Light is like water: flooding, blackouts, and the state in Barranquilla

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ABSTRACT
Between 1996 and 2014, in the midst of the Colombian armed conflict, 117,326 internally displaced people settled in southwest Barranquilla. This article describes the process of rapid urbanization carried out by these communities. It narrates how, due to underinvestment in drainage and electricity infrastructure, flash-flooding and blackouts became frequent in southwestern barrios. Men from the community, known as marañeros (entanglers), built/repaired electricity networks. Subsequently, state regulations classified these settlements as “subnormal,” which meant that although they built their own connections, they had to pay communal bills for the energy extracted from municipal transformers. Communities became indebted and during periods of malfunction, when flashfloods damaged electricity infrastructure, marañeros were victims of accidental electrocution. I suggest that a close look at processes of infrastructural malfunction enables a critical understanding of the state’s active construction of marginality. Interconnected infrastructural malfunction is a form of state engagement, as the presence of precarious infrastructure is a direct action. Instead of narratives featuring state absence/failure, the routines of southwest Barranquilla lay bare the ways in which malfunction is reproduced through institutional channels. Specific regulations created a place of malfunction, and deficiencies in both electricity connections and drainage portray/reinforce racialized and gendered identities based on unequal power relations.

Keywords: Rain/drainage; electricity; infrastructure; state; forced displacement

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conhecidos como *marañeros* (emaranhados), construíram / consertaram redes de eletricidade. Posteriormente, as regulamentações estaduais classificaram esses assentamentos como “subnormais,” o que significava que, embora construíssem suas conexões, eles tinham que pagar contas comunais pela energia extraída dos transformadores municipais. As comunidades ficaram endividadas e, durante os períodos de mau funcionamento, quando as enchentes danificaram a infraestrutura elétrica, os *marañeros* foram vítimas de electrocussão acidental. Sugiro que uma análise cuidadosa dos processos de mau funcionamento da infraestrutura permite uma compreensão crítica da construção ativa da marginalidade no estado. O mau funcionamento da infraestrutura interconectada é uma forma de envolvimento do Estado, pois a presença de infraestrutura precária é uma ação direta. Em vez de narrativas com ausência / falha do Estado, as rotinas do sudoeste de Barranquilla revelam as maneiras pelas quais o mau funcionamento é reproduzido por meio de canais institucionais. Regulamentos específicos criaram um lugar de mau funcionamento e deficiências nas conexões de eletricidade e na drenagem retratam / reforçam identidades racializadas e de gênero com base em relações desiguais de poder.

**La luz es como el agua: inundaciones, apagones y el estado en Barranquilla**

**RESUMEN**

Entre 1996 y 2014, en medio del conflicto armado colombiano, 117.326 desplazados internos se asentaron en el suroeste de Barranquilla. Este artículo describe el proceso de rápida urbanización llevado a cabo por estas comunidades. Narra cómo, debido a la falta de inversión en la extensión/mantenimiento de la infraestrutura de drenaje y electricidad, las inundaciones repentinas y los apagones se hicieron frecuentes en los barrios del suroeste. Hombres de la comunidad, conocidos como *marañeros*, construyeron/repararon redes eléctricas. Posteriormente, regulaciones estatales clasificaron los nuevos asentamientos como “subnormales,” lo que significa que, aunque construyeron sus conexiones de electricidad, tienen que pagar facturas comunitarias por la energía extraída de transformadores municipales. Las comunidades se endeudaron y durante los períodos de mal funcionamiento, cuando las inundaciones repentinas dañaron los postes, los marañeros fueron víctimas de electrocución accidental. Sugiero que una mirada detenida a los procesos de decaimiento de la infraestrutura permite una comprensión crítica de la construcción ativa de marginalidad por cuenta del estado. El mal funcionamiento de múltiples infraestructuras es una forma de presencia estatal, ya que la presencia de infraestructura precaria es una acción directa. En lugar de narraciones que presentan ausencia/fracaso del estado, las rutinas del suroeste de Barranquilla ponen al descubierto las formas en que el mal funcionamiento se administra y se tolera a través de canales institucionales. Describo cómo leyes y regulaciones específicas crearon un lugar de mal funcionamiento y cómo estas deficiencias en infraestructuras eléctricas y de drenaje retratan/refuerzan identidades racializadas y de género basadas en relaciones de poder desiguales.
1. Introduction

