Pacification & Mega-events in Rio de Janeiro: Urbanization, Public Security & Accumulation by Dispossession
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Abstract: This paper outlines how Brazil's latest public security initiative—its highly controversial Police Pacification Campaign (UPP)—is an integral component of a neoliberal political framework that is enacting rapid urbanization projects in and around strategically located favelas (informal settlements or slums) of Rio de Janeiro. Specifically, it evaluates what kinds of economic development initiatives are moving forward, how they are facilitated by the UPP, how they connect to the city's mega-events, and who is profiting from them. The article also examines how the pacification has affected residents in three favelas over a seven-year period from the inauguration of the UPP in 2008 through to mid-2015.

1. Introduction

Public insecurity has long impeded the effective governance of Rio de Janeiro. Historical State [10] abandonment of Rio's favelas (informal settlements), coupled with these territories being dominated by criminal gangs over the past several decades, has gradually come to almost completely disenfranchise people living in favelas. In addition, state military incursions and inter-gang warfare have created a scenario whereby many favelas resemble full-blown internal armed conflict zones.

With Rio's successful bid to host the 2014 World Cup and 2016 Olympics it became a political priority for the city to overcome its hyper-violent reputation and rebrand itself as a desirable, international tourist destination. A new public security campaign—the *Unidade de Polícia Pacificadora* (UPP or police pacification campaign)—was crafted and launched as a result [1]. Established in 2008, the UPP

has, to date, deployed more than 9,500 police officers to 'pacify' 38 favelas located close to affluent neighborhoods, hotels, tourist spots, and mega-event venues (Figure 1) [2]. The remaining 700+ favelas of Rio have not been affected by pacification. Many continue to be governed by armed criminal gangs.

Under a sparse legal framework [3] Rio's UPP program has two main objectives:

i) To install Police Pacifying Units and Special Ops military forces in favelas in order to take control of areas dominated by drug trafficking gangs, militias or other criminal organizations, and;

ii) To permanently ensure the safety and respect for the rights of the local human population, and to allow the social occupation of these spaces to be made. Specifically, it is legally decreed that within 120 days of UPP occupation, state government agencies, public utilities, public/private partnerships partnerships and local gov-

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ernment will aim to provide full public services to favela residents [4].

How this framework advances on the ground, how it relates to crafting Rio as a mega-events city, and how this results in a culture of accumulation by dispossession is what this paper explores below.

Figure 1. Map of pacified favelas in relation to Olympic venues and tourist areas.

2. Objective

The goal of this paper is to describe how the UPP facilitates Rio's economic growth agenda in relation to developing the city as an international mega-events venue. It contends that many of the ways in which this plays out is explicative of what David Harvey refers to as 'accumulation by dispossession' [5], and indicative of what James Freeman defines as a case of state engineering aimed at controlling territory through military occupation in order to capture assets by force and produce channels for the expansion of private capital [6].

The paper aims to illuminate on this position by presenting case reports on three of Rio de Janeiro's pacified favelas. The reports aim to describe the social infrastructure contributions the UPP has made to these communities, and moreover, how the UPP is a framework that uses military occupation to facilitate these and other urbanization projects; how these projects benefit private development interests that are tied to mega-events; and how people living in favelas are being affected in the process.

3. Structural Overview

As a precursor to the case studies, this paper describes the historical backdrop to, and theoretical underpinnings of pacification, and how this applies in the case of Rio de Janeiro. It goes on to examine how pacification is advancing in three favelas under UPP control, and describes how this relates to economic development, urbanization and regularization activities. It scrutinizes what impact these policies are having on the people living in favelas, and on the formal neighborhoods that surround them. In particular, the research aims to review social, economic, and security indicators in relation to the UPP in general, and more

specifically, in the three pacified communities discussed.

This paper is structured to:
a) Present an overview of how Rio de Janeiro developed as, and continues to be, a socially fragmented city.
b) Provide an overview of the pacification landscape in Rio de Janeiro, and its theoretical underpinnings.
c) Describe how the UPP, and military policing in general, operate in the favelas.
d) Define how crafting Rio as a mega-events city dispossesses those at the Base of the Pyramid for private gain, and outline the legal framework of 'exceptionality urbanism' that supports this.
e) Describe the role and function of the UPP social program.
f) Outline other scholarly assessments of pacification.
g) Explicate how pacification plays out on the ground in three case studies, and summarize the patterns of similarities and differences found in each.
h) Contextualize how this relates to David Harvey's concept of accumulation by dispossession.
i) Offer alternative perspectives on informality and present possibilities for implementing social protection measures for this sector.

The paper begins by providing some background to the historical legacy of social fragmentation in Brazil's favelas. It then delineates the theoretical foundations of pacification. It goes on to provide a general overview of how Rio's policing efforts connect to the international 'war on drugs', and of the struggles the UPP faces in relation to violence, corruption, and morale. The economic drivers of pacification are then explored—how police operate to support state-sponsored expansion of private development interests, and how these activities, and rapid urbanization in general, are supported through legislation. An assessment of the security landscape then provides a precursor to the three case reports. Each case report provides a different example of how favela residents are being confronted by pacification. A summary of the case reports then analyzes the UPP's impact in the favelas. In conclusion, the paper expands on how the UPP, under the guise of public security policy, is advancing processes of accumulation by dispossession, and outlines some alternative approaches to government intervention and informality.

4. A History of Social Fragmentation

Rio has always been a city characterized by social fragmentation. From the time it became a vast Portuguese colony in the 16th century until the abolition of slavery in 1888—Rio de Janeiro was the center of a great slave regime [7]. Today, it remains deeply marred by this heritage.

Approximately a quarter of the population—more than 1.5 million people [8]—live in the favelas and irregular housing settlements that started to spring up after the abolition of slavery, and that now define much of the dramatic look and feel of the city.

The people living in these favelas are extraordinarily re-

silient and highly adaptive. In a climate of poverty and state neglect, they have independently built, administered and created governing structures for hundreds of communities—some of which are occupied by tens of thousands of people and considered cities in themselves. These communities have complex infrastructures, including their own systems for land title exchanges, roads, churches, schools, residential neighborhoods, commercial areas, charities, mail delivery systems, businesses, transportation services, and utilities networks.

The people of the favelas have been historically active in forming pro-democracy networks, residential associations, and labor unions [9], and for shaping much of the rich culture for which Brazil is internationally renowned. They also provide much of the cheap informal labor needed to keep the formal city functioning—the doormen, garbage collectors, construction workers, nannies, cooks, and cleaners.

The metaphor of segregation is often used to describe the social and economic divide seen across the city, one of Latin America's most unequal. Residents either live in the ordered and often luxurious and tranquil comfort of the *asfalto* (formal neighborhoods), or in the chaotic and frenetic disquiet of the favelas. The contrast between the two is stark. Thus, Rio remains a city largely characterized by a great disparity in wealth and privilege.

Even though an image of racial democracy is often promoted, it is Brazil's ruling elite who remain in control of its narrative, and who continue to ignore those excluded from the bourgeoisie. Social scientist, Dr. Jorge da Silva (Rio's former State Military Police Chief of Staff), stresses that this ought to be taken into consideration when attempting to understand Rio society, and by extension when discussing public security policy and the insolvent relationship between the State and favela residents [11].

5. The Theoretical Underpinnings of Pacification

The term pacification is historically associated with the activities of colonization—activities that are intricately woven into the fabric of Brazilian history [12] and, in Rio de Janeiro, are linked to counterinsurgency campaigns [13].

Pacification theoretically connects to an industrious component that aims to build social order along with law and order. According to the official narrative, pacification in Rio de Janeiro is based on a military campaign that aims at constructing the social through urbanization projects connected to mega-events [14]. This rhetoric is socially engineered [15]—wrapped up in the language of the 'war on drugs', 'public security', 'integration', and 'economic development'—and delivered through a convincing media campaign that, while presenting itself as a strategy for improving favela communities, in reality focuses on securing public support for military actions that strengthen economic expansion [16]. The manufacture of order through military suppression—or what critical theorist Mark Neocleous calls "war as peace [and] peace as pacification" [17]—is attached to an end goal of providing security for the bourgeois social order for

the purposes of capital accumulation [15].

Pacification in Rio, therefore, can be seen as a politically crafted, military response to the social insecurity felt by Rio's upper middle- and elite classes, not to rising criminal insecurity. The author argues that while pacification does provide some small social benefits to Rio's favela constituencies, moreover, it is a core political approach of a neoliberal government that selectively and aggressively uses military occupation and takeover to secure vulnerable regions of social space for the primary reason of increasing capital accumulation [18].

6. The Policing Landscape: Drugs, Gangs, Corruption & Violence

The military procedure of pacification follows basic steps. First, Special Forces invade a targeted favela en masse. Police Pacifying Units (UPPs), then set up military posts inside the favela to control the newly secured territory. It is a difficult task. They have to hold territory where drug culture is not eradicated but merely concealed, and where traffickers shift their ground rather than lose it. They may drive visibly armed criminals out of pacified areas, but in doing so displace them to areas that are not pacified. After a time, trafficking also tends to reestablish itself as it adapts to operating inside pacified territory, a situation that often relies on police collusion.

The police are an easy target for corruption. The complex system in which drug-related and other criminal activities feed on police corruption and criminal complicity now permeates Brazil's political arena—with drug money used to finance politicians and subvert the criminal justice system in the municipal and state legislatures at the highest levels [19].

The way in which the drug trade is structured, and responded to as part of the international 'war on drugs', has exacerbated urban violence. Dr. da Silva points out that while the Global North fights drug consumption through legislation in its own nations, countries such as Brazil are tasked with the real war of militarized combat aimed at eradicating drug culture (production, distribution channels and local cartels) [11]. This is indeed the case in Rio de Janeiro. Clashes between security forces and drug traffickers in the favelas have been likened to the military operations being carried out in places like Afghanistan [13]. As Marcelo Burgos points out, Rio continues to tackle the problem of drug trafficking in favelas using the war metaphor, through aggressive military confrontation that results in civilian casualties and mistrust of the government, and their ability to manage or reduce violent crime [20]. These operations signal a legitimization of the forceful containment of violence, potentially impede democracy [21], and tends to resign residents to the inevitability of being governed by drug traffickers.

Not only are police engaged in combat with gangs, but in some instances have replaced them. Since pacification, Rio has seen an explosion of militias (security and ex-security forces who control favela territory in a way sim-

ilar to gangs). In 2004 there were six militias operating throughout the metropolitan area. In 2014, there were 148 [22]. Police have also been heavily criticized for violence, torture, unlawful killings and cover-ups [23], and several UPP commanders have been removed due to their involvement in corruption scandals [24].

Many current and former police officers, especially those in militias, have been linked not only to extortion, but to extra-judicial killings. 16% of homicides registered since pacification began took place at the hands of on-duty police officers. Of the 1,275 reported killings by these officers between 2010 and 2013, 99.5% victims were men, 79% were black, and 75% were between the ages of 15 and 29 [25]. These killings are rarely investigated.

Police in Rio are the most mistrusted and corrupt in the country. 7.2% of the 8,500+ people surveyed throughout the metropolitan area claim they have been extorted by police officials. This figure constitutes 30% of all extortion victims nationally [26]. Dismally low police wages also makes drug trafficking an attractive prospect. In December 2012 alone, some 59 Rio military police were arrested for running an alleged drug ring [27].

