantes vão permanecer anônimos e eu vou ficar super feliz de compartilhar os resultados do meu estudo com você pessoalmente ou através de e-mail. Minha intenção é buscar informações sobre o uso do espaço público na comunidade e conscientizar as pessoas sobre as mudanças no uso do espaço público. Meu projeto consiste em duas etapas rápidas:

Etapa 1: Desenhar um mapa simples da comunidade. Vou te dar um mapa para referência.

- **O Passado:** Usando a caneta azul, gostaria que você indicasse lugares na sua comunidade que você se lembre de quando era criança (ou de quando você se mudou para a comunidade). Esses lugares não precisam existir hoje. Comece com um "X" onde você morava e indique lugares importantes para você. (Por exemplo: Lugares onde você comprava comida, lugares de lazer e antigos locais de entrada e saída da comunidade.)
- **Hoje:** Usando a caneta laranja, indique onde você mora hoje e marque lugares importantes para você na comunidade hoje.

O mapa não precisa ser detalhado. O mapa simplesmente vai mostrar lugares novos e antigos que você usa ou que tenha usado. O objetivo deste mapa é entender onde ficavam e onde ficam os espaços úteis e importantes para você.

Etapa 2: A prefeitura tem planos para reorganizar o espaço público em sua comunidade. Você já viu os planos? Sim ou não?

- **Sugestões:** Se você tivesse a oportunidade de sugerir um plano alternativo, como ele seria, e onde estariam as mudanças? Usando uma caneta verde, por favor, indique um plano de construção alternativo.

\*

\*

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**Isso é tudo! Agradeço muito por seu tempo e participação.**  
Localização 1



