

# RIO DE JANEIRO, BRAZIL



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URBAN RECONSTRUCTION/RESILIENCE

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## **I. Preamble**

The topic of Urban Reconstruction has interested me since my second year in the Spitzer School of Architecture. With Professor Alberto Foyo, as my studio professor, we attempted to tackle the urban traffic issues and prevent vulnerable areas from flooding in New York City. We had the flexibility to design before the 1811 Commissioner's Grid, while still knowing what the future of our city will be today. This studio opened my eyes in how city planning can change the whole dynamic of a city, including its social aspects. When I had the opportunity to travel around Europe, I became obsessed with learning each city's history, and why they were built the way they were. I traveled their public transit and I asked the natives questions. I wanted to know what was working and what was not. When I came back home to New York, I realized I did not know enough about my own city. This pushed me to intern by the MTA to further understand our public transportation. I entered the MTA genies challenge, in hopes to change and better the system. I took this course, Urban Reconstruction, with the same mindset. I know I want to help cities rebuild their future better than it was before, and this course will help me understand the depths, duty, and solutions of this task.

I specifically chose Rio de Janeiro as my case study for several reasons. Firstly, Brazil is the home to my mother, and her family. My mother rarely spoke of her native country, and my knowledge of Brazil was very limited. Being that the sect of Judaism is passed down through the father, my father's Persian culture was deeply ingrained in us. When I started college, I befriended Latino girls who were so happy that I was half-Brazilian that I started to appreciate the Brazilian side of me, and I wanted to explore more of it. I applied for a study abroad in Rio de Janeiro for last spring, being that it was the city my mother was born in before her family moved to Brasilia, the new capital of Brazil. The study abroad in Rio was cancelled for unknown reasons, and I ended up going to Barcelona for the semester. In Barcelona, I met a few friends who originated from Rio de Janeiro, who often discussed the urban issues they faced every day. They inspired me to do more research about the city and instilled in me the desire to personally help Rio de Janeiro. After this study of Rio, I am looking forward for an opportunity to visit and hopefully helping communities in Rio after I graduate this summer.

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### **III. Introduction**

In this paper, I will discuss the main shocks and stresses in the city of Rio de Janeiro, and the resilient plans that were placed to control these threats. The two main issues I will focus on is the lack of water infrastructure and security within the diverse aspects of the city. The concerns about water has been an ongoing problem throughout Rio's dynamic history. With the mixture of intense tropical rainfall and the sea level rising, the city has been dealing with frequent flash floods and rainfalls. Due to the lack of sanitation throughout the years, Rio has been accumulating pollution and industrial waste within its waters. Secondly, Rio de Janeiro struggles greatly with the issue of security. The absence of security creates or stems from issues like overpopulation, urban inequality, poverty, and segregation. A greater study within these segregated areas, also known as "favelas", helps us understand the security issues within and outside the favelas. Favelas are often mistranslated as "slums", but the only common theme they share is the fact that they have all been dealing with government neglect for over a century. By understanding the life and struggles in a favela, we may be able to understand the issue in its core and how to solve it. This paper documents and provides details throughout the evolution of Rio de Janeiro in its up and downs, as it tries to improve its water and its security.

#### *About Brazil, About Rio*

Before understanding the issues Rio faces in detail, we must research the characteristics of city Rio de Janeiro. The characteristics of a city is usually defined within its climate, topography, culture, demographics and lastly, its history. The first step in grasping Rio, is knowing its location and geography. The city of Rio de Janeiro is in the continent of South America, in the country of Brazil. The equator cuts through the northern part of Brazil, which impacts the overall weather in the country. In Rio, the temperature usually ranges from 65 degrees Fahrenheit to a high of 92 degrees Fahrenheit, with frequent tropical rainstorms. Rio sits right next to the South Atlantic Ocean, and hugs Guanabara Bay. In middle of the city, a lagoon is naturally placed, and there are several mountainous hillsides all over the city. (Figure III.A) The geography of Rio is the first insight into Rio.