Police morale is generally low. The UPP program, in particular, suffers from a varying quality of officers, many of who are being deployed to UPPs without wanting to go. Of 359 police officers interviewed from the first nine UPPs deployed in Rio, 70% said they would prefer placements in other policing units, and 63% considered their training inadequate, especially in regards to using non-lethal arms and concerning the reduction of domestic violence (one of their key mediation duties). In addition, high proportions of officers believed the UPPs' principal objectives were ensuring public safety for the World Cup and Olympic Games and reassuring the middle class. Further, 65% saw it as a way of guaranteeing support during electoral campaigning. More than half of the police interviewed noted negative public perceptions, and only a handful regularly participated in community meetings [28].

From the onset, the UPP campaign has been rapidly implemented. Now with almost 10,000 officers, some police claim it has grown too quickly. Yet, the overall numbers of Rio's security forces are set to expand again, with the expectation that at least 60,000 personnel will be employed to ensure security during the Olympic Games [29].

R$ 2.5 (US$ 0.6) billion has been dedicated to providing security for the three weeks of the Olympics—half of the state's total annual security budget. This excludes the cost of the UPP—which runs at more than a half billion reals annually (US$ 130 million), as it currently functions [6]. Even if the UPP was able to expand dramatically (an unrealistic scenario given the current economic downturn), the program will only ever be able to provide security for a fraction of Metropolitan Rio's 750+ favelas, suggesting—as is characteristic of neoliberal governance—that Rio's public security policy has been produced by and for specific private interests.

7. Mega-events—A Case of Accumulation by Dispossession

David Harvey hypothesizes that capital(ism) is constantly reconfiguring its routes of circulation and accumulation in order to expand power through ways that are historically and geographically contingent on an amalgamation of i) the devaluation of existing assets (through disinvestment, abandonment, annihilation, etcetera); ii) the reinvestment of surplus capital in promoting economic growth (expanded reproduction); and iii) rent extraction (leveraging of commodified assets such as labor, land, public utilities, pension funds, et cetera) [30].

The releasing, seizing, appropriation, and leveraging of sets of assets at very little to no cost, at the expense of democratic rights, is basically what Harvey refers to as accumulation by dispossession [31]. These processes tend to happen in areas of uneven geographical development and lived space, and are dependent on a union between the State and the predatory facets of finance capital—what Harvey refers to as 'vulture capitalism' [5]. In Rio, they look very much like Naomi Klein's idea of 'disaster capitalism' [32].

Mega-events have been thoroughly critiqued for profiting from this form of exploitation. The forced implementation of neoliberalism [33], gentrification through large-scale redevelopment projects [34], the proliferation of growth machine politics [35], the acquisition of symbolic capital through city branding politics [36], and the sidestepping of existing planning regulations—known as 'exceptionality urbanism'—are all aspects of accumulation by dispossession, and all major legacies of mega-events [30].

Designed to redefine the city through branding, with a view to attracting future capital, Rio's mega-events provide massive opportunity for infrastructure investment and real estate speculation by circumnavigating normal political processes to manufacture a 'city of exception' [37] for powerful amalgamations of public/private interest groups. These coalitions of corporations and politicians, along with representatives of international capital, drive public policy decisions without public accountability [38].

8. Exceptionality Urbanism: Consolidating Power & Reconfiguring Routes of Capital

Mega-events intensify Rio's already pointed neoliberal economic policies. These policies use 'exceptionality urbanism' to justify land grabs and militarize public space. In order to comprehend how rapid urbanization is enabled, it is necessary to understand how the government legislates to guarantee the delivery of territory into the hands of property developers, in the name of mega-event viability, at little private risk.

One of the first and most important events in this multi-tiered legislative process came about in 2007 with the signing into law of the Document of Governmental Guarantees [39]—a private adhesion contract with the Fédération Internationale de Football Association (FIFA), which committed

Brazil to unconditionally accept all of the organization's demands without any allowance for negotiation of specific terms. In other words, the federal government agreed to enter into legal and financial servitude of FIFA, their corporate alliances, investors, transactions and investments, in blatant non-compliance with Brazil's Federal Constitution [40]. This law paved the way for the 2009 adoption of the Olympic Act and the 2012 General Law of the World Cup.

The Olympic Act [41] established the underpinnings of an institutional system that enables the breaching of existing law to bestow privileges such as tax exemptions, freedom from compliance to regulations such as building codes, or adherence to the legal principle of the "social use value" of property [42] in order to satisfy construction companies, real estate speculators, the tourism sector, the International Olympic Committee (IOC), and their sponsors. Legislation also authorizes the "use of [public] resources to cover the eventual operational deficits of the Organizing Committee of the 2016 Rio Games".

Equally critical to the judicial engineering of mega-events is Law 12.462/2011, which attacks the existing Law for Public Tenders and allows large sums of public funds to be transferred to private enterprise. The General Law of the World Cup is also based on commercial commitments and fiscal exemptions that benefit very specific private interest groups while increasing the debt burden for municipalities around mega-event related activities [43]. Many of these laws approve operations that do not encompass public concerns or social priorities. Municipal Decree 30.379/2009 goes as far as to ensure that properties belonging to the municipal government are available for use if they are essential for the 2016 Rio Games, even if they are occupied by third parties.

A slew of other legal decrees have been introduced to round out this exceptionality landscape. Whole new forms of criminal activities aimed at quashing protestors have been detailed under a new legal framework. They include defining associating with three or more people as forming an 'armed criminal gang'; the criminalization of protesting in proximity to a cultural venue; and the criminalization of the possession of materials such as bleach, flags, and gas masks [44]. The legislation is supported through expanded civilian monitoring and surveillance laws aimed at locating and identifying protestors. They are all attached to hefty prison sentences. The convening of special tribunals prosecute those not only involved in protesting, but those *suspected of potentially* committing a crime because of previous involvement with protests [45].

The government has created and partnered with a range of special security sectors to safeguard mega-event interests. These not only include the UPP, Special Ops troops, and the Armed Forces, but the Special Secretary for Major Events Security [46], and the Business Forum of Defense and Security (FEDS), a sector of the Industry Federation of the State of Rio de Janeiro (FIRJAN)—essentially Rio's Chamber of Commerce. That FIRJAN even has a Business Defense and Security Forum that consults with Rio's Secretary for Public Security shows how deep the ties run between Rio's business sector and public sector interests. FEDS has close involvement with the Brazilian Association of Defense and Security Industries Materials, the National Union of Ordnance and Naval committees, and the Aerospace and Ground Force Forum. In 2015, FEDS called on the Secretary of Public Security to craft a coalition of private sector companies and government institutions (including the Court of Justice), to determine public security policy. This demonstrates how oligopolistic conglomerates in the defense and security sectors extend their influence in issues relating to these matters [47]. In 2011, this handful of private companies dominating Brazil's defense sector generated revenues of US$2.7 billion [48].

These laws and affiliations between the private and public sector represent only a small rhizome of the complex array of local, state, and federal provisional measures, legal decrees, resolutions, ordinances, administrative acts and opaque business and political transactions that help craft Rio as a 'city of exception' at the expense of wider public interest.

The result is higher land values, rent increases and gentrification, the demolition of poor neighborhoods, forced evictions, and the displacement of residents [49]. These laws circumvent planning procedures and quash assembly and associational rights. They expend massive amounts of public funds on militarization; bankroll facilities of limited utility at enormous public cost; and orchestrate the sale or leasing of public services, utilities, and facilities to private interest groups. They consolidate a culture of accumulation by dispossession that is, in large part, facilitated by Rio's military police, and in particular, the UPP program [6].

9. Crafting Mega-Events: Legacy Projects and the Business Management of the City

Rio's various military police divisions, including the UPP, are connected to a broad set of economic goals laid out by the city as a set of urbanization strategies [50] that James Freeman defines as the business of building, preparing and marketing Rio as a mega-event city: the valorization of real estate, and securing the favelas as commodities and markets for commodities [6]. In other words, pacification is a structure through which public security policy paves the way for economic expansion through rapid urbanization.

The marketing of mega-events is about selling spectacle and image [36] in order to build a picture of Rio that will supposedly lead to years of return on the investment. It is big business, particularly for organizing bodies such as FIFA and the IOC, which profit from broadcasting rights, corporate sponsorship, product licensing, and ticket sales.

FIFA and the IOC, along with their corporate partnerships (Dow, Coca Cola, Visa, McDonalds, General Electric, Cisco, Embratel, et cetera [51]) co-brand with the mega-events to sell a very specific, packaged impression of Rio. This image is promoted as the exotic backdrop to the sports drama that unfolds on screen to billions of viewers to gener-

ate tremendous profit. FIFA received approximately US$ 4 billion in broadcasting fees for the World Cup, the Olympics is expected to yield about the same [45]. In addition, Rio's local 2016 Olympic Organizing Committee predicts to receive around US$ 0.5 billion in revenue from its sales of 'official merchandise' [52].

Protecting this painstakingly constructed illusion of the city—as advertised—is of critical importance. Disruption, and potential disruption of this image (violence, poverty, protests, et cetera) must be suppressed at all costs. Even the landscape surrounding the stadiums is of great significance. Olympic promotional material, for example, never portrays Rio's Maracanã stadium with the (pacified) Mangueira favela in the background; and residents of its neighbor—Favela do Metrô—have suffered under a slew of illegal housing demolitions[53] and forced relocations in order to produce a more desirable view [6]. Security perimeters are also established to lock down areas surrounding mega-event venues.

Several multinational giants of the surveillance and telecommunications sectors have profited from lucrative contracts to provide security equipment and technology to law enforcement divisions for mega-events. During the World Cup, teams of Armed Forces and Special Ops troops took control of the neighborhood surrounding Maracanã stadium. Missiles were placed on the roofs of condominium buildings and the terraces of private residences. Rio's new Command and Control Operations Center—in partnership with IBM—coordinated over 30 agencies in these operations, including the deployment of security forces. 157,000 troops were deployed throughout the country during the event to deter protestors at a cost of almost US$ 1 billion. Though it is difficult to make an absolute determination, Brazil's total Public Works spending surrounding the World Cup and Olympics may cost as much as US$ 1 trillion [45].

An array of money-spinning investment opportunities comes with preparing for mega-events. Rio's Olympic bid budgeted R$ 29 billion (US$ 7.25 billion) for revitalization of the city [6], though the figure could easily reach three times that amount [54]. The extent of redevelopment and the profits it generates for a handful of private interest groups is enormous. Leading up to the Cup, the rights to run and profit from five of the country's airports—including Rio's Galeão International Airport—were handed over to four private consortia for a period of 20–25 years [55]. The group that secured the rights to run Galeão is led by Odebrecht— Brazil's (and Latin America's) largest closely held construction and engineering firm.

Odebrecht also won four World Cup stadium contracts, including the R$ 1 billion renovation of Rio's Maracanã stadium, financed with R$ 1.5 billion (US$ 447 million) of taxpayer money in the form of subsidized loans from Brazil's state development bank. Odebrecht is also part of the consortium that manages Maracanã; and one of its subsidiaries, Mectron, gained one of the hefty defense contracts to upgrade the military equipment used to secure its perimeter during events [45].