Gabriel García Márquez’s short story “la luz es como el agua” (light is like water) is about a Colombian family living in Madrid. The two children of the family listen to their parents talk about their hometown by the sea and eventually ask for a boat so that when they return to Colombia they can go sailing. While the parents are out the children smash open a light bulb and light starts pouring out of it like water. The children sail this light as if it was water. In the end, the light fills the apartment to the point where it is pouring out of the windows onto the streets. The children are still inside and drown. I remembered this story, featuring magical realism, during fieldwork in southwest Barranquilla, as many in the community would talk of them both, water/light, as entwined. In southwestern barrios “light is like water” since both services tend to fail at the same time. And, as in the short story, the muddle between light and water is a source of endangerment.

In this article, I follow rain water as it meets, shapes, and clashes with electricity infrastructure. I argue that interconnected infrastructural breakdown constitutes an interesting place to study the state. I suggest that a close look at processes of infrastructural decay enables a critical understanding of the state’s active construction of marginality. Interconnected infrastructural malfunction is a form of state engagement in southwest barrios, as the presence of precarious infrastructure is a direct action. Instead of narratives featuring state absence/failure, the routines of southwest Barranquilla lay bare the ways in which malfunction is enforced and tolerated through institutional channels. I describe how specific laws and regulations created a place of systematic malfunction and that these deficiencies, in both electricity connections and storm drainage, portray/reinforce racialized and gendered identities based on unequal power relations.

I engage with studies analyzing the diverse ways in which state projects demonstrate their power via the transformation of socio-natures (Mitchell 2002). This literature has shown how through irrigation infrastructure governments have contributed to the creation of the “state effect” (Mitchell 2002; Harris 2012; Meehan and Molden 2015) and how water and electricity meters are invested with state logics of responsibility and economic solvency (Loftus 2006; Von Schnitzler 2008, 2017). By limiting water and electricity connections to those who pay, infrastructure is productive of power relations and in turn constructs places of stateness (Akrich 1992; Anand 2017a). This article engages with this literature to explore the interfaces between state, environment, and infrastructure. However, instead of examining the extension of new infrastructure, it focuses on its breakdown through the study of repair routines and unruly water and electricity flows. The history and increasing prevalence of interconnected infrastructural breakdown in Barranquilla can broaden our understanding of contemporary states and cities in the global South, where some areas lack public infrastructure and the existing infrastructure is uneven and often poorly maintained.

Drawing on ethnographic and archival research, I first describe the process of rapid urbanization triggered by forced displacement in the midst of the Colombian armed conflict and paramilitary land grab. Subsequently, I narrate how, between 1996 and 2014, 117,326 internally displaced people settled in southwest Barranquilla (Unidad de Víctimas 2016) and how, due to divestment in the extension and maintenance of drainage and electricity infrastructure, flash-flooding, and blackouts became frequent in their barrios. In this context, young men from the community, known as marañeros (entanglers),
built and repaired electricity distribution networks. With time persistent malfunction in southwestern barrios became legal as a series of national and local regulations classified these new settlements as “subnormal,” which meant that although they were expected to build and repair their own electricity connections, they would have to pay communal bills for the energy extracted from municipal transformers. Finally, I explain how communities quickly became indebted to the utility and during moments of infrastructural breakdown, when flashfloods damaged poles and cables, marañeros were victims of accidental electrocution. Despite protests, neither the governments nor the utilities were held accountable. This is because accidents and disrepair occur within the regulatory framework of the state.

2. Breakdown, infrastructure, and the state

What we in our daily routines are used to calling “the state” is made visible and comes to be imagined through a myriad of localized practices (Gupta 1995; Sharma and Gupta 2006). The state, argues Mitchell (1991, 1999), is an “effect”: it is the effect of a number of practices and procedures that make it look like a powerful, solid entity separated from society. Different authors have analyzed the co-production of nature and the state “effect,” highlighting the importance of infrastructure in the ways in which communities conceive the state (see Loftus 2018; Harris 2019). Agrawal (2005) portrays the strategies employed by the colonial state to bring Indian forests under centralized control, creating new procedures to manage and exploit the landscapes it deemed valuable. State remaking of nature is nonetheless hardly unique to colonialism. Harris (2012) explains how consecutive Turkish governments have been contributing to the creation of the state “effect,” through a series of infrastructural transformations including the construction of dams and irrigation channels. The state, in this sense, is built in places and at the same time, it produces them (Meehan and Molden 2015).