Learning about the people of Brazil explains the complexity of this city. The culture of Brazil is full of positive and energetic people, who love having a good reason to celebrate, like their yearly Carnival festival. They are creative thinkers, with big dreams and imagination. The population demographics of Brazil is hard to define in one race, being that most Brazilians ancestors intermarried with other races. The three main races that exist in Brazil are

white Europeans, former African laborers, and Native Americans. (Figure III.E) There are 6.45 million people who live in Rio de Janeiro, as of 2016, making Rio the second most populous state in Brazil. (Figures III.B, III.C, III.D) Although the city of Rio is overpopulated, Rio's history proves that it was not always congested.



FIGURE III.A

<b>Population Centers – Brazil</b>			
<b>(POPULATIONS FROM 2000 CENSUS)</b>			
<b>Name</b>	<b>Population</b>	<b>Name</b>	<b>Population</b>
São Paulo	10,057,700	Curitiba	1,642,300
Rio de Janeiro	6,029,300	Manaus	1,524,600
Salvador	2,539,500	Recife	1,464,100
Belo Horizonte	2,307,800	Porto Alegre	1,355,100
Fortaleza	2,230,800	Belém	1,344,900
Brasília (capital)	2,089,500	Goiânia	1,132,600

SOURCE: Instituto Brasileiro de Geografia e Estatística (IBGE—Brazilian Institute of Geography and Statistics).

FIGURE III.B

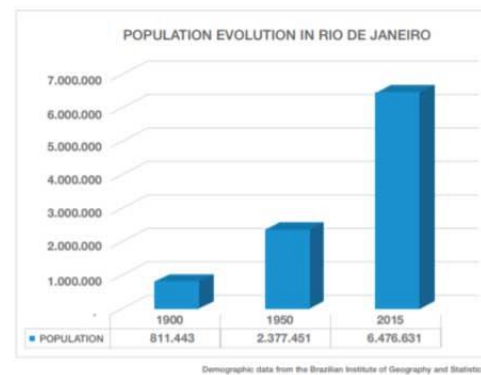
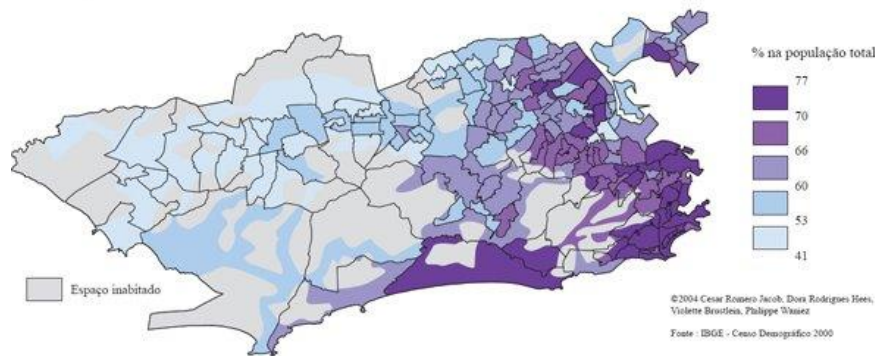