Though the company is currently under investigation for fraud in relation to overpricing its stadium work [56], Odebrecht continues to generate some of the largest profits from the orgy of mega-event construction currently taking place in Rio. It is part of a consortium that is profiting from the construction of the new R$5 billion Metro extension and the contentious Bus Rapid Transit lines (BRT)—currently running at 46% over budget [57]. Though the BRT has been described as an example of 'sustainable transport', professor of urbanism Chris Gaffney claims the transit lines are designed to boost real estate speculation around the Olympic transit route while further fragmenting and isolating the poor [57]. These Olympic Legacy projects have resulted in the forced displacement of thousands of low-income residents, and driven profits through the roof for some of the city's largest developers.

The BRT goes right to the door of real estate development giant, Carvalho Hosken. The company has seen a "billion dollar jump" in the value of its real estate holdings in and around the Olympic site at Barra da Tijuca, thanks to Mayor Eduardo Paes, who has invested billions in public funds to build the infrastructure to enable the US$ 1 billion Ilha Pura (Pure Island) Olympic luxury condo development, in which Carvalho and Odebrecht share equal partnership [58]. The social cost has been tremendous and includes violent removal of almost the entire Vila Autodromo favela [59]. Both Odebrect and Carvalho Hosken were major political donors to the Mayor's reelection campaign [60].

Another project that very clearly depicts the connections between neoliberal construction schemes and accumulation by dispossession is the Porto Maravilha project—Rio's massive PPP (public private partnership) port revitalization venture. The plan has razed five million square meters of devalued housing and industrial facilities to build ten new 50-storey office buildings, residential towers, hotels, an art museum, the Olympic media facilities, a bus terminal, and a new dock for cruise ships, all serviced by a light rail system which will run exclusively around a small, internal circuit.

The area, most of which was public land, has been leased to the Porto Novo consortium for a fifteen-year term. Porto Novo is made up of three of Brazil's largest construction/engineering firms—Odebrecht, Carioca Engenharia and OAS—which will do the demolition, build the new infrastructure, and manage Porto Maravilha once it is completed. Federal FGTS pension funds, controlled by Brazil's federal public bank, are providing the R$ 8 billion of infrastructure funding for the PPP, even though the pension funds are supposed to be used to develop social housing [61]. The city has evicted most of the 30,000 poorer residents from the port area and the Providência favela located in the hills directly above it to accommodate the project. Authorization for Porto Maravilha passed without public approval within weeks of Rio winning the Olympic bid.

These projects are all examples of how rapid urbanization, in service of mega-events and their 'legacy' projects, remove and control populations under what can be only considered a 'state of exception' [62].' In contrast to the

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city's claim that the "Legacy Games" will "transform old problems into opportunities" [63], it seems the main legacy of the Olympics may be displacement.

Legacy projects comprise the largest share of the city's Olympic budget, and are foundational to the city's economic redevelopment objective of urban revitalization through sustainable development. This objective, according to the municipality, can be effectively met through good governance and PPPs that harness citizen participation [64]. Yet Rio's stated goal of becoming a sustainable city through community policing, financing urban revitalization, and economic growth [50] faces grave challenges.

It is estimated that up to 110,000 removals will have occurred throughout the city by the time the Olympics begin. In addition to the removals, the city has a low-income housing deficit of 300,000 homes [65]. Housing relocation and compensation is inadequate at best. Guilherme Simões, national coordinator for the Homeless Workers' Movement, claims if gentrification is taken into account, there are 800,000 families now without a home within Rio's metropolitan area thanks to the legacy of mega-events [66]. Those that remain in favelas still live with no access to sewage—resulting in waste from more than 50 rivers and streams of raw sewerage, along with tons of garbage, being emptied directly into an already chronically polluted Guanabarra Bay every day [67]. Public security also presents an escalating problem, with both violent and non-violent crime on the rise [68].

With the country heading into negative economic growth—meaning more unemployment, higher utilities, services and transportation costs, increased taxes, and rising inflation [69]—this situation is set to worsen. Furthermore, though political rhetoric touts Rio as an inclusive city [70], there are no participatory mechanisms built into the framework of public policy decision-making. This means there are few alternatives to the myriad of 'segregation' policies being put in place around the Olympics [71]: housing evictions and substandard relocations to the periphery, the severing of dozens of bus lines and police blitzes that deter people living in the poorer North Zone from traveling to the affluent South Zone on weekends; the walls being built around the favelas to contain them; the police violence and intimidation that accompanies illegal evictions, and so on.

Inclusivity of the favelas under the UPP is typically achieved through the issuing and military enforcement of State imposed choque de ordems (shock orders) that crack down on informality by evicting residents or forcing them to regularize (comply with official registration and licensing requirements) real estate holdings, businesses, utilities, and services [72]. In this way, the UPP, according to official literature, binds community policing to economic development [73].

Global justice researcher, Rafael Dias, asserts that these policies are part of a "business management" model of the city, "designed and executed by the government without any participation" to accommodate "specific interests, which cannot be confused with the interests of society as a whole or human rights in general" [74].

10. The Role & Function of the UPP Social Program

The Municipal Institute of Urbanism (Instituto Municipal de Urbanismo Pereira Passos or IPP) oversees the social administration of the UPP under a division known as the Rio+Social or UPP Social [75]. As described in Rio's municipal development plan, its function is to coordinate various municipal agencies to help achieve social and economic development goals [50]. Generally, this process occurs at the nexus of pacification, urbanization and mega-events.

The IPP maps municipal data, manages information, and advises on municipal public policy [76]. Specifically, it identifies municipal initiatives for economic investment and advises on the needs of, and where best to locate social assets. It also coordinates corporate-sponsored 'cultural' events (Figure 2).

Development specialist, Robert Muggah, has criticized the UPP Social program for not putting emphasis on service delivery, and for its lack of capacity to respond to local demands [78]. The program is far from ineffective, however. IPP Director, Eduarda La Rocque, admits that the UPP Social services "the priorities. . . of the city of Rio de Janeiro as a whole. . . [not] what the favela wants" [79].

The IPP is the department that provides the city with the information necessary to plan and carry out its regularization activities in the favelas. Regularization is accompanied with promises that registered entrepreneurs and vendors can access the formal market through being eligible to apply for microcredit and job training provided by PPPs. To date, however, out of the 1.5 million people the government claims to have benefited from pacification [2], only 2,027 micro-entrepreneurs have been formalized, and only 5,000 have received access to micro-credit [80].

Shock orders also require home and business owners to formally obtain land titles for their homes or businesses (a five-year heavily bureaucratized process), and/or licenses for commercial activities (a three day online approval process)—or face being shut down. Land regularization comes with the cost-of-living increase that property tax brings. In addition, landowners and tenants alike must manage sudden and sharp spikes in the cost of utilities and services that regularization brings. These are many times higher than what is affordable for most favela residents. Electricity prices alone have jumped 1400% in some favelas (from US$ 20 a month to US$ 299) [81]. In this economic climate, even if a favela resident is fortunate enough to have full-time employment (earning minimum wage of around US$ 225 per month), they will likely be priced out of their homes.

Though land regularization and urban upgrading are important first steps for integrating favelas into the formal city, it is important to critique if and how regularization functions to impact the informal sector. Regularization and slum upgrading are, in themselves, meager rights to strive for. As urban planner Mark Purcell puts it, "not just housing but decent and affordable housing, not just jobs but good jobs, not just transportation but efficient and convenient

transportation" [42] are necessary to ensure what Lefebvre conceived of as 'the right to the city' [82]. Regularization in Rio, rather than bringing stability, is bringing financial strain to an already fragile economic environment.

Another function of the IPP is to identify 'geo-risk' housing—those structures vulnerable to flood, landslide, or collapse. The Mayor's Morar Carioca slum upgrade program uses 'geo-risk' as a tactic to validate evictions through "the elimination of risk areas [and the] resettlement of residents". Even though the program charter guarantees the right of civil "participation. . . in all stages", residents are not consulted in this process [83].

Rio's evictions in relation to mega-events have directly affected almost 70,000 individuals [84] and put up to 40,000 more at risk [85]. The process is being accelerated through a policy of lightning evictions introduced in 2015 to secure favela property for economic development activities for the Olympics. The evictions are typically enforced by police who are deployed in legally dubious maneuvers with operational teams that cut electricity, remove residents, and bulldoze neighborhoods, sometimes with little to no warning [86]. Dispossessed residents and their neighbors are merely left with abandoned piles of rubble that exasperate threats to health and safety (Figure 3) [87]. Many are unable to resettle in the same neighborhood because of the increase in the cost of living brought about through pacification.
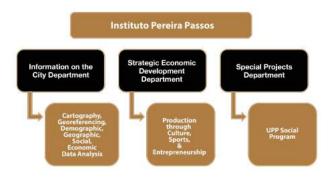

Figure 2. Functions of the Instituto Pereira Passos [77].

Figure 3. Partially demolished housing, Manguinhos favela, 2015.

Together, pacification and urbanization have led to a substantial rise in the real estate and rental markets in and around favelas. The perceived reduction in crime associated with the presence of the UPP also drives up the price of real estate both inside the favelas, and in the surrounding *asfalto* neighborhoods. This real estate spike has led to an overall increase of approximately 15% across the formal city as a whole between 2008–2011 [19]. In favelas, the jump has been as high as 300% [88].

Rafael Gonçalves claims the ultimate goal of the UPP, may above all, be to provide security for real estate speculation [89]. The rhetoric of pacification—of fighting crime, restoring peace, and bringing prosperity—socially engineered through mainstream media, Brazil's public institutions, and global organizations such as the World Bank [90], aims to create a perception of Rio as a safe and thriving city, attractive to both investors and tourists alike.

11. Assessments and Perceptions of Pacification

A broad body of various literature, studies, media, data, and information produced and disseminated through various means by scholars, mainstream and independent media, NGOs, government, and international organizations, reflects the overwhelming challenge of accurately evaluating the many facets of an ever-evolving pacification campaign and the urbanization activities related to it.

At first, the results of the UPP occupations seemed positive. Ignacio Cano's 2012 report, Os Donos do Morro, quantified the program's impressive impact on registered crime. Cano showed a dramatic drop in homicide rates inside the favelas, and pointed to this facet of the campaign as an unprecedented success [91]. This reduction in homicides bolstered the overwhelming support already bestowed on the program by the city's ruling elite, middle classes, and mainstream press.

Surveys conducted in select pacified favelas through 2012 also suggested that residents perceived a general improvement in security, but that they also feared the government would abandon the favelas after the Olympics and that traffickers would return. In addition, the surveys identified a lack of community facilities and services in the areas of health, education, and leisure, as well as problems associated with the relationship between community members and police, and in levels of crime other than homicide [28].

