The ecology of citizenship: understanding vulnerability in urban Brazil

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Abstract

This article calls into question the relationship between citizenship, space, and ecological stability. Drawing on case study research from urban Brazil, we argue that while space may be crucial to Western perspectives of citizenship – particularly in urban areas – the ecological coproduction of these very same spaces is regularly overlooked. By not accounting for these processes, citizenship's promises continually fall short: though greater access to citizenship and its attenuating spaces may help to reduce one set of vulnerabilities (e.g., hunger, healthcare, informal housing), such change can further embed and even produce additional vulnerabilities for urban residents (e.g., disaster risk, environmental change, eviction). Thus citizenship, in Brazil as well as elsewhere in the world, remains a melancholic relationship between people and the state, where promises of security and sustainability can never be fully realized. Such bleak outcomes are inevitable, we argue, so long as the co-productive/destructive links between environmental processes and citizenship are ignored, and expectations of citizenship fail to account for broader spatial and ecological contexts.

Keywords: Political ecology, vulnerability, citizenship, disasters, nature, hazards, urban development, Brazil

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Bernardo surveyed the wreckage from a hillside pasture above his neighbourhood, *Loteamento Boa Esperanza*. Some 60 ruined two-storey houses lay directly below us, the result of a 2007 landslide from which, with one exception, their owners had fled permanently, forbidden to return by the civil defence. Now six years on, the city still reeling from a series of deadly landslides in 2011, Bernardo seemed resigned to the low expectations and rule-of-chance that deep uncertainty brings. While the risk of another landslide at an unknown future moment hung large over the neighbourhood, the more pressing danger was children and teenagers messing about in the overgrown rubble. From a research perspective, the semi-permanent dereliction acted as a poignant metaphor for the state's limited sense of legal or moral responsibility to Boa Esperanza; or indeed as testament to the fuzziness of residents' formal citizenship rights. Were they not worthy of the attention that other parts of the city enjoyed? But Bernardo showed no indication that government disinterest was unusual. Vulnerability was ordinary and everyday, and it encompassed the vagaries of nature *and* the state.

The scene also illustrated the virtual world of disaster risk management. Bernardo lamented that 'since 2007 we've been asking [municipal and state authorities] to build a small drainage canal [across the hillside]… All the water would flow into the stream and not enter the *loteamento*. [Until then] everyone here lives in a high risk zone'.[3] The 2011 disaster spared Boa Esperanza a further slide but had nonetheless acted as a catalyst for state action: instead of a drainage canal, the neighbourhood gained an emergency siren, which, if functioning correctly, would demand residents' evacuation to the local school.

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[3] Unless otherwise noted, quotes, data, and observations in this article come from field research conducted by the lead author in Nova Friburgo, Rio de Janeiro (Brazil).

For Bernardo, however, of more serious concern was whether—*if* it came to evacuation—anything would remain of what he had worked a lifetime to build. One suspected that obedience of the siren's authority might be limited.

Bernardo sensed the unusual opportunity offered by the foreign researcher: perhaps this *gringo* could put a word in with the authorities on the importance of the canal? The political moment was seized as it always had been; the relative power of present actors assumed and calculated; the researcher again invited back for interviews and focus groups. The district was hot and slow on this dry season afternoon. Cattle grazed the pastures of the long-since deforested hills while *sertanejo* music played in the bar down below. The bus from town rolled noisily down the cobblestones. Bernardo shook hands and shuffled home for lunch.

Vulnerability, nature, and questions of citizenship

The purpose of this article is to interrogate relationships between citizenship and the environment. More specifically, we argue that citizenship studies have not only typically rested on visions of ecological stability, but also negated the ways in which citizenship and nature are coproduced as socio-ecological forms. While space may be crucial to defining democratic citizenship – where opportunities to occupy, inhabit, and make use of space are fundamental to Western citizenship rights (Holston, 2008; Lefebvre, 1996; McCann, 2002; Purcell, 2003) – insufficient attention is paid to the 'nature' of space and the ecological coproduction of spatial change. Not all space is the same, making some populations, through their relationships with citizenship and the state, more vulnerable to environmental hazards and change. To illustrate this, we draw on case study data collected by the lead author in Nova Friburgo, a mountainous municipality

with a population of 200,000 located 130 kilometres northeast of Rio de Janeiro (see Fig. 1). The region is known for devastating landslides, the worst of which left hundreds dead in 2011. Given that that the actions taken by the state since rest on the modernist planning assumptions of ecological stability, residents continue to negotiate precarious landscapes of space and citizenship. Their vulnerability appears endless, as their appeals to state actors reveal blind spots in the ways citizenship is imagined, articulated, and practiced. Since the nature *in* citizenship remains unaccounted for, people like Bernardo continue to experience citizenship along lines of vulnerability and melancholy rather than security and empowerment.

(Figure 1 about here.)