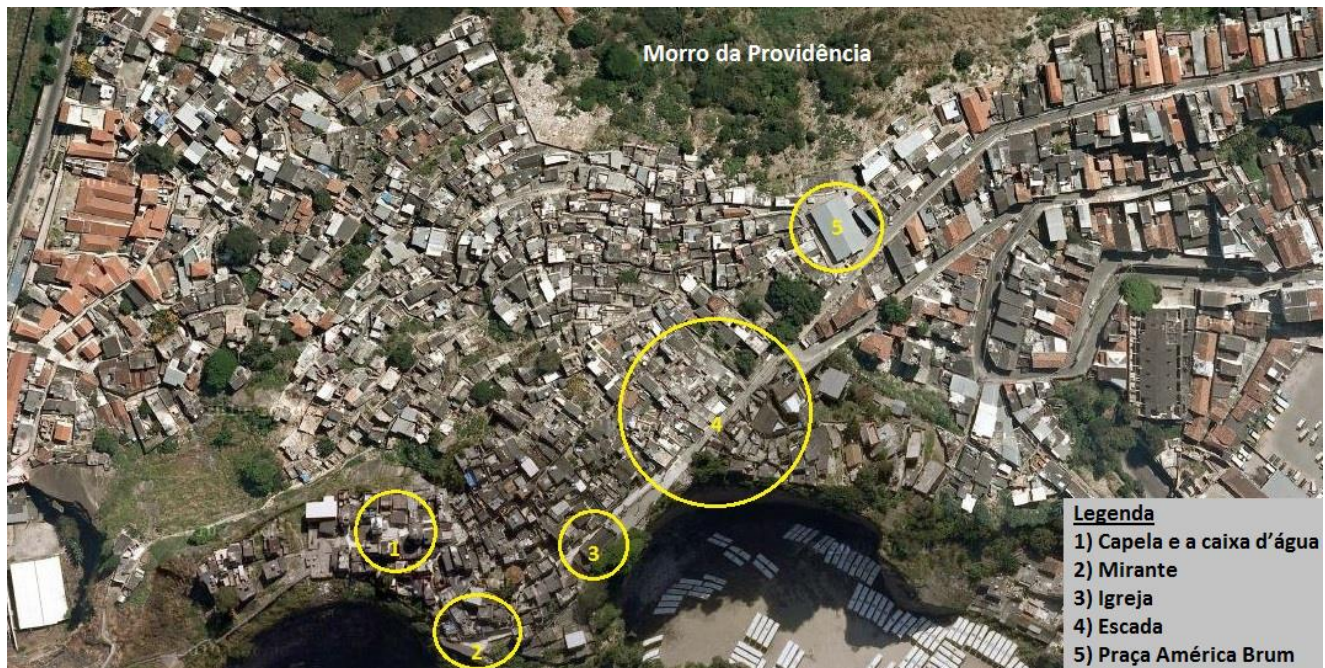


## Localização 2





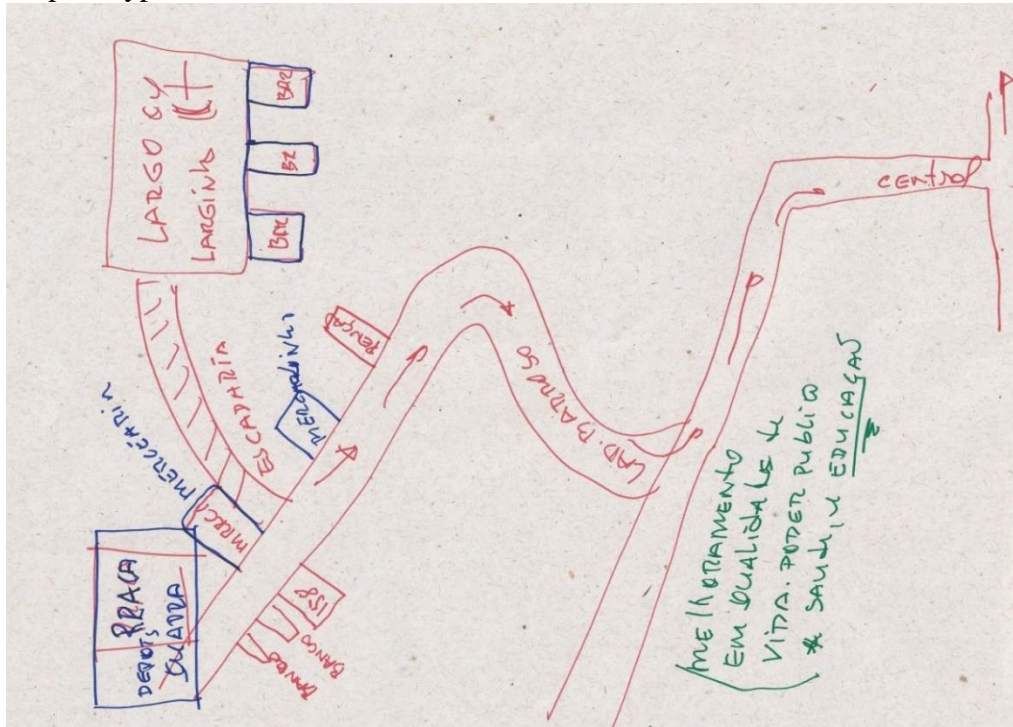
### Localização 3



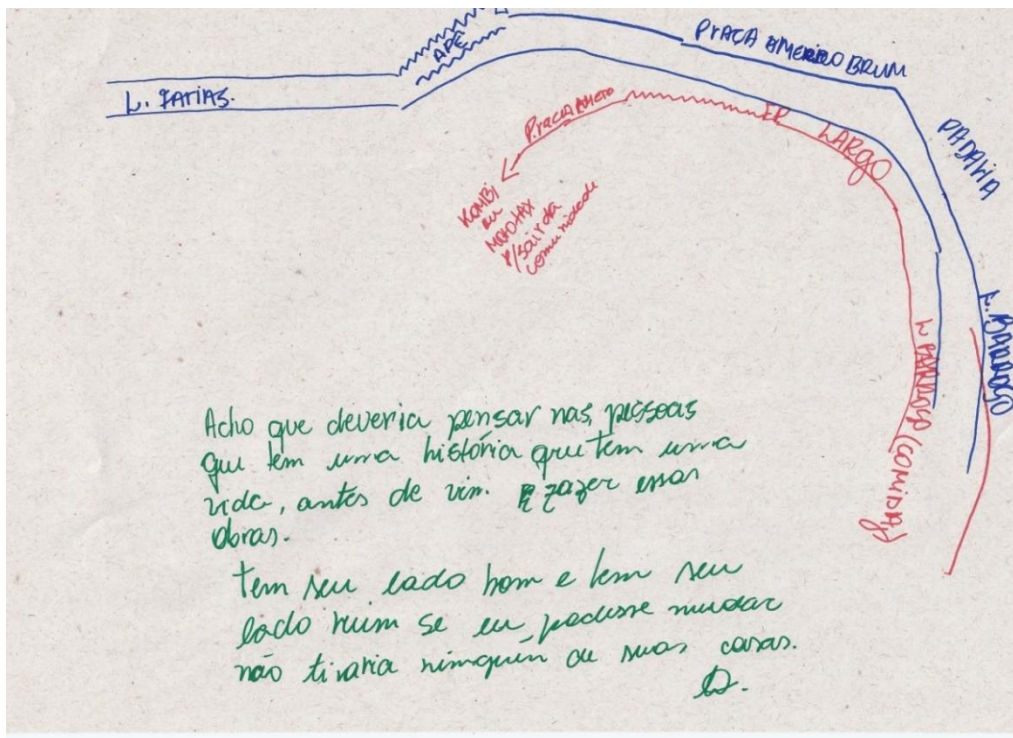


## Appendix II: Collection of Mental Maps

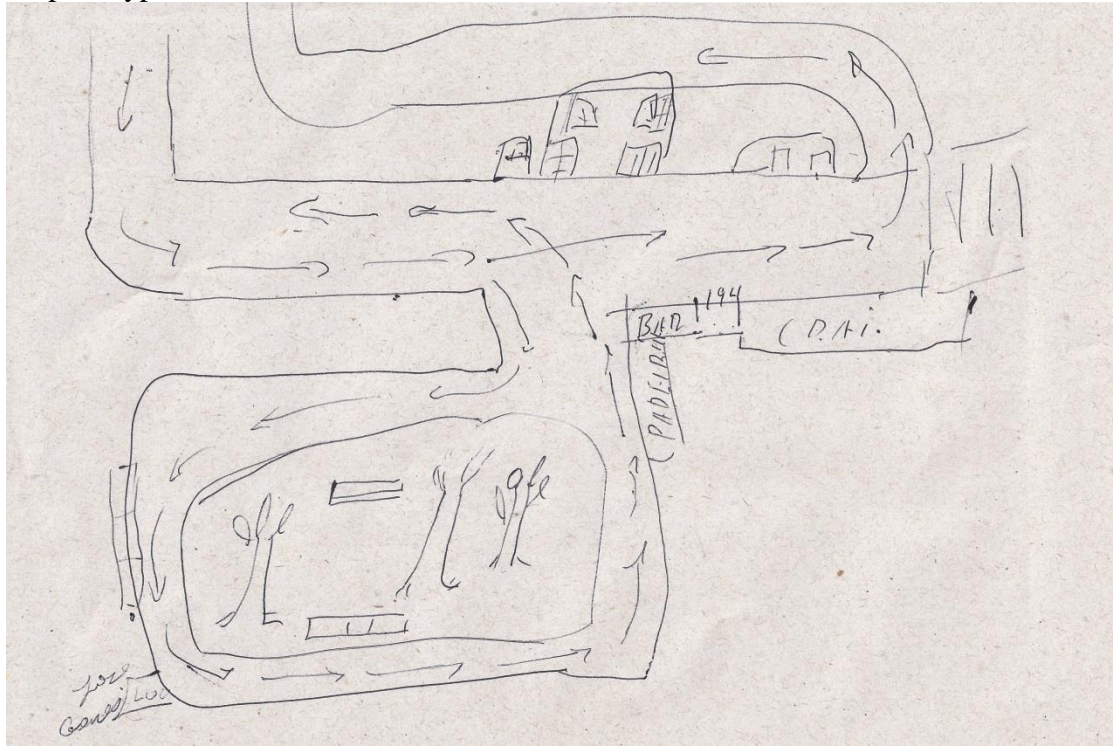
Map 1, Type 1



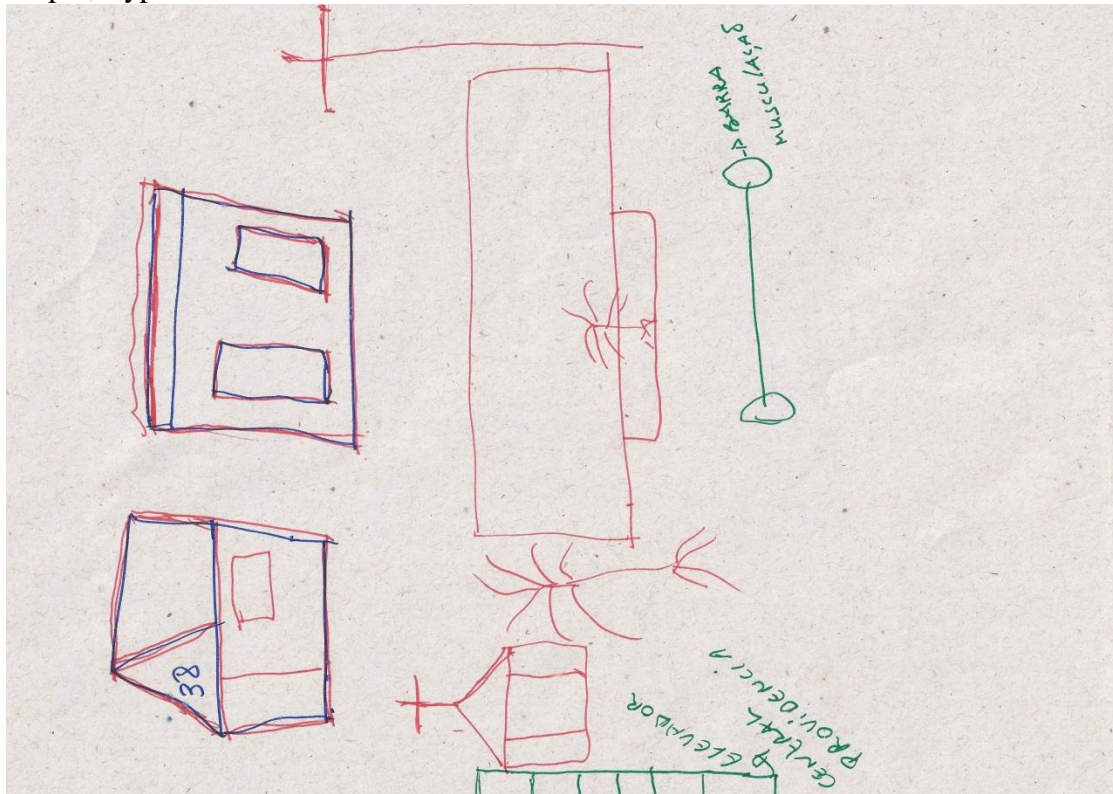
Map 2, Type 1



Map 3, Type 1

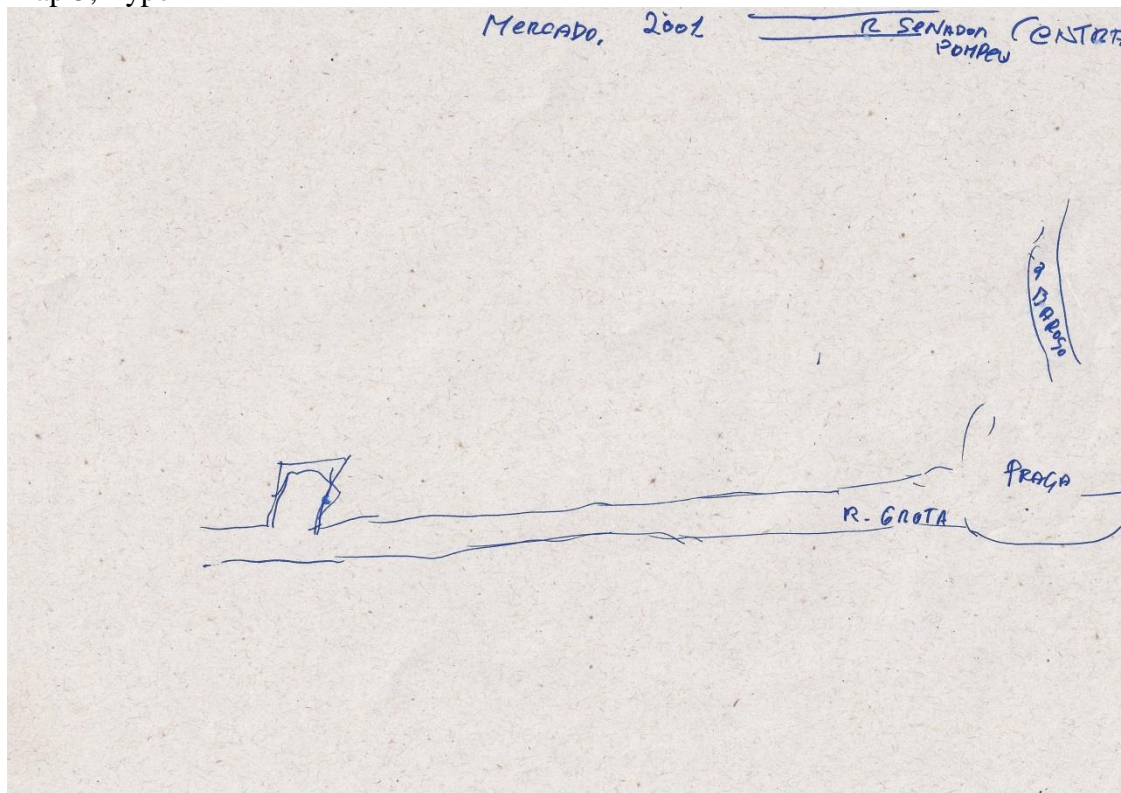


Map 4, Type 1

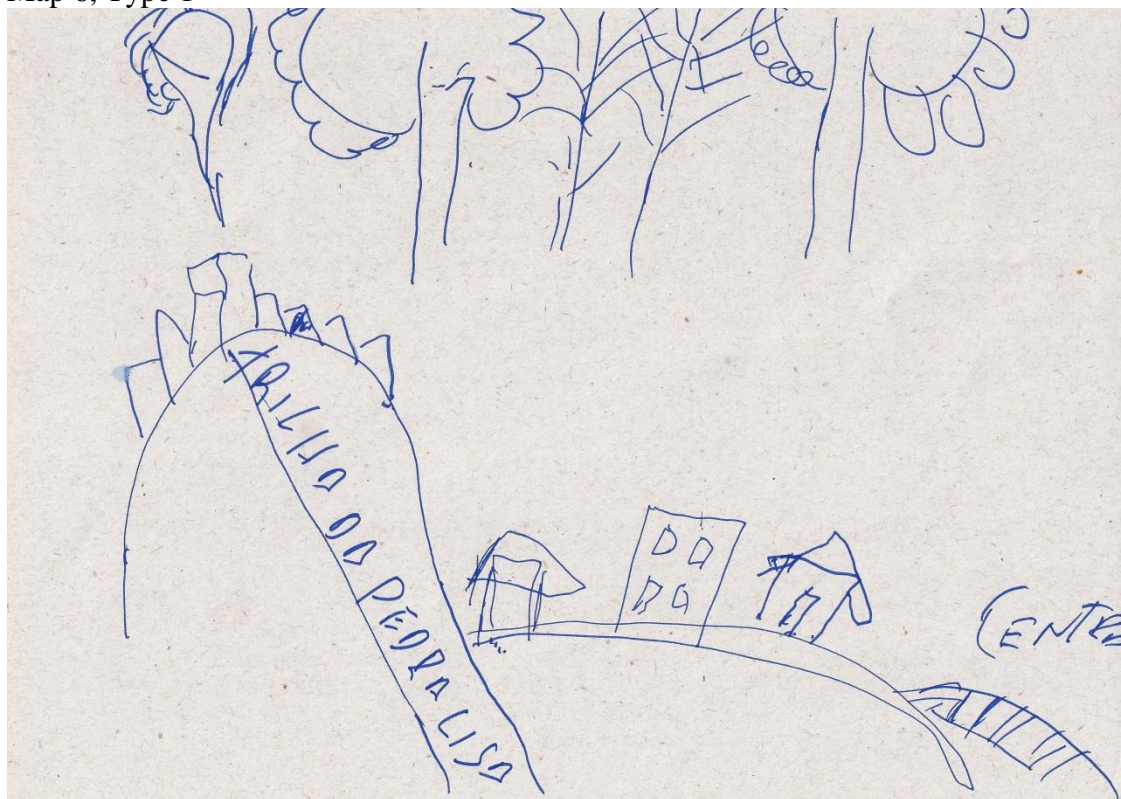




Map 5, Type 1

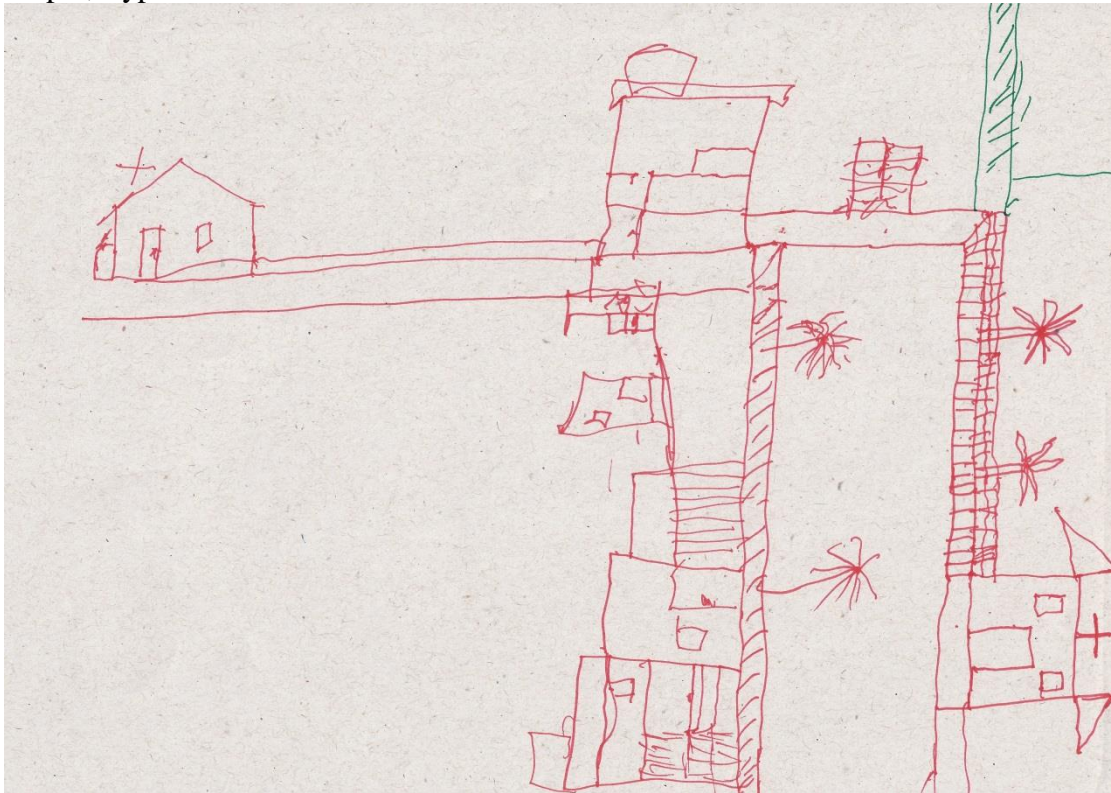


Map 6, Type 1

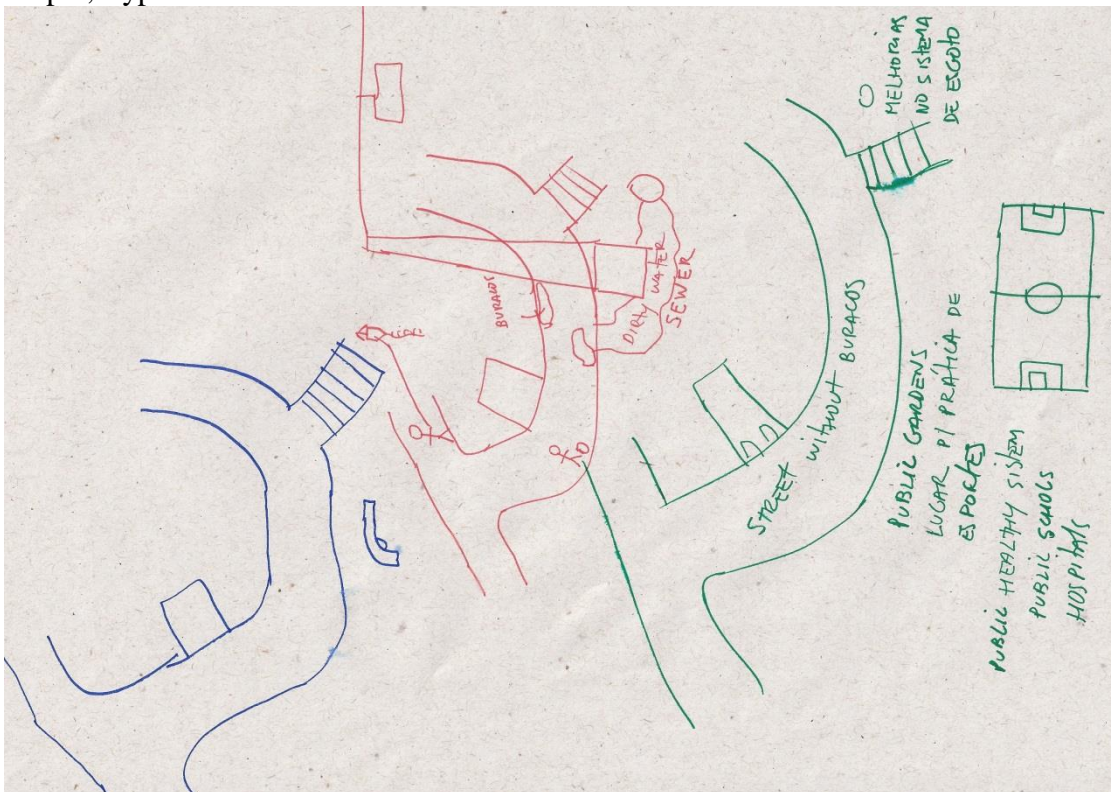




Map 7, Type 1



Map 8, Type 2





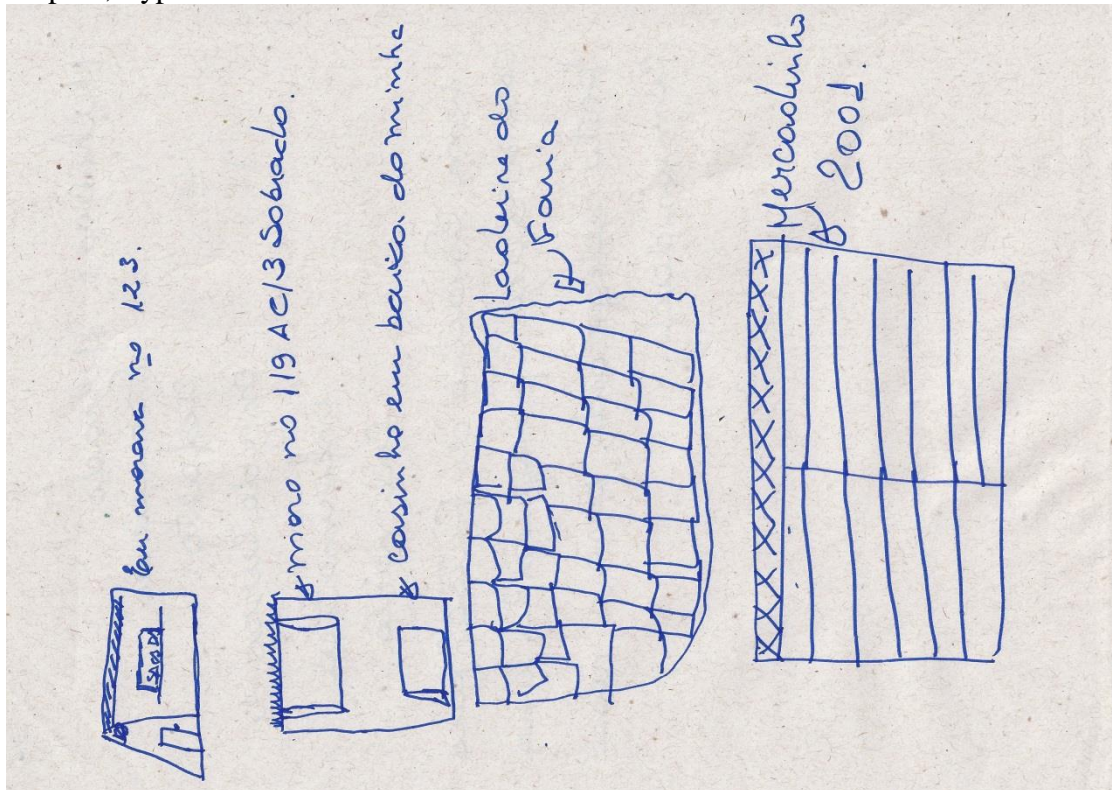
Map 9a, Type 3

58

Melhorias → Mercado.  
" Farmácias  
" asfalto.  
" Ong de curso de informática  
Culinária.

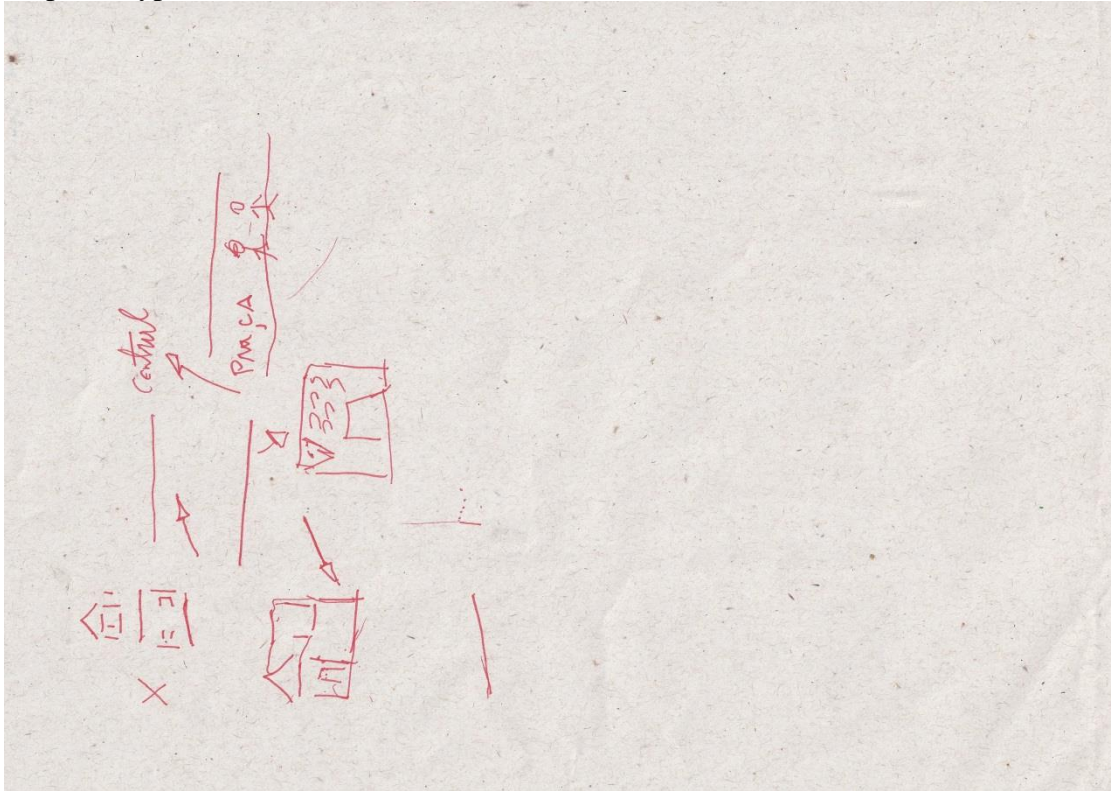
uma Quadra de Futsal para as crianças, parquinho, um posto adequado, para a nossa comunidade.