Rural populations that historically felt “abandoned” or “forgotten” by the state, declared feeling “included” through their new electricity networks or improved irrigation systems (Akrich 1992; Harris 2012). By means of the analysis of Israeli discourses and policies concerning water scarcity, Alatout (2008) contends that desalinization infrastructure has been central to state building. By means of the reproduction and/or reworking of unequal power relations, an infrastructural project, such as a dam or a water supply extension, can change the ideas that people have of the state, as “meanings associated with the state are sedimented in relation to past histories and geographies but also recast in relation to recent developmental and environmental changes” (Harris 2012, 34).

Case studies in urban South Africa show how the recently installed prepaid water meters are invested with state logics of responsibility and economic solvency, and how by limiting connections to those who pay, the meters are productive of power relations and in turn build places of stateness (Loftus 2006; Von Schnitzler 2008). However, infrastructure not only has a role producing state power: it can also limit it. In a context of deep distrust in federal institutions, households in Tijuana continued to rely on rain harvesting, using barrels and buckets as infrastructure – even after the public water supply had been extended to their neighborhoods (Meehan 2014).
Everyday experiences of the state in informal neighborhoods are then often shaped by preoccupations about access to different infrastructures (see Morales, Harris, and Oberg 2014; Bhan 2016; Anand 2017b). This article contributes to the study of state localized practices and projects in relation to infrastructure. Yet, instead of focusing on access to (or extension of) infrastructure it explores its breakdown. At the mercy of humans and biophysical nature, infrastructure seldom performs as planned (Graham and Thrift 2007; Anand 2015a, 2015b). However, both infrastructure’s vulnerability and the resources to repair it are unevenly distributed (Trentmann 2009) and particular communities are left to cope with, administrate, and reproduce everyday disruption (Furlong 2014).

This article, on southwest Barranquilla, describes how rain forms flashfloods that in their path ruin poorly maintained electricity grids causing blackouts. These, in turn produce water cuts due to lack of electricity in some pumping stations. Since local and national rules have regularized and legalized interconnected malfunction in this area, leaving the neighborhoods in charge of their own infrastructure, all repair work falls on some of the members of the community. As in García Marquez’s story, light and water are connected and their mixture is dangerous. Going beyond the city’s past and present, the article interrogates state projects for the city enquiring about the ways in which Barranquilla and its various communities are imagined. As Akhil Gupta (2015, 1) reminds us, “infrastructure tell us a great deal about aspirations, anticipations, and imaginations of the future.”

### 2.1. A country that runs

During the 1990s right-wing paramilitary groups expanded along northern Colombia, through the Caribbean region, with the help of local landowners, businessmen, politicians, and members of the army and national security agencies (Caicedo 2009). Groups of displaced persons, displaced by paramilitary armies from their homes in rural areas, began resettling in Barranquilla, the main city of the Caribbean region (Martínez 2001). Families that were forced to leave abandoned their lands and jobs, and arrived to the city without many possessions or prospects of work or housing (Memoria Histórica 2015). As a consequence, unemployment rates and informal employment rose in Barranquilla and poverty increased (Torres 2009). Displaced populations settled mainly in the existing neighborhoods of the southwest sector, but as more people arrived, the sector expanded: with 10 informal neighborhoods created in the 1990s and 15 more during the early 2000s (Barranquilla cómo vamos? 2013). The sector’s population works mainly in rebusque; that is, is receiving daily payments (without formal contracts) as street vendors, messengers, cobbler, security guards, gardeners, and construction workers. Women from the sector work mainly as domestic workers, nannies, hair dressers, and street vendors (Departamento Administrativo Nacional de Estadística 2005; Torres 2009). Most of them commute to the northern sectors to provide these services to neighborhoods there (Cepeda-Emiliani 2011). In this environment, inequality peaked (see Tables 1 and 2). While construction was booming and businesses were growing in the northern sectors,
the poorest, southwest sector, had 61 percent of its population under the poverty line and a high illiteracy rate of 9.5 percent (Cepeda-Emiliani 2011).