Investigations of citizenship are of course numerous in social science research (e.g., Holston and Appadurai, 2003; Isin, 2002a; 2002b; Isin and Nielsen, 2008; Lazar, 2013; Marston and Mitchell, 2004). To narrow our focus, we examine emergent debates over citizenship in the Global South (Ballard, 2015; Hickey, 2010; Holston, 2008; Meltzer and Rojas, 2014; Secor, 2004; 2007), and how these analyses intersect with work on disasters, vulnerability, and political ecology more broadly (Bakker and Bridge, 2006; Heynen et al., 2006; Latta and Wittman, 2012; Maricato, 2003; Meehan and Molden, 2015; Oliver-Smith, 2004; Pelling and Dill, 2009; Robertson, 2015; Zeiderman, 2012; 2013). Though 'access' to citizenship is often regarded as important for reducing vulnerability, especially among low-income populations (Amrith, 2015; Holston, 2008; Maricato, 2003; Purcell, 2003), our findings critique these assumptions. As our analysis from Nova Friburgo illustrates, while access to citizenship and more intensive engagements with the state may reduce one set of vulnerabilities, such changes can also

further embed – and in fact create additional – vulnerabilities that are every bit as

challenging. Thus, citizenship remains not so much an empowering relationship between

people and the state, but instead a melancholic and despairing one where the promises

and benefits are infinitely deferred (Povinelli, 2011; Zeiderman, 2015). Such bleak

outcomes are inevitable, we argue, so long as co-productive/destructive links between

environmental processes and citizenship are ignored, and expectations of citizenship fail

to account for broader ecological contexts.

      We begin the next section with a focused review of critical citizenship studies,

highlighting relevant debates in the literature and unpacking important contributions from

political ecology, studies of hazards and vulnerability, and recent developments in the

Global South. We then move on to introduce our case study from Nova Friburgo and

consider important historical, political economic, and environmental contexts relevant to

our investigation. Following that, we divide our analysis into two main sections: the first

critically examines the relationships between citizenship, ecology, and vulnerability, and

the second develops our conception of citizenship as an inevitably melancholic process.

By reflecting on citizenship studies through the lens of political ecology – and more

specifically, by taking seriously the roles of nature, space, and environmental processes

in constructions/deconstructions of citizenship – our aim is to open new pathways for

critical research into development, citizenship, and political ecology (Latta and Wittman,

2012; Oliver-Smith, 2004; Pelling and Dill, 2009; Robertson, 2015; Zeiderman, 2012).

The ecology of citizenship

      One of few authors to consider explicitly relationships between citizenship,

vulnerability, and natural hazards is Brazilian urbanist Ermínia Maricato (2003).

Following numerous landslides and floods across Brazilian cities, and recognising specifically their devastating impact on the region surrounding Nova Friburgo, she declares a state of 'environmental apartheid', where the poor are pushed into the most marginal, low value lands. Drawing on a host of literature linking poverty to citizenship's *absence* rather than to livelihoods *per se*—an argument most cogently explored in Fischer's *A Poverty of Rights* (2008)—Maricato identifies the reliance of Brazilian urban habitation development on illegality and clientelism. The problem, she argues, is not so much the production of laws designed to offer security (land zoning, constitutional rights, access to public services, evacuation procedures, etc.), but more the everyday arbitrariness of their application. While a lack of citizenship could explain disaster vulnerability *and* poverty—a quality of material 'being' rather than 'having'—underlying this is the triumph of land market power over state legal-institutional functionality.

Though largely reluctant to invoke citizenship debates in their analyses, much work on the political ecology of hazards is compatible with Maricato's perspective (e.g., Cannon, 2008; Collins, 2009; Mustafa, 2005; Wisner et al., 2004). Like Maricato, these authors envisage disaster as a product of both the hazards themselves—in this case heavy rain and resultant mudflows—and socio-ecological vulnerability, caused to varying degrees by political economic factors (e.g., unequal resource allocations, elite dominance of markets, state-led modernist urban planning, insecure livelihoods and access to education and health). The authors succeed in opening up the important nexus of material and discursive terrains around social constructions of disaster, and thus the ways in which visions of nature affect the production of unequal disaster risk and response. But there is also, like Maricato, the sense that *if only* the contract between states and citizens can be

reformed, then the prioritisation of effective urban planning, the right to social

protections, and a reduction in vulnerability and risk, will follow. Built on the

marginalisation thesis in political ecology, the work is often left 'circling' state theory,

without a full explanation of what actually marginalizes specific sites (Robertson, 2015).

Citizenship, here, appears as a tangible condition that might be gained should the state,

mediator of hazardous nature, be wrestled from the control of market.

Returning to Brazil, related work views citizenship as inextricable from state-

level legal-institutional reform. Drawing on Lefebvre (1996), Fernandes and Rolnick

(1998) and Fernandes (2007) examine the overlap between urbanisation and

democratisation that culminated in Brazil's 1988 Constitution and 2001 City Statute. The

wide participation of urban social movements in these (extraordinarily long) documents

laid the foundation for informal settlement regularisation, as well as the new much-famed

politics of local participatory budgeting. The authors argue that changes to official

wording on land use, where 'private property rights' became the 'right to property',

signified a not-so-subtle shift from exchange value to use value. In other words, the

Brazilian state moved from granting rights on the basis of land ownership to guaranteeing

universal rights to land for the wider social purpose. Beyond this, the advancement of

legal rights to habitation and participation, and consequently to public services,

represented a step toward Lefebvre's critique of Rousseau's social contract, focused on

the balancing of social, political and civil rights that could constitute full citizenship. The

unification of city *and* citizenship here presents a much more optimistic take than

Maricato on the potential of law to filter down into concrete application, though again

citizenship is viewed as a substantial condition, handed down to individuals in a social-contractual arrangement with a more- or less-functional state.