FIGURE III.C

**Religião Católica Apostólica Romana**  
Município do Rio de Janeiro



**FIGURE III.D**



**FIGURE III.E**

#### **IV. Historical References**

##### *From the Native Americans to the Independence of Brazil*

The history of Rio de Janeiro clarifies the vibrant character of the city. The first section of the Rio's history includes the Native Americans, the Portuguese colony, and the Atlantic Slave Trade. The earliest known history of Brazil recorded the Tupi, Puri, Botocudo and Maxakali peoples lived in Rio in peace and war as Indigenous Brazilians. By 1502, Portuguese navigators first discovered Rio. They mistook Guanabara Bay for a river and named it "January River", or in Portuguese "Rio de Janeiro", a name that stuck until today. (Figures III.A, IV.A) By 1565, the Portuguese city was founded. The Guanabara Bay took a very active role as the main trading port for Brazil's economy until the late 1800's. (Figure IV.A) In the late 17<sup>th</sup> century, mineworkers discovered an abundance of gold and diamonds, in addition to the sugar, in the city of Rio. This made Rio more appealing than its capital at the time, which soon prompted the capital move from Salvador to Rio in 1763. Brazil was abundant of gold, diamonds, and sugar, which meant a lot of imported slaves. Between the years of 1532 until 1888, Brazil imported over five million enslaved Africans through Rio's port, which is more than any other country in world history during the Atlantic Slave Trade. The city of Rio soon grew to 8000 in habitants, with two-thirds who were probably African slaves or Native American. Brazil was the last country to abolish slavery in 1888.

Brazil's independence from Portugal in 1822 was a new era for Rio. It was the start of the first urban reconstruction. Being that Brazil symbolized "a nation of slaves" for the Portuguese motherland, the Portuguese monarchy did not deem it necessary to advance Brazil's cities throughout its colonization. In 1822, however, true



Brazilians decided to take matters into their own hands. The first modernization that the independent state of Rio prioritized was transportation. From 1829 until 1858, Rio underwent a series of transportation changes starting from the oxcart ban in elegant streets, to horse-drawn buses, to steam boat services, and eventually their first railroad. (Figure IV.B) In 1864, the first official sewage system was installed. Finally, in 1889, the government in Brazil switches from a Monarchy to a Republic.



**FIGURE IV.A**



**FIGURE IV.B**

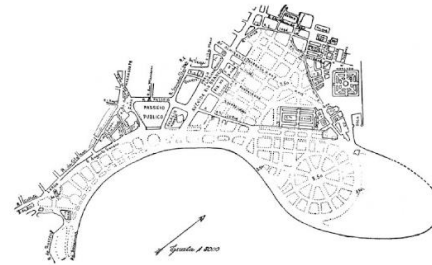
#### *Passos Interventions 1902*

The next major historical transformation in the city of Rio de Janeiro stems from a man named Francisco Pereira Passos, who was an engineer and the mayor of Rio in 1902 for four short years. During these years, Passos has done more change for Rio than ever before or after him. Passos plans for Rio where inspired by how Haussmann dealt with similar issues in Paris. Firstly, he ordered technicians to drain the swamps and clear the slums. He then planned for the widening of streets into avenues, in which the surrounding buildings have similar facades. (Figure IV.C) He attempted to better the sewage systems by partnering with the sewage companies and by building water aqueducts for fresh water intake for the city. These major changes stopped the spreading of yellow fever and other diseases within the city at that time. In the second intervention, the progressive mayor sought to modernize the port of Rio de Janeiro with a wide boardwalk and the Municipal Theater. (Figure IV.E) Unfortunately, Passos term ended short, as he died young on a trip. Being that he was unable to finish his projects himself, his successor took over his project. The Passos streetscape intervention is still seen today in an aerial view over the center city. (Figure IV.D)

Unfortunately, Passos' plan did not help everyone. By clearing the slums for the widening of streets, Passos left many people of low-income homeless. There was no additional housing provided for these people. This eventually is one of the causes for the expansion of the favelas, which will be discussed in greater detail later in this paper.

