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Prognosis past: the temporal politics of disaster in Colombia

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]RUNNING HEADS:

VERSO: AUSTIN ZEIDERMAN

RECTO: PROGNOSIS PAST[

]t1[9 Prognosis past: the temporal politics of disaster in Colombia

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]abs[In this paper, I explore a prognostic modality of environmental politics I call *risk in retrospect*. I do so by examining conflicts that are not just over the ability of state science to know and govern the future, but also its failure to have been able to do so in the past. I begin by discussing the 2009 earthquake that hit the Italian city of L'Aquila and then turn to a similar case in Colombia, both of which reflect the constitutive relationship between political authority and foresight. I then trace the strong historical precedent for this type of political situation in Colombia by discussing a key cultural referent – Gabriel García Márquez's 1981 book, *Chronicle of a death foretold* – as well as the convergence of two catastrophic events during one week in November 1985 that were both seen, in their aftermath, as 'tragedies foretold'. I conclude by considering what it would mean for prognosis to become the terrain on which citizens engage in political relationships with the state.

]p[This paper about Colombia begins in Italy, for Italy is home to a recent example of the prognostic tense of environmental politics. The situation I refer to is the 2009 earthquake that hit the Italian city of L’Aquila and the judicial decision handed down in 2012 to convict six scientists and one government official of manslaughter. They were guilty, the court ruled, of failing to give adequate warning to residents about the risk of an impending disaster – or, to paraphrase some of the more sensationalist media headlines, of not being able to predict the future. This case is significant not only because it may have far-reaching consequences for the politics of disaster risk management or because it raises so many questions about the relationship between technical expertise, political authority, and legal accountability. It is also worth mentioning here for its ability to highlight the peculiar temporality of conflicts over the state’s responsibility to know and govern the future, and its failure to have been able to do so in the past. In other words, it reflects a prognostic modality of environmental politics we might call *risk in retrospect*.

]p1[In early 2009, a series of small tremors was felt across the Abruzzo region east of Rome. The public’s unease was heightened when a retired local laboratory technician began issuing unofficial predictions, based on homemade monitoring devices, that a major earthquake was imminent. The national risk commission then met in the city of L’Aquila on 31 March to evaluate the situation, concluding that the recent swarm of seismic activity only slightly increased the probability of a major event. In a press conference, a government spokesman communicated that there was no danger and that it was unnecessary to issue safety warnings or order evacuations. A week later, a 6.3 magnitude quake devastated the city, killing 309 people. Seven members of the

risk commission were eventually taken to court by lawyers representing the victims' families. In support of the seismologists and geologists standing trial, an international coalition of more than 5,000 scientists issued an open letter to President Giorgio Napolitano. Their letter highlighted the scientific consensus that seismologists cannot predict when and where an earthquake will occur, and argued that the defendants were being prosecuted for failing to do the impossible. This was the primary argument put forth by the defence. But on 22 October 2012, the prosecution prevailed. Judge Marco Billi ruled that the defendants had communicated 'inexact, incomplete, and contradictory' information about the risk of a major earthquake; that they had lulled the public into a false sense of security with a deceptively reassuring statement; and that they had failed to give clear preparedness advice. The verdict: all seven were sentenced to six years in prison and ordered to pay over \$10 million for court costs and damages.

[p1]Around the time of this ruling, Colombia was suffering from one of the worst rainy seasons on record. Amidst the deluge, President Juan Manuel Santos presided over the twenty-fifth anniversary of another catastrophic event: a volcanic eruption in 1985 that set off massive mudslides and buried the town of Armero, killing nearly 30,000 people. In his commemorative address, he urged Colombians to apply lessons learned from the earlier disaster to the current one in order to avoid falling into 'victim syndrome' (*síndrome del damnificado*).¹ Santos encouraged those affected by the recent storms to adopt 'an attitude of mutual collaboration and solidarity' and to emulate the patience and perseverance of the 13-year-old girl, Omayra Sánchez, whose

tragic death had come to symbolize the calamity. Moreover, he signalled that ‘among the lessons this great tragedy left behind is the importance of foresight and doing everything possible to prevent tragedies’. In the case of Armero, he recalled, ‘it may have been possible to avoid many of the deaths ... this is an important lesson ... if only the warnings had been heard’. Santos reminded his audience that the 1985 event had given birth to Colombia’s national system of disaster prevention, which had since saved thousands of lives. His comments demonstrated the degree to which the Armero tragedy continues to underpin the state’s political, legal, and ethical responsibility to anticipate and prevent potentially catastrophic events.

jp1[The Italian and Colombian cases both sit within the domain of *prognostic politics*, the topic of this special issue, which draws our attention to the calculative techniques used to predict environmental futures, and to the political significance of such predictions. However, this paper focuses on natural *disasters* rather than natural *resources* – social *bads* rather than social *goods*. Yet the temporal dynamic it highlights might be as common to debates over declining water supplies as to those regarding rising sea levels. For attempts to grasp both resource availability *and* environmental risk rely on techniques for calculating the likelihood of different futures, and then bringing them into the realm of individual or collective decision-making. Despite a wide range of techniques of prediction and degrees of predictability, both resources *and* disasters are situated in a common technocratic domain, within which political authority is linked to the state’s responsibility to generate knowledge about the future and to govern accordingly.² As Reinhart Koselleck (2004) has argued, (rational) prognosis displaced (religious) prophecy as the paradigmatic

conception of futurity in the modern period along with the secularization of political authority. That said, the L'Aquila disaster in Italy and the Armero tragedy in Colombia suggest that prognostic politics is not solely about the future, but often also about the past. Both cases illustrate a peculiar temporality – at once prospective and retrospective – that often characterizes public controversies in the aftermath of catastrophe.