The above idea – that illegality, informality, and reliance on clientelism evidence an ongoing absence of citizenship (or indeed that citizenship can be democratised through law) – is turned partly on its head by more recent critical theory (Ballard, 2015; Guidry, 2003; Holston and Appadurai, 2003; Holston, 2008; Scott, 1998). Following Lefebvre, Holston (2008) views illegal informality as *essential to* citizenship, defined as a set of institutions and practices that combine new interactions, rights claims and empowerments within the political community. Space is appropriated and remade by hook or by crook, leading inevitably to legal reform, rights configurations, and the opening of new possibilities. To be sure, this is no neat liberal teleology, with citizenship's often illicit disturbances capable of producing new inequalities as well as advancements. Political clientelism, for example, remained, but its underlying basis changed from unconditional obligation towards requiring 'politicians to compete for support that was not guaranteed even if they delivered goods', and thus allowing community association members 'to perceive that their needs might be met not by having to give something up (their vote, freedom of choice, dignity)' (Holston, 2008, 248). Overall, there is the sense that substantive democratisation is at work in favelas, on the hillsides, streets, and along the river margins, producing new configurations of civil rights that the state must learn to reflect in policy. If Latin American citizenship has come to mean marginalised people asserting their *right to have rights*, then taking control of the city through autoconstruction must be 'performative' (Holston and Appadurai, 2003).

In practice, however, not all urban space is the same, and while gaining the right to habitation, residents may also gain the dubious right to hazardous space. The idea of ecology as stable and inert in the face of human activity has of course been fundamentally questioned: spatial scales most often ignore the biophysical agency of watersheds or geology (Zimmerer and Bassett, 2003), while urban engagements between people and things are marked by numerous creative interconnections (Heynen et al., 2006). Writing on landslides and state securitisation in Bogotá, Zeiderman (2012) argues that the biopolitics of risk management are assembled together *with* urban nature. State calculation and mapping of high risk zones depended on technicians' on-the-ground diagnostic assessments of human and non-human causes – an impossible task in the context of co-produced socio-environmental vulnerability. For Zeiderman (2013, 2015), state discourses of security and vulnerability had both institutionalised uncertainty and replaced assertions of the 'right to the city' with citizen-subjects' ongoing need to make themselves 'visible as a life at risk' (Zeiderman, 2013, 6).

As such, in this paper we argue that while recent analyses of citizenship have proven insightful for understanding how citizenship is constructed and struggled over, they also assume a level of spatial permanence that may never be ecologically certain. Accordingly, when both 'space' and 'citizenship' are recast as socio-ecological co-productions and/or mutual assemblages (Bakker and Bridge, 2006; Latta and Wittman, 2012), it is no surprise that efforts to guarantee security by reducing the symptoms of disaster, '[condemn] us to constantly repeat the exercise since both causes and symptoms evolve with our attempts to address them' (Oliver-Smith, 2004, 14). In other words, without effectively collapsing the nature/culture barrier, little headway can be made

towards conceptualizing vulnerability to disaster in new ways (Oliver-Smith, 2004). This overtly spatial approach calls forth the work of Latta and Wittman (2012, 9), who suggest that the academic task at hand is to the identify the 'ways in which citizen/nature amalgams are assembled, contested and reassembled'.

So where does this leave an 'ecology of citizenship', and how does it relate to disaster risk and vulnerability? Pelling (2000) urged us to think of catastrophes as extensions of 'chronic', everyday disaster. A 'continuum' of disasters and development was based around access/rights to water, sanitation, food, or services. Multiple arenas of risk in urban settings, whether 'environmental', or unemployment and crime, gradually increase exposure to the next event (Pelling, 2003, 16). Crises and catastrophes, as Povinelli (2011) expands, are examples of the dependence of 'late' liberal governance on the 'sublime', which enables its totalising advancement. The recognition afforded to (natural) 'eventfulness' separates the latter in time and space from everyday vulnerability, which cannot gain status as having *actually happened*. Such a bleak take on the foundation of citizenship in relation to ecological processes resonates with geographer Anna Secor's work on 'longing' and 'despair' (2007, 48). If the narrative of development *by* the poor cannot account for the ecologies in which human society is so fundamentally implicated, then its performances suggest an endless longing or deferment.

It is nonetheless pertinent that an interest in the social contract has emerged in the now burgeoning literature linking disaster risk and climate change adaptation. This helps to highlight both the need for adaptation focused on environmental justice as well as possibilities for new and alternative development trajectories (Adger et al., 2006; O'Brien et al., 2009; Pelling & Dill, 2009; Pelling, 2011). Pelling and Dill (2009), analysing how

a disaster event might be perceived as a 'critical juncture' in development, venture a definition of the social contract as:

> the social and spatial distribution of rights and responsibilities […] maintained with varying degrees of inclusion and coercion, [and comprising] [p]rivate, hidden and tacit expressions of discontent and resistance (Pelling and Dill, 2009, 27).