Gradually, the praise the UPP had received during its first few years began to wane. The mediascape started to expose cracks in the UPP as the 2014 World Cup drew close, and new assessments of data began pointing to rising crime (up by 116% in Niteroi in 2013) [92]; increases in conflict [93]; and a slew of human rights violations [94]. Scholars began cautioning against any euphoric adoration of the UPP policy [95]. Esther Werling's HASOW report [28] determined that the UPP did not represent a paradigm shift in public security policy at all, but was merely a continuation of vertically structured intervention and historical segregation. Robson Rodrigues concluded that the policy was

embedded with structural inequalities and instituted without dialogue or effective participation [96], and the citizen-led movement, Rio Com Vamos, declared a lack of institutional reform both in the police and the criminal justice system. This, Rio Com Vamos charges, contributes to a culture of violence and corruption that dominates Rio's political landscape and affects how it plays out in the favelas [97].

Marcelo Baumann Burgos' 2012 case report, O Efeito UPP na Percepção dos Moradores das Favelas, studied favelas in close proximity to those presented in this paper. His report concluded that if the State's perpetual culture of legitimized violence could be overcome and trust between police and residents restored, the UPP may open up a social space where the citizenship rights of the informal sector could be affirmed. He suggested that if this perception could be turned into organized opinion, a fracture may occur in the current institutional model (based on the violent social control of the urban poor), and transition to a model which operates under the language of rights [20].

However, with the UPP losing funding with the phasing out of Pronasci (the federal program which supplied its multi-year seed funds), and the collapse of the campaign's largest corporate contributor, the EBX Group in 2012 (now bankrupt and under federal investigation), it is doubtful the UPP can continue to occupy the favelas after the Olympics in the way as it does now (if at all). Though the city remains silent on the issue, it is evident that the UPP is already having trouble holding onto much of the ground it has gained.

12. Scope, Delineation & Methods: An Introduction to the Case Reports

Three case studies implemented in and bound by three different favelas were selected for this report. Each explores police occupation, social interventions, and economic development activities and their effects on favela residents and the territories in close proximity to them.

The case studies have been chosen because of the variance they offer: each has been pacified for a different length of time; each has a different socio-economic level; each is varied in population size; each deals with different levels of violence; and each is situated in a different geographical area. All were controlled by drug trafficking gangs prior to pacification.

i) Babilônia/Chapéu Mangueira, two small higher-income earning favelas located in the affluent South Zone neighborhood of Leme (pacified in 2008). Previously under control of the Terceiro Comando (TC) drug trafficking gang;

ii) Borel/Formiga, a middle-income North Zone cluster of favelas located in the middle-class neighborhood of Tijuca (pacified in in 2010). Previously under contested control at different times by both the Comando Vermelho (CV) and the Amigos dos Amigos (ADA) drug trafficking gangs;

iii) Manguinhos, a large, poor North Zone cluster of ten to fifteen favela neighborhoods (pacified in 2012). Previously under control of the Comando Vermelho (CV) drug trafficking gang.

Because this study focuses on only three of the 38 favela communities under UPP control, it is limited in its scope and ability to generalize. In addition, though it tries to take into account a large number of shifting dimensions, the conditions inside favelas are subject to an ever-evolving set of precarious and fragile social variables. This renders it impossible to measure the overall impact of pacification in definitive terms. Its aim is, therefore, to more intimately convey how the UPP operates, how it enables urbanization activities, and how residents are being affected within these three pacification scenarios.

Due to incongruities and unreliability of available data due to official underreporting, and the inability to acquire accurate quantitative information inside favelas, this case-study impact report used a mixed methodology approach based on multi-year qualitative field research that was cross-analyzed against a range of empirical data. The qualitative research was conducted while the author was working in land use restoration projects in favelas with favela residents from 2010 through 2015 [98]. The information is derived from direct observations, conversations with favela residents, meetings with citizens' committees and Residents' Associations, interactions with drug traffickers, UPP officers, PAC workers, and municipal stakeholders, including the Department for the Environment.

Empirical research, also conducted between 2010 and 2015, includes an examination of articles of law, statistical data [99], municipal and state development plans, architectural design documents, human rights reports, and mainstream and independent media reportage. Participation in conferences and reviews of literature produced by other researchers engaged in analyses of Rio's mega-events and urbanization activities also provide a foundation and counter-balance for the case reports.

13. Case Report: Babilônia/Chapéu Mangueira

The cluster of favelas that include Babilônia and Chapéu Mangueira are nestled into the mountainsides of the wealthy neighborhood of Leme, located at the end of Copacabana beach, the most popular tourist destination in Rio. This privileged location provides favela residents easy access to the largest service and construction industries' job market in the city. Many of the women from these favelas work as maids and nannies for the wealthy residents of Rio's affluent South Zone, while the men provide the labor as the construction workers and bricklayers who build the high-rises that dominate the dramatic beachfront skyline.

Over the decades, the residents of Babilônia and Chapéu have not established prominent labor or union associations. Instead, their political agency has tended to be rooted in the favelas themselves. These favelas have always been the proving grounds for State interventions, including the UPP, because of their small scale, their relatively low levels of conflict, and their spatial and social proximity to those who draft the public policies implemented in them.

Babilônia has the best socio-economic indicators among

the three case studies analyzed in this report, with a high Social Development Index [1] and well developed infrastructure when compared to other favelas in Rio. There is almost complete access to water, sewage and garbage collection in these two communities, and approximately 75% of residents are homeowners. Despite such high social development indicators, illiteracy remains a problem, particularly in Babilônia, where 15.9% of the population older than fifteen is illiterate [100].

This area has had one of the most harmonious relationships between a trafficking-dominated favela and its surrounding neighborhood. Up until the mid-2000s, drug-related conflicts were rare, *baile funks* (dance parties) were attended by middle class youth, and there had been little adverse effect on the formal real estate market in Leme. By 2005 however, the favelas had suffered a series of attempted takeovers by enemy drug factions, and relations between the formal and informal communities began to strain under the stress of frequent gunfire.

In May 2009, Special Ops Military Police moved in to occupy the two hills of Chapéu and Babilônia, making arrests and seizing drugs and arms. By June, the UPP had established their headquarters in the upper reaches of Babilônia, and 107 UPP officers were installed to oversee 3,740 residents [14]—a ratio of one police officer per 37 people. Though Rio's Mayor Eduardo Paes and State Governor Sérgio Cabral both came to Babilônia to formally inaugurate the historic event [101], residents were not informed of the community ceremony. This demonstrates, in a most basic way, how favela residents are left out of even the smallest of public gestures.

The relative success of Babilônia's pacification is often emphasized as part the sustainable legacy of the city's mega-events. Many sustainability initiatives were implemented in Babilônia in preparation for the United Nations Rio+20 Sustainable Development Summit. Under Rio's Morar Carioca Verde program, designs were drawn up for new housing, a commercial center, and a cultural center, along with weatherizing interventions in private homes, plans for household waste management and recycling systems, and water and energy efficiency improvements (LED lamps, solar water heaters, rainwater collection systems). Reforestation of the surrounding area was also planned so that tourists could access trails with locals serving as guides.

By the end of 2013, sixteen 'green' houses had been built, an LED pathway installed, and almost 200,000 seedlings planted [102]. 60 homes were also demolished [103]—without consulting residents. The cost of the project in total was R$ 43 million (US$ 23.5 million) [104].

Another initiative, the corporate-funded Sustainable City project, also launched around the same time to coincide with the UN Rio+20 mega-event. The project included a housing improvement program that trained 110 participants as masons, electricians, plumbers, and locksmiths; fifteen volunteers were given classes in domestic-scale agroecology; and residents were offered a community tourism program that resulted in dozens of tourism operators being

'regularized'—sanctioned by the government.

One of the great social promises of the UPP was that it would bring jobs opportunities for residents, however very limited forms of micro-tourism may be one of the only ways in which this promise has actually been delivered. There are a few local tourist guides in the more accessible South Zone favelas, and in Babilônia and Chapéu Mangueira, the community has a registered tour guide cooperative designed to take tourists on the nature trail up through the forested hillside. Some residents complain tourists do not bring much money into the community while others see it as a small opportunity. A few small-scale private initiatives also offer cheap accommodations to foreign backpackers wanting to stay in favelas, though most are run by foreigners, and only one by local residents. The favela is brazenly advertised in the UPP Social's promotional video, which depicts a group of gringo tourists happily being served by a local proprietor as the only patrons in the restaurant [105]. Babilônia may have become the UPP's poster child for local business success delivered through pacification, but residents and critics alike claim it is little more than urban propaganda [106].

Babilônia provides the city's most sanitized location for dignitaries to be taken to see a tranquil image of Rio's pacified favelas. Former New York City Mayor Michael Bloomberg was ushered through the favela during the UN Rio+20 Summit to see the success of pacification and of the Morar Carioca Verde program. In the forty minutes he was there, he did not interact with a single resident.

According to the IPP, about 4,000 residents overall have benefited from infrastructure and urbanization programs in the Babilônia and Chapéu under the UPP. However, many challenges still persist. Education remains a problem. Municipal school enrolment numbers decreased by 15.2% between 2007 and 2010 [107]. Housing also presents barriers to stability. Some residents have waited years for regularization approvals, while others have been forcibly evicted, received low financial compensation for relocation, or been forced to move to the periphery (a three hour commute back to the city) [108].

Next to the favelas, in the *asfalto* neighborhood of Leme, residents whose apartments faced Babilônia/Chapéu Mangueira suffered from the negative effect the communities had on their property values prior to the UPP occupation. Many also felt at risk of being injured or killed by stray bullets, with some apartment owners installing bullet-proof windows as a protection measure [109]. Following pacification, however, Leme saw a real estate boom with property increases of just under 35% in 2011 alone [110]. Inside the favela, Babilônia's real estate prices more than quadrupled by 2012 [111].

Despite the urban upgrades these favelas have received, residents in general remain conflicted about the pacification, not only because of gentrification, but because of the way in which citizen involvement in decision-making processes is neglected, and because the implementation of most social programs is isolated to coincide with major international events [79]. Other complaints charge that access to

community facilities, such as sports complexes (previously open for use 24/7) are now micro-managed by the UPP and require a lengthy bureaucratic approval process and advanced scheduling before entry to them can be gained. Community entertainment is either subject to restrictions such as curfew, or is banned altogether, as is the case with *baile funks*, which have been made illegal under UPP policy.

Public security remains somewhat volatile, however the level of conflict is low compared to the other case studies discussed in this paper. Though there has been a great investment in policing [112], exchanges of gunfire between rival gangs sparodically continue [113]. The UPP has been effective, however, in limiting the visible use of firearms by teenagers, and if it can be sustained, this change alone will have a significant social impact on the younger generation growing up in this environment [114].

Babilônia's residents are no strangers to public/private investment experiments with the State, and no doubt many have benefited by these programs. In many respects, because they are small favelas with relatively low levels of conflict, the UPP interventions in Babilônia and Chapéu have, to date, been more effective than in the other case studies discussed below.

14. Case Report: Borel/Formiga

The Tijuca favelas are a cluster of small favela communities located in the North Zone of Rio de Janeiro. They occupy the social middle ground somewhere between the economic privilege of Babilônia and the impoverishment of Manguinhos.

Complexo do Borel comprises of three communities— Borel and Casa Branca, situated on the hillside slopes, and Chácara do Céu, at the top of the hill. Formiga is another part of the favela cluster, located on a nearby hillside along a winding road. It is one of the oldest and steepest communities in the area, and has a high level of built density. Formiga originated as a formal subdivision that was later declared illegal. Borel also originated as a formal occupation, with residents being relocated to the hills from the city center in early favela removals. Other relocations followed in the 1950s.