The city’s afro-Colombian population is also concentrated in the southwestern sector. In general, afro-Colombian populations were particularly victimized throughout Colombia’s armed conflict – 15 percent of the total afro-Colombian population was violently displaced in the period from 1985 to 2014 (Unidad de Víctimas 2016). Southwestern Barranquilla, populated mainly by displaced migrants, is the home of many of these communities (Memoria Histórica 2015). In some southwestern neighborhoods, more than 30 percent of the population identify as afro-Colombian (Departamento Administrativo Nacional de Estadística 2005).

Table 1. Internally displaced persons arriving to Barranquilla and Gini coefficienta 1995–2014.

| Year | Received displaced population | Gini |
|------|------------------------------|------|
| 1996 | 2352                         | 0.478|
| 1997 | 3892                         | 0.500|
| 1998 | 6857                         | 0.534|
| 1999 | 6240                         | 0.523|
| 2000 | 16,612                       | 0.525|
| 2001 | 16,313                       | 0.499|
| 2002 | 14,952                       | 0.536|
| 2003 | 8676                         | 0.527|
| 2004 | 9433                         | 0.539|
| 2005 | 10,545                       | 0.502|
| 2006 | 6920                         | 0.513|
| 2007 | 4114                         | 0.500|
| 2008 | 3561                         | 0.512|
| 2009 | 1784                         | 0.487|
| 2010 | 1256                         | 0.497|
| 2011 | 1075                         | 0.472|
| 2012 | 1202                         | 0.464|
| 2013 | 1542                         | 0.458|
| 2014 | 1360                         | 0.445|

Source: Compiled by the author based on Galvis (2014); Unidad de Víctimas (2016).

aGini coefficient ranges between 0 and 1 and is based on residents’ net income. It helps define the gap between the rich and the poor, with 0 representing perfect equality and 1 representing perfect inequality (World Bank 2016).

Table 2. Characteristics of the sectors of Barranquilla.

| Sector          | Population under the poverty lineb (%) | Illiteracy rate (%) | Afro-descendant population (%) |
|-----------------|----------------------------------------|---------------------|-------------------------------|
| North (historic north) | 12.8                                   | 4.2                 | 5.8                           |
| Riomar (“new north”) | 22.6                                   | 5.0                 | 7.3                           |
| Southwest       | 61.2                                   | 9.5                 | 13.8                          |
| Southeast       | 45.1                                   | 7.2                 | 9.9                           |

Source: Compiled by the author based on Cepeda-Emiliani (2011).

bThe poverty line is the minimum monthly per capita cost required to purchase a basket of goods (food and non-food) that allow an adequate standard of living in a given country. In Colombia, this standard of living is calculated yearly by the National Administrative Department of Statistics DANE.

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2Colombian latest Census included the question “Do you identify yourself as black Colombian, afro-Colombian, or islander (raizal, black communities from the islands of San Andrés and Providencia)?” (Departamento Administrativo Nacional de Estadística 2005).
arguing that relations between “black” and “white” (or mestizo) are not conflictual as long as everyone stays in their place: the former as domestic workers, gardeners, or laborers, the latter as upper-middle classes and political-economic elites.

In this context of rising inequality and fast urbanization flashfloods became acute. Flashfloods (popularly known as arroyos) are a consequence of the topography of the city, its multiple declinations and slopes, and the unevenness of drainage infrastructure. During the period of greatest forced displacement, arroyos increased in the southwest, due to three causes (see Map 1). First, the construction of fifteen new neighborhoods in the sector during the 2000s further reduced the permeable surface, causing rainwater to slip faster (López 2002). Second, the city decided to complete drainage works in the wealthier center and northern neighborhoods worsening the situation in the south, as neighborhoods without infrastructure in the southwest received the storm water faster (Arroyos de Barranquilla 2014a). Third, garbage collection was sporadic and deficient in this sector of the city. Despite annual campaigns carried out to clean the most polluted neighborhoods, no investments were made on infrastructure or waste collection, and cleaning plans were limited to times of crisis (Pimienta-Medrano 2000a). Each rainy season (July to December), accidents caused by arroyos became frequent in the sector, dragging trees and vehicles, flooding houses, and opening cracks in the pavement (Arrieta 1996b, 1996c). Due to the high intensity of rainfall, sediment and debris were often introduced into the sewer drain producing overflows (Secretaría Distrital de Planeación 2008).