Map 9b, Type 3

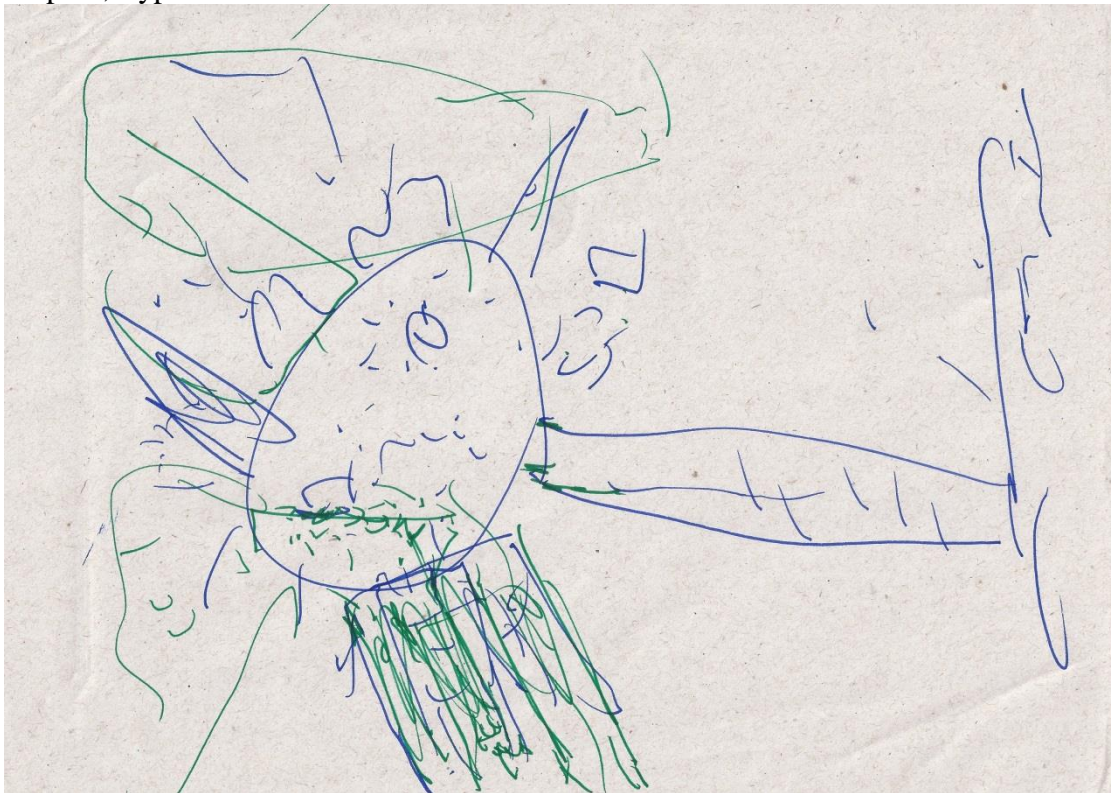




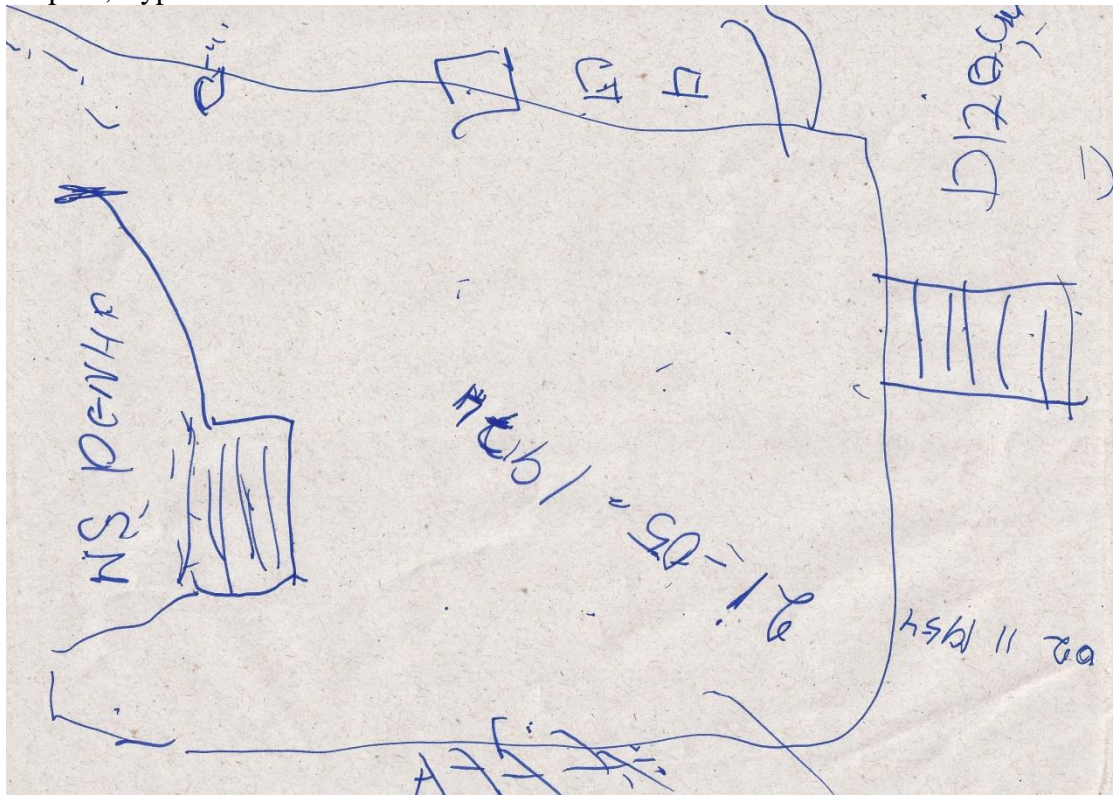
Map 10, Type 1



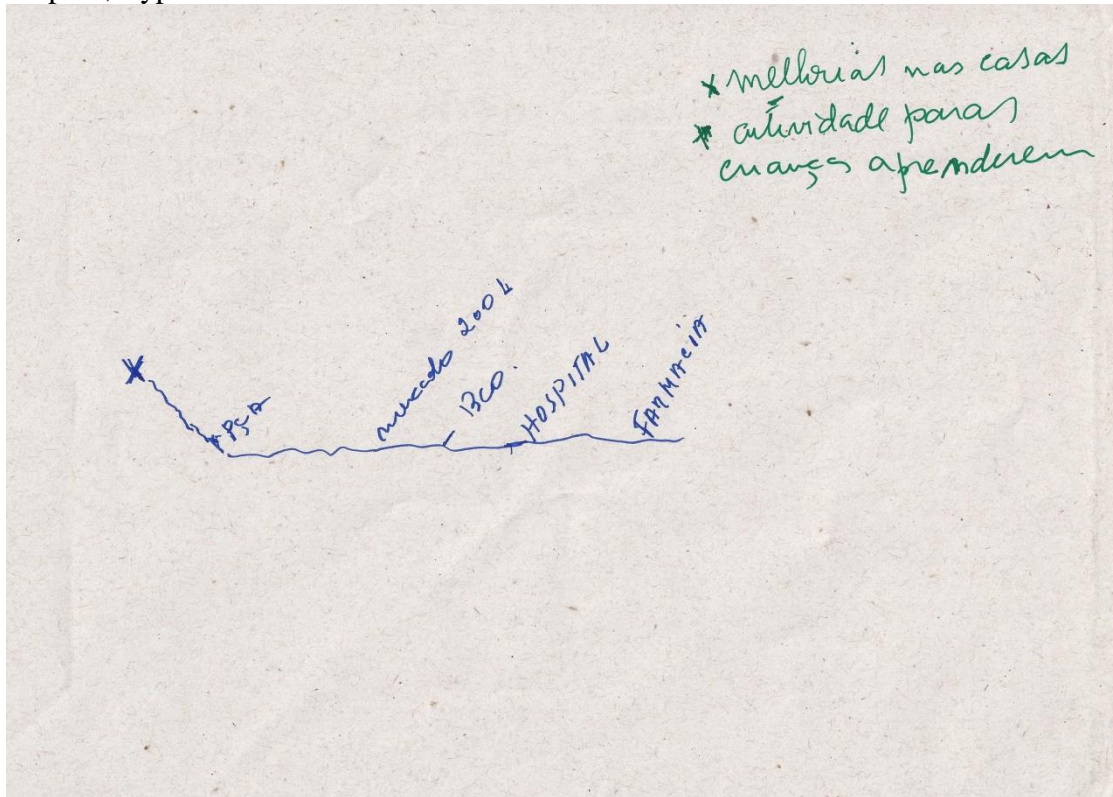
Map 11, Type 1



Map 12, Type 1

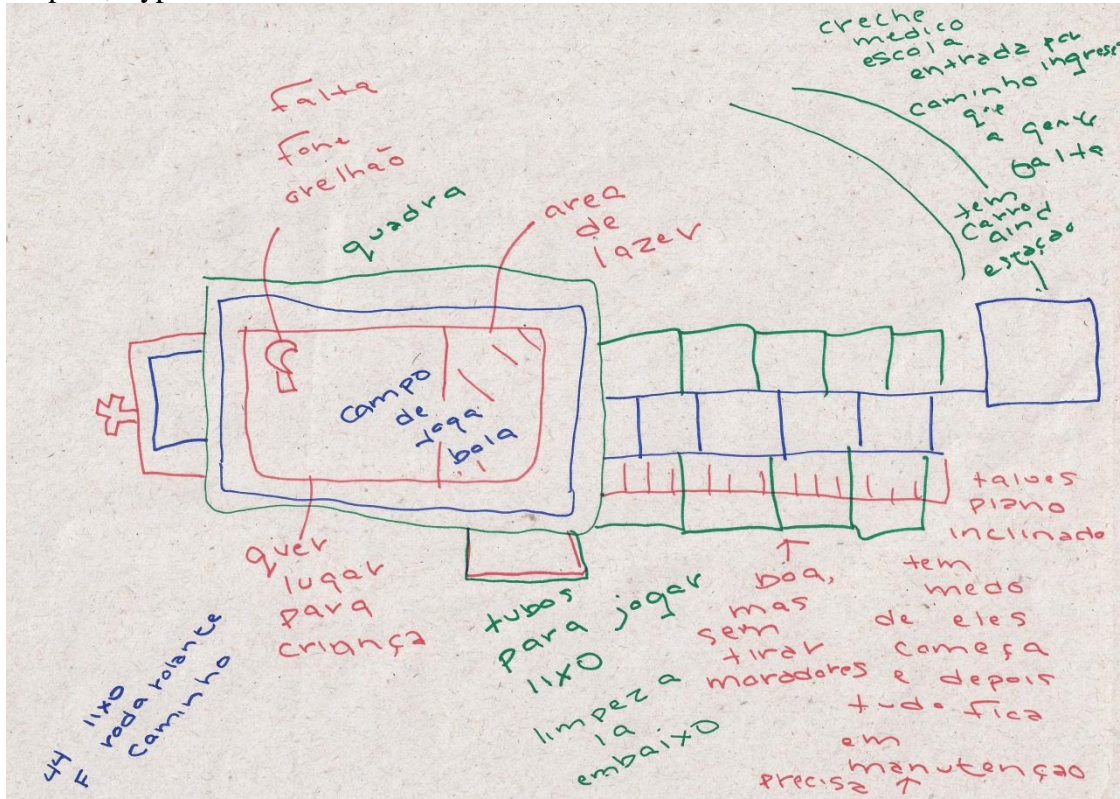


Map 13, Type 1

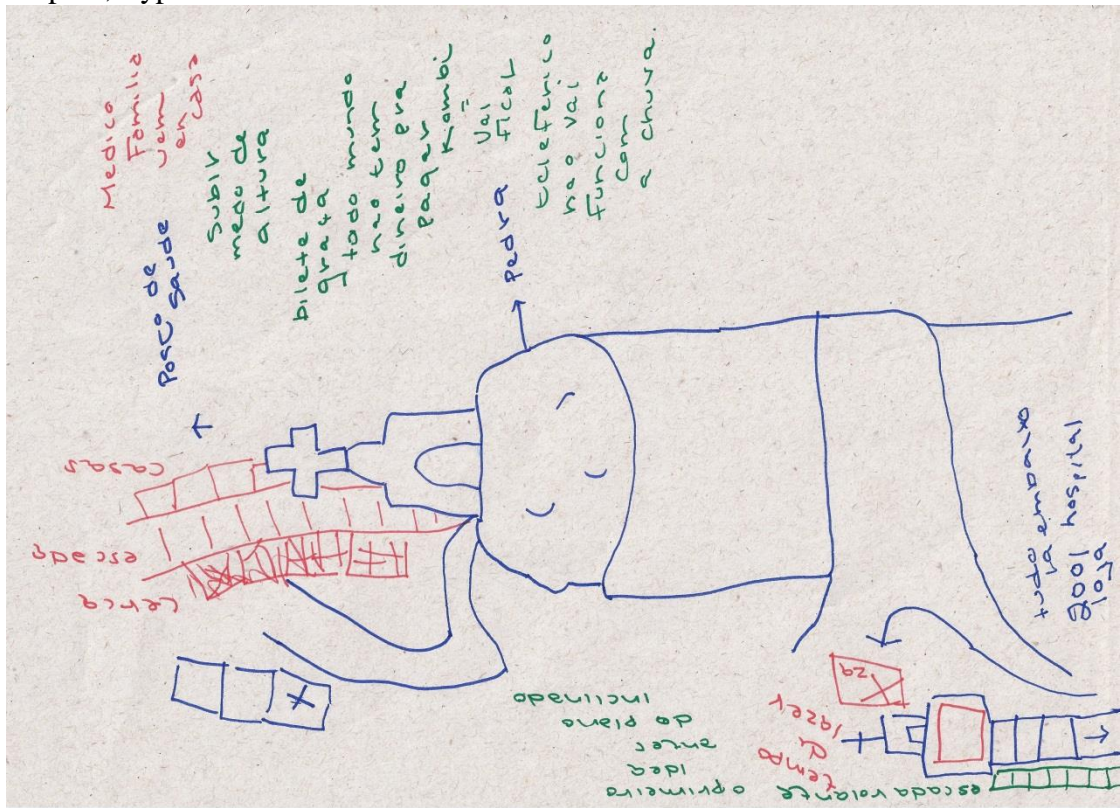




Map 14, Type 1

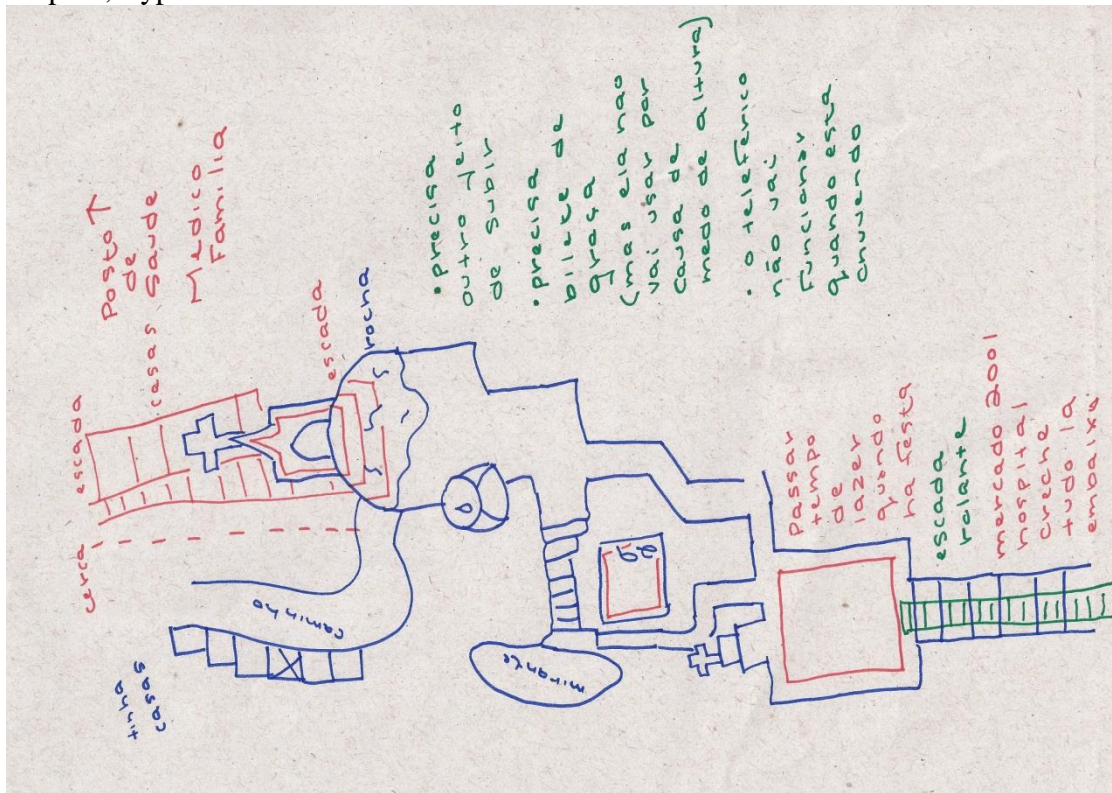


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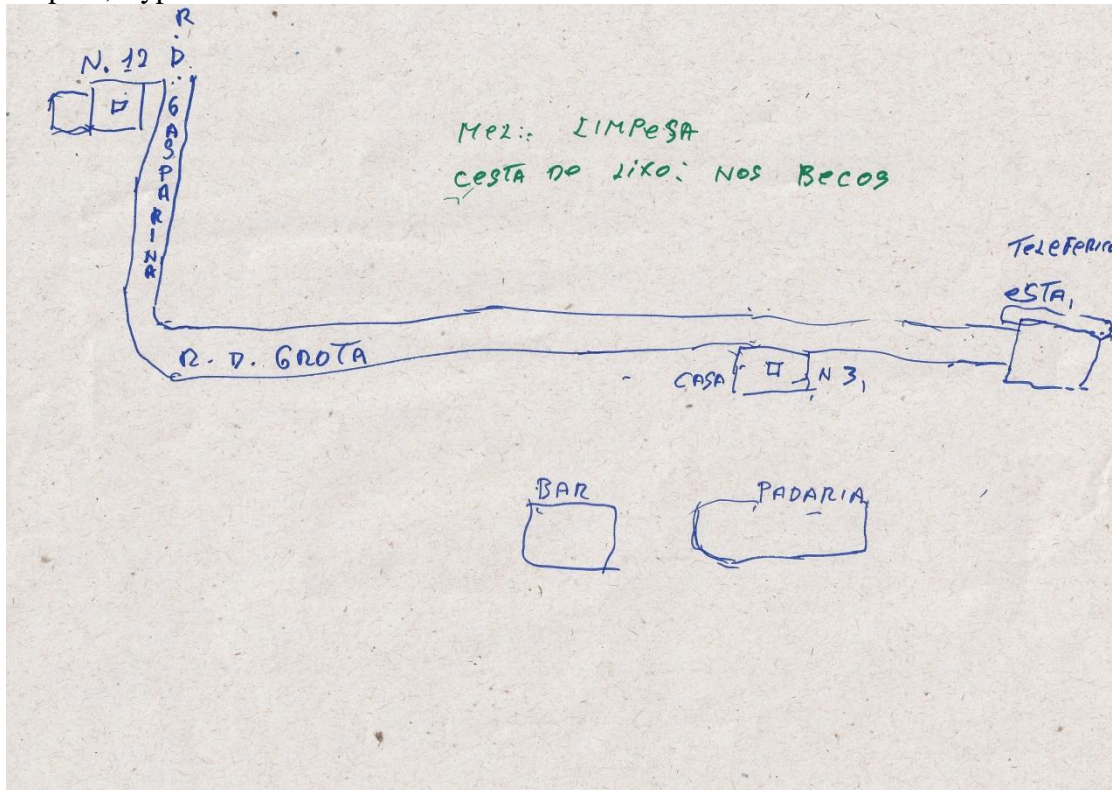