This is interesting as, rather than a traditional pact with the state, it chimes with visions of citizenship that imagine a strategic/tactical 'formation' between hegemonic discourses and practices related to subjectification and political identity (Marston and Mitchell, 2004; Secor, 2004). In light of the literature cited above it is perhaps easy to overstate contestation via normative definitions of 'critical junctures' or 'tipping points'; however, citizenship's complexity *in* nature deserves greater exploration.

While there is general consensus that the risks, vulnerabilities, and uncertainties associated with 'natural' disaster are on an upward curve—in line with planetary urbanisation as much as climatic changes—there is the distinct sense that these processes remain *outside* citizenship, influencing it only as far as representing an inconvenient obstacle to (and to be overcome through) human-centred citizenship *action*. Whether imagined through the lens of performance (e.g., Holston and Appadurai, 2003), the social contract (c.f., Maricato, 2003), access to property rights (e.g., Fernandes and Rolnik, 1998), insider/outsider discursive categories (e.g., Isin, 2002a), and so on, Western perspectives of citizenship regularly exclude ecological processes inherent to the same spaces they analyse. Accordingly, citizenship's promises cannot be defined within a context of calculated human-centred actions and results, and instead reveal an uncertain state of melancholy, caught between longing and despair. Such is the context in which

millions of people today find themselves, exemplified clearly in the case of Nova Friburgo, and to which we now turn our attention.

Studying citizenship in Rio de Janeiro

Field research for this article took place over nine months in 2013 with two months follow up work in 2014, not long after what most consider Brazil's worst natural disaster. In January 2011 an exceptionally intense storm inland of Rio de Janeiro hit Brazil's coastal mountain range—the *Serra do Mar*—triggering thousands of landslides and floods. With around 1000 deaths and a reported 30,000 homeless, no municipality was affected more than Nova Friburgo, which accounted for around half the death toll. Though the case study choice can be viewed as a worst-case scenario, the aim was not to illustrate an exception to 'normal' life, but rather to examine what has become increasingly common and part of everyday vulnerability. A steady increase in flood and landslide incidence is reported along the Serra do Mar's 2500km length over the past two centuries, with now annual rainy season tragedies affecting the metropolises of Rio de Janeiro and São Paulo as well as numerous smaller cities. In Nova Friburgo as just one example, where 'nature' in the form of flood and landslide was consistently a problem, equally consistent engineering projects aimed to compensate, setting in motion a perpetual cycle of disaster risk and ever-heavier interventions to contain deforested and degraded hillsides and rising river waters (Araújo and Mayer, 2003). Thus, the 2011 disaster can be read as a socio-ecological phenomenon based both on the hazard event itself and processes of deforestation and urbanisation that have left poorer segments of society most at risk.

The research design was guided by residents' associations' concerns in three 'at risk' city districts. The interest here was in '[engaging] with the underlying forces of socio-economic and political change that shape people's livelihoods' (Hickey and Mohan 2004, 10), rather than predetermining potential solutions to vulnerability. From these three districts, the case study moved outwards to interviews and observation within municipal, state, and federal level institutions relational to the research site, in line with a 'global ethnography' (Burawoy et al., 2000). Furthermore, residents and government agencies' claims regarding disaster risk and risk reduction interventions were corroborated through examination of historical sources (including interviews with local historians), and analysis of government technical reports.[4] The overall aim was to investigate the relationships between social vulnerability to disaster, state-hegemonic subjectification, and framings of citizenship, drawing on actors' understandings of community, nature, and political participation.

Interview questions explored actors' experiences and opinions of their relationship to the other groups in question, and how each group's framings of the other contributed to visions of citizenship as both a hegemonic and strategic/formative practice. Being in the company of both residents and agencies on the frontline of disaster risk and risk reduction interventions directed the research toward the realities and challenges of engagements between the state and those vulnerable to the 'wrath of nature'.

The three districts analysed at the local level were all close to Nova Friburgo's industrial heartland, between two and six miles north of the city centre, which

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[4] In total the research consisted of 80 semi-structured interviews, including the three city districts and a variety of state and non-state actors working in administration, infrastructure, lobbies, and political representation.

experienced the most significant landslides and flooding in 2011.[5] Much residential

development here and elsewhere in the city was in *loteamentos*, or irregular subdivisions,

which though reminiscent of favelas, were legalised by the municipality at the outset

(mostly in the 1980s and '90s). The fact that legality was even granted is indicative of the

politicisation of Brazil's urban land use governance: federal- and state-level laws have,

since the 1960s, barred deforestation and development on steeper inclines and along river

margins (see Dean, 1995). But with the haphazard decentralisations following

democratisation in the 1980s, increasing powers were granted to municipalities that

demonstrated limited capacity, both in a technical sense, and in terms of balancing the

risk of landslide and flood with the competing demands of industrial and population

growth and local patron-client expectations (e.g., Allen, 1994; Hardoy and Pandiella,

2009).