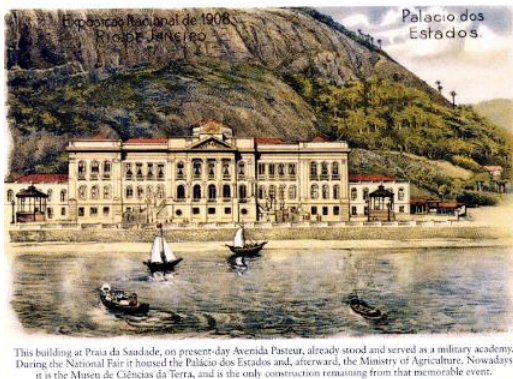


**FIGURE IV.C**



**Fig. 1.4** Project of construction and pavement of streets for the area that was formed from the excavation of Castelo hill and for the land filled area from Glória up to Ponta do Calabouço, according to the proposal of a committee of engineers and architects appointed by the **mayor** of Rio de Janeiro, Carlos Sampaio, 1920–1922

**FIGURE IV.D**



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**FIGURE IV.E**

## *A New Capital 1960*

Due to the overpopulation of Rio, the capital of Brazil was moved to the new city of Brasilia in year 1960. This took a financial blow for Rio, which it has yet to recover from. Rio has been attempting to pick up its act, but little has been done. In 1992, there was a UN meeting discussing the future of Rio. Additionally, there was a Conference on Sustainable Development in 2012. Despite these two events to better Rio's infrastructure, there is no actual transformation to be noted in the city of Rio.



With the hype of being the host city for the Olympics in 2016, Rio invested in three projects to better the city. The projects include a renovated port, a new highway, and a new metro line. The Port Maravilha (Wonder) renovations included beautifying the port, and the construction of two new museums through the investment in private businesses to open shop by the pier. Although Passos's plan did initiate the modernization of the port in 1906, there has been little done to maintain and modernize it for over a century, and the port started to resemble an unsafe area which was vulnerable for crime. The Olympic plan for the port included a newly paved boardwalk decorated with plants, trees, and sculptures. Architect Calatrava worked on the Museum of Tomorrow at the pier, and the Museum of Art in Rio was also constructed. (Figure IV.F) The port project was partially funded through private business owners. The government expressed their plans to private companies and encouraged them to buy property along the pier and build stores. They aimed for the pier to be the new, modern safe place lined with good shopping and restaurants, improving the economy of Rio. However, the private investors never got their business as they were promised. After the games, the government did not continue with the maintenance of the pier, which eventually promoted illegal activity and an unsafe place for customers to shop in stores.

The second renovation was the creation of a new six lane, 16-mile elevated highway for transporting Olympic fans and athletes through the various venues. (Figure IV.G) Although this highway provided better transit for the Olympics, it also caused many issues to the favela, Vila Uniao, which was located right under it. The noise and movement of the buses and cars on the highway disrupted the residents' sleep and their housing structures. "My home is crumbling, all for an Olympics that is not being put on for us poor, yet we are the ones paying the highest price," said one of the favela's residents as she points to the structural damages in her home which have been caused by the turbulence of the highway. A once quiet and safe neighborhood soon became one of high crime and revolt. During the games, a few buses were attacked with rocks, most probably aimed with slingshot, as a protest from the young gang members of the community. The crime and violence intensified so much that the government finally destroyed the bridge after the games, with plans of an underground tunnel that would not disturb the favela's homes. The destruction of the elevated highway and the reconstruction of the underground highway took over a year and caused extreme traffic situations. Now the tunnel is safer and more efficient than the elevated highway was, and crime rates in Vila Uniao favela have lowered.

The final renovation for the Olympics was the introduction to a new metro line. Before the Olympics, the entire state of Rio de Janeiro only had two metro lines, L1 and L2, which covered less than half of the city's area. The public transportation throughout the state was, and still is, an unreliable bus services that do not run regularly. The best way of transportation is with a private car, which spikes issues of urban inequality and severe traffic conditions. The L4 was created in preparation of the Olympics. It connected the end of L1, near the impassable lagoon, to a new gated community for the middle class, Barra de Tijuca. (Figure IV.H) L3 has still yet to be built. It was a metro line that was to connect L2 to L4 at their end stations. It was planned to be completed before the Olympics, but construction for the L3 never began.