Map 16, Type 1

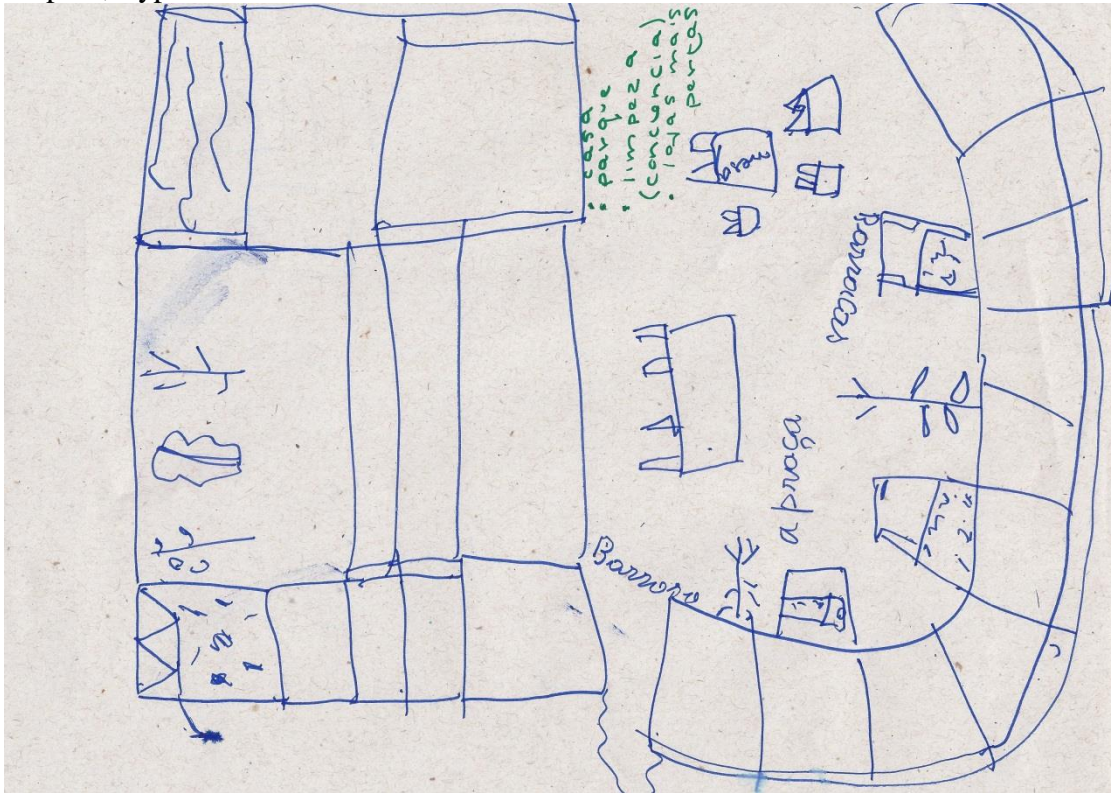


Map 17, Type 1





Map 18, Type 1

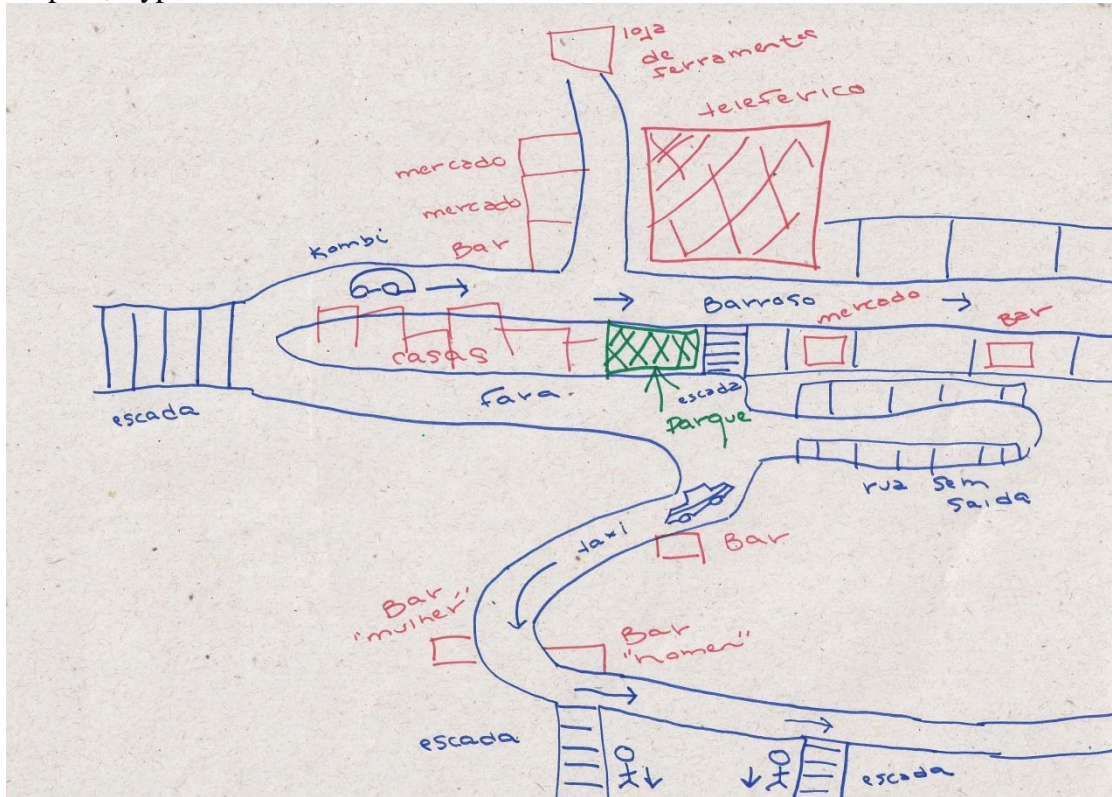


Map 19, Type 1

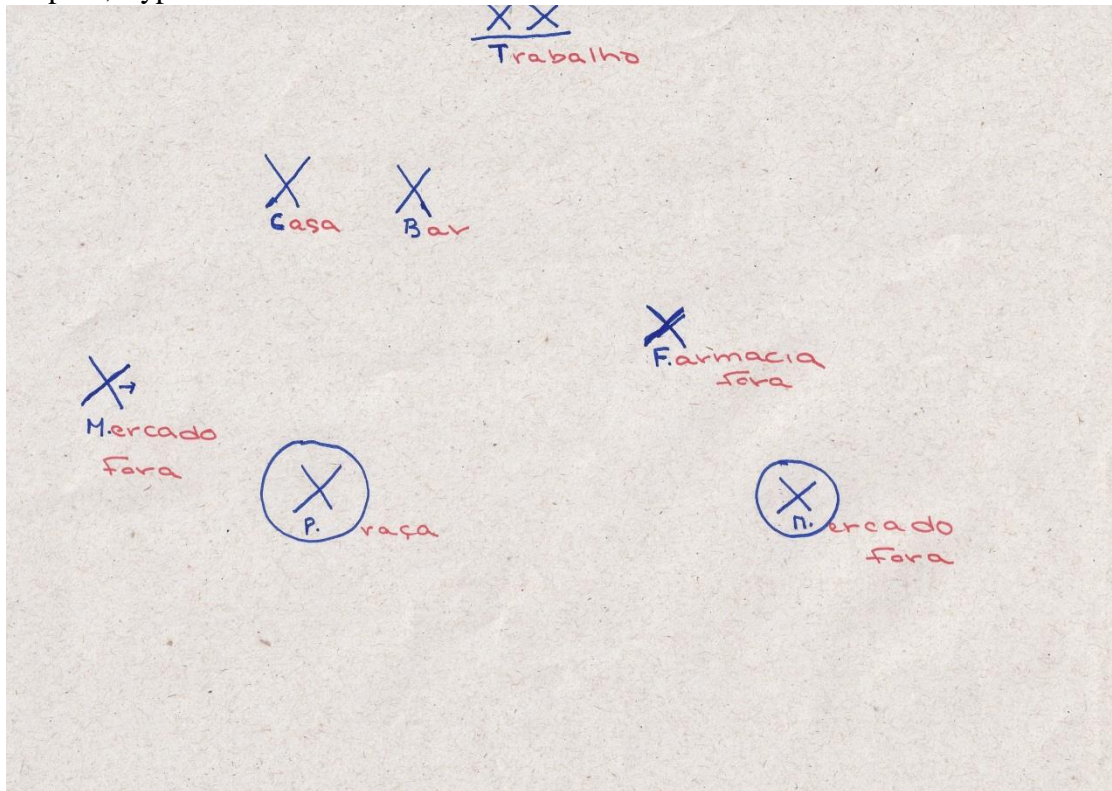




Map 20, Type 1



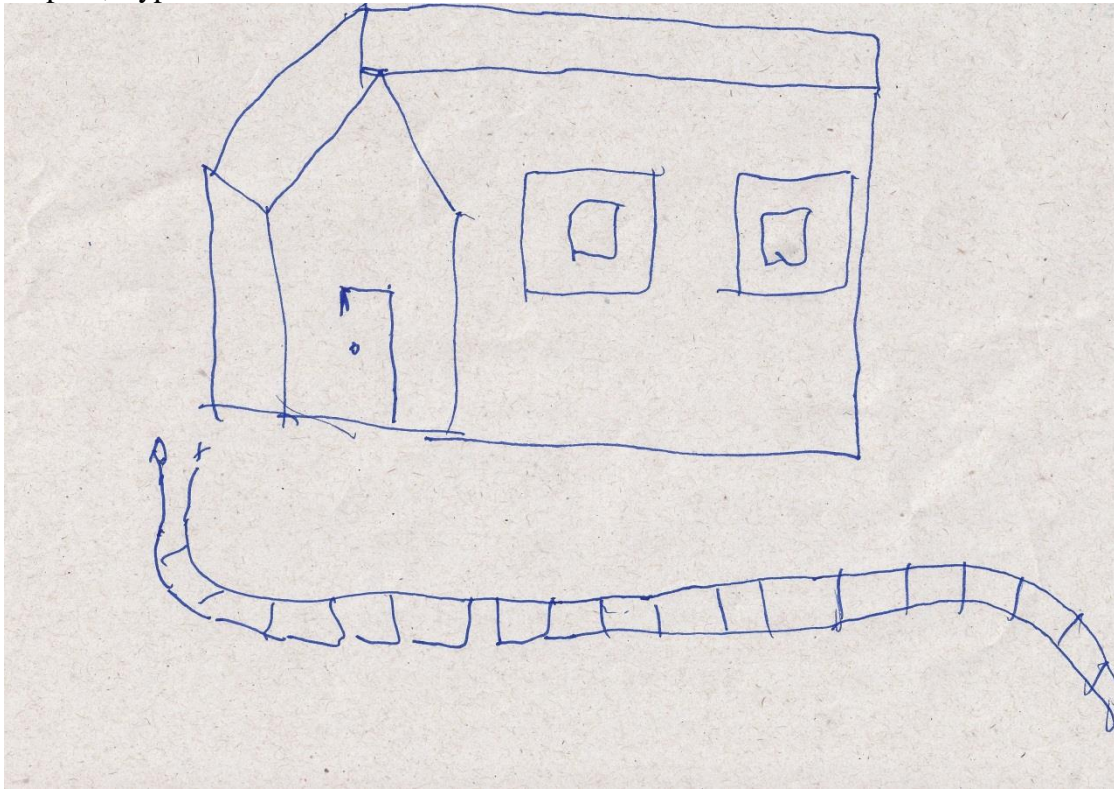
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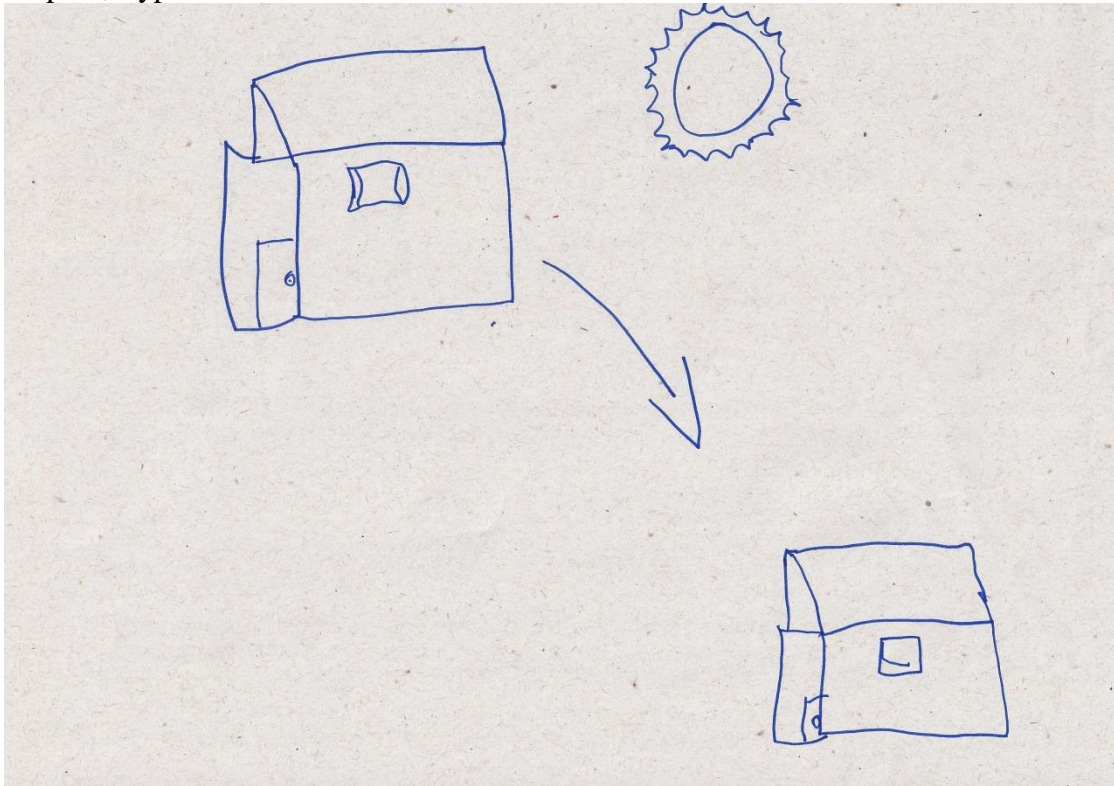




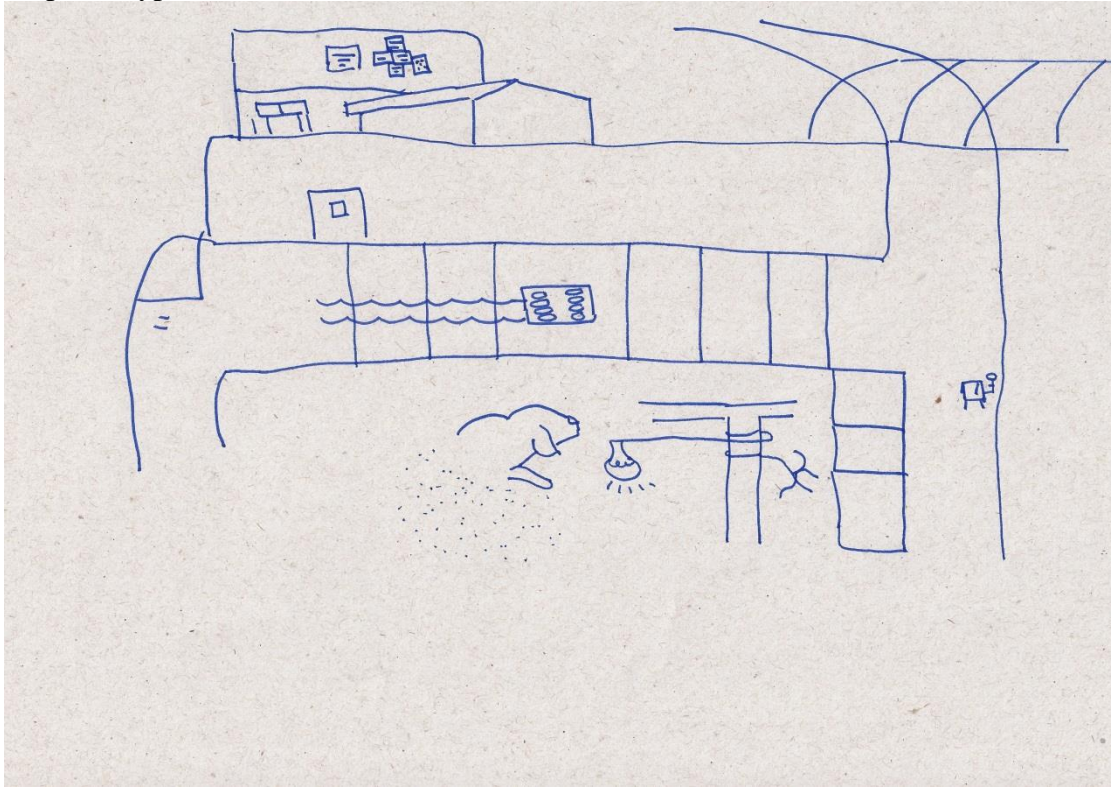
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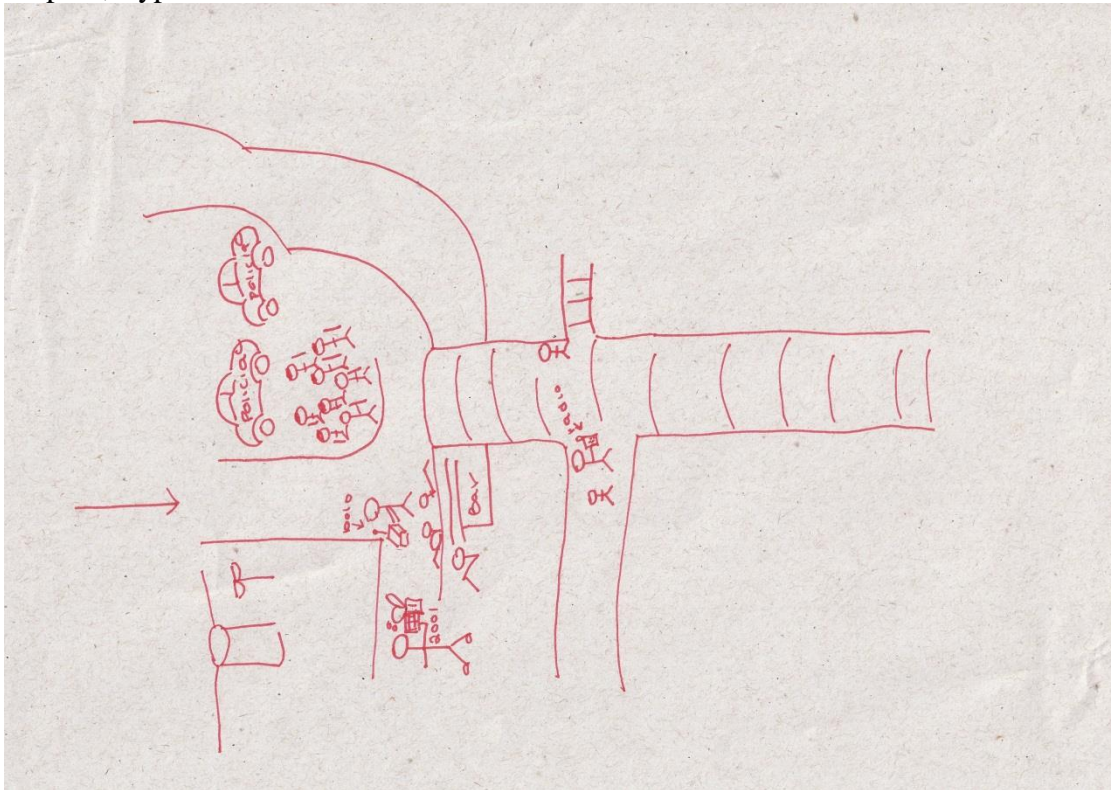
Map 25, Type 1