Beyond this, Brazilian law since the industrialising regime of the 1930s has

differentiated 'rural' from 'urban' via administrative status rather than spatial density or

population, such that *every* seat of municipal governance is defined as a 'city' (Cunha,

2004; Holston, 2008, 150). Developers have often capitalised on lax 'rural' land

governance by clearing and subdividing areas at the periphery of existing municipal

centres, and then, once occupied by self-build housing, residents face a battle to have

their *loteamentos* reclassified as urban. This clearly also has significance for how we

conceptualise urbanisation: in Brazil the urban—formal or informal—has often stemmed

from political power and legal-bureaucratic inequality rather than the inverse. In Nova

Friburgo as elsewhere, wealthier city districts have the political connections and land use

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[5] For confidentiality purposes the names of all neighbourhoods and interviewees have
been changed in this article.

governance of established urban areas, while migrants, and the spaces they occupy, must 'become' urban in order to access formal citizenship.

 A number of authors (among them Perlman, 2010) point to subdivisions as achieving higher development outcomes than favelas on the basis of their greater security of tenure. Indeed, in Nova Friburgo, many subdivision householders are now considered to be in Brazil's lower middle class. Yet beyond legal constructions at the outset, the supposed formal/informal divide was complicated by the fact that most of the Nova Friburgo subdivisions had expanded with favelas directly above them on the hillsides and on empty lots within their boundaries, such that it was now impossible to distinguish which areas presented full legal land title and which did not. For some elite and government interviewees *all* of this housing simply represented *favelização* ('favelisation'), regardless of land ownership and access to public services. Formal citizenship remained distinctly confused, inconsistent, and insecure, demonstrated most fundamentally by landslide risk. If favelização was in essence a derogatory, class-conscious comment, Maricato (2003) would probably accept the wider implication that levels of formality matter little when each housing type was developed under clientelist processes that re-establish 'environmental apartheid'. In essence the apartheid she refers to is no longer one of poverty *per se*, but a poverty of citizenship.

Vulnerability, nature, and citizenship in Nova Friburgo

Like most other residents of Loteamento Boa Esperanza, Bernardo and his wife Cecília were machine operators until their retirement. Among the subdivision's first residents in 1983, they had left behind a modest, informal house near the city centre in favour of a formalised piece of land off a dirt track at the city's distant fringe. The land

itself had previously been secondary Atlantic forest (regrowth after the 19th century coffee boom), and—typically for Nova Friburgo—was cleared by Sergio, a seminal local developer and later municipal politician. Sergio demarcated on paper the individual lots and navigated the local bureaucratic terrain, but like at other subdivisions, residents were often left to negotiate their property's exact boundaries before (or in some cases after) constructing their home. From the outset Bernardo and Cecília faced significant challenges, with zero public services ('not even a lamppost, water or a bus stop'), no piped water or sewerage, living miles from the factories, and dealing with a serious flood shortly after their arrival. Notwithstanding these problems, Esperanza signified a momentous forward shift in their status and security: material proof that years of work could result in a step up from grinding poverty and the threat of house removal as an 'undesirable' and perennially illegal 'non-citizen'. Viewed from this perspective, their citizenship rights intensified, through mutual processes of performative and insurgent action, as well as securing formal property rights. Gaining better recognition from the state – for public services or indeed for flood interventions – was taken for granted as something they would have to fight for; a fight that over 30 years of occupancy had yielded only partial fruit.

This sentiment was echoed elsewhere across the research. At the top of a steep hillside and much closer to Nova Friburgo's factories, Lena had built her home, which then became her workplace as a seamstress in the mostly-informal local clothing industry. Her parents arrived in Nova Friburgo in 1991 and bought a plot of land from Sergio in an inexpensive new subdivision, *N.S. da Aparecida*, above two others. Noticeably poorer, Aparecida had been added to the others as a less accessible

afterthought; essentially an illegal subdivision cleared from the forest in a pact between the developer and politicians. It was a risky location where plots of land had little value, and hence could be considered semi-formal. Lena's parents took *posse* (possession by squatting) of an empty lot neighbouring their own, which was where Lena now resided. The move had enabled a space in the machinations of the city. With the addition of democracy and, over time, the filtering down of constitutional rights into practical application, land tenure and access to (albeit limited) services and welfare had followed.

Though it was hard not to see that in Lena's case rural to urban migration had opened up a new world of rights potentialities—a performative or insurgent act of citizenship (Holston and Appadurai, 2003; Holston, 2008)— there was, just as at Esperanza, a significant caveat. A 2007 landslide immediately below Lena's home had killed one individual, and another 10 houses nearby remained derelict six years later, their residents evicted soon after the collapse and the land never stabilised. The 2007 slips, here and at Esperanza, had provided ample warning to authorities of what *could* happen under inclement weather in these locations, and yet the danger signs were certainly never heeded. In 2011, 50m from Lena's home just to the side of Aparecida, one of the largest landslides in the city, an 80m-wide collapse, killed 43 as they slept. After the fact, and with the surrounding hillsides remaining densely occupied, the location of the slip was now subject to a major containment project.