FIGURE IV.F



FIGURE IV.G



FIGURE IV.H

## V. Environmental and Urban Issues

### *Stress One: Water*

There are two main stresses that Rio de Janeiro faces that I would like to emphasize in this paper. The first being the issue of water, and the second of that of security. The issue concerning water has been an ongoing issue in Rio throughout its history. When they first got their independence from Portugal in 1822, it was one of the first things they tried working on- sanitation, a sewage line, and clean water sources. In Passos's urban reconstruction plan, he also thought of bettering the sewage system, and building aqueducts for fresh water. Sadly, the sewage or drainage systems have not been improved much since Passos's plan, yet the city became more and more populated and industrialized, causing changes in the climate and sea levels.

### *Climate, Flash Floods, and Homelessness*

The climate of Rio offers intense tropical rainfalls throughout the year, mostly during the months of February and March. The rainstorms can go up to 78 inches high. As climate change affects Rio, the sea level has been rising to 5 feet. Between the rainfalls, sea level rising, and mountain runoffs, the 1900's drainage system is not equipped to deal with this much excess of water. The drainage system takes the excess water and dumps it back into the lagoon or Guanabara Bay. (Figure V.B) But when these waters are already flooding, there is no other location for the water to go except into the streets. (Figure V.A) This is the reason for Rio's long history of reoccurring severe flash floods. These flash flood occur frequently creating severe situations. In 1966, 400 people found dead from the flood, and over 50,000 people needed to evacuate their homes for safety. The recent years show that the flooding situation is still very severe. In 2011, 903 people died in the flood, and 2960 homes were destroyed completely. Many of these homes belong to the poor and vulnerable, and they are often left homeless. "Many times, you see families in the street, homeless. It's not like New York that you see one or two people alone. You see the whole family sleeping on the side of the street," Michelle Katz, a Rio de Janeiro resident, told me a few weeks ago.



FIGURE V.A

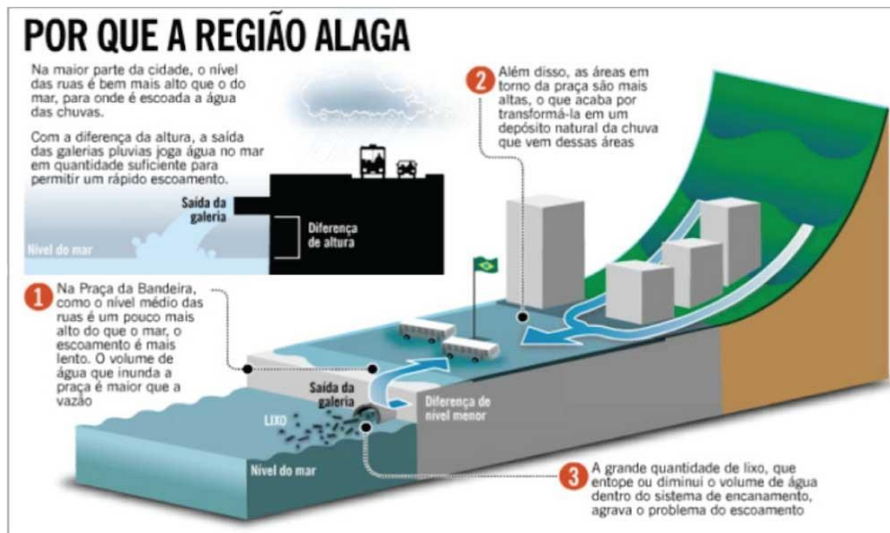


FIGURE V.B

### Water Pollution

The poor drainage system not only causes issues with flooding, but also with water pollution. The system now has different piping than that of the sewage system to preserve the grey water. Although the idea of the water being piped back into fresh water sources might be a good idea, it is not what we are seeing in Rio. (Figure V.B) Over the years, Rio has developed poor sanitation habits, destroying its fresh water sources. Guanabara Bay is entirely covered in household and industrial waste. Fish float on the top layer of the Bay, dead, unable to survive the toxins. (Figure V.C) This issue occurs in the central lagoon in Rio, as well. People are afraid of getting terribly sick by touching or going near the water and avoid water activities altogether. They would prefer to go travel a bit further out, and swim safely in the Atlantic Ocean.