[p1[The following analysis builds on long-term fieldwork in Colombia to illuminate a prognostic modality of environmental politics: *risk in retrospect*. Over a twenty-month period from August 2008 to April 2010, I conducted both ethnographic and archival research in Bogotá on the emergence of disaster risk management as a technique of urban planning and government (Zeiderman 2012; 2013). My specific focus was a municipal housing programme actively relocating people from what in the early 2000s had been designated *zonas de alto riesgo*, or 'zones of high risk'. These were areas on the periphery of the city deemed vulnerable to landslides and, in some cases, also to floods. I returned for a one-month follow-up visit in January 2012, towards the end of what would eventually amount to over a year of inordinately heavy rainfall, to find areas near my fieldsites recovering from extensive inundation. I was interested in the government's response to the flooding as well as that of the people whose homes had been damaged by it, and made a series of visit to the affected areas. These neighbourhoods were outside my initial study area, so I had to rely on chance encounters with local residents who responded to my inquiries, invited me into their homes, and agreed to be interviewed. In order to reconstruct the events leading up to the

floods, I supplemented interview data by consulting media coverage from December 2010 to February 2012.³

[p1[In what follows, I draw on this material to examine conflicts over the ability of state science to know and govern environmental futures and its failure to have done so in the past. I begin by considering differing approaches to the politics of temporality, especially in relation to a paradigmatic spatial configuration – the city – in which prognosis has become a key idiom of political authority and responsibility. Having introduced the problematic of *risk in retrospect* by way of the 2009 earthquake that hit the Italian city of L’Aquila, I then turn to a more fine-grained analysis of a similar case in Colombia that transpired during and after the worst rainy season in recorded history. I trace the historical precedent for this type of situation in Colombia by discussing a key cultural referent – Gabriel García Márquez’s 1981 book, *Chronicle of a death foretold* – as well as the convergence of two catastrophic events during one week in November 1985 that were both seen, in their aftermath, as ‘tragedies foretold’. I conclude by considering what it would mean for prognosis to become the terrain on which citizens, especially the poor, engage in political relationships with the state. Ultimately, I argue that if political authority is increasingly tied to the ability to generate knowledge about the future – of resources, of disasters, and of many other social and environmental goods and bads – our capacity to understand the strategic potential of prognosis is of pre-eminent importance.

]ha[The politics of temporality in the city

The L'Aquila disaster in Italy and the Armero tragedy in Colombia both point to a peculiar yet widespread modality of environmental politics that is at once prospective and retrospective. This observation is inspired by historian of science and technology Paul Edwards (2012a), who has argued that the extent of two recent disasters – the Fukushima nuclear fallout and the Deepwater Horizon oil spill – could not be known except through already-existing computer simulations that could generate predictions of what was likely to happen in these sorts of events. That is, since tracking the real-time spread of these actual disasters was impossible, models designed previously to simulate the potential release of toxic substances (radiation and oil) into the surrounding environment became the authoritative record of what was happening (cf. Edwards 2012a). In other work, Edwards (2010) has shown how the science of global warming also relies on computer models and simulations, and that without them there are no data with which to predict how the world's climate is likely to change. In the case of the two recent disasters, however, he complicates the temporality of models and simulations by showing how they enable scientists not only to foresee what will happen, but also to assess what has already happened. This temporal reversal – seeing prediction as about both the future and the past – is crucial to what I am emphasizing here.⁴

That disasters are often understood through non-linear temporalities should come as no surprise to anthropologists, given the discipline's long-standing interest in time (Bear 2014; Geertz 1973; Gell 1996; Greenhouse 1996; Munn 1992; Rabinow 2008). What may be more novel is the observation that temporality is explicitly political, such that the state's authority is often predicated on specific arrangements of time. Referring to the

‘politics of temporality’ in the contemporary United States, Vincanne Adams, Michelle Murphy, and Adele Clarke argue that future-orientated regimes of *anticipation* increasingly define how ‘we think about, feel and address our contemporary problems’ (2009: 248). In their view, ‘anticipation is intensifying into a hegemonic formation’ that is motivating speculative logics of capital accumulation, spreading through our institutions of government, and becoming an affective state that orientates individual and collective behaviour. The sweeping phenomenon these scholars describe resonates throughout other works of social theory, which highlight the political implications of heightened anxiety about futurity and the subsequent proliferation of pre-emptive actions (Cooper 2006; 2010; Martin 2007; Massumi 2009; 2010).

[p1]While much can be gained by theorizing temporal transformations on a grand scale, or what Daniel Rosenberg and Susan Harding refer to as the ‘big stories of the future’ (2005: 14), they often lead to reductive denunciations of temporality as a domain of hegemony and domination.⁵ Once we acknowledge Koselleck’s irrefutable point that historical time ‘is bound up with social and political actions, with concretely acting and suffering human beings and their institutions and organizations’ (2004: 2; cf. 2002), then it logically follows that all forms of temporality are suffused with and constitutive of power (Greenhouse 1996). Yet while this ought to lead us to analyse futurity and its uneven effects on certain bodies, spaces, and populations, it would be a mistake to resort to automatic denunciations. For doing so would risk ascribing an almost totalizing quality to the politics of time, and leave us devoid of resources for thinking about the heterodox temporalities existing alongside and within dominant or hegemonic

formations.⁶ We need tools for analysing futurity as constitutive of both political authority and political possibility.⁷

AbdouMalik Simone's (2010) understanding of 'anticipatory urban politics' is helpful in this regard.⁸ Among the urban poor in Northern Jakarta, Simone finds people 'reading the anticipated manoeuvres of stronger actors and forces and assessing where there might be a useful opportunity to become an obstacle or facilitator for the aspirations of others' (2010: 96).⁹ But the politics of anticipation is 'not just a form of resistance or simply a politics from below'.¹⁰ Anticipatory politics constitutes a future-orientated 'game of transactions' that brings differently positioned urban actors into contact with each other, resulting in benefits and constraints for all (2010: 101). The future is neither the exclusive domain of state planners and economic elites nor that of popular political mobilizations – it is a horizon of strategic politics for diverse attempts to make and remake the city in the present. Since the city is 'not hinged, not anchored' to any single trajectory, Simone urges us to remember that 'by definition [it] goes toward many different futures at once' (2010: 115).