Associational life developed historically in this area as part of the struggle against the city's removal policies. It later evolved to advocate for education, health and leisure facilities. The development and sense of political agency of these favelas has been deeply entwined with labor movements and unions. This was where the city's first community association, the Union of Favela Workers, was formed in 1954. It has since served as an important example for other neighborhood associations.

Over the years, adding to the conflict that has to do with forced removal and relocation, residents have had to contend with intense violence erupting between rival gangs for the control of favela territory. Over a period of twenty years, the predictability of the conflict between these favelas had become so commonplace that it developed certain regu-

larities, including the scheduling of armed engagements, which came to be known as "shootouts at an agreed upon time" [1].

The ongoing conflict translated into a series of limitations on residents' mobility across the city. Territorial disputes over the *bocas* (drug selling points) broke apart the communities that had once been perceived as extensions of one another. These favelas had shared a long history of unified political mobilization and social life spanning from family relations to religious ties, from participation in one of the oldest and most traditional samba schools in the region (Unidos da Tijuca), to the attendance of *baile funks*, the dance parties now banned under the UPP.

The banning of *baile funks* is complex issue. Funk Carioca (funk music from Rio de Janeiro) originated in the favelas in the 1980s, and by the 1990s *baile funks* had become popular community events. The UPP takes the position that *baile funks* promote drug culture and gang affiliation among youth. Because the *baile funks* are often hosted by the ruling gang, the use of drugs and the presence of traffickers have been prominent at such events. Social analysts claim, however, that banning the parties, which extends to the banning of funk music in general, shuts down an authentic cultural expression of favela youth [115]. Both sides of the argument can be legitimized.

In the case of the Tijuca favelas, the rift between rival *baile funk* scenes (associated with the rivalry between gangs), greatly altered the social panorama of the entire area. By the end of 2009, attending a Friday night *baile funk* came with the added risk of gun violence because both the ADA and the CV gangs were involved in an intense territorial war for control of the different hillsides [116].

Because of the gang wars, the close ties that had traditionally linked these favela communities were progressively cut off from one another. Factions marked favela residents with gang identities, and prohibited their mobility through rival territories. Residents were compelled to change their commuting routes in order to avoid entering 'enemy' territory. These turf disputes spilled over into the formal city to impact nearby public schools. By the mid-1990s, drug trafficking violence had led to a radical depreciation in property value for buildings that faced the favelas, with real estate prices plummeting to the point that they were virtually equal to that of the favelas [117].

By the time the UPP advanced in these neighborhoods, residents had already anticipated their pacification with high expectations. Borel's UPP occupation was the eighth established in the city, and the first in Rio's North Zone. In June 2010, the UPP entered Borel. By July, Formiga was also occupied. UPP units, with 500 military police officers in total, now occupy seven Tijuca favela communities, controlling an area that is home to approximately 60,000 inhabitants.

The UPP directly oversees about 12,815 residents from the favelas, with troops operating at a ratio of one officer to every 33 inhabitants [2]. Due to the built density of the area, the steep geography, and the social complexity of relations between residents, traffickers and police, the dif-

ficulties the UPP face to remain in control of territory are substantial. Moreover, the Social Development Index for this area remains disturbingly low (0.468) [118].

In 2012 (and again in 2014), the Governor of Rio announced the favelas of Borel, Formiga and Salgueiro would receive up to R$ 170 million (in excess of US$ 55.5 million) in infrastructure funding, allocated by Brazil's Growth Acceleration Program (PAC 2) [119]. The funding is to provide water supply, sewage treatment, drainage, and garbage collection to new housing units for 500 families. The plans also include the widening of streets, a inclined plane service, an art school, a sustainable architecture center, a culture and sports center, a daycare center, a technical school, plus a job training center [120].

The program was announced as part of US$3 billion in federal funding allocated to provide five municipal housing complexes. Rio's State Public Works Company (Emop), named as the project's contracting agency, says it will employ about fifteen thousand construction workers, most of them from favelas, for the projects. However, residents complain that there is no real government interest in creating employment and that workers must stand in line for hours in order to register for very low paying jobs [121]. Emop also claims that the planning process was participatory, though this semblance of involvement was, at best, ostensibly superficial (for example, children were invited to draw pictures of what they would like to see in the neighborhood) [120]. Groundbreaking on the projects was to start by December 2014, yet by November 2015 no contracts had been tendered.

Emop and PAC have both been the focus of a series of civil protests in connection with the forced evictions that surround Rio's mega-events [122]. PAC projects are notorious for overpriced bidding, poor design, and never getting off the ground. If they do get past the planning stage, they are plagued by cost overruns [123], shoddy construction [124], half-finished abandoned work, and corruption. Corruption in Brazil equals 2.3% of the GDP annually. In 2013 alone, it is estimated to have cost the country US$ 53 billion [125]. Between 2007 and 2013, it was calculated that more than R$ 7 billion (US$ 3.3 billion) of PAC funding was misappropriated [126]. In fact, none of the R$ 2.6 billion (US$ 880 million) of PAC favela infrastructure funding announced to break ground in 2013 progressed beyond the planning stage [127].

In Borel, residents are frustrated with the government because of the lack of effectively implemented infrastructure works. Alleys remain unlit, there is still no sewerage system, and trash litters the streets. The general lack of water has become so critical that it has sparked protests. The community continues to demand improvements to the state water and sewerage company's (CEDAE) "Water for All" program. Residents say, however, that there is no such program and that various parts of Borel simply do not receive water for prolonged periods, despite residents being presented with water bills to pay. In addition, the community claims distribution pipes lie unutilized in ditches, and the equipment used to pump water needs maintenance in order to function [128].

Whatever little progress has been made within the Tijuca favelas, the UPP and the urbanization activities that are generated alongside it have brought great benefits to the middle class neighborhoods that surround the favelas. Property prices in Tijuca are the most symbolic in the city for attracting real estate investments. After pacification, property in Tijuca appreciated 161.4%. In 2008, one residential square meter of Tijuca real estate was worth around R$ 2,000. In 2010, it sold for R$ 5,500 per square meter, and a year later for R$ 6,500. João Paulo Matos, president of Calçada Construction, admitted that without the UPP the company would never had achieved these sales prices [117].

Though Tijuca's middle class is reaping the benefits of the pacification, challenges related to infrastructure, the general restoration of public order, and the corruption within the UPP, remain acutely visible inside the favelas. Residents remain generally unsupportive of the UPP, but in Borel the situation is especially fragile [129]. In December 2012, a group of youth mobilized as "Occupy Borel" in protest against the mandatory curfew imposed by the UPP. The youth demanded entitlement to come and go freely from the favela, claiming that now, more than ever before, they were unable to move through their community. A coordinator of a religious organization in Borel also claims that many adolescents—those aged between 11 and 18 who previously worked in the *bocas*—are now aimlessly roaming the favelas as outcasts constantly harrassed by police [130]. UPP-imposed arbitrary curfews, police brutality, and the illegal taxes extorted by UPP officers [131] continue to spark human rights protests and paint a portrait of state oppression that has become familiar to Borel residents over the years.

In Formiga, things are different in regards to public security. Formiga is a small favela, with 4,312 residents governed by 111 UPP officers [2]. Because of its size, Formiga has possibly been easier to pacify. This has been one of the most successful implementations of the UPP in Tijuca. The UPP in Formiga has resulted in less conflict than the other pacifications in the area, and security concerns are lower in comparison with the other favelas [132].

On the whole, the UPP has improved the Tijuca communities by stopping, if only temporarily, the regularity of violent conflicts between the police and armed groups, and between rival gang factions. This has produced an immediate relief in the daily lives of many residents, many of whom have been caught in the crossfire, literally, for decades. However, as the violent character of policing in general continues, citizens of these areas still need to be vigilant in regards to their security situation. As well, they must overcome the obstacles put up by the government and police that prevent them from receiving adequate attention in regard to their complaints concerning the lack of adequate infrastructure improvements, social freedoms, employment opportunities, and civic participation in decision-making. This scenario mirrors the overall criticisms leveled against the UPP by human rights critics of the program [74].

15. Case Report: Manguinhos

Manguinhos is located around an old industrial suburb in the North Zone of Rio. It has been intricately connected to the favela removal efforts since the 1940s—as an area to which people were relocated to after they were removed from other favelas around the city.

The Manguinhos Complex is a cluster of fifteen favelas and housing projects inhabited by a population of 35,000 people [2]. This large complex is located in close proximity to many other densely populated favelas that weave a fabric of irregular housing across the sprawling North Zone of the city. The flat landscape of Manguinhos extends as far as the eye can see, enmeshed with the ruins of derelict and abandoned factories turned into 'occupations' and incorporated into the favela landscape along with the government relocation housing projects built in the 1970s.

Manguinhos is today hemmed in by a series of open sewers that once flourished as healthy rivers, and a labyrinth of highways and super-highways overflowing with traffic. The favela is located under live, high voltage transmission lines next to an elevated train track. The area is plagued by floods, urban waste and toxic pollutants. Numerous environmental risks afflict the residents of Manguinhos, and in particular its youth, who are 500 times more likely to develop cancer and neurological disorders because of exposure to high levels of lead that pollute the area [133].

The demographics and poverty indicators of Manguinhos are dismal. The Human Development Index is 0.65%—among the five lowest in Rio. 15% of girls between the ages of fifteen and seventeen have children. The monthly per capita income for 2012 was R$ 188 (US$ 60), and unemployment rates languish at between 30–50% [134].

The demise of industry in Manguinhos from the mid-1980s on resulted in an intensification of the drug trade. The favela's location at the core of a vast region dominated by the CV gang secured Manguinhos as a trafficking stronghold that held both the police and rival factions at bay. Thus the boldness of the drug trade's appropriation of the public spaces of the favela reached new heights.

Referred to as Rio's 'Gaza Strip', Manguinhos was the site of the city's largest *crackolândia* (crackland) and one of its most violent drug trafficking centers. The situation was, for all practical purposes, a full-blown internal armed conflict and the ultimate representation of Rio's urban warfare issues. The organized drug trade, open conflict with rival factions and/or conflict with State military forces, laid bare the humanitarian impact on civilians trapped by daily violence. From public executions to police shootouts with Special Forces units, Manguinhos was the pinnacle example of gang rule [135].

The drug trade had taken root to the extent that the *bocas* had become a long string of shanties, littered with broken couches and old mattresses, where crack addicts of all ages prostituted themselves, and where makeshift lean-tos provided shelter for the crack dealers who worked, literally, behind the counters of stalls originally used by vendors in the farmers' market. Drug culture spilled over to the bars and brothels and into the streets, to permeate almost every aspect of community life.

The heightened visibility of the drug trade in Manguinhos can be attributed to the uncontested hegemony of the Comando Vermelho, the oldest drug faction in the city, where the gang leadership was least vulnerable to enemy invasions. The CV's operations, including the stockpiling of weapons and the regional distribution of drugs to the favelas city-wide, were centered in the nearby Complexo do Alemão favela until late in 2010 when the UPP took control there. Manguinhos subsequently absorbed the bulk of CV operations, including its headquarters. This increased the already large-scale visibility of the drug economy and elevated the flow of drug migrants into the favela.