Map 26, Type 1

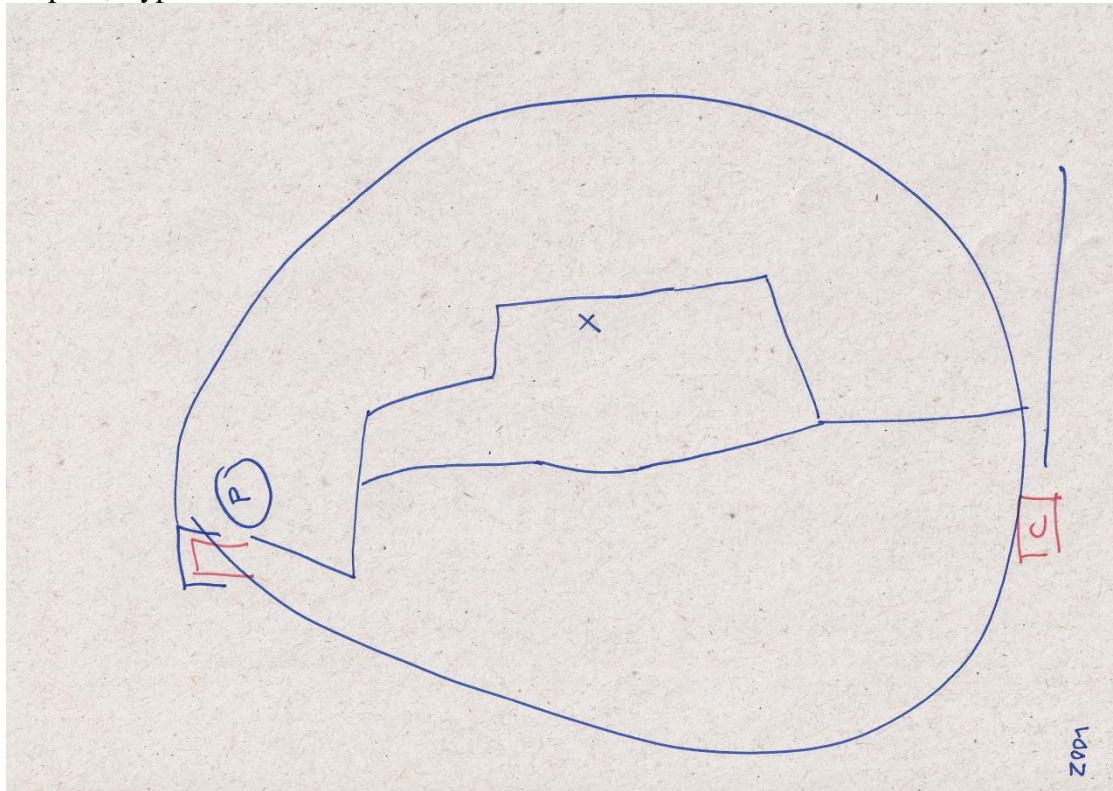


Map 27, Type 1

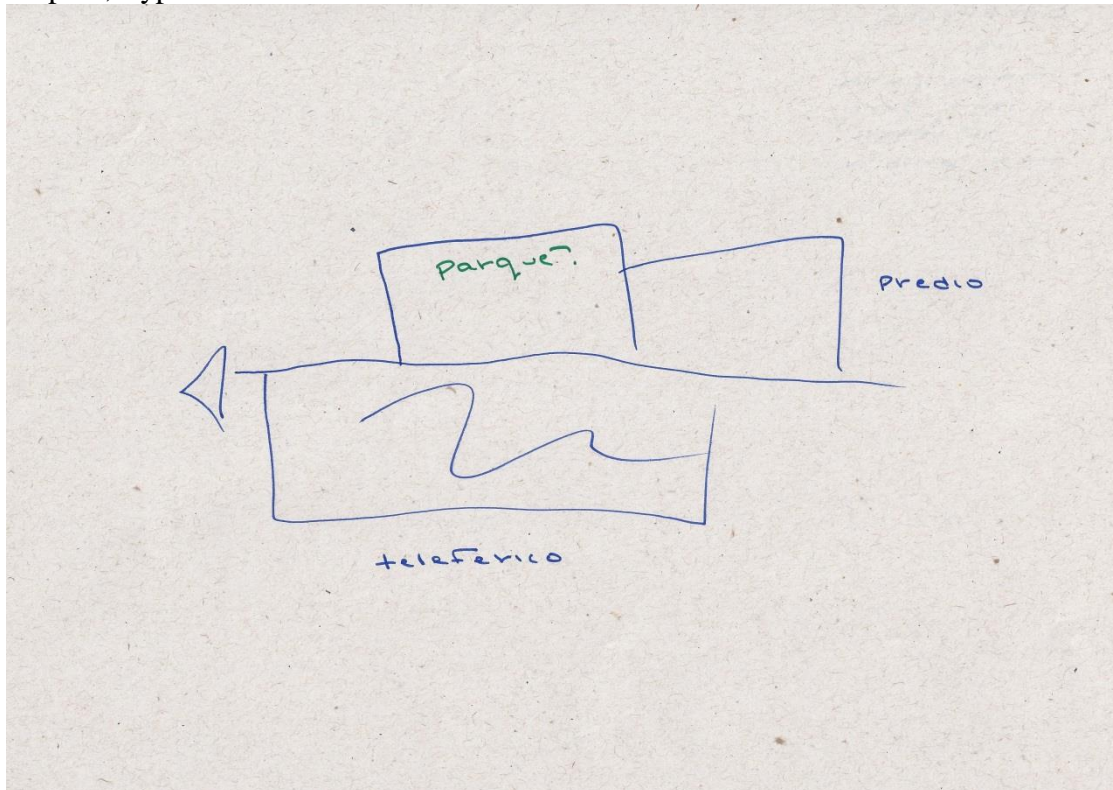




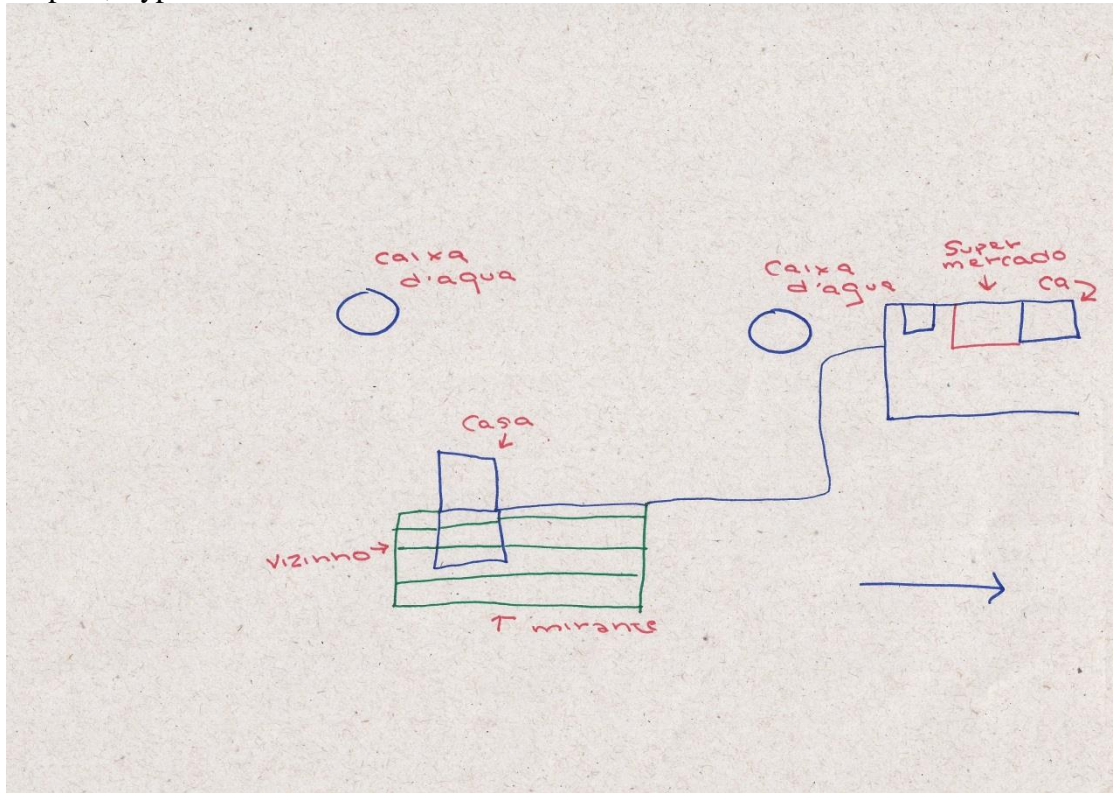
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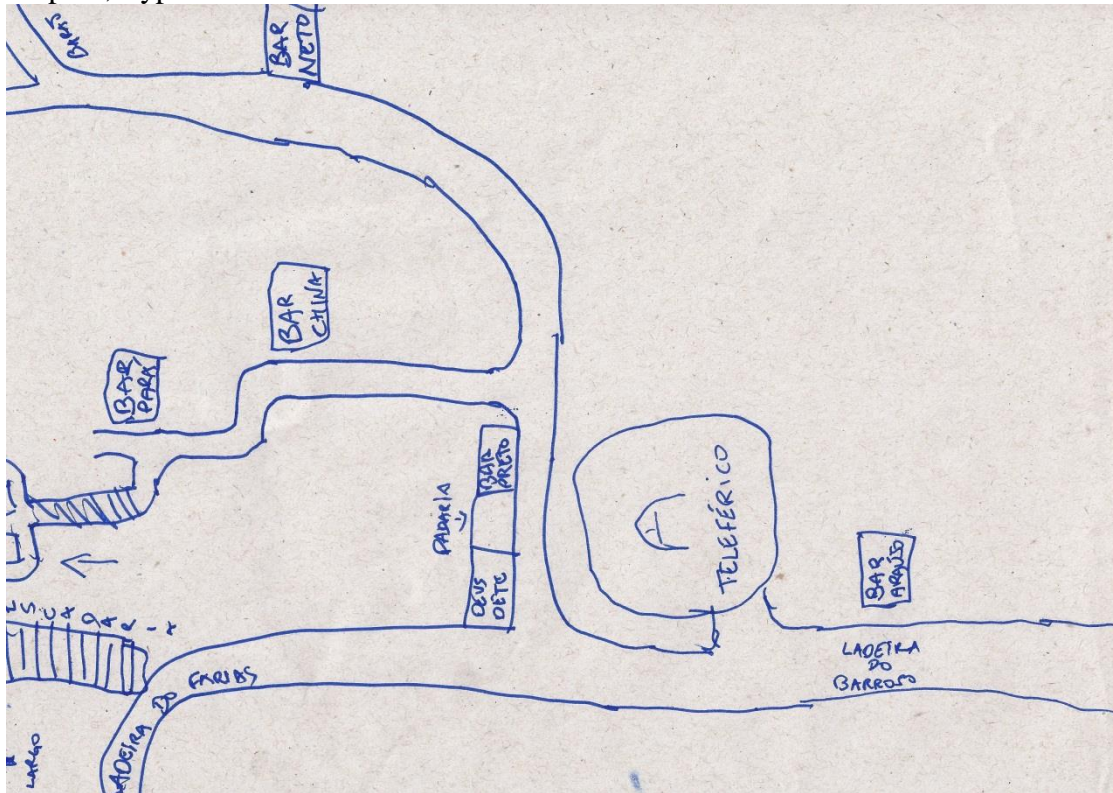
Map 29, Type 1



Map 30, Type 1

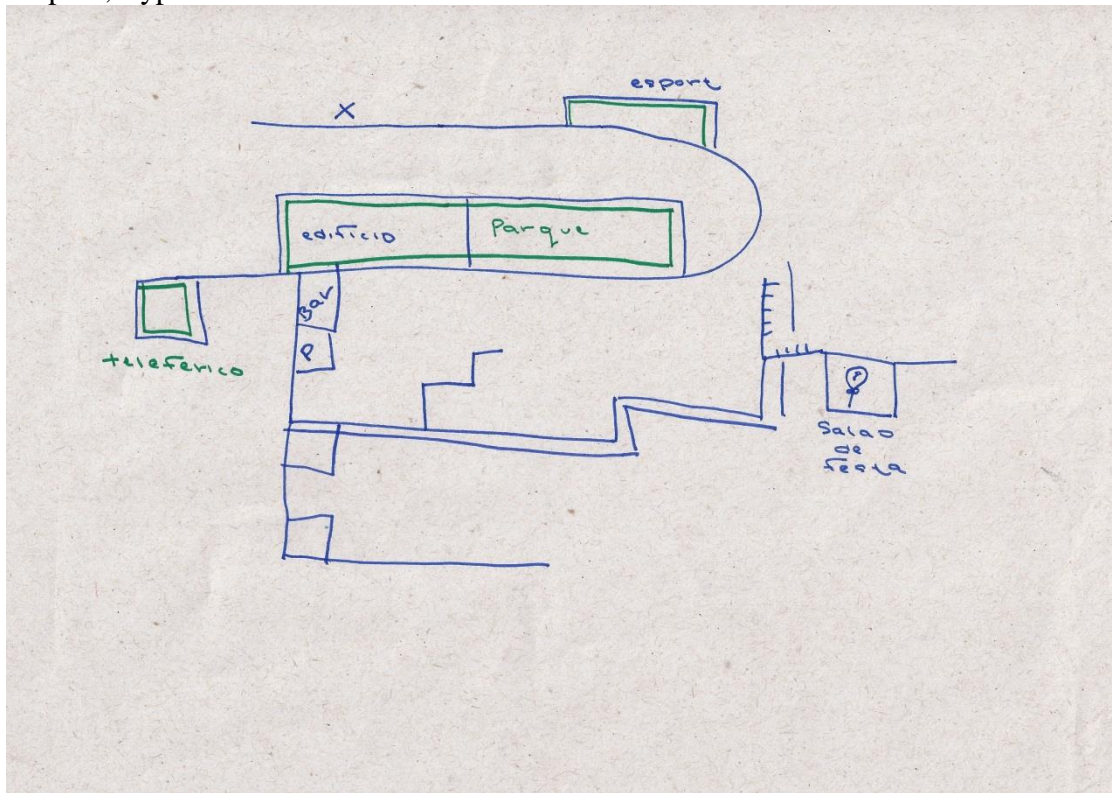


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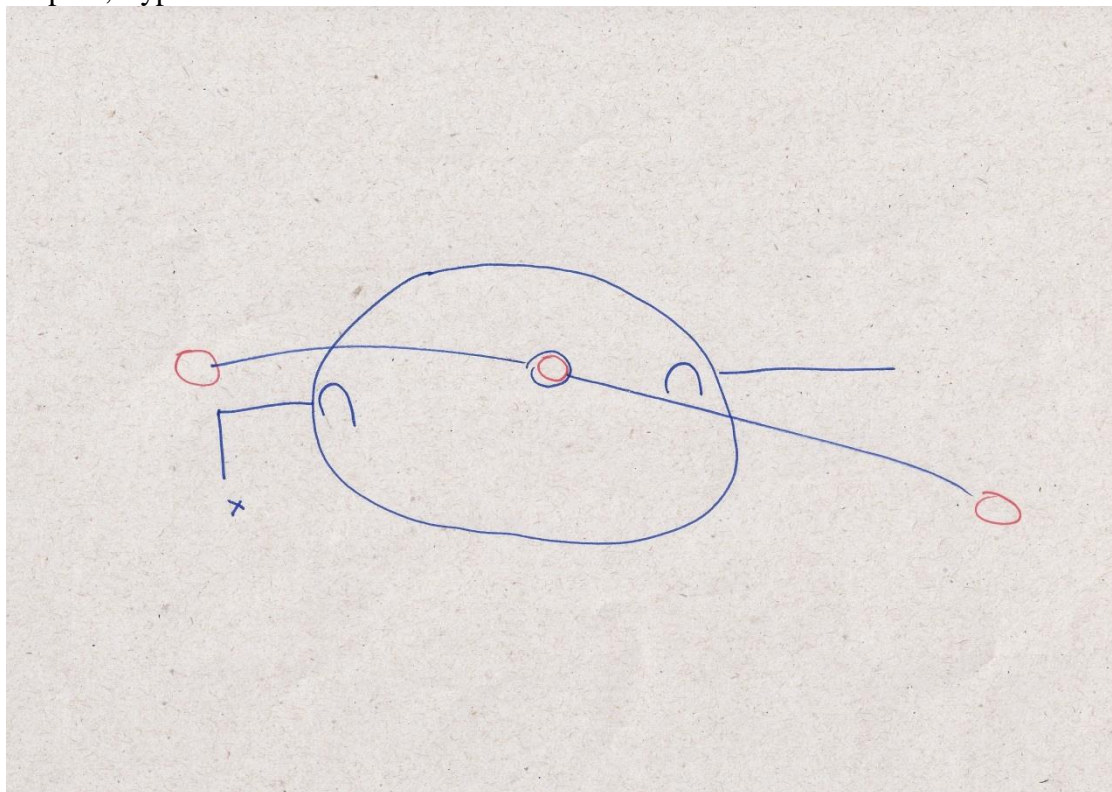




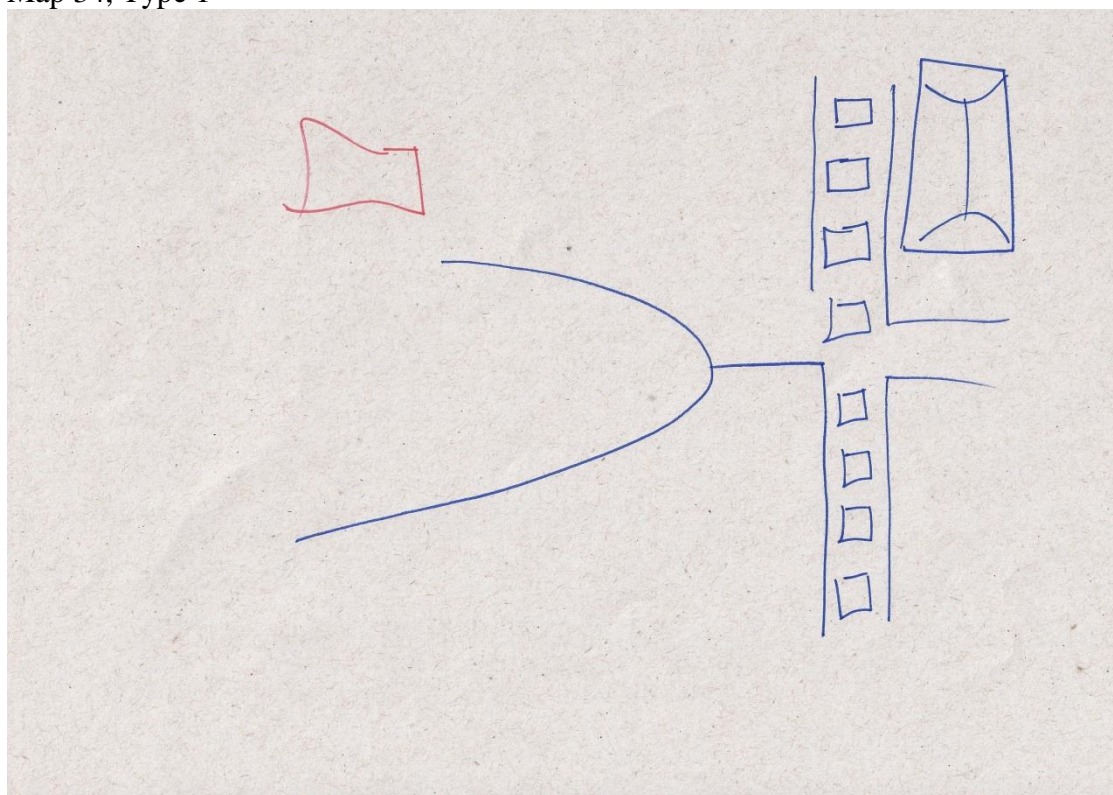
Map 32, Type 1



Map 33, Type 1



Map 34, Type 1

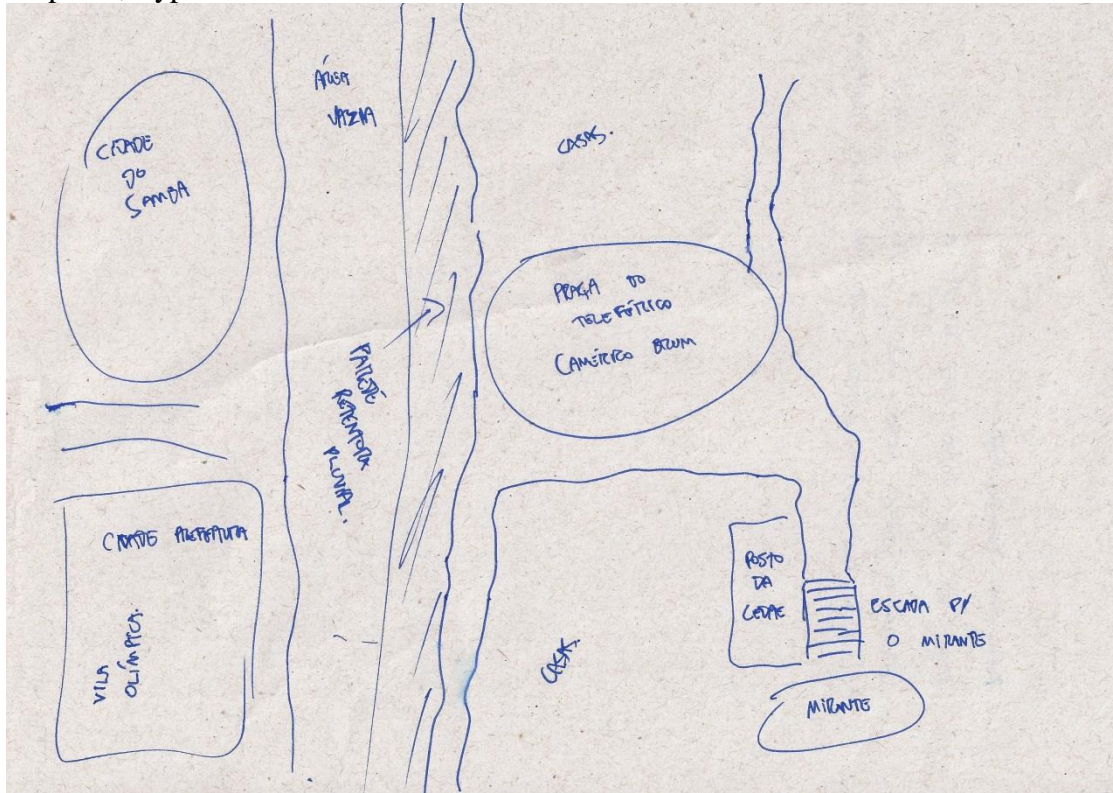


Map 35, Type 3

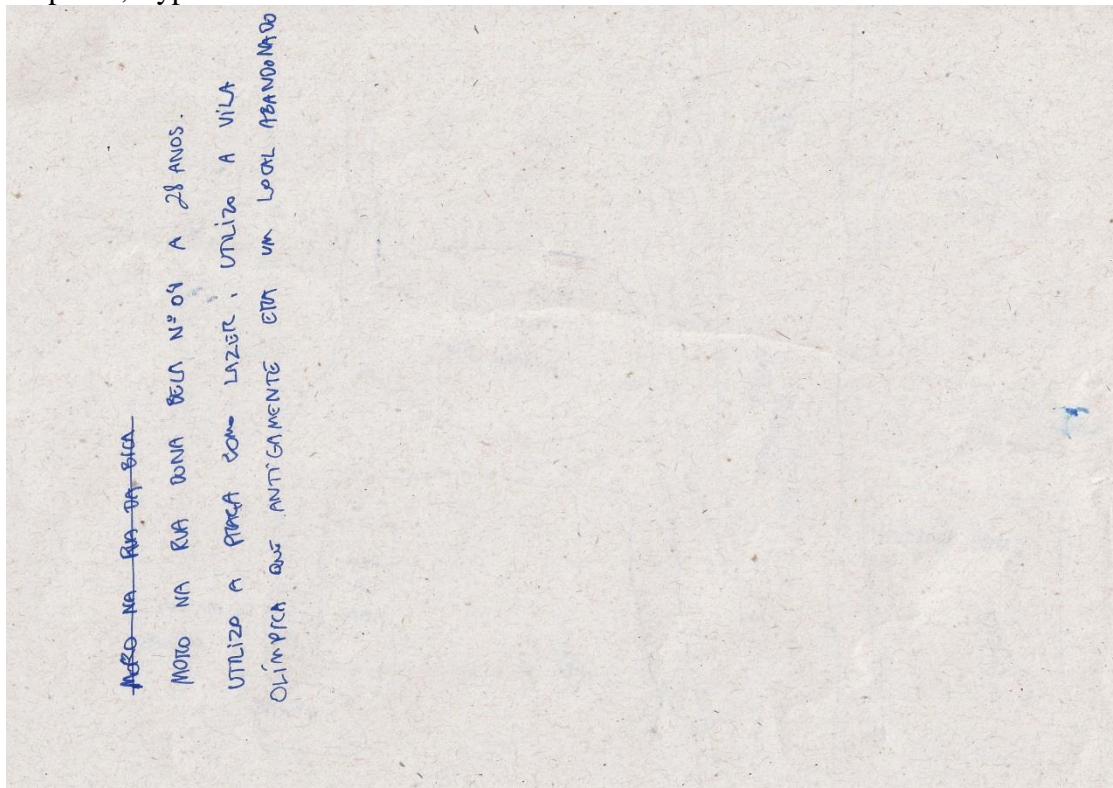
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Map 36a, Type 1