Simone's reflections suggest that temporality is mapped on to certain spatial configurations, such that the city, we might say, is a key 'chronotope of modern time' (Bakhtin 1981; Bear 2014). In cities, the future is alongside us, upon us, all around us. The past, of course, is present, too.¹¹ But it is tempting to assume that (in some fundamental way) the city is orientated temporally towards horizons of possibility, expectations of change, and the anticipation of things to come. There is something misleading about this assumption, however, since it is rather peculiar to cities belonging to the

category of the ‘modern’. One of the defining characteristics of modernity was a belief in the progression of time towards a more efficient, more prosperous, and all-around better future; in turn, this promise hinged on the growth and development of cities and the domination of nature.¹² The ‘modern city’ was considered the most advanced stage of social evolution, historical progress, and cultural development against which all other spatial forms were judged. And the destiny of places outside of Europe and North America was presumed to be a perpetual game of catch-up with Paris, London, and New York (Robinson 2004; Roy 2008).

These imagined futures came into question in the late twentieth century as teleological, evolutionist, and developmental narratives of all kinds began to lose credibility (Ferguson 2006: 176-93). Today, it is more common to foresee futures of crisis, chaos, and catastrophe than to envision the emergence of ideal spaces and societies – conceptual resources for imagining alternative possibilities appear to be in short supply. Susan Buck-Morss (2000) famously attributed the ‘passing of mass utopia’, as she called it, to the exhaustion of the collective dreams of historical progress previously shared by East and West during the Cold War. With phrases like the ‘end of history’ (Fukuyama 1992), the ‘death of progress’ (Levitas 1982), the ‘post-development era’ (Escobar 1992), and ‘living in the end times’ (Žižek 2010), others have made similarly epochal claims about the demise of the utopian imagination or of progressive thinking more broadly. These proclamations no doubt over-reach, and yet the weakening of grand narratives like ‘modernization’ and ‘development’ has made way for a radically different future – one neither certain nor desirable, but rather filled with uncertainty and

marked by a rather grim sense of how history will unfold. Disaster, even apocalypse, looms large on the horizon.¹³

[p1[The notion that we are now living ‘in the wake of utopia’, geographer David Pinder (2005: 12) points out, has greatly influenced dominant thinking about urban environments. In this context, inherited frameworks for urban planning and governance have been undergoing significant transformations as concepts like ‘preparedness’, ‘resilience’, and ‘future-proofing’ have taken centre stage. Contemporary visions of urban environmental futurity share the sense that the city is a space of menacing uncertainty, imminent threat, and potential collapse. The logical response is the rationality of security underpinned by techniques for managing risks – of natural disaster and resource scarcity, but also of financial crisis, political violence, and disease outbreak. These techniques are multiple, as they have been assembled in order to govern different forms and degrees of uncertainty attached to diverse objects and events – predicting the likelihood of an earthquake can be altogether different from calculating the probability of a terrorist attack. Even when dealing with the same type of object or event, different actors (e.g. fluvial geomorphologists, people living in a floodplain, insurance companies) employ different modes of prediction that enable different sorts of claims and sets of responsibilities.

[p1[As conventional assumptions about futurity are being thrown into doubt, we see something akin to what Rosenberg and Harding call the ‘crisis of modern futurity’ (2005a: 4), here in a specifically urban environmental form. Novel regimes of futurity are emerging in cities throughout the Global North and South, which generate new forms of political, legal, and ethical

responsibility tied to the imperative to predict and mitigate future catastrophes (cf. Laidlaw 2013).¹⁴ Prognosis then becomes a terrain on which citizens engage in political relationships with the state. This was true of the 2010-11 flooding emergencies in Colombia, as well as of the 2009 earthquake in Italy. But while both events involved the state's failure to foresee environmental futures, there is a difference between looking *forward* to potential disasters looming on the horizon and looking *backward* to ones that have already occurred. As we will see, *risk in retrospect* is a prognostic modality of environmental politics that sustains both political authority and critique.

]ha[After the flood

]p[From late 2010 to early 2012, Colombia was besieged by the worst rains on record. Unusually high levels of precipitation were attributed both to La Niña, or the cyclical cooling of the eastern Pacific Ocean that disrupts typical weather patterns, and to the increased severity of meteorological events associated with climate change. The resulting floods and landslides displaced hundreds of thousands of people, destroyed homes throughout the country, severely impacted the economy, and took the lives of several hundred citizens. Although rural areas in the north of the country and along the Caribbean coast were hardest hit, urban areas, such as a suburb of Colombia's second largest city, Medellín, also witnessed grave tragedies. We could approach this situation by examining the models used to generate rainfall predictions and flood risk maps and their role in shaping the distribution of destruction and displacement. In temporal terms, our analytical position would then be both retrospective and prospective: looking back to the past to reveal the state's

failure to prevent future disasters. Instead, I would like to draw attention to some of the conflicts that emerged during and after this period of flooding, which themselves revolved around both hindsight and foresight. Focusing on a specific flood event in the capital city, I will show how this temporal orientation was the ground for both political authority and critique.

On Monday, 5 December 2011, Bogotá's largest daily newspaper, *El Tiempo*, reported that, following a forty-eight-hour deluge, the Bogotá River was nearly overflowing its banks. Andrés González, the governor of Cundinamarca, the department that surrounds Bogotá, cautioned that water levels had risen sharply and could soon cause flooding downstream in the capital. These predictions came true the following afternoon. Another rainstorm developed, and the canals draining *aguas negras* (wastewater) from the city were blocked from conveying effluent to the Bogotá River, as they do under normal circumstances, owing to the river's abnormally high level. Instead of discharging storm water and sewage, one of the drainage canals began to function as a reservoir, collecting wastewater and distributing it laterally across residential neighbourhoods in the peripheral locality of Bosa on Bogotá's southwestern edge. Wastewater not only rushed through the streets, but also percolated up through sewers and drains, and within hours had risen to nearly a metre in height. Residents retreated to the second floor of their homes until rescue workers arrived with inflatable boats to transport them to dry land. Interim Mayor Clara López then declared an emergency and called on her staff to identify where to discharge the Bogotá River's excess flow while pleading with *bogotanos* to limit water use immediately.¹⁵ These responses were effective though insufficient, and the municipal water utility appealed to

neighbouring countries to lend Bogotá a high-capacity pump used normally for petroleum extraction.¹⁶ Aided by a respite of dry, sunny weather, these measures eventually succeeded in reducing the river's force and draining the inundated neighbourhoods.