The social landscape of Manguinhos visibly changed in October 2012, when BOPE units stormed in with 1,300 troops assisted by helicopters and tanks, to smash through whatever obstacles were in their way and symbolically liberate the favela from the stronghold of the CVs. The UPP consequently installed 588 officers in Manguinhos, one for every 60 residents [2]. The shacks of the *crackolândia* were demolished and addicts were deposited in shelters for a few days before finding their way back to the streets [134]. Though the physical armed presence of the CVs no longer dominate the landscape, they still remain highly active in the area (Figure 4).

Even before the favela's takeover by the UPP, a large-scale urbanization project was well underway to redevelop the area that surrounds Manguinhos leading up to the Maracanã Sports Stadium. Funded by PAC, the urbanization project began in 2008 and is coordinated by the State Ministry of Works (Seobras), in partnership with Emop. According to the State Department of Finance, the total PAC investment between 2008 and 2010 was around R$ 3.1 billion (US$ 1.6 billion). Among the works delivered in 2009 was a 35,500 square meter Civic Center located on the grounds of a new mid-rise housing complex built on the grounds of the old Army Supply Depot (DSUP). The Center included a library (with a theater and cinema), a recycling facility, an 'income generation center', a health clinic, a women's social service center, a legal aid center, a sports court, and a high school attached to a swimming pool known as the 'Manguinhos Water Park' [136].

Figure 4. CV tags on home exteriors, Manguinhos, 2015.

According to some residents, the project initially brought some gradual improvements to the neighborhood [137], but many services, including the library, the swimming pool, and the youth center, have already been shut down, or operate in a reduced capacity, due to lack of funding. The abandoned Army Supply Depot warehouse has been left standing in a dangerous and derelict state for children to explore, little sports activity takes place on the courts, the kiosks built for commerce have never been used, there is trouble having mail delivered to the housing complex, the homeless sleep outside the health clinic, and the high school is overcrowded with up to 50 students per class.

The swimming pool, in particular, is a prime example of the gulf between political rhetoric and service delivery. The project was initiated after a thirteen year-old Manguinhos teenager photographed swimming in a mud puddle went viral. In response to the public embarrassment, former President Lula announced a community pool for the people of Manguinhos. The Water Park was subsequently built along with the high school and inaugurated in 2009 with the President in attendance at the opening ceremony.

Despite the political bombast, however, Manguinhos residents and students are denied access to the pool—which is enclosed by a high wall patrolled by the UPP—because, according to the State Department of Education, people were "smashing the place". Witnesses have reported UPP police beating youth attempting to access the pool [138], which now sits abandoned and filled with stagnant water. Without a leisure area to experience respite from the heat (which reaches up to 47° C), children continue to swim in the rivers that the untreated sewerage runs into [139].

Though the Youth Center was closed almost as soon as it was opened, the income generation centre, run by the Technical Support School Foundation (FAETEC) has offered limited vocational training to people interested in becoming a stock clerk, a hardware store owner, an administrative assistant, a hairdressing assistant, a construction laborer, an electrician, a plumber, an air conditioning unit installer, a manicurist, a solar heating installer, a computer maintenance technician, a tiler, a brickworker, a painter, a telemarketing operator, or a CISCO technician. Other courses periodically offered have included basic computer operation, English and Spanish. The Ministry of Science and Technology has invested approximately R$ 1.25 million in the project [140]. Through FAETEC, 12,000 vocational training vacancies have been offered in UPP occupied areas throughout the city. The goal is to train people with the skills necessary to service "the needs of the corporate world...in partnership with the Rio 2016 Committee" [141]. Graduates are supposedly to be contracted to supply labor for the Olympics, yet even this meager opportunity seems unlikely, given the Olympic budget was already slashed by 30% a year out from the Games [142], with cuts continuing to become deeper and more extreme as the Games get closer [143,144].

Despite the failures of the DSUP housing complex, most residents agreed that the library provided extraordinary benefit to the youth of the community, and would like to see the discontinued services restored, though none hold out hope that they will be [145].

Another project now in jeopardy due to a municipal budget shortfall is the Manguinhos food garden. The kilometer long stretch of what had been part of the *crackolândia* before the occupation, has subsequently made way for the largest experiment in urban agriculture the city has ever seen. Approximately R$ 500,000 (US$ 166,500) of funding was allocated through the municipality and PAC [146] to develop the large-scale garden, created by the Department for the Environment's Hortas Cariocas program—an organic agroecology project based in the favelas and public schools of Rio. The garden is overseen by Hortas Cariocas, and run by Manguinhos residents, whose names were put forward for employment by the local Resident's Association.

The project advanced as a PPP between Hortas Cariocas, the Mayor's Office, the electric utility Light (which has granted legal right to use the land under the transmission lines), and the Manguinhos Residents' Association. In addition, a community volunteer section (working mostly with resident retirees and children) was established with the help of Green My Favela. Around twenty Hortas Cariocas employees each receive a stipend of R$ 380 a month to work in the garden. All gardeners take home produce regularly from the garden, and contribute to feeding some of the more vulnerable community members. Hortas Cariocas also donates to local school lunch programs, and is beginning to sell produce at local farmers' markets. The Manguinhos garden has been operating since early 2014 (Figure 5).

One of the primary actions in the PAC redevelopment of Manguinhos has been a two-kilometer long elevation of the train track. Architect Jorge Jauegui, who won the Morar Carioca contract to design the redevelopment [147], believes the project is a "social connector" for the community. Jauegui even dubbed it the "Manguinhos Rambla" (in reference to Barcelona's La Rambla). The train track is a far cry, however, from being a public space of "socio-spatial regeneration" [148]. The undertaking has resulted in the forced relocation of almost 700 families [149].

Before its demolition to make way for the venture, residents of Beira Rio (a little Manguinhos neighborhood close to the river and train tracks) had managed to develop a modest infrastructure which included bakeries, a kindergarten and a church. Many residents were not even informed of their impending removal and none had any input in the process. They were simply confronted by armored vehicles and police raids ordered by Governor Cabral, and told to leave their premises [121]. In 2013, 900 families suffered a similar fate when they were removed to make way for a nearby sports complex [122]. The area under the elevated train track now functions as a homeless camp, budding crackland, and an area of prolific drug dealing where conditions are unsafe and unsanitary (Figure 6).

Figure 5. Hortas Cariocas organic food garden in Manguinhos, 2015.

Residents facing removal must accept minimal compensation to abandon their homes and relocate further out to the periphery of the city or resettle in the same area at far greater cost in the PAC social housing schemes. PAC has invested R$ 567 million (US$ 183 million) in building three new PPP social housing complexes in Manguinhos [150]. These complexes are essentially vertical, mid-rise favelas beset with infrastructure problems. Not only have the people of Manguinhos been denied any participation in the planning of the redevelopments, but attempts by residents to formally organize and insert their voices into the process have been deemed illegal and shutdown by the city [134].

Since pacification, home prices in the area have increased 500–600%, forcing many to relocate a further 40 km from the city center. Some have resettled near Manguinhos in the new, federal social housing complex, Minha Casa Minha Vida (My House My Life or MCMV) [151]. Of the 22,000 families who have been relocated in the pre-Olympic period under Eduardo Paes [152], 74% now reside in federal MCMV housing [153]. 2.3 million MCMV housing units have already been built to service low-income and informal sector families. Another 1.6 million units are slated for construction. Using public funds, private contractors build and sell these condominiums for profit. The policy is dependent on the continual need for large volumes of investment.

These apartments are so small (37 m^2) that a family with two or three children requires that one family member sleep outside. The MCMV housing complexes that have been built throughout the city for relocated residents, have failed so remarkably that whole complexes have been either abandoned within three years of being built [154], or have devolved to the extent that civil and military police carry out armed operations in attempts to dismantle militia groups operating in the condominiums. According to data from the ministries of Justice and of Cities, of 108 complaints received between April 2014 and January 2015, 70% have involved assault, murder, or the presence of drug traffickers in MCMV condominiums [155].

The 2015 budget saw a 28% cut in funding to the MCMV program, a reduction which may further jeopardize already substandard building quality where existing units are subject to flooding, non-functioning infrastructure, and inadequate services and maintenance. These housing policies have been found to create trauma and depression for family members, who suffer from the loss of jobs and small business opportunities, increased commute times (up to six hours a day), and higher costs of living [156]. This scenario exasperates social exclusion and what is referred to as 'root shock' [157], the traumatic stress associated with the loss of one's emotional ecosystem as a result of development-induced displacement.

According to law, financial compensation must be offered to homeowners who are forcibly displaced. The compensation must legally equal market value for an equivalent property within a one kilometer radius. In Manguinhos, market value is currently R$ 100,000–124,000 (US$ 32,000–39,000). Though the State is lawfully bound to compensate at full market price, the actual compensation being offered residents is just R$ 6,000–6,500 (US$ 1,900–2,100) [122]. Alternatively, residents who choose to relocate into the complexes are eligible for an assisted home-owner purchase option whereby grants of between R$ 17,000–30,000 (US$ 5,480–10,000) are obtainable to help with the down-payment in units that Emop is selling at the high end of the market. Residents now pay six times the price they had previously been paying to remain in the neighborhood and live in these new condominiums [158].

Eight lawsuits have been filed against Emop over demolitions and new PAC housing complexes in Manguinhos. Residents at the new Embratel II Popular Housing Project, a mid-rise set of 480 housing units, endure a putrid smell from the adjacent oil refinery and a heavy buildup of soot that accumulates in their homes. The 568 DSUP apartments are also beleaguered by sanitation deficiencies that are exasperated by a lack of maintenance. Chronically inadequate trash removal has led to vermin infestations. Sewerage leaks of unsanitary water create high dengue risks, while makeshift connections to pumps leave residents without access to water for weeks at a time [159]. Emop and CEDAE blame the residents for not using the facilities properly [158].

Even though the community has been allocated investment funding worth millions of dollars through PAC, the programs have failed to effectively address one of the community's most urgent needs, that of the dumping of raw sewerage which flows directly into the Faria-Timbó River and is carried into Guanabara Bay—Rio's venue for the Olympic sailing events—which accepts about 70% of the city's raw sewerage overall [160]. The launch of PAC-Manguinhos was accompanied by a presidential pledge to bring basic sanitation to the favela. However, the promise remains unfulfilled, along with numerous other unrealized infrastructure improvements [161].

In June 2012, the presidents of Caixa Econômica and CEDAE stood alongside Governor Cabral to publically announce the R$ 176 million financing of the installation of the Faria-Timbó sewage collection tube [162]. The promise was not fulfilled and the money disappeared. The pledge was repeated in October 2012, and was accompanied by a R$ 250 million (US$ 80.3 million) budget, with construction to start by December that year [163]. The project, again, never materialized. In June 2013, during another round of infrastructure funding announcements, the project was scaled back to "reducing the waste that comes from the Faria-Timbó River into Guanabara Bay" [162]. Yet even without the sewerage tube, little progress has been made (Figure 7).