Map 1. The paths of flashfloods in Southwestern Barranquilla (Suroccidente), 2014. Source: Made by the author based on Arroyos de Barranquilla (2014b).
2.2. Underinvestment and intertwined disruption

By 2013, the quality of water service in the southwest continued to be poor due to unexpected cuts, variations in the taste/color of the water, and lack of pressure. The intermittency of the service led to protests in different neighborhoods. Water crises were triggered by electricity problems: they were caused by power outages affecting water pumps and treatment plants. The root of the power outages were the debts that the water utility itself had accumulated with the electricity public utility, Electrantana, throughout the 1980s and 1990s. Due to the outstanding debt, Electrantana was unable to invest in network expansion (Suarez-Badillo 1993; Mariano 1994; Villarreal-Herra 1994). By the late 1990s, the utility expressed the urgent need to trim tree branches tampering with power lines, replace "aging underground cables and light poles and do maintenance on distribution circuits and distribution transformers" (Villarreal-Herrera 1994; Santos-Lemus 1995; Mariano 1996b, 1996c).

To end the budgetary crisis of Electrantana, the state invited private sector investors creating a new company called Electricaribe. Eighty-four percent of its shares were bought by the Spanish company Gas Fenosa which also became the private operator of the utility (Mariano 2000). According to its manager in Barranquilla, Betty Yadira Garcia, as an operator and major shareholder, Electricaribe privileged investments in billing systems, advertising campaigns, and the installation of new meters. Despite the sale of the utility the law determined that funding for the extension of electric networks was still the responsibility of the state (Congreso de Colombia 1994). From 2000 to 2010, successive governments promised to extend electricity networks to the southwest sector (Defensoría del Pueblo 2004; OMAL 2008). However, investments only covered its extension to 57 percent of the sector. That is, of the 60 neighborhoods that made up the sector, 26 did not have formal electrical interconnection networks by 2014 (Congressional debate: Public Services in the Caribbean 2013). While the extension of networks was a state responsibility, the maintenance of existing infrastructure was the responsibility of Electricaribe. However, the company’s maintenance of electricity infrastructure has been deemed deficient (Congressional Debate: Public Services in the Caribbean 2013).

In this infrastructural context, flashfloods ruined the poorly maintained electricity network. The constant flooding of some streets rusted, corroded, rotted, and dented the wood and metal shafts of light poles and distribution transformers (Arrieta 1996a; Cuesta 2000). Flashfloods also caused destruction due to the speed at which the water flows – washing away already shaky light poles and distribution transformers. Episodes unleashed by flash-flooding knocking over distribution transformers were registered throughout southwestern neighborhoods during the rainy seasons from 2003 to 2010 (Fontalvo 2003; Montalvo 2006; Redacción Caracol 2010). Some of the sector’s oldest transformers and substation equipments are underground and were also affected by the water (Cuesta 2000). Frequently blackouts were extended due to the obstacles faced in attempting to repair infrastructure. Specifically, repair crews could not approach electricity infrastructure while it was raining and were blocked from

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3Each of the interviewees working as state functionaries and utility managers agreed to be recorded and quoted with his/her complete name and position within the respective utility/state agency.

4Personal interview, 18 November 2013.
reaching certain parts of the city by flashfloods and traffic chaos.\footnote{Personal interview, 18 November 2013.} In 2014, the System Average Interruption Duration Index (SAIDI) – a reliability indicator used to measure the average outage duration – was 83.5 h for Electricaribe in Barranquilla – this was the highest in Colombia, with the national SAIDI being only 17.27 h (SSPD 2015). These prolonged power outages triggered water cuts for different reasons. First, as the city’s topography is hilly recurrent crises were caused by shorts in the circuits bringing power to pumping stations (Mariano 1992, 1996a; Betin-Freu 1995). Second, if the damage to the grid is prolonged, it could affect water treatment: if the treatment station was paralyzed it required approximately three hours to operate again. In addition to electricity and water supply, sewage evacuation was also compromised during power outages, as sewage vacuum pumps, used to move sewer to the discharge point, were left without electricity for prolonged periods of time (Caribe 1998).