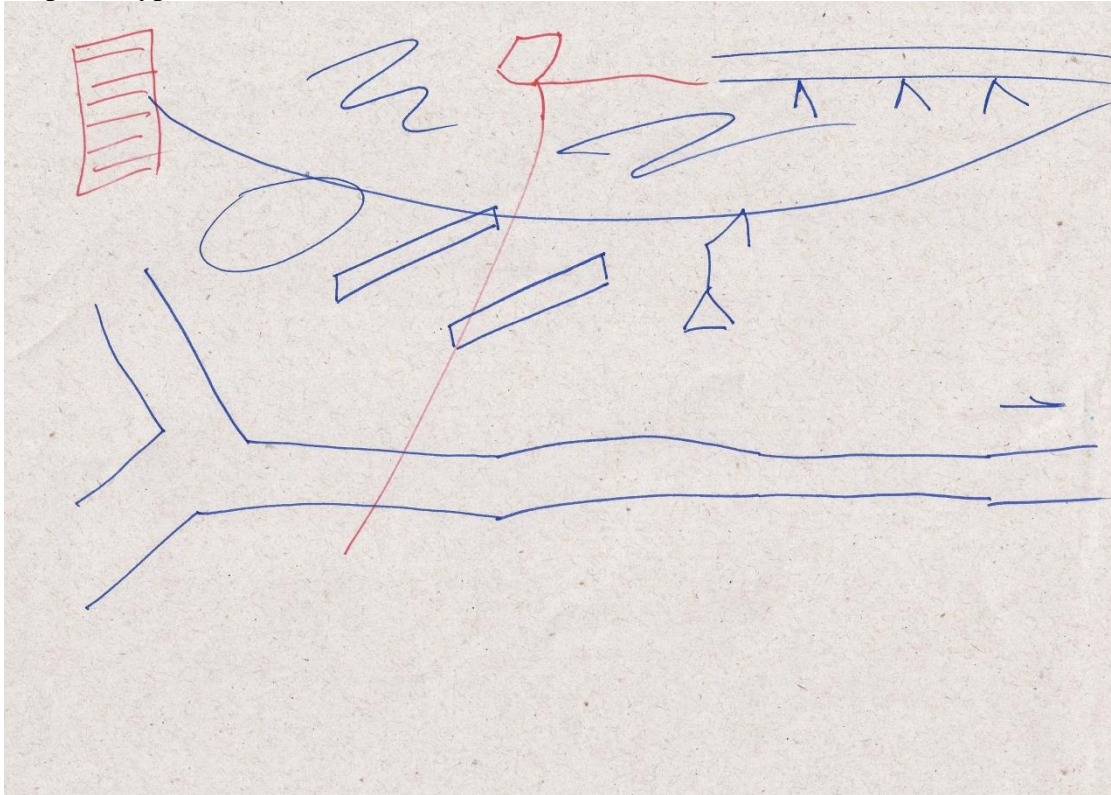


Map 36b, Type 1

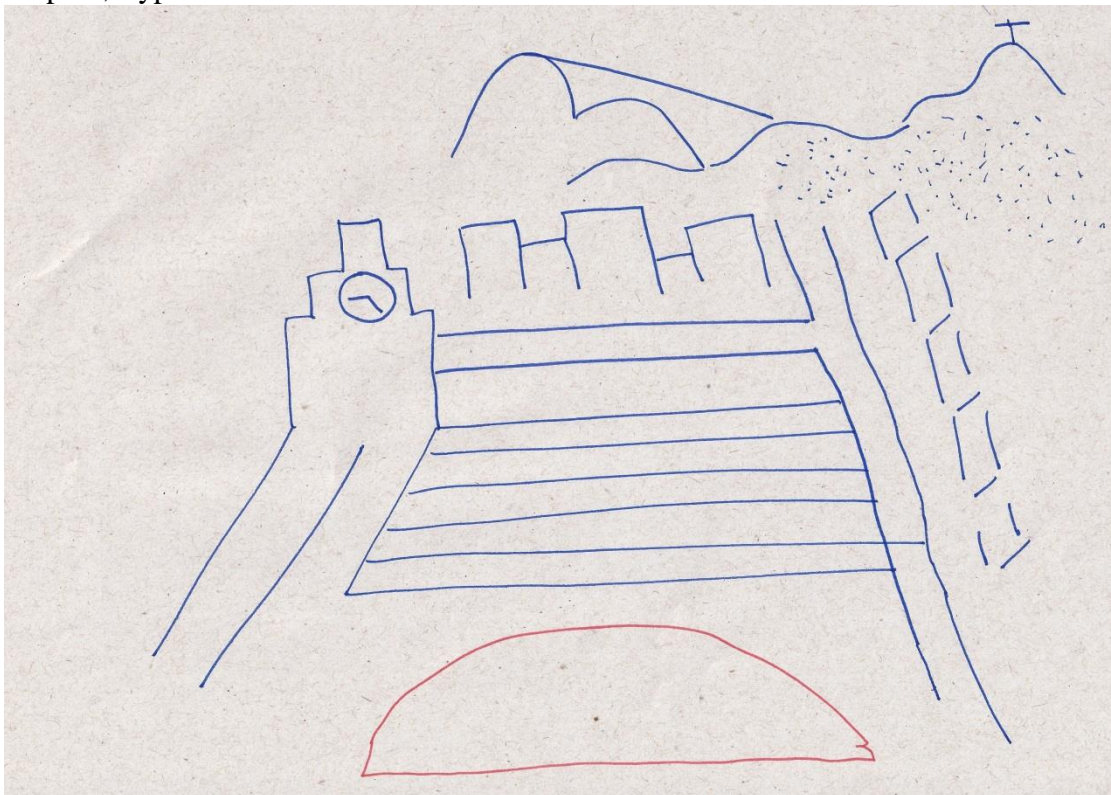




Map 37, Type 1



Map 38, Type 1





Map 39, Type 1

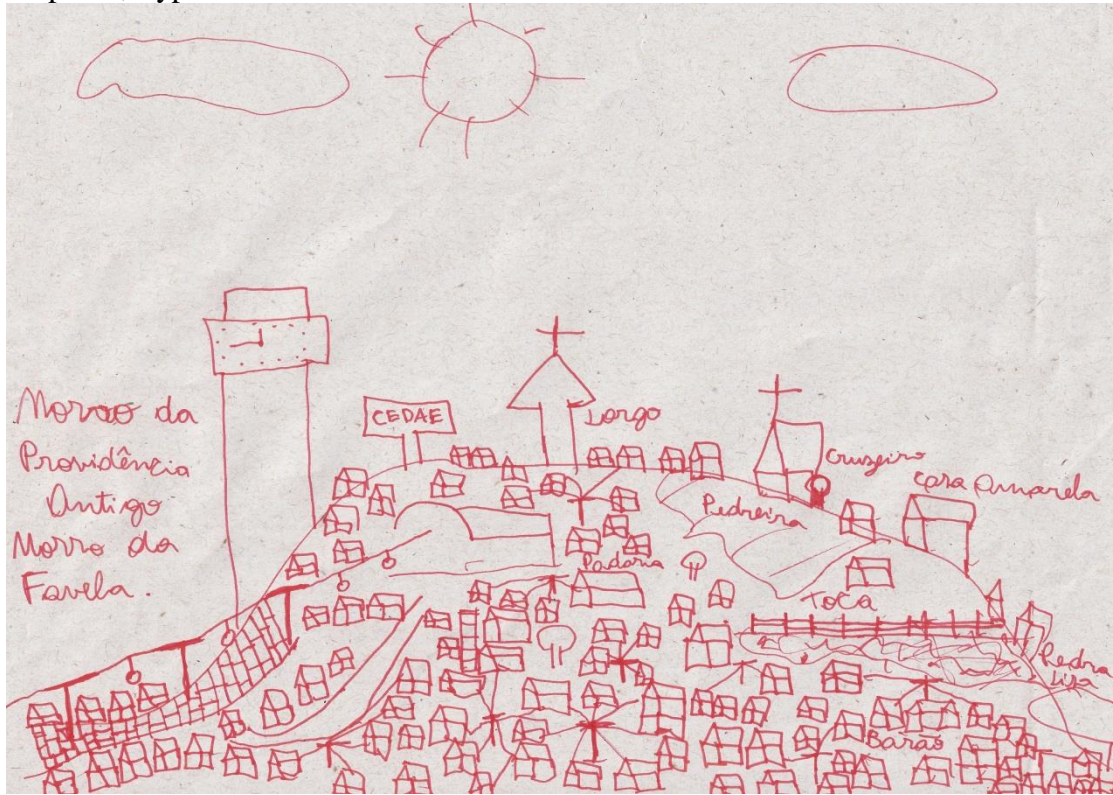


Map 40a Type 2





Map 40b, Type 2

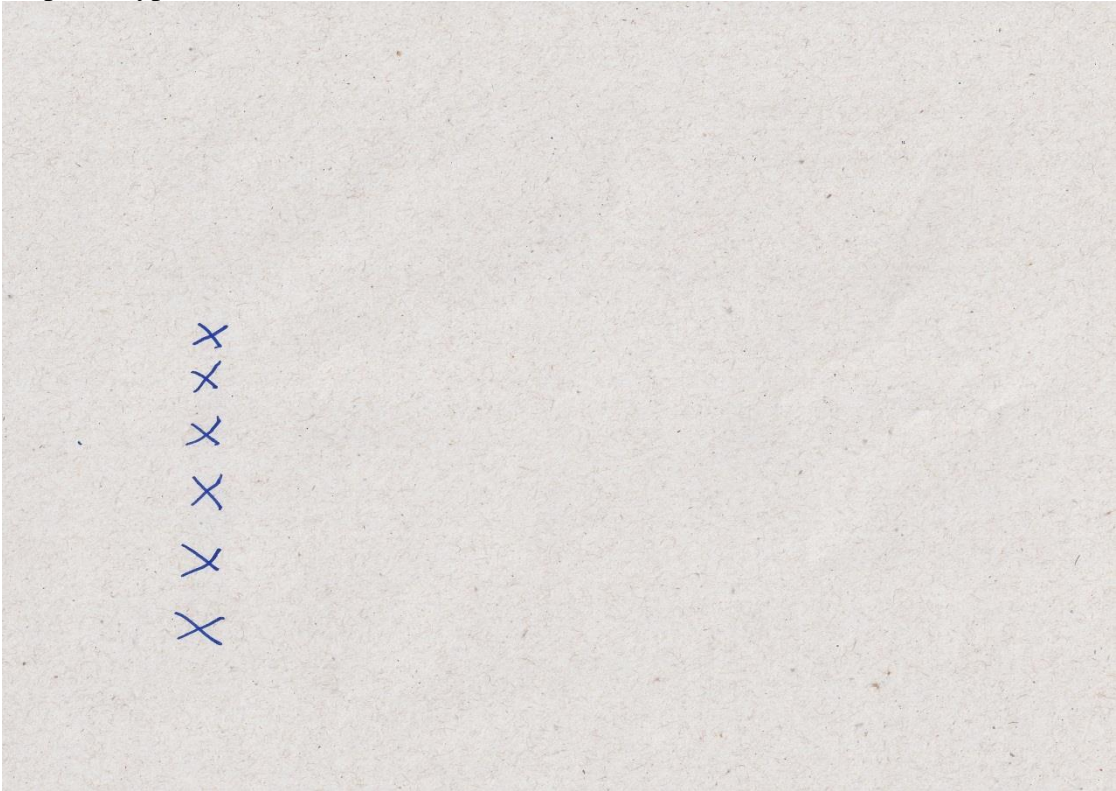


Map 40c, Type 2

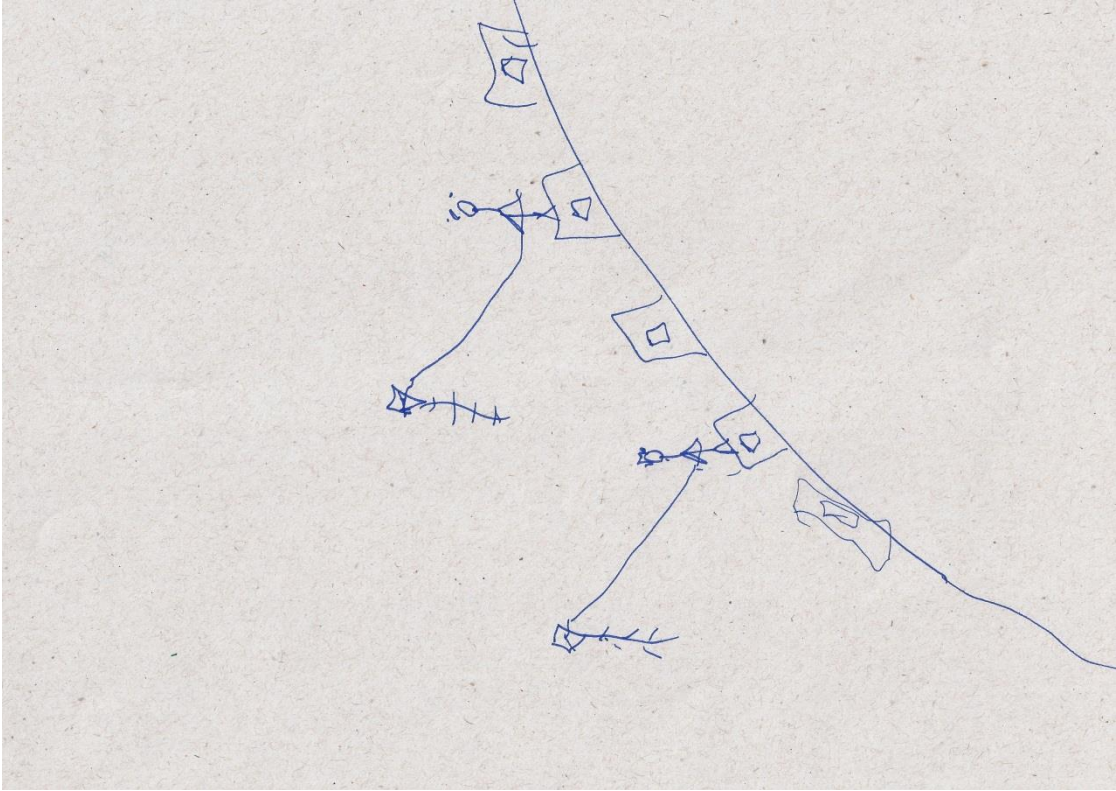




Map 41, Type 3



Map 42, Type 1



Map 43, Type 3

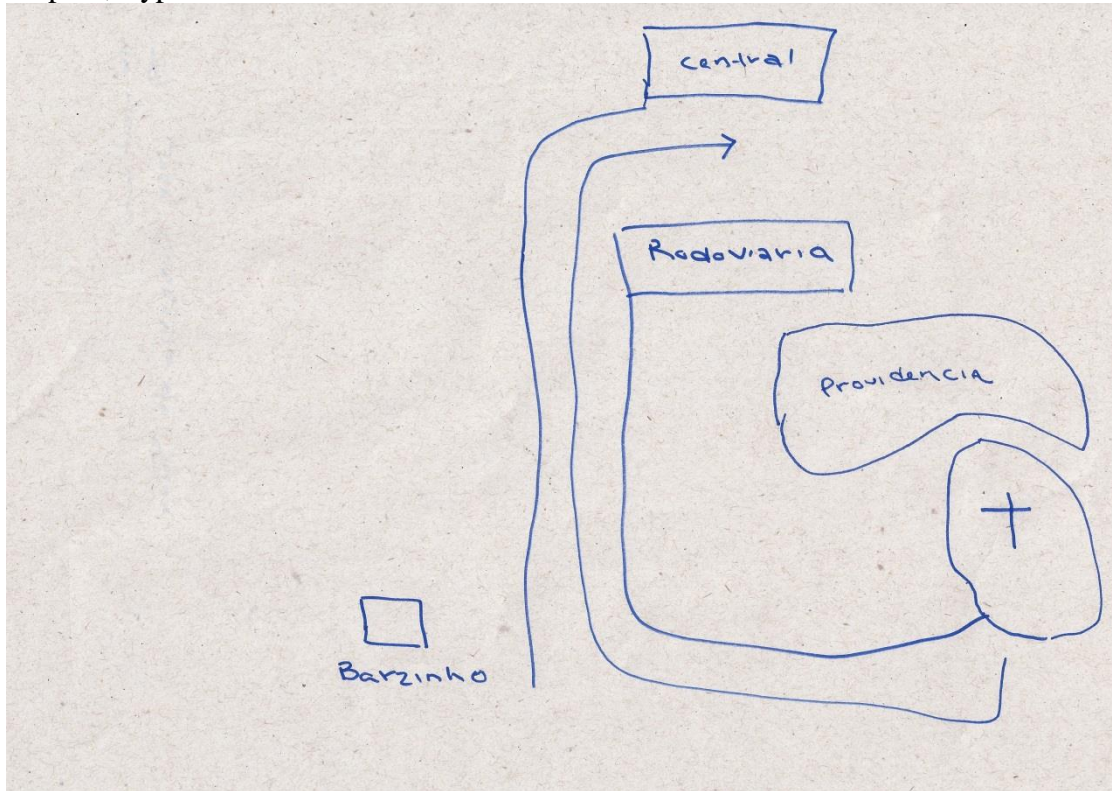
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Map 44, Type 3

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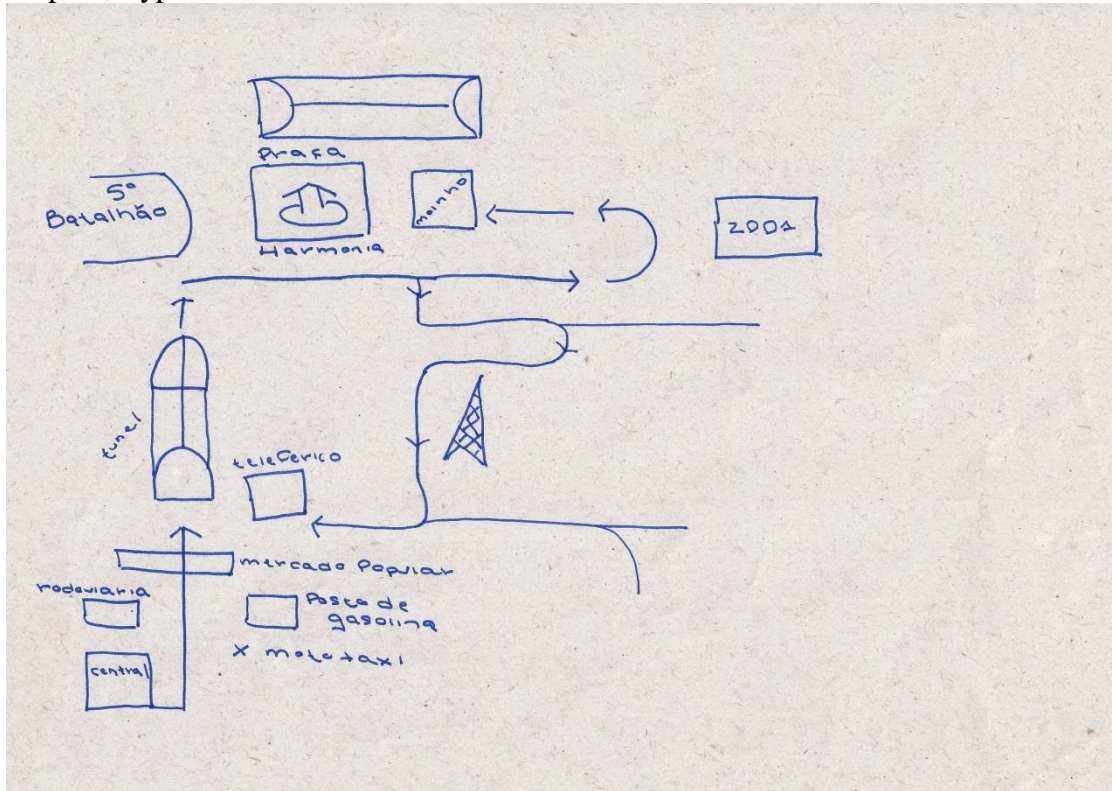
Map 45, Type 1