Severe flash floods that overflow these open sewers have historically isolated Manguinhos communities for weeks at a time [164]. The floods expose residents to a range of public health risks, including the transmission of leptospirosis, a blood disease transmitted through raw sewerage; increased incidents of dengue fever, which is 470% more prevalent in Manguinhos than in affluent neighborhoods [165]; and soil contamination, which has been found to have high concentrations of bioaccumulating carcinogenic pollutants (including lead and cadmium) in ranges above the tolerable parameters for residential development [166].

The piles of ruins, debris, and garbage that are left in the wake of forced evictions only further exasperate these already chronic public health hazards [122]. The tactic of leaving demolished housing ruins visible creates a very deliberate threat of more forced removals to come. The strategy is symbolic of a pattern of eviction [167] whereby residents are confronted by Special Forces and ordered to leave their homes with little to no warning [134]. Troops are usually accompanied or followed by demolition teams that move in, often unannounced, and cut power before bulldozing homes or knocking holes through the walls to make them uninhabitable. Often the process occurs without official documentation and without alerting adjacent residents [122]. One demonstration protesting the eviction of an occupied building in Manguinhos became so intense that it resulted in the UPP headquarters being set on fire and the unit's police commander being shot in the leg [168].

Residents' relationships with the police is troubled. The community is dissatisfied with the amount of money being directed toward funding police rather than toward reducing hunger [169]. One of the most visible 'security' expenditures around Manguinhos is the 'City of Police', a complex of fourteen specialized police stations housing 3,000 civil police. Built in 2013 at a cost of R$ 170 million (US$ 56.5 million), the Special Forces training area includes a "shooting house"—a fake favela designed with shacks, alleys and concrete slabs—where police train with live rounds [170]. The results speak for themselves.

In March 2013, just two months after the UPP entered Manguinhos, police tasered 17 year-old Mateus Oliveira Casé to death [171]. Casé's death provoked community protests which resulted in children, including a four-month old baby, being pepper sprayed by police [172]. In October 2013, 18 year-old Paulo Menezes was beaten and suffocated to death while in UPP custody [173]. In December 2013, an 81 year-old man was shot in the head and killed during a community protest [174]. He had been asking police to wait for the arrival of the mothers of three teenagers who the UPP were arresting for smoking marajuana. On 14 May 2014, 19 year-old Johnathan de Oliveira Lima was shot and killed by the UPP [175]. In July, as a World Cup match was being played close by at Maracanã stadium, 25 year-old Afonso Linhares was fatally shot by police as he was refereeing a football match [176]. In September 2015, a thirteen year-old student by the name of Cristian Andrade was killed when a shootout erupted between Core Special Ops forces, UPP police, members of the homocide squad, and drug traffickers in a retaliatory operation for a police officer being shot in a nearby favela. Andrade had been running to aid a woman he saw fall to the ground when he was shot [177].

Clearly, Manguinhos is the starkest example of violence, social exclusion and poverty outlined in these three case reports, and has seen the most interventions of the three districts examined. Residents have been allowed little voice in the redevelopment of their neighborhood, and tensions between police and residents remain critically strained. However, there have been some improvements brought to the area through pacification, most notably in ending the high visibility of the armed drug trafficking trade on the street and the effect this has on young children. There has also been a decrease in the likelihood of death or injury by stray bullets, even though youth, in particular, remain at risk of violence through police actions.

Social assets such as the garden bring great pride to the community, especially to those who work in the garden, or those whose homes overlook the kilometer-long space. Children can now exit their homes without fear, and are able to see clean, productive space, rather than a dangerous and vermin-infested *crackolândia* built on top of a garbage heap. Children often comment on how much better their neighborhood smells because of the garden. The library also provided a safe and clean gathering place for them to play games and connect on social media networks using computers that were otherwise unavailable to them. Therefore, despite some constructive advances made in regard to social infrastructure, overall, the beneficial activities that have surrounded pacification are at best in jeopardy, and at worst already repeating the familiar pattern of State abandonment, discontinuance, and violent exploitation that residents are so used to.

Figure 6. Manguinhos train station under the elevated tracks with river channel/open sewer, 2015.

Figure 7. Stalled sewerage project and water of the Faria-Timbó River, 2015.

Figure 8. Children's chalk drawings, Manguinhos, 2014.

16. Summary of Case Reports

These case reports show that the UPP, though chronically flawed in many ways, does have some merit, particularly in smaller favelas where conflict is low and policing is delivered in conjunction with social services, provided they can be continued.

16.1. Impact on Public Security

One of the most positive aspects brought to favelas by the UPP is the interruption to drug trafficking brought about by a reduction in the visibility of *bocas* and a decrease in 'open carry' drug trafficking culture, though there still remains substantial pressure on teenage boys to enter into gang culture (Figure 8). De-normalizing the propensity for the open carry of firearms by civilians is important in making Rio a safer place to live, and the UPPs have helped begin this process by giving a generation of youth the opportunity to grow up in environments in which gang violence is not the dominant feature of social control.

The most obvious positive change brought by the UPPs was the reduction in lethal violence inside pacified favelas between 2008 and 2011. During this time, the presence of the UPP is estimated to have saved 60 lives per year per 100,000 inhabitants, and overall lethal violence, including extra-judicial police killings (known as resistance killings) were also reduced [91].

However, the numbers of resistance killings at the hands of police since 2012 have again been on the rise. Youth homicide rates in Rio de Janeiro reached 56.5 homicides per 100,000 in 2012 [178]. Though this was not only attributable to the UPPs, they were a dominant contributor to this growing trend. More recent figures show resistance killings by police between January and August 2015 (459 cases) [179] exceed the numbers for all of 2013 (416), and are equal to 80% of total cases reported for the year 2014 (563 cases) [180].

Residents cite a general decrease in armed conflict between rival gangs and between gangs and police. However, the incidences and threats of armed violence perpetrated by the UPP produce ongoing psychological stress within the community, particularly in youth [181]. Residents continue to be restricted in their mobility and are searched, detained, and arrested at will by police both inside the favelas and at UPP checkpoints that control the entry and exit points to them [182].

Though open warfare has decreased overall, armed conflicts between police and gang members, and between rival gang members now vying for domination of the same internal territory has created an unpredictability to gunfire exchanges that continue to result in civilian deaths. The arbitrariness of violence in combination with police corruption has exasperated the problems associated with the disruption of drug trafficking. As well, the dismantling of the drug trafficking economy itself has been deliberately avoided as a goal of the UPP campaign, therefore the culture of drug trafficking remains endemic and unabated. In addition, drug trafficking and possession of marajuana, crack, and cocaine within the armed forces rose 337% between the years 2002 and 2014 [183]. Complaints about abuse and corrupt practices in the UPP police are increasing [101]. In 2012, more than 300 military police were expelled from the institution for corruption or involvement with militias, including murder and extortion crimes [184].

Rio's persistent failures that plague its revolving 'community policing' policies in its 'war against crime' [185], are largely motivated by populist electoral politics. Time and time again, these policies have been discontinued due to regime changes and budget cuts [186], leaving residents to cope, again, with living under gang rule [20]. This, coupled with the rising tide of police killings [187], continues to reinforce negative perceptions of Rio's police interventions. Police commit more than one in every six of Rio de Janeiro's homicides. Four out of five of them are perpetrated on young, poor Afro-Brazilians. Deaths caused by the police of Rio de Janeiro grew 18% in 2015, with police killing 517 people just between the months of January and September [188]. Police often alter evidence to conceal the facts, another reason that leaves the general public, and favela residents in particular, mistrustful of them [189].

Fears also persist in residents that being seen interacting with police will mark them as informants, which in turn will bring retribution from traffickers [190]. Alternatively, residents fear that they will be tortured if detained by police [191]. Many see police as just another armed gang [6]. Many also complain of the rise in crime since the UPPs took control, especially in relation to domestic violence, theft, and rape (all banned under trafficking law) [192].

16.2. The Impacts of Urbanization

Many residents want to be involved in having a say about how their communities are being redeveloped [191], and feel that funding would be better utilized if redirected toward providing critical infrastructure and social services rather

than being channeled toward militarization [193]. Most are generally dissatisfied with the interventions that come with pacification because they are locked out of the decision-making processes and daily management of their communities. Public demonstrations, as well as community attempts to legally organize or unionize are swiftly and harshly quashed by the city.

Most are frustrated that the government has not delivered the services, employment opportunities, and infrastructure promised under pacification. The social infrastructure that has been delivered—the schools, daycares, health clinics, libraries and gardens are highly valued by residents, but are continually at risk of being shut down.

According to the IPP, R$ 1.8 billion (US$ 0.7 million) was invested in pacified favelas between 2009 and 2014 [195]. 60 new education units [196] have been built to benefit 8,700 students [197]. However, students in public schools only receive four hours of schooling a day due to a critical overcrowding of the system, many students sit in classrooms with 50 other children at a time, and a lack of daycare facilities, though increased under the UPP, still leaves thousands on waiting lists and without placement [198]. In terms of health, 24 hour emergency clinics are built close to the entrance of pacified favelas. The IPP claims the Family Health Program now covers 73% of pacified areas and reaches 100% of residents in twelve pacified territories [196]. However, in Manguinhos, the homeless sleeping outside the 24 hour UPA health clinic shows just how deficient social services are overall.

The most tragic loss of community service has been the loss of funding to the library, which has been a critical asset to favela youth. Though millions went to the architects and construction firms to design and build the facility, only two years of funding was allocated by the state for project management and staffing. The library was first forced to reduce its operating hours in April 2015, and by November, employees were put on notice as almost half the annual funding had been rescinded. It is expected to close permanently, along with other favela libraries, in the very near future.

Regularization has brought a sharp, and often unaffordable increase in the cost of utilities, in electricity in particular. Light—Rio's privatized electric company—has become one of the largest beneficiaries of pacification. Prior to the program, Light claimed it lost at least US$ 200 million a year from pirated electricity connections in the favelas. In 2010 alone, the company invested R$ 38 million to rewire communities and install meters in UPP-held areas [6]. Thanks to regularization, the company has formalized almost all of its connections in pacified areas.

The expansion of regularization into pacified territory has also brought formalized cable, satellite television, and Internet connections to the favelas, as well as a slew of other corporate enterprises, accompanied by aggressive marketing campaigns. As reported by Bloomberg in 2012, Rio's favelas have an untapped economy potentially worth R$ 13 billion [199]. According to a representative of FIRJAN,

"the reclaiming of these [favela] territories formerly hostile to formal businesses is opening ever more markets for large chains". FIRJAN also claims opportunities are being brought to small entrepreneurs, though many small business holders feel the large chains threaten their business [200].

Despite this economic movement, there has been very little effort invested in providing adequate critical infrastructure. Though the government has promised to invest in social infrastructure, in the opinions of residents, communities overall remain largely unchanged in this regard [201]. Pacified communities still suffer from a lack of adequate space for children to play and are besought by environmental hazards. The vast majority of PAC infrastructure funding has been paid out in the design phase, and much of the infrastructure built by private contractors has been either abandoned half-finished or executed in a substandard way, for example, in the city's massive public housing project failures [202].