2.3. Regulated malfunction

Despite some investment in the southwest during the 1990s, the newest neighborhoods were not included in infrastructural extension plans and were categorized by the municipal government as “subnormal” (Rosales-González 1993). Residents of these neighborhoods were invited by the water utility to build their own infrastructural connections – the materials were provided by the local government and the community contributed with free labor. The utility launched a program inviting women to organize cleaning crews known as escobitas (little brooms). These were charged with sweeping streets and collecting trash and received payment according to the amount of recyclable materials collected (Rosales-González 1993a, 1993b; Montaño 1996).

In what concerned electricity, the 26 neighborhoods left outside the grid had built improvised connections. After the purchase of the utility by the Spanish multinational Gas Fenosa, negotiations with the national government led to the release of Resolution 120 by the National Regulatory Commission for Energy (OMAL 2008). Resolution 120 regulated energy consumption in southwest Barranquilla and defined barrios subnormales as “settlements outside of the interconnected system, which obtain electricity by connecting, without any authorization, to the grid” (Ministerio de Minas y Energía 2001). It allowed Electricaribe to calculate/charge the consumption of households in these neighborhoods. The utility then installed distribution transformers in each neighborhood and communities were expected to continue making their connections. Electricaribe issued a monthly communal bill, charging the total amount of energy drawn from the transformer. This cost was divided per household through a “cargo census,” a rough estimate of household consumption based on the number of appliances owned (Defensoría del Pueblo 2004).

Resolution 120 was supposed to be a temporary measure while the local government worked on the extension of the network (Ministerio de Minas y Energía 2001). However, in 2003 the National Congress approved its indefinite continuity (Congreso de Colombia 2003). In 2005, subnormal neighborhoods, which were accumulating debts to Electricaribe despite the bad service, protested (Urrutia 2005). Barrio La Pradera, for example, had accumulated a great debt. Built between 1991 and 2000, the neighborhood had approximately 400 inhabitants who made efforts to build their houses with zinc and concrete. Some
households have two generations living in them. Most of its male population works in *rebusque* as street vendors, messengers, and construction workers. Women work mainly as domestic workers (Departamento Administrativo Nacional de Estadística 2005; Torres 2009). By 2014, La Pradera’s residents owed the electricity utility COP $109 million ($55,200 in constant 2016 USD) (Sanchez-Cristo 2014).

Through the creation of the “subnormal” as an official category, the malfunction was regulated and legalized. José Rodriguez, a neighborhood leader refused to use the term “subnormal”:

> I do not use that word subnormal because it stigmatizes us (...) In the constant meetings we have had with the utilities, they have explained to us that there are no real plans for improvement. If you had the opportunity to get closer you would see that our light poles are not even wooden, they are pieces of poles added to each other. There is an anguish (angustia) that overwhelms us (...) because we feel like we cannot demand our rights because we are not normal. We are subnormal.6

### 2.4. The dangerous muddle between light and water

As mentioned, local authorities and water and electricity utilities urged southwestern communities to build their own infrastructure. By 2014, community members described electricity and water networks as fragile, and aesthetically unappealing. However, unlike water ones, electricity networks were also described as *peligrosas* (dangerous). The dangers associated with electrical connections result from electricity’s properties. Unlike water, electricity cannot be seen, smelled, or tasted. Yet, electricity can be touched, felt, and, depending on the level of exposure, it can have harmful effects. According to Silvia Macías, an Emergency Room doctor in Barranquilla:

> When a body comes into contact with a significant current, electricity is driven by the amount of minerals we have in our different tissues. The most affected being the muscles (such as the heart) and the brain. The electrical current enters at a single point of the body. Most times I have seen it enter through the hands, and it always seeks a way out. So, at first glance, you only see two wounds or external burns on the patient, but internally is where the serious damage occurs.7

By 2008, Electricaribe estimated that approximately 296,000 families lived in the city’s 26 subnormal neighborhoods (OMAL 2008). The number of households connected to a single distribution transformer and the connections’ precariousness induced changes in voltages, causing the deterioration of household appliances (OMAL 2008). In 2013 an Ombudsman’s report registered that a high percentage of subnormal neighborhoods experienced blackouts on a daily basis (Congressional debate: Public services in the Caribbean 2013). Subnormal electrical connections pose significant danger to public health (De la Hoz 2014) and most of the victims of accidents are those that repair the connections, the *marañeros* (entanglers).