Development *by* the poor (Ballard, 2015)—or insurgent citizenship via urban encroachment (Holston, 2008)—appeared to reside on the same shaky ground as that of state disaster risk management itself (Zeiderman, 2012). The ecologies of urban occupation, alongside a wider schema of environmental governance, were excluded from

insurgent citizenship's narrow spatial and temporal frame (Povinelli, 2011; Robertson, 2015; Zeiderman, 2013). Yet Maricato's (2003) assertion that environmental vulnerability is the product of a straightforward 'lack' of citizenship also fails to offer adequate qualification. Lena and Bernardo's spatial assertions represent active disruptions or reformations of an established legal-institutional order. Negotiating hegemony from within, they constituted themselves as subjects 'to whom the right to have rights is due' (Isin and Nielson, 2008, 18). While in this guise citizenship remains both hegemonic *and* active, it is important to note that it was the very idea of an urban utopia *outside* of nature that provided the context for spatial usurpation: citizenship's schemes and manoeuvres were reassembled from within the culture/nature problematic.

This latter point was illustrated further in interview with Sergio, by all accounts the most prolific developer of irregular subdivisions in Nova Friburgo. 'A city that doesn't grow becomes a cemetery!' he said proudly at his office, recently downscaled following the 2011 landslides. The disaster had crushed the *loteamento* business, for the time being at least. Sergio disclosed that he had laid out 26 subdivisions over 40 years, and of these, 'just three were middle class. The rest were C-class, the poor, you know— so a big part of the pollution, I am the culprit!', he chuckled. The subdivisions upon which Aparecida sat vertiginously, according to Sergio, now contained well over 1000 houses and rested on land that had previously been: '[just] hillside; there was nothing there at all'. The city was there to expand, and the poor, in all their malfeasance, could develop alongside it. The casualness with which he spoke illustrated the everyday nature of this process—that was *just how it was*—but it belied the significant politics at work.

> I presented the land, prepared the land; the mayor at that time said he'd put
> my name on the local school […] When you open a subdivision you bring

> [to that location] construction materials; afterwards you bring light, bring
> water; everything is solicited for. You should see how many jobs are
> created when you make a subdivision. It's a treadmill that never stops.

If Sergio was acknowledging the fact that his and his clients' initial encroachments had a series of political and economic repercussions that together constitute everyday urban development, then the same development of these urban citizenships rested on sequential replacement of the rural and the natural with the urban and the modern. With antecedent nature in the form of empty hillsides *preceding* society, it was no surprise that Sergio believed, at least outwardly, that the tragedy was caused by 'the unprecedented rains, the natural disaster'.

Indeed, where citizenship—modernist, insurgent, active, or otherwise—is intricately bound to the *city* (arriving as it does with Occidental memories of the Greek polis; Isin, 2002b), then urban disasters must always remain *natural*, outside the realm of citizenship. Similarly, where in Rousseau a citizenship contract frees one from a 'state of nature', disaster vulnerability reveals the ways nature continues to haunt the citizenship contract. Though social constructions of citizenship and urban space may be unencumbered by ecological processes, the vulnerability of millions worldwide evidences the 'state of nature' in urban spaces and their attenuating citizenships (c.f., Oliver Smith, 2004). In Nova Friburgo, for example, citizenship rights and disaster vulnerability appeared perversely linked, where many residents who had gained better citizenship security (e.g., property rights, formal municipal inclusion, access to state institutions) now confronted new and mounting problems related to environmental hazards (e.g., increasing incidences of flood, landslide, subsidence, erosion).

Democracy, the pistolão, and the melancholy of citizenship

If nature is fundamentally implicated *within* citizenship—the latter supposedly freeing modern citizens from the former—how then, as a citizen/nature coproduction, might we conceptualise citizenship's formations and contestations *within* nature? Again, Nova Friburgo's urban development politics provides valuable insight. Sergio entered the prefecture as vice mayor in 1994, after opening the majority of his subdivisions in the 1980s. For Cecília, Bernardo's wife, back in Esperanza:

> [Sergio] would have more chance of winning [an election] because he had cleared the path to get there […] Workers see things as a favour […] and if you *have to* vote for someone, I'll vote for this person that opened the subdivision, that helped me […] He made a revolution in house building. Here, you never really know if someone is a politician or *um de nossos queridos* [a trusted friend or confidante].

Sergio's actions as a developer and politician are impossible to read without an understanding of the on-the-ground effects of democratisation, the 1988 Constitution, and processes of neoliberal restructuring that followed in quick succession. The Constitution, while setting in motion residents' rights to property following encroachment, also passed nominal control over public services such as transport and urban planning from the military regime to elected municipal administrations. This was in fact a documented reflection of what had already begun: the municipal share of national finance rose steadily from 8.6% in 1980 to an eventual high of 16.6% in 1995, as centralised chains of command diminished (Samuels, 2000). The urban materialities of democratisation coloured a decade that economically speaking had been 'lost': in Nova Friburgo factories closed, unemployment rose, and the clothing industry shifted from the formal to the informal (Araújo and Mayer, 2003). Yet the city's population grew by over 40,000, by far the largest decadal increase in its history.