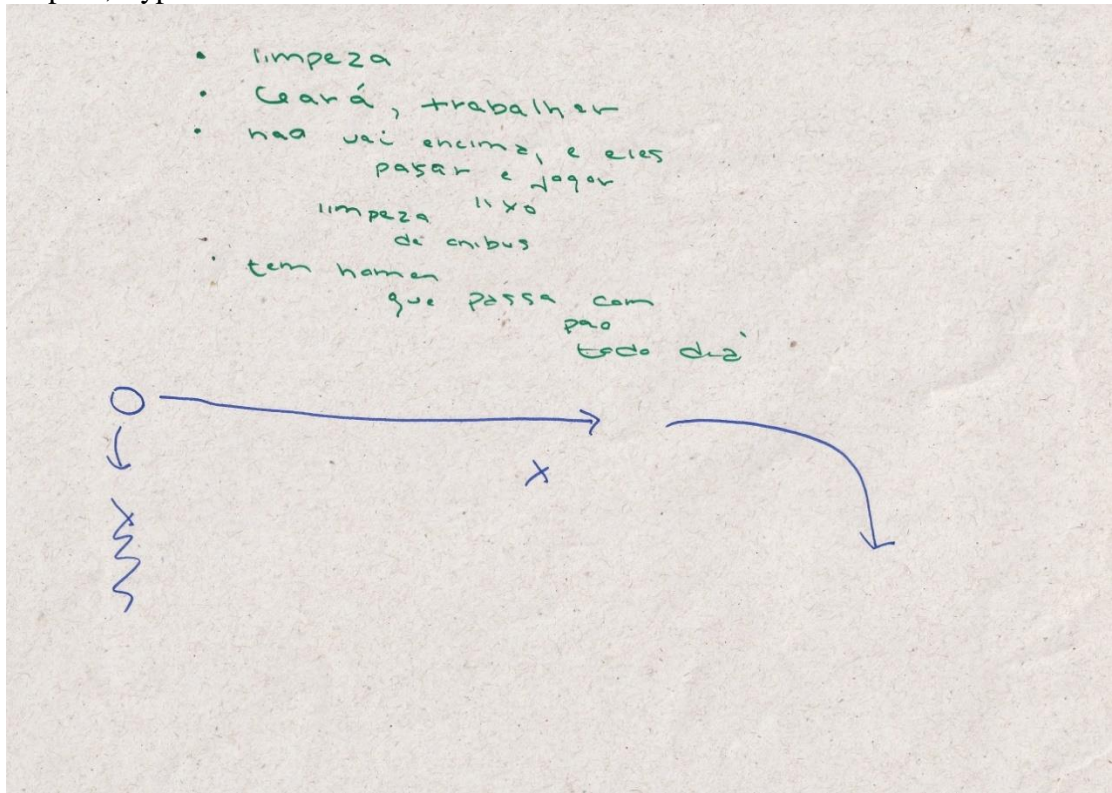
Map 46, Type 1



Map 47, Type 1

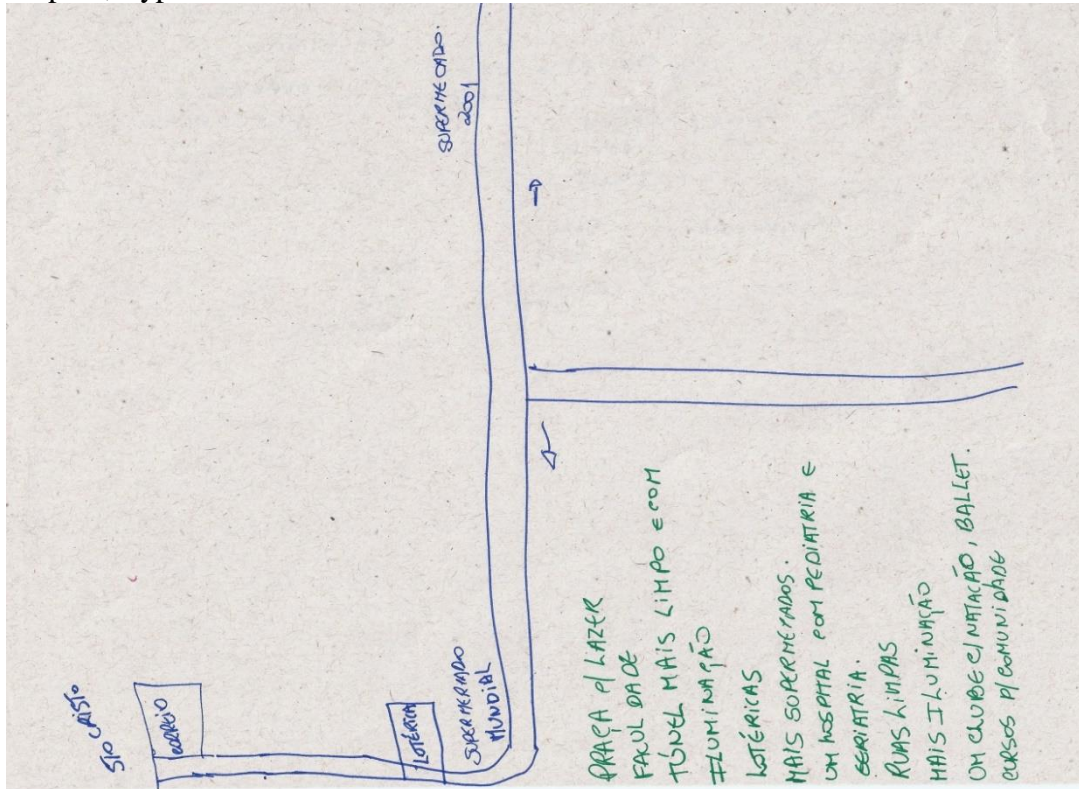


Map 48, Type 1

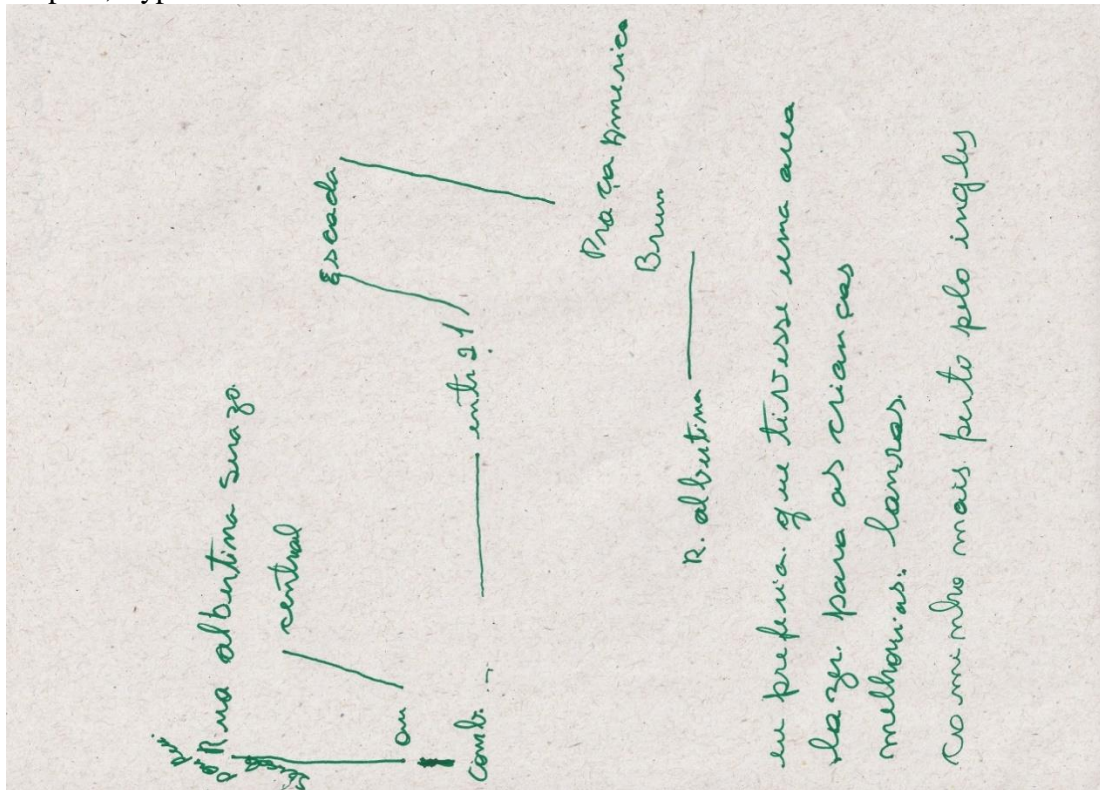




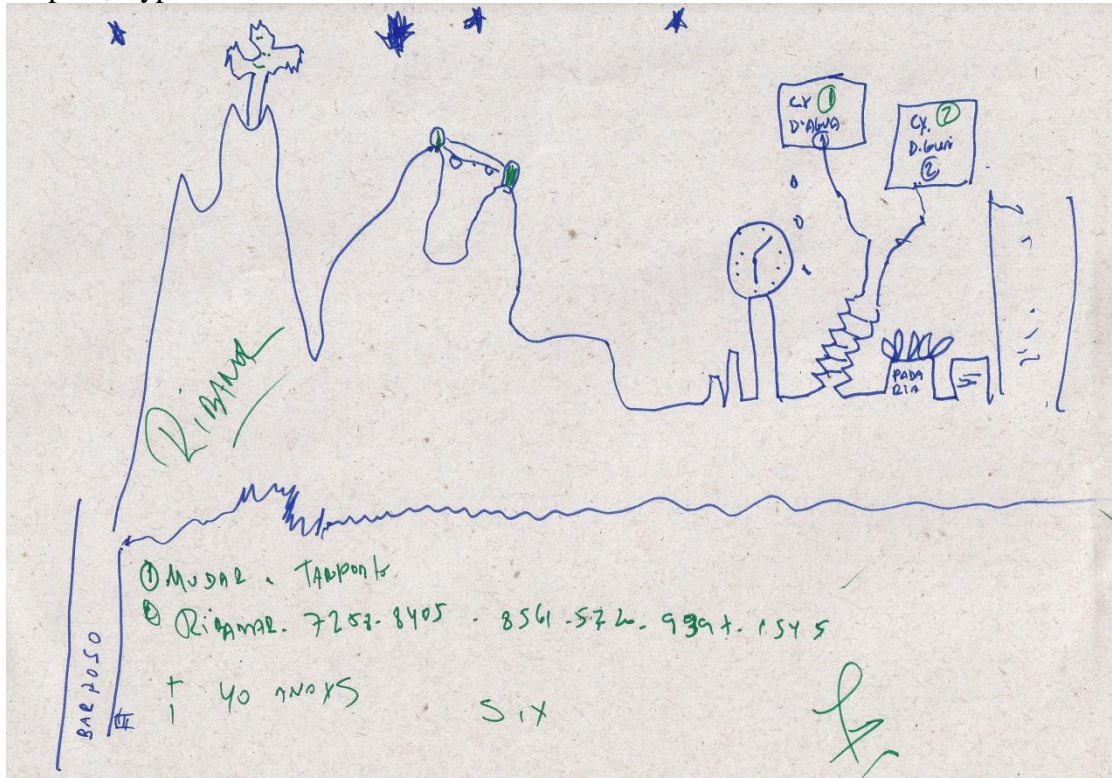
Map 49, Type 1



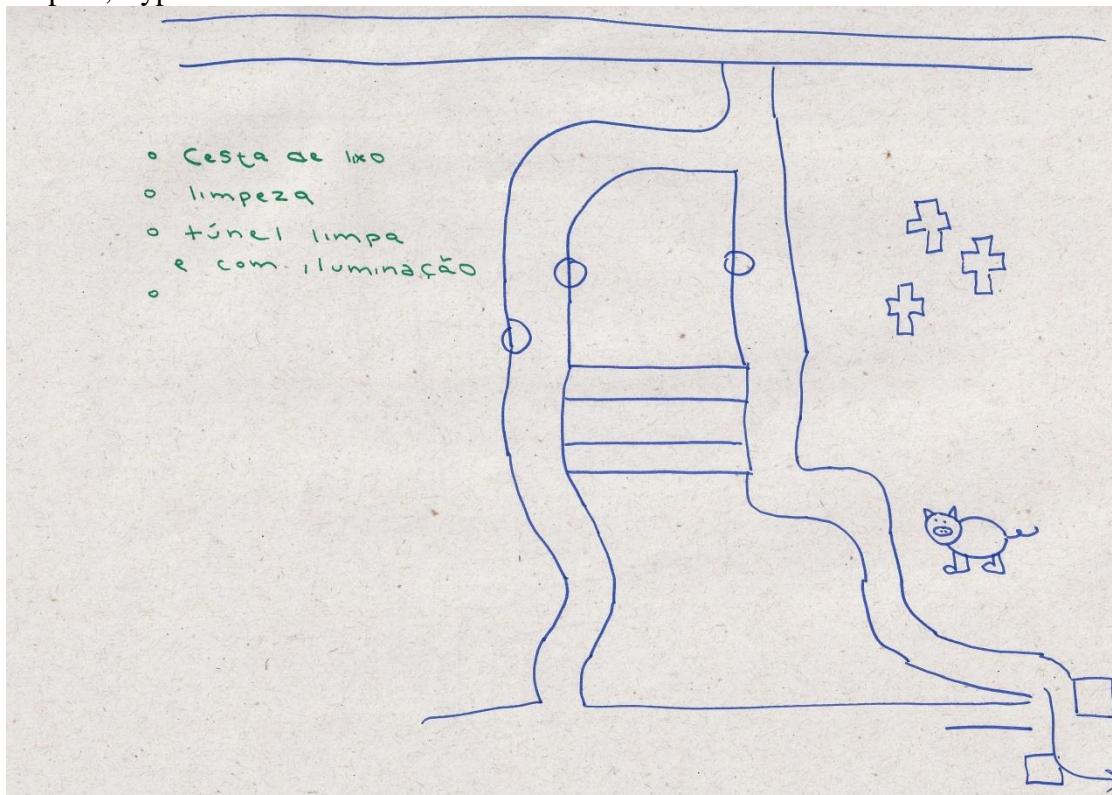
Map 50, Type 1



Map 51, Type 1

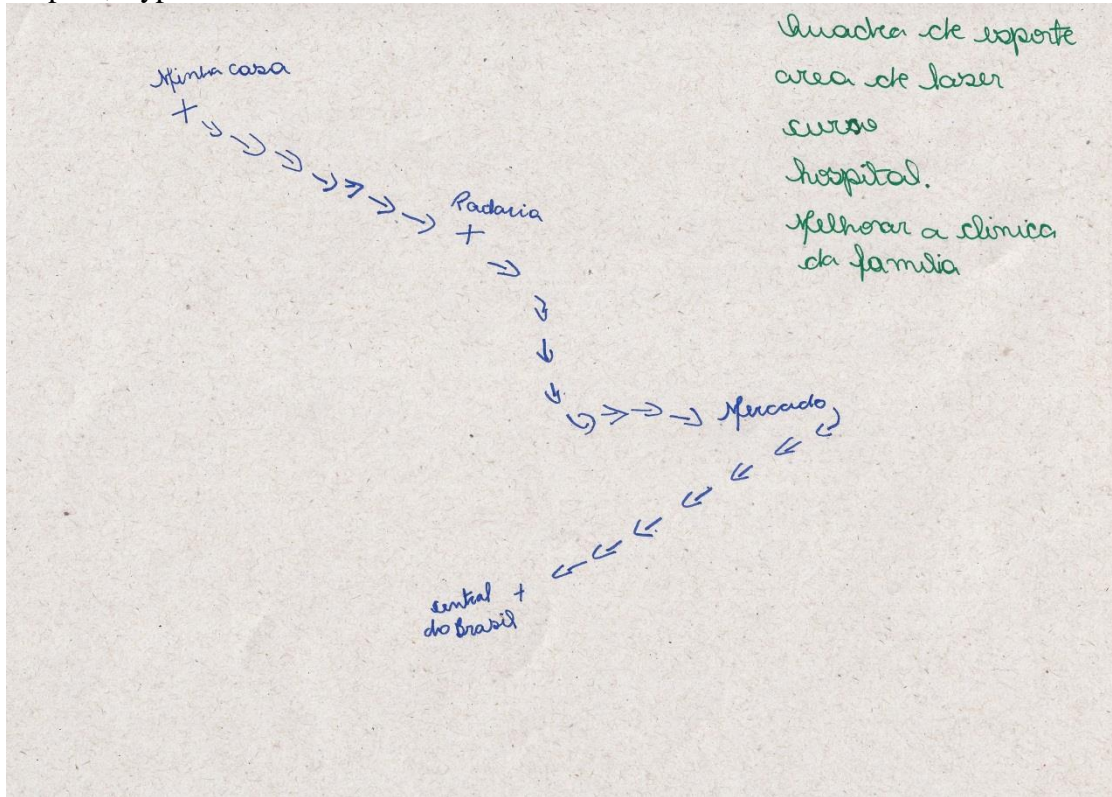


Map 52, Type 1

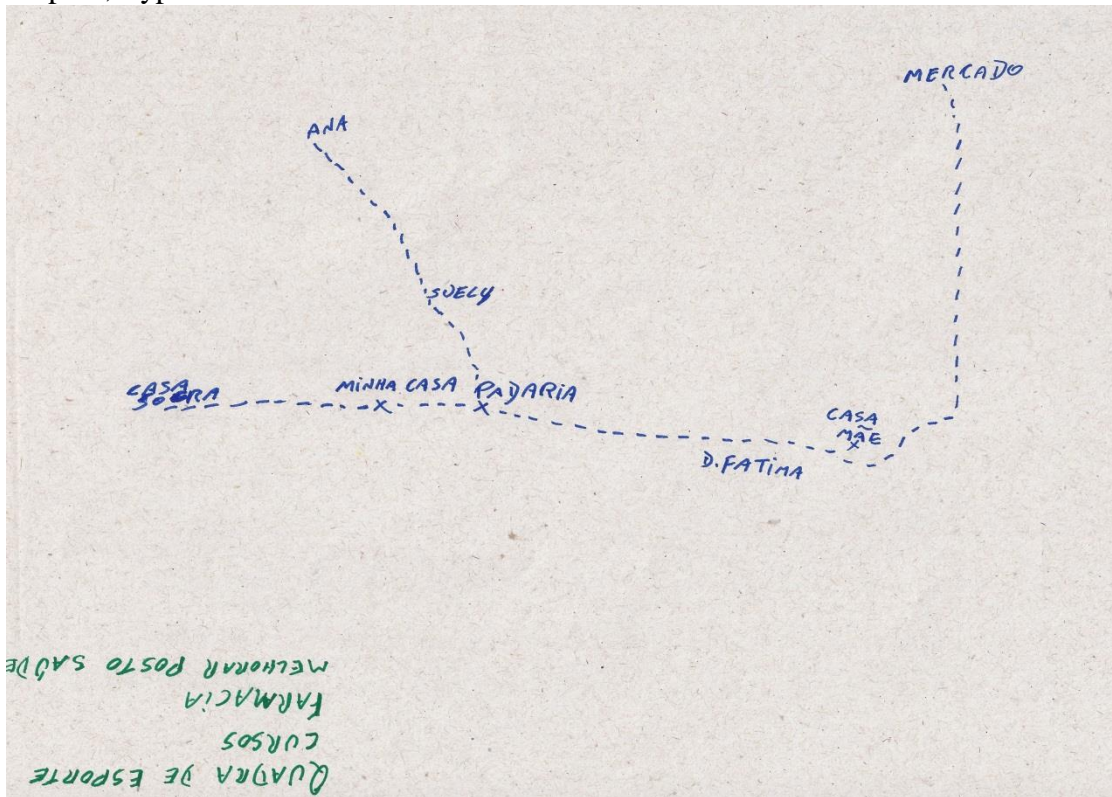




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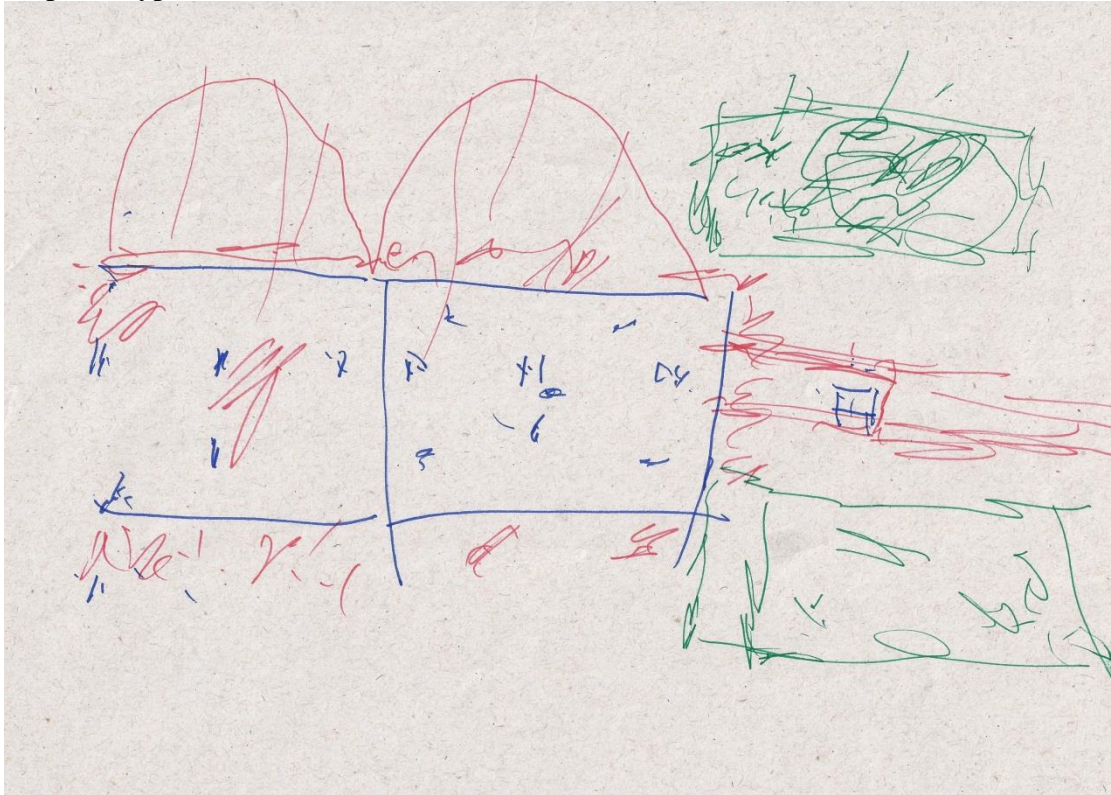


Map 54, Type 1

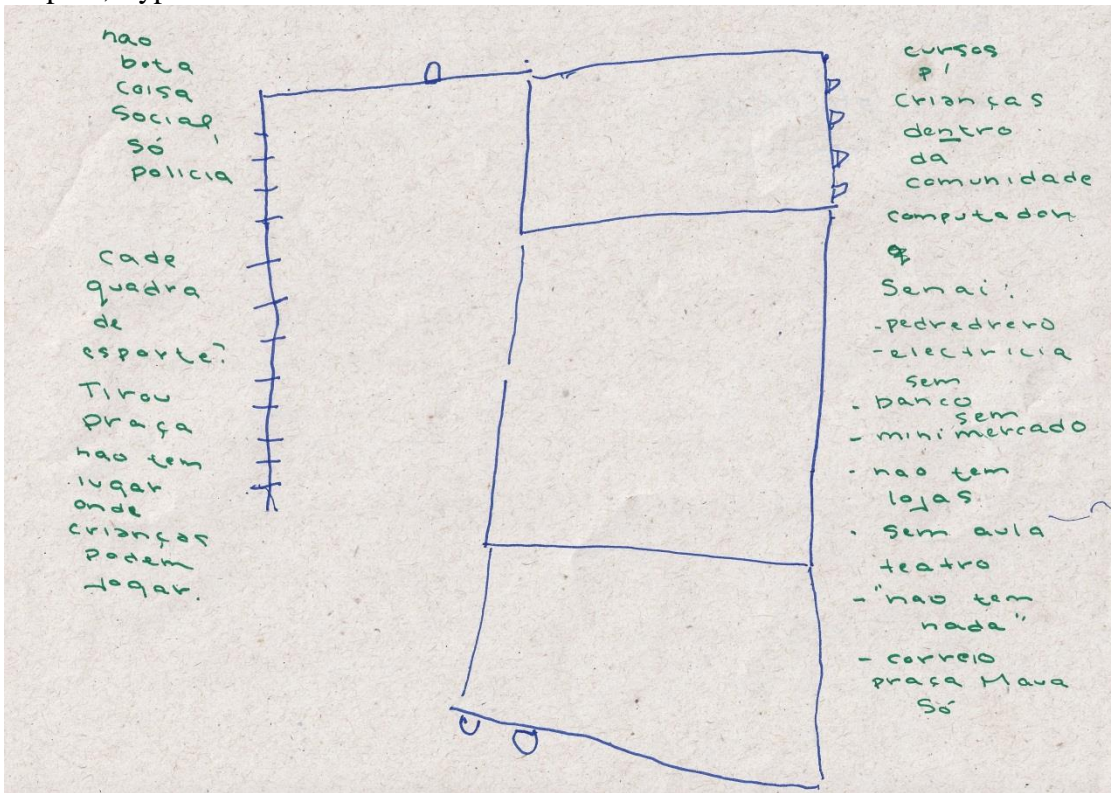




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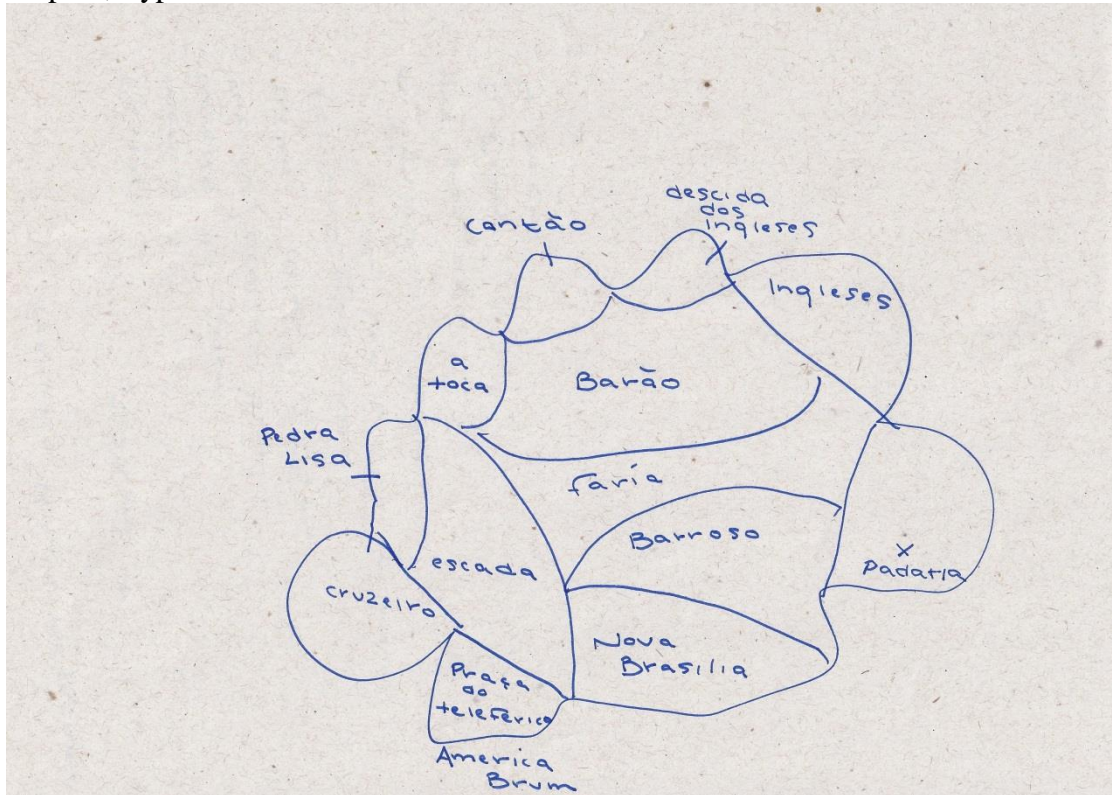


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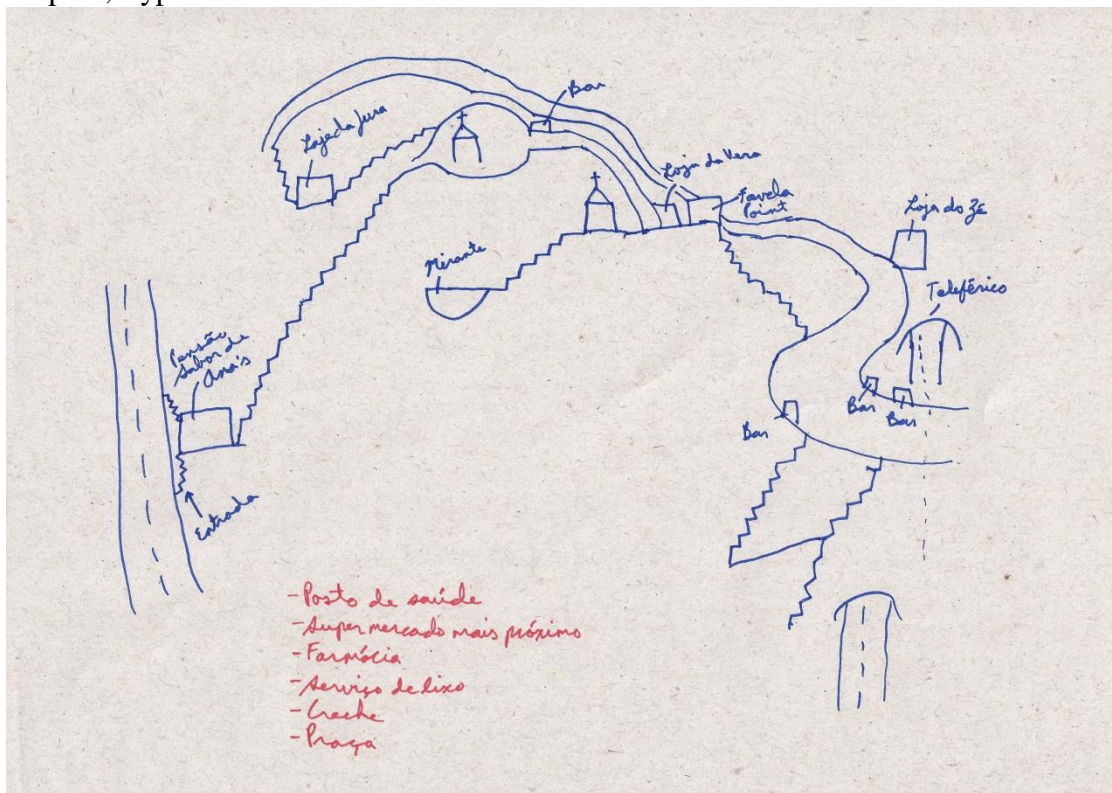




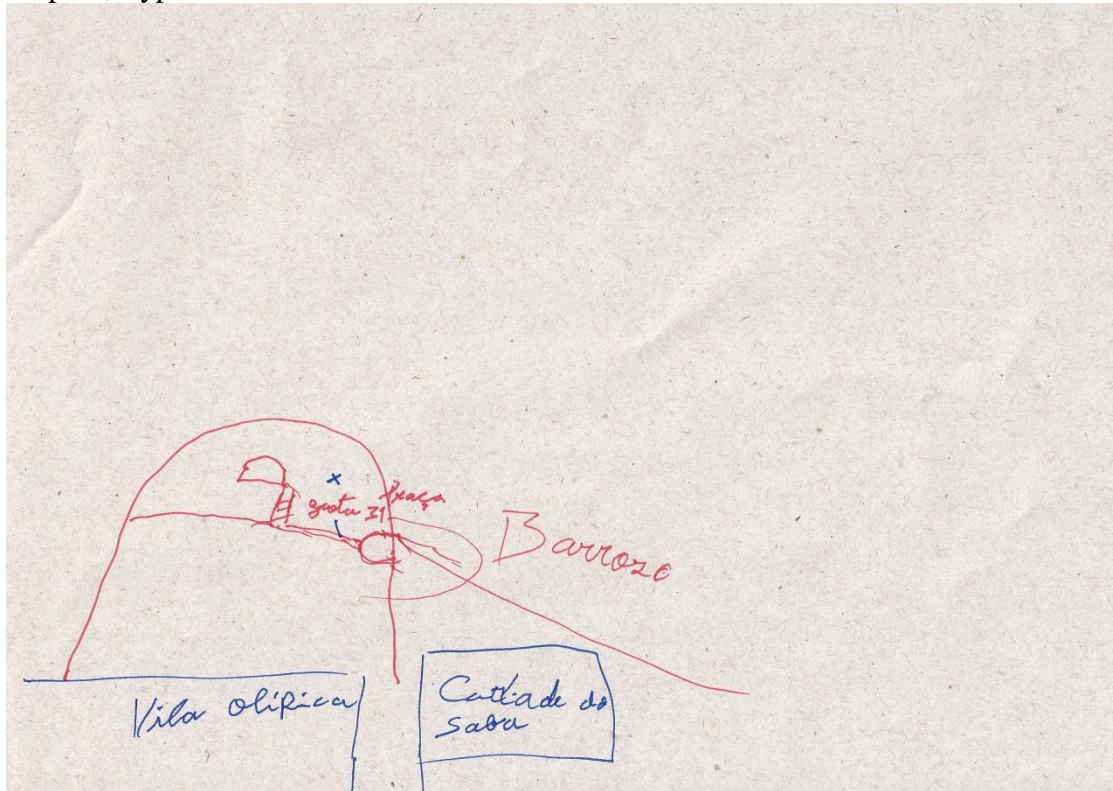
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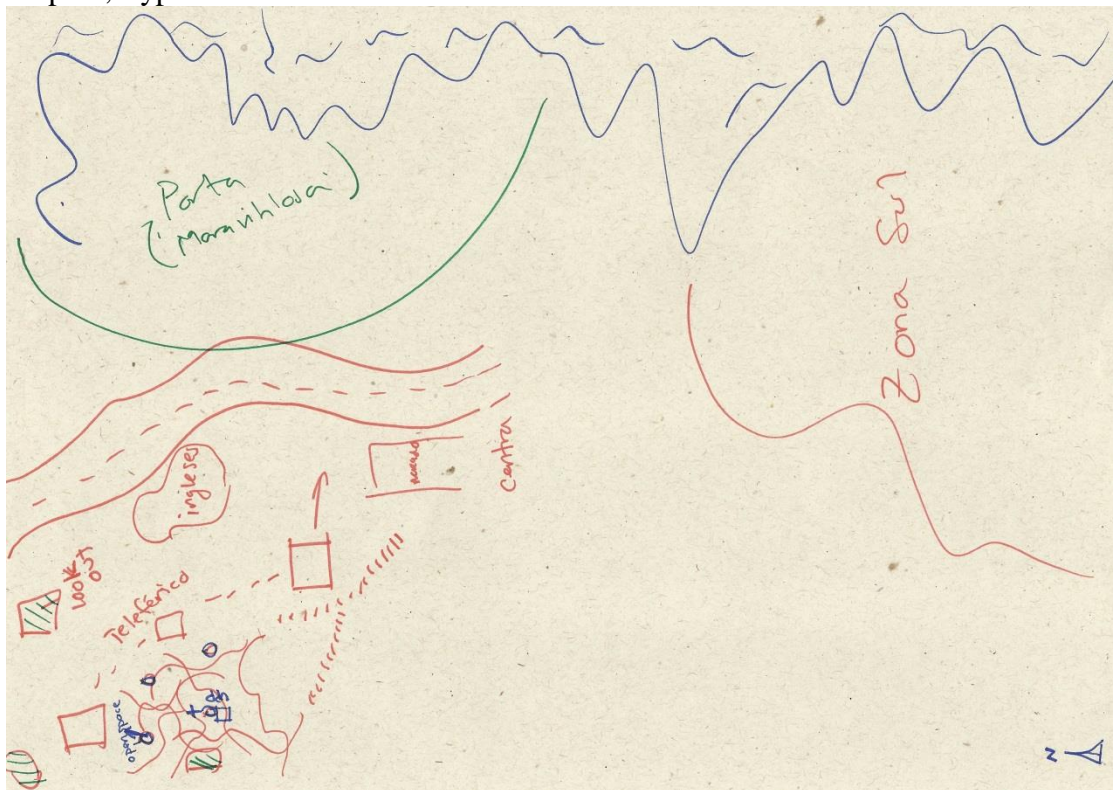
Map 58, Type 1



Map 59, Type 1



Map 60, Type 1





## Vita

Jamie L. Worms earned her Bachelor of Science degree in geography at the University of Maryland at College Park in May of 2006. From 2006 to 2007, she worked as a GIS intern at both the World Resources Institute and the Maryland National Capitol Park and Planning commission. In 2007, she began a Master of Arts degree in geography at the George Washington University. After researching and completing an undergraduate and a master's thesis on the organization of *favelas* and their social capital she graduated in May 2009. From 2009 to 2010, she worked as an editorial intern for a non-government organization based in Rio de Janeiro called Catalytic Communities where she became fluent in Portuguese while working to increase global visibility around community solutions in Rio's *favelas*. In January 2011, she entered the doctoral program in geography at Louisiana State University's Department of Geography & Anthropology where she sought to understand the production of social space as well as the approaches and consequences to *favela* integration in the urban realm. Her Doctor of Philosophy degree in Geography and Anthropology will be conferred at the May 2015 Commencement.