**FIGURE V.C**

### *Industrial Waste and the Sewage System*

Industrial waste and the ineffective sewage system both increase the water pollution by the day. Industrial waste has been dumped into the bay and lagoon since the early 70's. Even though it was illegal by the early 90's, it was not controlled, and toxins are still damaging the safety of the water quality. (Figure V.D) Additionally, the sewage system has been having some issues being updated. When Passos made his urban reconstruction plan, one of the requirements was for the future mayors. He ordered that each mayor needs to build one new line to update the sewage system. This did not become a trend. Passos' successor achieved the task of adding a new sewage line, but no other mayor after him worked on the sewage issues. There was talk about doing something about it before the games. The solution they came up with involves new private business owners to pay for their own new sewage system to attach to old system. The idea is that soon all the private businesses will end up paying for the new sewage system without the government's involvement.



**FIGURE V.D**



## ***Stress Two: Security***

Surprisingly, the issue of flooding only hits 1% in the Greatest Fears in Rio pie chart. (Figure V.E) When you ask any person from Rio what the biggest issue is in the city, they will tell you, “lack of security”. Yes, they might have an unsustainable pattern of urbanization, a failing infrastructure, urban inequality, lack of fresh water sources, high pollution rates, segregation, and so on. But they will still tell you that the main issue stems from security problems.

### ***History of Favelas***

In order to understand the issue Rio faces with security, we must first comprehend the concept of favelas- how they were formed, the stresses they face, and the problems they cause. The history of favelas dates to 1888, when Brazil abolished slavery. The government had no interest in supporting former slaves, who once made Brazil’s economy so strong. Over two million Afro-Brazilians were left to fend for themselves, to find work and a place to live. The War of Canudos from 1895 to 1898 offered land in exchange of military service, which former slaves grabbed at this opportunity. They were told to go to Rio de Janeiro to receive their land, but when they arrived, there was no such land reserved for them. After some protest, they were then demoted to a nearby hillside, which they later called “Morro de Favela” or Favela Hill after a bush native to Canudos. Afro-Brazilians in rural areas were having difficulties with the unequal land distribution and segregation, so they came to Rio in search for a better life. They soon joined the residents on Favela Hill or started new favelas nearby vacant land. After the Passos intervention of wide avenues, many of Rio’s residents were left homeless, and building in a favela became the only affordable option, housing over 1.4 million people as of today. (Figure V.F)