]p1[Mayor López then accompanied President Santos to El Recreo, one of the most heavily affected areas, to begin the provision of humanitarian aid. López had already agreed to provide tax relief as well as a rental subsidy of 550,000 pesos (US\$300) to those forced by the flooding to evacuate their homes.¹⁷ In addition, the municipal water utility had guaranteed fifteen days of free delivery.¹⁸ Donning a red 'Colombia Humanitaria' windbreaker, Santos announced that the national government would provide an additional 1.5 million pesos (US\$775) to each family adversely affected by the flooding.¹⁹ The President estimated that more than 10,000 families would be eligible for aid, but said this was contingent upon an official census of the victims.²⁰ The Secretary of Social Integration began compiling a registry by consulting the administrator of each residential housing complex and other community leaders. Bogotá's disaster-risk-management agency (FOPAE) followed with house-by-house inspections to determine the extent of property damage and the number of people affected. Although preliminary estimates were as low as 5,000 victims, FOPAE soon announced that the flooding had impacted over 45,000 people in total.²¹ Once the official census was complete, the government issued a certificate of damages to each household, and the relief promised by López and Santos could be disbursed.²²

]p1[Long lines formed wherever aid was being handed out, and residents declared that there was not enough for the number of families in

need. Reports came back that there was no systematic process for allocating assistance; that food rations were being proportioned in an *ad hoc* manner.²³ Meanwhile, rumours circulated of people with false certificates arriving from elsewhere to steal from those in need. Others complained of flaws in the census, claiming they had been wrongfully excluded. For several hours, protesters blocked the Avenida Ciudad de Cali, a main thoroughfare in southwestern Bogotá, citing unreasonable delays in the distribution of aid.²⁴ Reporters from the news magazine *Semana* visited the flood zone in January and found the neighbourhood rife with accusations that the government had not made good on its promise to disburse subsidies by Christmas.²⁵ In response to the pressure, the Secretary of Government ordered a review of the census, and FOPAE returned to verify their count. With media reports and popular protests denouncing the government's response as disorganized and exclusionary, draining the city of flooding turned out to be less of a challenge than providing aid to the victims.

jp1[The focus of public discontent soon shifted, however, as residents from the flooded neighbourhoods began blaming the authorities for having ignored the fact that the Bogotá River had overflowed its banks three times in recent years. They criticized the state for permitting development in high-risk zones and demanded accountability from the construction company that had knowingly built housing complexes in flood-prone areas.²⁶ A group of 150 protesters blocked a local transportation hub, Portal de las Américas, drawing attention to the fact that the flooding had predominantly inundated public housing. A resident framed the issue as follows: 'These houses turned out to be a scam (*el paquete chileno*): [the state] promised us development (*valorización*

y vías) and we ended up living in a gutter'.²⁷ Shared among these critiques was the sense that the state had failed to take the precautions necessary to protect people from a known threat. That is, the government should have foreseen the disaster and, if unable to prevent it, at least done more to mitigate its adverse effects.

As those affected by the flooding were making their voices heard, similar perspectives circulated in the media. In the editorial page of *El Tiempo*, author and columnist Yolanda Reyes cited a history of irresponsible housing policy:

I remember when Mayor Peñalosa invited 'opinion leaders' on a helicopter tour of the urban developments of Metrovivienda [social housing] in Bosa. Journalists admired the bicycle routes, the avenues, and the public spaces on the edge of what is now a sewer of *aguas negras* ... Against logic, [Metrovivienda] developed these urbanizations with the promise that risk mitigation would happen later.²⁸

Reyes also refuted President Santos's constant references to La Niña by blaming the government for not having taken preventive measures and for ignoring past flooding experiences:

They know that what happened in Bogotá is not new, that it is not simply the consequence of global climate change or the fault of 'la maldita niña', but rather of *maldita improvisación*

[damned improvisation]. If they consulted historical documents they would see that from Mosquera to San Victorino [a large area of western Bogotá], there have been times when those who were sold on the model homes in Bosa had to rely on the very same inflatable boats that are carrying them away today.

]p[Emphasizing the error of uncontrolled growth of the urban periphery, Reyes asked: ‘Which public agencies approved those licences and allowed these developers to profit? Was there any fine print that warned about the probability of flooding?’ She concluded that protecting the urban poor from potential disasters is a central responsibility of the state.

]p1[As Reyes’s op-ed makes clear, flooding in Bogotá was discussed publicly as more than just a problem of housing policy and land-use planning; issues of prognosis were front and centre. In an interview with Mayor López, *El Tiempo* asked explicitly whether the emergency in Bosa could have been prevented. ‘It was foreseen’, she admitted, ‘and this is why we built flood control channels, maintained the drainage systems, and dredged the Bogotá River’.²⁹ Looking ahead to the future, the media also initiated discussions about how to ensure the same situation would not repeat itself during the next rainy season. In another op-ed, the chief editor of *El Tiempo*, Ernesto Cortés Fierro, argued that more anticipatory governance of ‘zones of high risk’ would be necessary: ‘[T]here are a million and a half souls sitting on the bank of the river in permanent danger, and rather than just asking ourselves what they are doing there, we have to respond to the question, what are we going to do about it?’³⁰ A range of infrastructural solutions were considered, such as removing

the sediment and debris that impeded drainage through the system and widening the river to increase its conveyance capacity.³¹ When asked whether Bogotá was prepared for more rain, Secretary of Government Antonio Navarro Wolff assured the public that the administration would prioritize additional preventive measures so the same problems would not return in the future.³²