The point here is that peoples' desire for affordable land took advantage of a surge in political clientelism whose rewards and benefits had all dramatically changed. With democratisation increasing competition and power amongst municipal patrons, both urban development and disaster risk surged. Developers were at the sharp end of a housing frenzy, linked to new votes as much as lucrative and powerful contracts over infrastructure and services. Critical scholars have argued against viewing contemporary patron-client relations as residual authoritarianism or as inhibiting normative citizenship (cf. Avelino Filho, 1994; Hilgers, 2012; Taylor, 2004). Instead, a picture is presented of an absence of equality and opportunity in state institutions, law, or market resulting in reactive expressions of 'private' solidarity, belonging, favours, and business. For *all* of these authors, 'client-ship' (Taylor, 2004) has the constant capacity to enable unexpected outcomes, whether or not we view these as contributing to vulnerability or democratic reform.

From the perspective of the residents, having succeeded in gaining land rights, their ongoing challenge was to achieve road pavement, water and sewerage systems, bus services, health, education, and now, infrastructural risk management. The 1980s witnessed the rise of stalwart populist Nova Friburgo politician, Paulo Azevedo, whose most loyal client base also lay across the north of the city. 'Paulinho', as he was known, served twice as mayor after 1989 and even longer in opposition, before, remarkably, he also succumbed to a 2011 landslide. Natália, a resident neighbouring Esperanza, noted that Paulinho's lively personality, remembering everyone by name, meant that 'until today the population [here] reveres him'. She went on, 'Paulo surely gave his blessing to

all the developments around here: I don't think he obliged anyone [to vote for him] – it's just the talk…to promise that you'll do this or that.' For Lena at Aparecida:

> Many people supported him [with votes], because first…it's out of necessity. And the next thing is…it's a case of I'll help you if you can get me a vote, your family's votes, understand? "Or I will not help you legalise your house". In the early years, I wouldn't speak badly of [Paulinho]. He paved the road, added things we didn't have, but after, like any other mayor, he didn't come back.

Where in most cases Sergio had failed to pave roads and provide sewerage, Paulinho capitalised on the new developments' solicitations to deliver infrastructure—bus services, asphalt, and basic sewer systems—which guaranteed him a power base and significant political career. For Bernardo, 'this is the way the water flows. [People] have no chance of paying rent, hospital, etc, without a link to someone else [......] People vote in gratitude. No one asked for my vote, [Paulo] Azevedo never asked for my vote. The only person I spoke to was the land developer who sold me my lot.' That Paulinho's sewers across the north of the city led to one place only—the river—is emblematic of the citizenship within nature. Subdivision openings on degraded hillsides, with auto-constructed housing, offered access to urban rights and capitals as well as access to environmental degradation and massively increased surface run-off. Though citizenship was formed and contested through these overtly political battles for land and public services, exceptional summer rains would seep and surge down the hillsides, charged with this very same citizenship politics.

Well below Aparecida, not far from the river, the oldest subdivision among that group suffered most in 2011. The 43 that died lived just along the road, and while landslides materialised from above, the mud-flooded valley floor ascended from below.

Carlos and near-neighbour Marcia, retired residents with time on their hands, had fought

hard for the expansive hillside containment works above. According to Marcia,

> There's a guy who became a local councillor—he's called Menezes. He linked
> with us and chased everything up…went to Brasília, things like that, understand?
> We made a petition and on that beautiful day when the [construction workers]
> arrived I was so happy with life [….] If you have a powerful *pistolão*, someone
> that wants to help, such as this councillor with an open heart, things get going.

Literally a 'big gun', the *pistolão* references the go-between required to get things done,

typically an exchange of favours to gain resources from the state. The success of

Menezes's lobbying was in reality doubtful. A local factory owner, whose recently

developed hilltop subdivision had led directly to the collapse, almost certainly

represented an even bigger 'gun', for a different set of interests. But in the topsy-turvy

political game this did not discount Menezes's 'heart'—as an active and progressive

councillor—being both in the right place *and* side glancing at the next election.

For Marcia and Carlos, the perceived success of their lobby was a cause for

(qualified) celebration and empowerment. Hillside containment increased perceived

security and largely removed the unstated but always-present threat of eviction. Carlos

was working part-time as a community contact for the civil defence, awarding him a

measure of self-important pride. The residents had acted with creativity to substantiate

their citizenship using the only strategy they knew how: namely, negotiating with a state

interlocutor to assert their due rights to services (cf. Isin and Nielson, 2008). And yet,

despite this, risk perception was unrelenting for all the interviewees, their citizenship

'formation' melancholic and uncertain. In the rainy season of January 2014, with

containment nearing completion, the project's outlet pipe became blocked and a flood

filled the street with mud. Costly interventions, both here and in the case of drainage in

the newly canalised river below, required maintenance, which in each case also required a new pistolão. Reminiscent of both Scott (1998) and Zeiderman (2012, 2013), appeals had been made to a state management of nature that served one thing only: the state's existence, via a merry-go-round of citizen action and intervention. Even the emergency siren—potentially the only thing between life and death—offered highly suspect security. Aside from concern over compliance with evacuation under torrential skies, the civil defence had presented Carlos, elderly and pondering, a manual key to the siren with the instruction that in the event of failure he should march there and activate it. Technologies aimed at 'modernising' nature—whether sirens or retention walls—were open to multiple acts of reappropriation through practice. Meanwhile, at Aparecida up above—its 'favela' occupants separated from residents' mobilisations down below—the ten derelict houses and unsecured slip from 2007 represented another ticking time bomb.