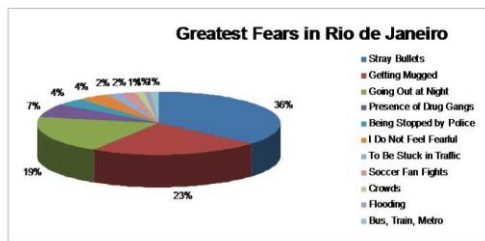


FIGURE V.E

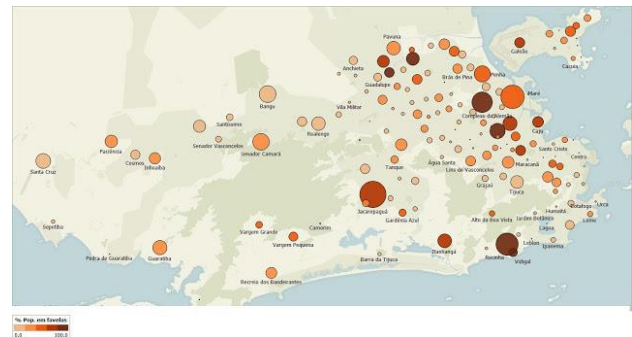


FIGURE V.F

### *Feeling Unsafe Inside a Favela*

Living inside a favela sparks two opposing feelings of safety. We will first discuss how its residents do not feel safe inside the favelas. The ongoing issue of government neglect within the favelas is the cause of no public infrastructure in the neighborhood. This includes running water, electricity, roads, public housing or parks. The government neglect affects the lack of education, insecure housing, and promotes police brutality and gang violence. There is a poor education system in place, but it is not reliable. There are sixty students for one teacher, who often goes on strike for six months, waiting for government payment. Being that they have limited teachers and space per class, they often pass students to the next grade without testing. The housing in favelas are not secure for a series of reasons. Firstly, they are self-made, using recyclable material and are unequipped to deal with strong floods or other natural disasters. The land these houses are built on are not reliable either, being that it was originally vacant land and the residents do not really “own” the property. The government has the right to come at any time to evacuate the favelas residents from their homes. This creates a general feeling of insecurity inside the favela, as they are afraid of being homeless once again. “In her thirty-year study of Rio de Janeiro, Janice Perlman observed: ‘In 1969, People were afraid of their homes and communities being removed by government. Today, they are afraid of dying in the crossfire between drug dealers and the police or between rival gangs...’” The police are often brutal with the favela residents and this promotes more violence within the favela. (Figure V.G) There are many gangs who originate in Rio’s favelas, as a way of survival or peer pressure. These gangs are drug, gun and violence-based. (Figure V.H) Favela residents often have the danger of getting killed in a crossfire between gangs, or police brutality. (Figure V.I) These favelas are high crime areas, lacking safety for its residents.



**FIGURE V.G**



**FIGURE V.H**



**FIGURE V.I**

### *Feeling Safe Inside a Favela*

Not all favelas are high crime areas, but whether the favela is safe or not, all favela residents share a strong sense of community. Although the government may not be looking out for them, they look out for each other. Favela members help their community build their own public infrastructure and housing units. The favela community groups together to “steal” WiFi, phone, and electricity lines by a rewiring method called “Gato Net”. As a need of survival and sanitation, favela members created their own drainage and sewage systems. (Figure V.J) Additionally, they built their own housing, collecting materials from the cities’ trash. (Figure V.J) Robert Neuwirth, a journalist,

wrote about the favelas in Rio, “...people simply need to know they won’t be evicted. When they know they are secure, they build. They establish a market. They buy and sell. They create. They develop... Give squatters security, and they will develop the cities of tomorrow.” Their housing units stun city planners world-wide as they are arranged in organic growth, using recyclable materials, and have walkable neighborhoods. Theresa Williamson, founder of the Catalytic Communities Organization, mentioned how shocked she was when she first learned how progressive, volunteering, and community-oriented favelas really were. (Figure V.K) Robert Neuwirth writes about his experience about living in favelas for a few months. “In each seemingly scary shantytown, Neuwirth found could just walk in, ask around, find a place to rent, and start making friends. In Kibera, he was the only white person for miles, and no one cared. He was frightened just once, when the city police in Rio threatened him, apparently because he had neglected to bribe them.” Although favelas do act as a magnet for crime, in the end of the day, “banks in favelas were not being robbed”, and the residents of favelas had each other’s backs. While if they left the favela, they were likely to be stereotyped against, and be targeted by the police.



**FIGURE V.J**



**FIGURE V.K**

## *Feeling Unsafe in Rio*

The residents who live outside the favela, however, are afraid of the favelas and the crime they believe stems from there and into their city. In Figure V.E, the pie chart that shows the greatest fears in Rio de Janeiro. “Stray bullets”, “getting mugged” and “going out at night” range as the top three fears. “Presence of drug gangs” follows right after. There is a famous story about a woman who was driving her car and stopped at a stop sign. In that moment, she was shot dead. This terrified Rio’s residents, as they doubt the safety of the street. When I once mentioned that I walked home in Barcelona, the girls from Rio were shocked that I felt safe enough to walk home alone at night and as a woman. They stressed that this feeling of safety was intangible for them to even fathom. “Everyone has a story about being mugged,” Michelle Katz told me, “and if it wasn’t them, it was their mother, or sister, or friend. Everyone knew someone.” The overall fear of being in the public spaces in Rio is unthinkable and unmeasurable.