][a][Hindsight and foresight

][p][In January 2012, I visited the neighbourhoods that had been inundated by storm water and sewage one month before. I rode the TransMilenio mass transit system from central Bogotá to its southwestern terminus, the Portal de las Américas, which protesters had brought to a standstill in the days after the flooding. As I transferred to a bus that ran alongside one of the canals conveying wastewater to the outskirts of the city, I detected the stench of raw sewage still floating in the air. Debris lay stranded along its edges and hung from the bottom branches of squat trees lining its banks. I got off at a bakery and spoke to a waitress who confirmed that I was getting close to the site of the floods. The water level had risen a couple of feet in this part of the neighbourhood, she said, and the bakery had been forced to close for days. She then indicated how to get to the area that had been badly affected. ‘It’s pretty much all cleaned up by now’, she said, ‘but you’ll find people who are still angry. They knew something like this was going to happen, but nobody would listen’.

][p1][Following her advice, I continued in the direction of the Bogotá River and found a number of residents willing to recount the story of the flooding. They told me about the panic they felt as the waters rose all around

them, the hardship of cleaning up and drying out, and the government's dysfunctional response. But running through many of my conversations was also the sense that this was an event that could have been predicted, and therefore prevented. Mobilizing different forms of evidence – personal experience with past flooding events, periodic monitoring of water levels in the Bogotá River and the condition of adjacent drainage canals, the government's own risk assessments and mitigation efforts – residents claimed that the flooding was the result of prognostic failure on the part of the state.

[p1[The majority of the buildings I passed on my visit were *vivienda de interés social* (or social interest housing) constructed in the last ten to fifteen years. Although this was the urban periphery in a geographical sense – I could see where the pavement ended and the pasture began – it was no squatter settlement that had sprung up in a flood zone because people had nowhere else to live. These housing complexes had been officially planned and built with public funds. I stopped in a small convenience store operating out of the front room of a two-storey townhouse and began chatting with the woman behind the counter. When I asked about the flooding, she gestured to the point on her leg up to where the water had risen. 'You've done a good job getting everything back into shape', I remarked, noting the absence of visible damage. 'Yeah, but it hasn't been easy. The government promised us three *ayudas* [disbursals of aid], but we have only received one'. She then told me that people in the neighbourhood were planning legal action against the state and the developer. 'If you want to know more', she offered, 'you should talk to Doña Lucia, the president of the housing complex. She runs a *supermercado* on the next block'.

]p1[I did as she said, and found Doña Lucia in a shop similar to the one I had just visited, except that it stocked fresh fruits and vegetables and had a small refrigerator case for meat and dairy. At first, Doña Lucia seemed hesitant to talk about the flooding: ‘What exactly do you want to know?’ ‘I’m interested in the government’s response to the emergency’, I answered, ‘and how the people who live here feel about it’. This caught her attention, and she showed me the spot where President Santos addressed the residents of the neighbourhood, promising each victim a subsidy of 1.5 million pesos. ‘Ever since then’, she said shaking her head,

]ex[there has been major disorganization on the part of the government in fulfilling its promises. Four days after Santos stood right outside my house, they came to conduct a census. This was necessary since there were lots of *gente deshonesta* [dishonest people] trying to pass themselves off as victims. But the census was completely disorganized. Some people were listed under the wrong identification number, others were excluded altogether, and this made it difficult for those who needed help to get it.

]p[*El desorden del estado*, she called it. ‘The disorder of the state’.

]p1[‘Is that what the protests have been about?’, I asked. Doña Lucia responded with an important clarification:

]ex[Well, there were some people who tried to falsify their identity in order to get themselves counted by the census. They are not from here.

But those demonstrating in the Portal de la Américas were promised subsidies that never arrived. Many of the *tomas* [protests] have been organized by people whose houses had flooded.

]p[I then asked whether these demonstrations had made a difference. ‘They came back to conduct another census’, she noted, ‘so I suppose we forced them to try to get it right. But there are still many people who deserve assistance and have not gotten any help. However, the main problem, as I see it, is that none of this should ever have happened in the first place’.

]p1[Surprised by this abrupt change of direction, I asked Doña Lucia what she meant. She gave me the following explanation:

]ex[We all knew this was going to happen. A group of us, maybe forty in total, got together back in September to call attention to the risk of flooding in the area and to denounce the government for not doing anything to prevent it. Look it up. It was on 8 September. City TV, Caracol, RCN, all the networks came to cover the story. We told them they had to clean out all the debris in the canals before the next heavy rain. Acueducto [the water utility] did a bit of clean-up, but in general the government just ignored us. And as a result, they were not prepared in December when the weather got really bad. We knew this was going to happen. They did too, but they didn’t do anything. They just waited, and then opened the floodgates once it was already too late. They have to be more prepared. The *olas invernales* [winter storms] are just going to get

stronger and stronger every year. We're worried! The river is going to fill up again next time there are heavy rains. We're always watching the sky.

]p1[After our conversation, I did indeed look the story up, as Doña Lucia had instructed me to do. I started with the archive of *El Tiempo*, but found nothing indicating that residents from Bosa had made a *denuncia* (denunciation) back in September about the risk of flooding in their neighbourhood. I then looked through past editions of the other major Bogotá newspaper, *El Espectador*, and found nothing there either. I checked a few more media sources, but again came up empty. I was about to give up, concluding that Doña Lucia's hindsight was 20/20, when I came across a posting on the RCN Television website from 9 December 2011 with the heading: 'Flood in Bosa had been denounced three months ago'.³³ Sure enough, what Doña Lucia had said was true. And since I could find no record of the protest until after the flooding had already occurred, it seemed that the warning had indeed fallen on deaf ears.

[Insert Figure 1 here. Caption: Disaster warning, 8 September 2011. Source: RCN Noticias.]