As Carlos's wife interjected, 'people feel the risk [with a slope behind their property] but as the house isn't condemned [by the government] they stay, and just like with my house, if it rains, they leave.' She added sharply: 'but my husband won't leave during the day as this could let a thief in, no? So at night we slip out.' Carlos himself elaborated: 'People are troubled by a great nervous tension…many had to have treatment to improve their health…The older residents here—me, for example—knew children who were born, raised, married and had children here, and all of them have gone.' The disaster can be read as augmenting a widespread fear and melancholy that was already present within citizenship processes, defining residents' place on the land and within the city (Povinelli, 2011; Zeiderman, 2015). Who was at risk to exactly what? Landslide from above, flood from below, government failure, house removal, emergency evacuation

terror, the absence or usefulness of a pistolão, the efficacy of a project to contain nature: vulnerability was meshed together in citizen/nature ecology. Citizens' longing for the state, marked with occasional triumph, was always clouded with worry and despair.

Returning to the question at the beginning of this section, regarding the ways citizenship is coproduced and reformulated by and within nature, two important insights emerge. The first is that, due in part to disaster vulnerability clientelist practices in contemporary urban Brazil have been awarded substance and stimulation. Regardless of Holston's (2008) assertion that the basis of clientelism has changed in favour of choice and agency within residents' associations, formalised citizenship remains ill prepared to account for ecological processes. People may be gaining new rights to space, but the nature of (and *in*) that space is disconnected from citizenship and its capacities to build greater security. To address this, people rely on tactics of clientelism, which to outward appearances seem to rub against the very citizenship rights they fought so hard for in the first place. This leads to the second important insight from this section, which is that citizenship – because of its disconnections with ecology – leads inevitably to despairing engagements with the state, where citizens act to substantiate their rights, yet are caught in the never-ending melancholy of state management of nature and territory. There appears to be change in the ways people engage with citizenship, yet the primary outcome of these engagements has been increased vulnerability to disaster.

Conclusion

Back in Esperanza, Bernardo led us down one of the streets that had been ruined in 2007. One resident had returned and constructed a new, smart-looking house. His housing stipend while renting elsewhere had not been paid, and in poor health, living on

his old (condemned) location represented his best option. The property's sophistication was stark amidst the wreckage, likely an illustration of the owner's clear confidence that he could stay, considering the pace of a legal-bureaucratic apparatus that presented less future risk than landslides. The landscape evidenced significant change, from ecological and urban development processes, yet day-to-day engagements with the state for Bernardo and his neighbours continued much as they had for decades. Citizenship remained a melancholic process, seemingly characterized by antithetical emotions of hope and despair for a reliable relationship with the state. In the pasture up above, cattle grazed the deforested hills. Bernardo lamented his ongoing search for a pistolão, to solicit attention from the state, for an engineering intervention that guaranteed nothing. Music played in the bar below. The bus rolled down the cobblestones. We shook hands and Bernardo shuffled home.

In this article we have argued that ecological processes are regularly overlooked in Western constructions of citizenship (e.g., Fernandes and Rolnik, 1998; Isin, 2002a; 2002b; Isin and Nielsen, 2008; Holston, 2008; Holston and Appadurai, 2003; Maricato, 2003), both by academic researchers as well as democratic institutions. By not accounting for the ways environmental factors impinge upon, coproduce, and assemble with the political, economic, and socio-cultural processes of citizenship, scholars and practitioners alike are unable to see how citizenship works – and recognise its limitations – on the ground in everyday contexts. This helps to explain why, on the one hand, millions of people like Bernardo *appear* to have gained greater access to the state and material indicators of citizenship (e.g., formal housing and property rights, urban infrastructure, public healthcare and education), while on the other, they still suffer from extreme

vulnerability, occupying precarious spaces at increasing risk to environmental hazards, made worse by processes of global climate change (c.f., Hardoy and Pandiella, 2009; Pelling, 2003; 2011). Citizenship, as such, offers little security, as while space may be central to citizenship's construction, the ecological stability of space is woefully undertheorized. Moreover, this sheds light on why democracy has done little to reduce clientelist practices in many parts of the world (i.e., citizenship rights are poorly suited to address ecological risks and vulnerability), and why greater access to citizenship often results in unmet expectations and longing, despair, and melancholy.

It should be pointed out here that Western theorizations of citizenship are by no means the only available models, and that by drawing on non-Western (and in particular indigenous) formulations, researchers might find new ways forward. Citizenship is perhaps not terminally destined to be blind to ecology. As a starting point, citizenship research should work to think beyond the epistemological divisions of urban and rural, human and nature, toward consideration of watersheds and non-human actors more broadly (Latta and Wittman, 2012; Zimmerer and Bassett, 2003). By broadening the scope of how citizenship operates, the materialities it assembles, and the constraints placed on its own development, researchers will be better equipped for grappling with mounting global instances of urban flood and landslide, and work to inform policy that may reduce the daily vulnerability of people like Bernardo.

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