Rio's various forced eviction and relocation strategies clearly reveals how the UPPs are essential to the process of claiming devalued space at little cost, especially in regards to the accumulation of real estate and the subsequent raising of speculative land values both in the favelas and in the formal neighborhoods that surround them [203]. The 3,000 or so families that have been allowed to remain in their "at risk" homes [204] pale in comparison to the 19,000+ families (70,000+ people) that have been removed to make way for roads, sports and event-related venues, the renovation of the port area, and other urbanization projects that service the World Cup and Olympics [205].

A significant number of families continue to fight removals, while others are being priced out of their homes, or will be driven out in the near future, given the rapid urbanization activities that are propelling gentrification [30]. Rents have now overtaken sales in favelas, and rents for homes and lajes (concrete slabs that can be built on vertically) in pacified favelas have been rising faster than rents for the city as a whole. Sales of regularized real estate in favelas now fetch ten times as much as those that are informally owned. Urbanization processes must be slowed down, and some regulation introduced to the real estate market, if gentrification is to be decelerated. Even though real estate prices in pacified favelas have sky-rocketed, it is the real estate immediately adjacent to the favelas that are affected most strongly, particularly real estate that has views facing away from the favela, as the Tijuca case study illustrates.

One of the biggest obstacles to creating stability in the favelas is a lack of employment creation that would allow residents to earn a legitimate wage. Without offering alternative ways to earn a living, many will not turn away from the illicit sources of income obtainable through selling drugs. Income generation would also help absorb the rising cost of living brought about by pacification. Increased and better vocational training opportunities would enable adolescents in particular, and residents in general, to attain a higher

level of social mobility.

The 2012 World Bank impact study concluded that the sustainable integration of favelas would require i) employment creation to allow residents to afford rising living costs and to replace former illicit sources of income; ii) a reduction in violence on the part of the UPP; iii) confidence in all sectors that the UPP will remain after the Olympics; and iv) prioritization of social programs [1]. As this report shows, on none of these fronts has the government adequately delivered. In addition, though sustainable development is regarded as one of the government's foundations of pacification, there has been no institutional reform—one of the critical requirements to its success [206].

Having armed drug trafficking gangs controlling inner-city neighborhoods is clearly an untenable situation. That the state is finally stepping in to reclaim gang-dominated favelas, if only in a limited way, is necessary, at least in theory. It is a step that should have been taken long ago. But the current process is defective because instead of being a security strategy for the entire city, the UPP is driven to fulfill the needs of mega-events, construction conglomerates, real estate interests, and those who see favelas as potential markets. Urbanization decisions are made without participation, transparency, or accountability, down to the day-to-day interactions in communities. As long as the state continues its interventions through an exclusionary culture that legitimizes violence and forced displacement, life in Rio will, for the most part, continue as it always has—to the benefit of a few at the expense of the many.

17. Conclusion & Discussion

The UPP program may have both merits and its flaws in regards to tackling the problems of public security, and in providing both social and hard infrastructure services. However, the pacification of select favelas, rather than being viewed as a public security policy, must be understood as a policy designed specifically for the purposes of increasing capital accumulation at various scales for specific interests—interests that achieve their goals through shaping the city as a mega-events venue.

The general framework outlined in this paper and detailed in the case reports reveal various combinations of rights violations in regard to both the right to the city (especially property rights and transportation), and the democratic rights of citizens (access to information, civic participation, freedom of mobility, and public security). Furthermore, this article has aimed to show the connection between Rio's urbanization policies and the violence of pacification—what David Harvey refers to "accumulation by dispossession" [5]—how the State engineers the military takeovers of territories in order to control assets by force with a view to increasing avenues for the growth of private capital.

Favelas are under-leveraged territories especially vulnerable to this sort of exploitation. Strategies of 'exceptionality urbanism', enforced under a pretext of public security, enable existing legal regulations to be bypassed in order to seize devalued assets, recolonize them, and raise their value. The concept of accumulation by dispossession is a valuable framework for understanding these processes.

Major real estate developers, engineering and construction firms, and corporate brands need favelas to be pacified in order for the valorization of commodified assets to occur. Real estate developers and speculators, and the city's middle and elite classes desire pacification in order to grow their capital. And utilities and service providers and merchants require the pacification of favelas in order to expand markets for their commodities.

The results are the wholesale sell off of public assets, the exclusive commercial right to the use of public spaces, and access to public infrastructure at little to no cost. This can be seen as an extension of Brazil's tradition of colonialism, where land, according to urbanist Edesio Fernandes, is "conceived of almost exclusively as a commodity, the economic content of which is determined by the individual interests of owners" [207].

The mobilizing of huge amounts of state capital and political will to transform Rio into a mega-events host city strengthens an already aggressive urbanization agenda. All this capital accumulation involves a degree of dispossession—at the very least the dispossession of public assets and political process. Favela communities, although they may be somewhat liberated from the influence of drug gangs, are also dispossessed of their self-determination in relation to community affairs under the UPP. On a very physical level, thousands are being evicted from their homes or forced out through gentrification.

Areas in proximity to the city's mega-event venues, airports, and transportation lines, previously abandoned by the State, and now considered enormously valuable as the object of real estate speculation, are appropriated by force in disregard of the right to land guaranteed protection under law [208].

Reshaping connections between neoliberal governance, civil society and local relations, to enhance the right to the city for all, will require reassigning key roles in decision-making apparatuses to recognize the importance of inclusive citizenship and the benefits of social equality. Introducing mechanisms whereby citizens begin to have a voice in how their communities are shaped and managed is critical to creating wider public security and sustainable socioeconomic development.

Favela residents are critically positioned to advise the city on their needs. As a consequence and necessity of informality, favelas are shaped by ingenuity. Residents' capacity to adapt to new and challenging contexts distinguishes them as exceptionally able to organically plan, design, and evolve within complex and heterogeneous mixed-use contexts. The qualities displayed in the resilience and flexibility of these communities' abilities to create alternative systems for real estate title exchange, loans and financing, public service infrastructure delivery, urban planning, and housing construction, realized with few material resources, offer an ingenious platform from which to develop vibrant,

community-centered approaches to both policing and urbanization. Even though many internal associational structures have been compromised under gang control, there are still opportunities for building inclusive municipal models in which favelas, and their residents, can better integrate into the broader fabric of the city through collaborative city-building processes that mobilize informal sector residents without disenfranchising them. In other words, pacification is a political choice, and the way pacification is implemented also consists of sets of political choices that perceives of, and deals with informality in a particular way.

There are four dominant, and somewhat overlapping perspectives on informality. The Dualist school of thought subscribes to the notion that informal activities have few connections to the formal economy, and that the sector operates as a separate, less-advantaged, or dual segment of the economy. Dualists believe governments need create more jobs, credit, business development services, basic infrastructure and social services for the sector. Structuralists see the informal and formal economies as intrinsically linked, with informal wage earners subordinated by the interests of capitalist development. They argue that governments should address the unequal relationship between big business and subordinated producers and workers by regulating both commercial and employment relationships. Legalists believe in a formal regulatory environment but acknowledge that formal commercial interests collude with government to bureaucratize or legislate to their advantage, and argue that governments need to simplify bureaucratic procedures in order to incentivize informal enterprises to regularize their businesses, property and assets. Voluntarists charge that informal enterprises have an unfair advantage because of their avoidance of formal regulations, taxes, and other costs of production and services. They argue that informal enterprises should be brought into the formal regulatory framework in order to increase the tax base and profit margins of the public and private sectors. The informal sector can also be seen as illegal, because it is involved in producing activities that are forbidden, unauthorized, or operate in non-compliance with regularization laws [209]. Whatever the perspective, at the core of all these theories lies an opposition between the informal and formal.

Within this oppositional dichotomy lies the assumption that the informal sector is unorganized. On this assumption, it is often discredited for its deficiencies, whereas the formal sector is associated with structure, and therefore, organizational success. This is an important aspect of the formal versus informal debate, especially in regard to policy decisions that lead to formal interventions—often with disastrous results.

In recent years, theorizing about the formal-informality dichotomy has begun to move beyond this conceptualization to discuss the specific objectives of policy intervention outside of this narrow development discourse. There is much evidence to suggest that informally organized communities can be highly functioning and more effective than inefficient or corrupt government structures, and in the case of Rio, the government's revolving-door intervention policies [210].

Each circumstance, however, is different. Each region, or even favela, presents diverse and variable conditions that make generalizing about informality difficult. Each favela of different size, topography, geography, whether under gang control or free of it, presents a very unique set of complex circumstances. Therefore, Rio's informal sector defined in terms of a lack of social and legal protections may not be the only, or even the foremost aspect to examine with respect to fostering inclusive stability. For example, some people may choose to enter or remain in the high end of informal employment voluntarily because it pays more than formal employment, whereas those that work informally because of limited opportunities have very different degrees of choice within the informal economy. On the other hand, informal employment (and informality in general) that is the outcome of structural constraints that limit choice, is a clear barrier to inclusivity [211].

Social protection policies that are designed to reduce risks among Rio's vulnerable sector should also focus on designing appropriate forms of social protection based on actual sources of risk and need. Evaluating how issues concerning favelas should be integrated into State development policy requires determining to what extent access to social and legal protections represents freedoms or constraints in the ability of individuals to participate in, or benefit from, municipal intervention activities. Informality or regularization may exasperate other social or economic constraints, rather than representing distinct, separate constraints in themselves. For example, a lack of access to micro-finance represents a constraint for many small-scale enterprises, yet the UPP curtails access even further through excluding the informal sector from being eligible to receive this financial service. In Brazil, micro-credit's largest failure is that it is unable to reach those that need it most because of lending policies [212]. The solution involves providing informal enterprises with access to credit, rather than excluding them from it because they are informal, per se.

Part of the solution to integrating favelas into the formal city of Rio may involve creating new institutions, relationships, practices, and access to opportunities that, through their existence, make informality more stable, rather than focusing on the goal of eradicating informality in general. In addition, inclusivity requires not only expanding the number of choices available to individuals, but also the quality of those choices [211].

Whether or not this latest round of militarized occupation continues, at the very least, creating and maintaining political spaces in democratic discourse for Rio's lowest-income constituencies requires consistently representing their identities, interests and concerns. In recent years, the rise of third sector social movements advocating justice, inclusion and peace as priorities for the urban poor have intensified reform pressure against corruption and brought attention to flawed government priorities and demands for sustainable services and policies. Dedicated activism and a strong independent mediascape continue to struggle within

a geography of fragmented resistance to protest neoliberal policy in relation to the mega-events—at great personal risk to those involved. Participatory housing initiatives such as those promoted by Brazil's National Movement for Housing Vindication, the Landless Workers' Movement, Global Justice, the Institute for the Defense of Human Rights, and the National Movement for the Fight for Housing, to name a few, seek a holistic solution to urban reform and an end to the housing crisis through coordinating the informal sector and promoting their right to the city. Many local civil sector organizations also engage in justice issues that aim to redress human rights and territorial issues concerning the architecture of power and economic transition in relation to the changes being brought about in connection to Rio's mega-events.

Overall, however, this is only achievable through institutional reform, and institutional reform can only be achieved through an inclusive, transparent, and accountable political framework. This may be the hardest challenge of all for Rio to overcome. In all likelihood, it is highly improbable that Rio de Janeiro will gather the political will to progress beyond what it already is—a city of exception designed to benefit the bourgeoisie.

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