]p1[The posting on the RCN website linked to a video clip that revealed a group of demonstrators gathered in front of television cameras on the morning of 8 September in Bosa (Fig. 1). Some were dressed formally in suit and tie while others were bundled up with scarves and hoods to ward off

the cold morning air. Men and women of all ages faced the cameras with expressions conveying seriousness and conviction. The newscaster explained that residents were worried that the area's drainage system was inadequate to withstand the coming winter rains. Aided by handwritten signs, they warned of a potential threat that could lead to grave consequences, and asked the government to take immediate action (Fig. 2).

]ex[*Exigimos que la Alcaldía Distrital solucione el problema del río. ¡Evitemos una gran tragedia!* We demand that City Hall solve the problem of the river. Let's avoid a huge tragedy!

]ex[*El Consejo de Kasay de los Venados II presente... Ante el inminente riesgo de desbordamiento del río no queremos un gobierno distrital indiferente.* The Administrative Council of Kasay de los Venados II [housing complex] is present ... in light of the imminent risk of the river overflowing, we don't want an indifferent city government.

[Insert Figure 2 here. Caption: The imminent risk, 8 September 2011.

Source: RCN Noticias.]

]p[The microphone was passed to a middle-aged man, who took on the responsibility of speaking for the group:

]ex[Our worry is that we are staring in the face of an imminent flood (*ante una inminente inundación*) throughout the neighbourhood of El Recreo, and therefore we are making an urgent call to the Empresa Acueducto [water utility] to please dredge this river ... this drainage canal ... in an urgent manner. And we call not just on Acueducto but also on the municipal government to help us, because as soon as this area floods, all possible solutions are going to be unnecessary ... they won't do us any good at all.

]p[Reflecting the peculiar temporality of environmental politics that I am calling *risk in retrospect*, the video clip then jumped ahead to footage of the December floods, driving home the point that these pleas were not heard and the residents of Bosa are now facing the consequences.

]ha[Tragedies foretold

]p[Like the debate surrounding the culpability of the Italian earthquake scientists, the case of flooding in Colombia involved not just the state's responsibility to know and govern the future, but also its failure to have done so in the past. This type of situation has strong precedent in Colombia. A book by Gabriel García Márquez, *Crónica de una muerte anunciada* (1981), is a key cultural referent that has been used repeatedly, in Colombia and abroad, to give expression to tragedies that were foreseen but not avoided. Though not his most celebrated work, its circulation was boosted by the fact that García Márquez was awarded the Nobel Prize in Literature the year after its

publication. An allegorical tale based on historical events that took place in the early 1950s in a sleepy town near the Caribbean coast, the novel is frequently referenced in ordinary conversation, but also by the media and politicians, to characterize undesirable occurrences that were anticipated but not averted. While it would be an exaggeration to say that the structure of *Chronicle of a death foretold* typifies a particularly Colombian understanding of temporality, it nevertheless helps explain the prognostic modality of environmental politics under examination here. And while this modality is not uncommon, García Márquez lent it both rhetorical form and moral authority such that it would become readily available as a frame for interpreting subsequent tragic events.

[p1]The book tells the story of the murder of Santiago Nasar by the brothers of Angela Vicario, a woman whose virginity Santiago had supposedly taken. Angela's husband discovers his bride's lost innocence on the night of their wedding and immediately returns her to her family. Angela names Santiago as the culprit, and her brothers, butchers by trade, set out with knives to avenge their sister's honour. Intoxicated from the previous night's festivities, the Vicario brothers are not discreet about their objective. They are seen all over town sharpening their weapons, preparing their attack, even boasting about their plan to kill the man who has sullied Angela's reputation. Nearly everyone knows what is going to happen, and yet no one intervenes to prevent the murder. There are different reasons for this: some townspeople doubt the sincerity of the Vicario brothers' threats; others attempt unsuccessfully to warn the intended victim. In the end, Santiago is stabbed to death on the threshold of his family home.

]p1[The central problematic and temporal structure of this short work by the most recognized of modern Colombian authors parallel the prognostic modality of environmental politics described above. The narrator returns to the town many years after the murder, only to find evidence that everyone had known the killers' intentions ahead of time and had been unable to stop them from accomplishing the deed. The tale recounts not the inability to foresee future events, but rather the failure to act appropriately on the knowledge available prior to their occurrence. It is both retrospective and prospective, looking backward to a moment in time in which an event was about to take place and forward in time from that moment to a future that was known. Neither the townspeople nor the authorities had stepped in to prevent the killing; the outcome was *una muerte anunciada*, a 'death foretold'.

]p1[Clearly referencing García Márquez's prescient story, two catastrophic events that converged during one week in November 1985 were both seen, in their aftermath, as *tragedias anunciadas* (or 'tragedies foretold'). On 6 November, thirty-five members of the M-19 guerrilla group attacked the Palace of Justice in central Bogotá taking hundreds of hostages, including twenty-four Supreme Court judges. President Belisario Betancur rejected their demand that he come and stand trial for accusations that he had betrayed a previously negotiated peace accord, and instead ordered the Army to storm the building. In the ensuing battle between the Colombian armed forces and the rebel gunmen, more than seventy-five hostages were killed, including eleven of the federal justices trapped inside. Exactly one week later, a volcano 80 miles west of Bogotá, the Nevado del Ruiz, erupted suddenly and nearly 30,000 people died as a massive mudslide buried the nearby town of Armero.

The media quickly assigned blame for the casualties in both cases to the government's lack of foresight. Journalists demonstrated evidence showing that both events could have been anticipated and, therefore, prevented.³⁴ This sparked a crisis of political authority for which future-orientated security mechanisms were seen as the solution. From that moment on, the protection of human life against potential threats (both human and nonhuman in origin) would be an orientating *telos* of government: that is, a political rationality shaping the state's authority over and responsibility to its subjects. The prognostic act of forecasting the outcome of similar situations in the future – according to scientific data on the probability of natural disasters or military intelligence on the likelihood of insurgent attacks – became a key dimension of political legitimacy.