## **VI. Urban Resilience Plans**

### *Community Plans: Pollution, Favelas, Security, Violence*

The people of Rio expect better from their city, and with their positive way of thinking, they have been making changes on a small scale. This concept is known as “mutirao”, which translates as mutual collaboration. Brazilian residents of Rio focus on the two main stresses, water and security, and form a group or organization to better the situation. In terms of the water pollution, groups of friends gather weekly for a run around the lagoon or Guanabara Bay. In this run, they collect the trash polluting the area and dispose of it correctly.

The rest of the organizations or groups target the issue of security, which the people of Brazil believe is their biggest issue in Rio. Theresa Williamson started an organization called Catalytic Communities (CatComm), which concentrates on favelas. Catcomm funds projects to help favelas buy better housing materials, integrate a working sewage system, and access fresh water. Organization members meet favela residents in community centers, which Catcomm funds, and discuss better solutions for that specific favela. Casa Brota, also known as “Sprout House” provides a “space for entrepreneurs to work in the heart of one of Rio’s largest favela complexes”. Casa Brota hosts activities such as workshops, poetry slam, and talks about nutrition and self-care. There was also a Favela Painting Project, which promotes a social change within favelas by encouraging art and creativity.



There are also organizations to aid Brazilians with little income. PreparaNem is an organization that provides education with meals. The teachers are volunteers, the lectures are free, and transportation is provided for these classes. Bolsa Familia is a government organization which provides monthly food to families of no income, and each child is calculated.

The last program emphasizes safety from violence. Fogo Cruzado, a police commander in Rio, created a collaborative data map that shows the locations of gunfire incidents. This program is called “Staying Safe” and its goal is to help people avoid getting caught in a crossfire.

#### *Government-Partnered Resilient Plan*

Rio de Janeiro joined 100 Resilient Cities in 2016 after the Olympics games and have been working on their resilient strategic plans from 2017 and will be working on refining this plan until 2020. Their three main focuses are “Embrace Our Water”, “Build for Our Future”, and “Empower Our People”. The resilient strategic plan is split into six goals. The first two goals are to identify the severe weather and climate change issues and mobilizing Rio to be prepared for response to these issues. The steps include creating a discussion panel and integrating multi-hazard risk maps. Goal three includes safe and green urban spaces, with LED street lighting, rapid transit, and planting 50,000 trees. Providing high quality basic services to all citizens through sustainable and resilient use of resources is the fourth goal. Goal four includes developing a water strategy by reusing grey water, and a universal access to sanitation and public housing. Goals five and six cover social issues by promoting a culture of entrepreneurship, educating the youth for resilience, and granting primary health care. This resilient plan foresees these six goals to be completed by 2065, as a celebration of the 500th anniversary of the city of Rio de Janeiro.

## **VII. Conclusion/ Personal Input**

After doing excessive research of the issues Rio is dealing with and how they were dealt with throughout history, I am critical of their Resilience Plan. Historical references have proved that they have been inconsistent and unreliable when it came to following-through with a progressive plan. Issues concerning water, sanitation and favelas have been amplifying over the years, and the government shows little interest in bettering these situations in the current resilient plan. Historically, every time they began a process, they did not complete it, often leaving people worst off than they started. Additionally, being that these issues are webbed inside the fabric of Rio’s

character, they are harder to solve and are easier to shove under the rug. This may be the reason why the Resilient Plan rather focus on the bigger “issues” and bigger dreams, showing a better front to the world. Firstly, I am doubtful that this Resilient Plan will even be implemented, and secondly, I do not think the Resilient Plan is solving the main issues in Rio de Janeiro.

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