The population of *marañeros* consists mainly of young men from subnormal neighborhoods, many of whom arrived at a young age in different waves of forced migration. They are not formally trained as electricians and learned the craft from relatives and neighbors. While their work is not of high-status, their daily fees range

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6Personal interview, dated 28 November 2014. The name has been changed.
7Personal interview, 10 November 2014. The name has been changed
between 20,000 and 30,000 pesos (7–11 in constant 2016 USD), which is not below the average income of the sector (Escorcia-Lugo 2015a). Although they claim that during the rainy season their revenue from network repair is good, they recognize that everyday rebusque includes not only repairing networks but also repairing appliances and working for short periods in other trades such as gardening or construction. After a marañero lost his life in barrio Nueva Colombia and the utility denied any responsibility for the accident, one of his co-workers explained his frustration with the situation:

They sent a company official who came with a social worker to the neighborhood. They told us that they were very sorry but that we had to understand that this is how life is.8

Marañeros are not protected by labor regulations and work with inadequate materials. They are subject to accidents due to interconnected malfunction: while conducting repairs because these are typically performed during or after rain given the damage that flash-flooding causes to the electricity poles (Pimienta-Medrano 2000b). Emergency Room doctor Macías narrates her experience treating injured marañeros during the rainy season:

Water is a conductor of electricity and the more minerals the water has, the greater its conductivity. So what I see is that badly managed or unshielded wires, you know, wires without the insulation they are supposed to have, come in contact with rainwater, or with the sweat of the men who are manipulating the network. Water, at the end of the day, is what causes the electric shocks. Contact between electric currents and water is what causes most accidents.9

It is worth noting how state regulated self-construction work is gendered. In the case of street cleaners, the gendering of the program is evident from the agreement between the local government and the water utility: “150 women were called to serve as little brooms” (Cantillo 1994).10 Although not as explicit, there is agreement on the masculine character of the marañero profession (see Figures 1 and 2). The main Colombian newspaper El Tiempo, for example, described them as: “those intrepid young guys

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8Personal interview, 28 November 2014.
9Personal interview, 10 November 2014. The name has been changed.
10The escobitas program is still part of the repertoire of public services in the city. However, currently people working in the program have contracts through cooperatives and receive training (see Figure 2).
who climb poles using only ropes, in order to fearlessly manipulate electricity networks” (Escorcia-Lugo 2015b).

A former member of Electranta’s board explains how the legalization and regulation of malfunction endanger the life of young, and predominately afro-Colombian, men:

There is a serious problem with subnormality. There is a fundamental right that is violated and is the right to life because all those repairing the network can get electrocuted since these networks are simply pieces of wires and cables. These men have no proper tools of any kind and they have no proper training. Then every 15 days, a negrito (“black boy”) in barrios from the far southwest, dies. So, what happened? There was a storm, then a blackout, and while the cables were still wet he tried to fix the connection. For me that is a type of violence.11

In late 2013, Senator Jorge Robledo urged local and national authorities to take action in the southwest, reporting that, according to data from Electricaribe, between 2011 and 2013, 91 inhabitants of subnormal neighborhoods died as the result of severe electric shocks.