[p1]The catastrophic events of 1985 remain historical referents for contemporary understandings of political, legal, and ethical responsibility for the protection of human life in Colombia. My interviews in 2008 and 2009 with state officials and policy experts on the subject of disaster risk management were filled with references to the siege of the Palace of Justice and the Armero disaster. A social scientist involved in the creation of risk-management policy in Colombia referred to them as two of the most unforgettable events in recent memory. Like many of my other interlocutors, he pointed to them as central to the formation of political rationalities concerned with potential threats to collective life. The continued significance of these tragedies reflects how they were made to constitute a crisis in which the government's inability to anticipate and avert them was seen as a monumental failure, and predictive, preventive, and pre-emptory techniques

were the solutions proposed.³⁵ Although Colombians were more than familiar with both political violence and natural disaster prior to November 1985, it was at this moment that a new framework emerged through which such events would be understood and managed thereafter.

]p1[This was not immediately clear to me when I began fieldwork in Bogotá on the politics of disaster risk. Although I sought to historicize what I saw as a constitutive relationship between foresight and political authority, legitimacy, and responsibility, at first it was difficult to engage my informants in this pursuit. There was an obviousness surrounding the topic that lent it an aura of inevitability: it seemed natural to expect that the state should be able to anticipate future threats and prevent them from materializing. When I asked people to consider what may have motivated such an expectation, they often returned to 1985. For my informants, this was the year of the ‘tragedies foretold’. These catastrophic events thereafter came to define the state’s responsibility to protect human life from future harm.

]ha[Conclusion

]p[I would like to conclude with a reflection on the prognostic modality of environmental politics highlighted by the Colombian and Italian cases by distinguishing between two somewhat different temporal orientations. In the first, an individual or group denounces the state for not being aware of, attentive to, or prepared for an event that has yet to take place. Back in September 2011, Doña Lucia and her neighbours looked to the future, identified a threat, organized prospective victims, demonstrated their vulnerability, and demanded pre-emptive action. The second temporal

orientation, which I am calling *risk in retrospect*, involves a critique aimed at political authorities and technical experts for not *having been* aware of, attentive to, or prepared for an event that *eventually did* occur. This critique is prospective in its reference to the state's responsibility for potential threats. Yet it is also retrospective: protesters responding to the Bogotá floods and lawyers representing the L'Aquila earthquake victims both positioned themselves simultaneously in the aftermath of these events when their consequences were already known and prior to them when prevention could (or should) have been possible.³⁶ They mobilized a combination of hindsight and foresight to demand accountability for the loss of life and livelihood.

lp1[While the latter formulation differs from the previous one in its attempt to hold the state accountable for an actual event in the past, they share one key element: without calling into question the imperative to render the future governable in the present, those engaging in this prognostic modality of environmental politics demanded more and better mechanisms of prediction, prevention, and preparedness. And rather than disputing the fact that their status as political subjects was predicated on their vulnerability or victimhood, they sought to mobilize concern for an additional threat or to recognize a larger group of victims. Thus, while positioning themselves as critical of the state, they ultimately reinforced the future-orientated rationality of security – organized around the imperative to protect the life of the population against potential threats – as the basis of political authority and legitimacy. This raises questions about the transformative potential of prognosis in places, like Colombia, where security saturates the domain of politics and government.

]p1[These observations offer insight into the terrain of political engagement organized around environmental futures. They show that prognosis, while central to political authority, legitimacy, and responsibility, is also the ground upon which people formulate both demands on and critiques of the state. Although these claims, aspirations, and expectations may be constrained by the overarching logic of security within which they are situated, prognosis can be mobilized for a variety of political purposes. It is often deployed in order to draw attention to the state's shortcomings, contradictions, and inadequacies by demonstrating the failure to provide protective care to its most vulnerable subjects in the face of potentially catastrophic events. Across the political spectrum, the key question is how prognosis is harnessed to specific political projects and to what effect.

]p1[This is an important corrective to work that reduces the future to a domain of hegemony and domination and assumes a limited set of positions and possibilities. Temporality is not only a mechanism of social control through which to consolidate political authority, facilitate capital accumulation, and produce subjects amenable to both. In the cases I have described, prognosis is the ground upon which the state and critiques of it both rest. It is often *within* a prognostic domain, and not outside of or in opposition to it, that the poor demand more from their governments. And yet the transformative potential of prognosis as a domain of environmental politics is limited. Rather than calling into question, destabilizing, or taking hold of the state, the modality of prognosis I have analysed in Bogotá reinforces security as the orientating *telos* of government. Ultimately, while prospective denunciations take an oppositional stance *vis-à-vis* the state, they uphold the

established rationalities from which they derive their meaning and force as forms of popular political expression.

I have brought together the L'Aquila earthquake and the Bogotá floods to demonstrate how prognosis becomes the basis of political engagement. But rather than revealing the 'hidden' politics of predictive techniques that are ostensibly objective, neutral, and scientific, my goal has been to highlight a modality of environmental politics in which future projections are explicitly central. And instead of showing how efforts to know and govern environmental futures shape the present, I have focused analytically on the problem of prognosis in the past. After all, concentrating exclusively on the future would risk mirroring the state's fixation on the virtual, the potential, and the possible. In contrast, focusing methodologically on the past allows us to contextualize the tight connection between foresight and political authority and responsibility. As political legitimacy is increasingly tied to knowledge about the future – of resources, of disasters, and of many other objects and events – our ability to understand the politics of prognosis becomes ever more urgent. We need to reflect critically on the strategic potential of prognosis for those usually resigned to simply wait for something better (or worse!) to come along.

[NOTES

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meeting of the American Anthropological Association. In Bogotá, my gratitude goes to Laura Astrid Ramírez for her research assistance. The names of those quoted in the text were changed to protect their anonymity and all translations from the Spanish are my own.

Int¹

<http://wsp.presidencia.gov.co/Videos/2010/Noviembre/Paginas/Index.aspx>

(accessed 18 January 2016). Sistema Informativo del Gobierno, Presidencia de la República de Colombia. Recording of Santos's addresses to Armero, November 2010.

² Prognoses of resources and disasters are additionally related by the fact that both need to account for the eventual effects of climate change. Earthquakes are different in this regard, since they are not connected to climate in any direct way. Moreover, there are really no models or simulations for predicting the occurrence of an earthquake, although such techniques can be used to predict their effects.

³ Secondary sources consulted were the Bogotá daily newspaper *El Tiempo*, the weekly news magazine *Semana*, and the news broadcaster *Noticias RCN* from December 2010 to February 2012.

⁴ For a related analysis of expectations surrounding innovations in the fields of health and life science, see Brown & Michael (2003). The authors propose the concepts of 'retrospecting prospects' and 'prospecting retrospects' as 'interpretive registers' through which people understand and discuss expectations of future change.

⁵ For similar diagnoses of temporal politics in urban studies, see Auyero & Swistun (2009), Mitchell (2009), and Yiftachel (2009).

⁶ An inspiration for this analysis is Koselleck, who writes ‘not of one historical time, but rather of many forms of time superimposed on one another’ (2004: 2).

⁷ Here I am in agreement with Adams *et al.* when they conclude their critique with the question: ‘What would it mean to not-anticipate?’ (2009: 260). Although their article seeks to imagine ‘strategies of refusal’ that disrupt anticipatory regimes, they nevertheless recognize that ‘perhaps a better tactic is not to refuse anticipation’ and instead consider what relations to the future are desirable, and how we might go about fostering them.

⁸ Gisa Weszkalnys’s (2014) work offers another important resource for thinking about anticipation and the temporal politics of disaster. See also her contribution to this volume.

⁹ These anticipatory practices hinge on the recognition that dominant logics of capital accumulation and political rule are always fractured and inconclusive – as Simone argues, they are ‘full of potential holes capable of providing, albeit always temporarily, shelter and maneuverability’ (2010: 98).

¹⁰ After all, it is also through the promise of alternative futures that members of the urban poor come to believe that political change or economic development will eventually materialize, which limits their options and reduces their leverage.

¹¹ For discussion of the relationship between past, present, and future, see Huyssen (2003), Koselleck (2004), and Luhmann (1998).

¹² We are now aware that this idea was predicated on colonial assumptions about time and space, such that futurity mapped on to the spatial categories of centre/periphery and West/non-West. Geographical distance was equated with

temporal difference (Fabian 2002), as places beyond the metropole were relegated to a time before the present.

¹³ Naomi Klein (2007) traces the political-economic logic of what she calls ‘disaster capitalism’.

¹⁴ I am grateful to an anonymous reviewer for drawing connections between my argument about the state’s responsibility to predict and mitigate future catastrophes and James Laidlaw’s (2013: 204-9) work on the proliferation of ethical responsibilities enabled by new forms of statistical reasoning.

¹⁵ *Semana*, 7 December 2011; *El Tiempo*, 8 December 2011.

¹⁶ *Semana*, 9 December 2011.

¹⁷ ‘Autorizan inundaciones controladas en baldíos del norte y sur de Bogotá’, *Semana*, 7 December 2011.

¹⁸ ‘Damnificados subieron a 45.196 en tres días’, *El Tiempo*, 9 December 2011.

¹⁹ ‘Inundaciones: gobierno entregará ayuda económica a damnificados en Bogotá’, *Semana*, 9 December 2011.

²⁰ *Ibid.*; ‘Ayuda para damnificados de Bosa será entregada la próxima semana’, *El Tiempo*, 10 December 2011.

²¹ ‘En Bosa hay 5 mil damnificados a causa de las fuertes lluvias’, *El Tiempo*, 8 December 2011; ‘Damnificados subieron a 45.196 en tres días’, *El Tiempo*, 9 December 2011.

²² ‘Bogotá: así se entregan las ayudas en Bosa y Kennedy’, *Semana*, 13 December 2011.

²³ ‘Víctimas de invierno en Bosa y Kennedy viven drama para recibir ayudas’, *El Tiempo*, 13 December 2011.

- ²⁴ ‘Damnificados subieron a 45.196 en tres días’, *El Tiempo*, 9 December 2011.
- ²⁵ ‘Después del diluvio’, *Semana*, 7 January 2012.
- ²⁶ *El Tiempo*, 7 December 2011; *Semana*, 7 December 2011.
- ²⁷ ‘Después del diluvio’, *Semana*, 7 January 2012.
- ²⁸ Yolanda Reyes, ‘No es la “maldita niña”’, *El Tiempo*, 12 December 2011.
- ²⁹ ‘La alcaldesa respondió a las denuncias por la entrega de ayudas’, *El Tiempo*, 14 December 2011.
- ³⁰ Ernesto Cortés Fierro, ‘Alcalde, ¿y del invierno ...?’ , *El Tiempo*, 11 December 2011.
- ³¹ ‘Al invierno, se suma drama para recibir ayudas’, *El Tiempo*, 13 December 2011.
- ³² ‘Antonio Navarro Wolff asumió como Secretario de Gobierno de Bogotá’, *El Tiempo*, 2 January 2012; ‘Con modelo hidráulico buscan evitar nuevas inundaciones en Bogotá’, *Semana*, 17 January 2012.
- ³³ RCN Noticias, 9 December 2011,
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- ³⁴ *El Tiempo*, 16 November 1985; Daniel Samper Pizano, ‘Apocalipsis anunciado’, *El Tiempo*, 18 November 1985; Gloria Moanack, ‘Colombia, region de alto riesgo sísmico’, *El Tiempo*, 14 November 1985.
- ³⁵ For a discussion of the *crisis de ‘gubernabilidad’* that ensued after the coincidence of the Armero tragedy and the attack on the Palace of Justice, see Ramírez Gomez & Cardona (1996: 267).

³⁶ To quote one of the lawyers for the victims' families: 'It's not possible to predict an earthquake. But it was possible to predict the seismic risk in L'Aquila after months of tremors'. As such, this modality of prognostic politics often supports demands for emergency response, humanitarian aid, and financial reparations.]hx[REFERENCES

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