How is it possible that the country does not take action to prevent these accidents from happening? (…) Why has not there been a scandal about this? How come these 91 victims do not have mourners at the state level? These people did not die because they were being irresponsible or because they did not know about the dangers of working with electricity. They died because they were poor. What killed them was poverty and the subnormality system that legalizes injustice. (Congressional debate: Public services in the Caribbean 2013)

11Personal interview with Gustavo Cotes, former manager of Electranta and former director of the regional office of the National Regulatory Agency SSPD, 19 November 2014.
When asked about the losses in human lives due to interconnected malfunction in the southwest, Electricaribe’s manager explained that drainage (and flash-flooding) are not their responsibility and that when purchasing the utility in 2000, Gas Fenosa only acquired “those networks that had the optimal technical conditions to continue in operation.”\textsuperscript{12} The responsibility for all accidents seems to fall on the communities since according to Resolution 120 they are the ones in charge of installing, maintaining, and repairing distribution infrastructure. In turn, local authorities and regulators underscore the fact that no law/regulation is being violated even if the situation in the southwest is “of concern.”\textsuperscript{13}

\section*{3. Conclusions}

In this article, I have borrowed García Márquez’s metaphor of a dangerous light/water mixture, as it allowed me to portray infrastructural realities in ways that might not be possible through mere description. I have thus shown how water and electricity infrastructures share entwined trajectories that involve unruly rain water flows, electricity currents, and the vulnerability of particular communities. I argued that interconnected infrastructural breakdown constitutes an interesting place to study how the state actively produces malfunction through localized practices. Firstly, by making successive decisions to underinvest in the southwest in the midst of the arrival of forced displaced communities. Specifically, to underinvest in solid waste collection and in the maintenance and extension of drainage, water, and electricity infrastructure, even while the city was experiencing a construction boom and business prosperity. Secondly, through the issuance of regulations that legalized widespread malfunction due to substandard infrastructure.

The case study has highlighted the ways in which infrastructure contributes to the configuration of the identities of some neighborhoods and communities (Kooy and Bakker 2008; Von Schnitzler 2017; Anand 2017b). In the southwest sector of Barranquilla, deficiencies in garbage collection, failing electricity connections, and choked storm drains delineated racialized and gendered identities based on unequal power relations. Technologies of precarity such as a self-built electric grid, communal metering, and the escobitas solid waste collection program, have been implemented in the context of rebusque, responding to the challenges faced in the absence of formal employment (Von Schnitzler 2017). The street cleaning program escobitas, which specifically targeted women from the southwest sector, was built on imaginaries of lower income women as domestic workers, laboring in wealthier neighborhoods of the city. In turn, the marañero job came to be performed mainly by young afro-Colombian men. In both cases, unequal social relations and stereotypes were produced and reinforced through infrastructure malfunction.

Both underinvestment and “subnormality” are forms of state engagement in southwest barrios, as the presence of precarious infrastructure is also a direct action. Instead of mainstream narratives featuring the absence/indifference of the Colombian state or its failure (see Ramírez 2015), the stories of southwest Barranquilla portray the state construction of marginality. As Anna Tsing argues, marginality is a powerful technique precisely because margins are real places where roads do not penetrate, goods are rarely accessible, and

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{12}Personal interview with Julia Serrano, Manager in charge Triple A, 25 October 2013.
\item \textsuperscript{13}Personal interviews with functionaries of the regional office of the National Regulatory Agency SSPD and the City Council, 2013.
\end{itemize}
\end{footnotesize}
schools barely exist (Tsing 1993). Marginality, she adds, is also a discursive and ideological position from which people learn how to talk about things like state, justice, and about themselves (Tsing 1993).

In 1997, the departmental governor of Atlántico, Rodolfo Espinoza, and the mayor of Barranquilla, George González, proposed the building of a separate municipality in which to relocate the displaced populations of the Caribbean, so that they would not “deteriorate” Barranquilla. Instead of receiving displaced communities in the city, they proposed to resettle them in vacant public land in the rural areas in the south of the department, where armed confrontation was less frequent (Cantillo 1997). The “new municipality” was never built, but the intention to build a separate place where all war victims would arrive, without disrupting urban everyday life, endured within some of the local and national political elites. Displaced communities were located in the southwest sector and through a series of regulations of national and local nature 26 neighborhoods within the sector were classified as “subnormal.” These were thus places of marginality with respect to the rest of the city. Despite being marginal, this sector was not “another” city. Working in construction, security, domestic work, and child care in wealthier neighborhoods, these communities are aware of the fact that they not only live in Barranquilla, but they have made it.

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14Rather than a new “municipality,” the authorities were proposing an internal refugee camp, since there were plans to build housing blocks, but not for employment, health and education for the proposed residents (Cantillo 1997).
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