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Bouncing Forward After Irma and Maria: Acknowledging Colonialism, Problematizing Resilience and Thinking Climate Justice

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The 2017 hurricane season caused widespread devastation across Central America, the Caribbean and the South-Eastern United States. Hurricanes Harvey, Irma and Maria were among the most intense Atlantic hurricanes and the costliest for the Circum-Caribbean region. For the small islands of the Caribbean, the hurricanes highlighted the acute vulnerability to climate change. The scale of physical ruin and level of social dislocation, however, do not just reflect the outcomes of a natural hazard. Continued structural dependency and outright entanglement in colonial relationships complicated recovery and coordination of aid to affected communities across the region. We argue that the experiences and outcomes of hazards like Harvey, Irma and Maria therefore invite examinations of persisting colonial power dynamics in discussions of climate hazard. Using Foucauldian theory for such an examination, we problematize simply championing resilience, without noting the possibilities for its use as a biopolitical regime of governing life. Such an appraisal, we suggest, might clarify a path toward reparations and climate change justice.

Keywords: Caribbean; climate justice; biopolitics; hurricanes; reparations; resilience.

1. Introduction: Denaturalizing the Disaster Discourse

Hurricane Harvey barreled into the American Gulf Coast as a Category 4 hurricane in late August 2017. Three weeks later, Hurricane Irma followed, making the 2017 hurricane season the first on record where two Category 4 or higher hurricanes

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made landfall on the US mainland. Irma ripped through the Leeward Islands of the Caribbean, Puerto Rico and Cuba. After Irma, Hurricane Maria further devastated the Lesser Antilles, Puerto Rico and the Dominican Republic. When Maria made landfall in Puerto Rico as a Category 4 hurricane, it became the most destructive storm to directly strike Puerto Rico in 85 years. Maria had earlier pummeled Dominica and St. Croix as a Category 5 storm (Blake 2018; Halverson 2018; Shuckburgh *et al.* 2017). Given the scale and nature of the damages experienced across the region, the 2017 hurricane season has not only triggered discussions about the uneven geographies of hazards and disasters, but has also reignited concerns about the Caribbean's state of readiness for future climatic shocks.

Panel discussions were convened by the World Bank Group (WB), the International Monetary Fund (IMF) and the Overseas Development Institute featuring UN Deputy Secretary General, prime ministers of Caribbean countries, experts on disaster recovery, and representatives from major donor countries like Canada and the United Kingdom (Wilkinson 2018; World Bank Group 2017). The Caribbean Disaster Emergency Management Agency (CDEMA 2017) issued a report of a 'Rapid Review of Regional Response in the Hurricanes Irma and Maria Events' outlining the importance of more comprehensive disaster management aligned to sustainable development goals. These discussions all asserted the need for greater resilience. The task of building back better was cast as a technical problem. Where structural factors were mentioned, consideration was limited to reliance on fossil fuel imports and the high levels of debt (see Sealey-Huggins 2017). Such conversations about the "terrible trio" (Harvey, Maria and Irma) and the implications for rebuilding need to be problematized.

The damage to infrastructure and the loss of life from Irma and Maria reflect the persisting impacts of racial capitalist development on the social and ecological dynamics of the Caribbean. By racial capitalism, we refer to "The development, organization, and expansion of capitalist society [*has been pursued*] essentially through racial directions." (Robinson 1983: 2). The reproduction of a racial hierarchy has been an essential condition for capitalist accumulation (see Hudson 2017), and the differentiated vulnerability of persons based on their *race* reflects the racist social calculations of whose life is worth exposure to risk (Lloréns 2018). From Dominica to Cuba, the social and environmental landscape is textured by this history of racial capitalism; a history of indigenous genocide, enslavement of Africans, and the hyper exploitation and degrading transformation of ecosystems.

In the history of such transformations, Moulton and Popke (2017) saw three distinctive eras characterized by different intensities and strategies of management for capitalist accumulation. The initial era, that of the introduction of the plantation formation under European colonization, extends to the immediate post-abolition

period and the ascendance of America as the imperial power in the region (Beckles 1997; Lewis 1967; Mintz 1986; Venn 2009; Williams 1944). The second period, from the revolutionary emergence of independent states such as Haiti and the Dominican Republic, is marked by the development of strategies for disciplining the newly free population for the continued extraction of wealth and resources, and the suppression of sovereignty through odious debt (Beckles 1997; Hudson 2017; Sealey-Huggins 2017). The third period, from the mid-20th century until the present, has been defined by attempts to reproduce independent entrepreneurial subjects. Curiously, however, the promotion of such subjects sits in tension with the persistence of formal and informal relationships of dependence on metropolitan nations. Some 19 countries in the Caribbean remain territories or departments of the United States or European states with a complex constellation of social, financial and political dependencies (Clegg 2015; Lloréns 2018). The 2017 hurricane season exposed the imperial provenance of these constellations and revealed how these vestiges imperil regional responses to climate hazards, and limit unified political mobilization. The hurricanes blew away, what Beckles (2017) has described as 'a colonial cover up', aimed at concealing the "horrific history that dwells in the ruins of the present."

The cover up would have the effects of Irma and Maria wholly understood as a 'natural disaster', but once historicized, such an understanding is seen as discursive maneuvering to obfuscate responsibility and accountability behind shouts for resilience. In the next section, we unpack this further by problematizing the framing of resilience as an ideal for regional post-hurricane reconstruction efforts. Before that, we want to outline the broad strokes of our argument. Which is this: Irma and Maria are disasters of colonialism, racism, and neoliberalism. When the legacies and continuing debilitating processes of these 'isms' are named and made visible, the idea of bouncing back becomes hardly desirable (Baptiste and Rhiney 2016; Popke *et al.* 2016; Pugh 2014; Sealey-Huggins 2017).

The matter of naming is consequential. The debates over the analytical purchase of "the Anthropocene", "the Capitalocene" (Crutzen and Stoermer 2000; Moore 2016), "the Chthulucene", (Haraway 2015, 2016) and "the Plantationocene" (Haraway 2015; Tsing 2015), make clear that explanations of ecological crisis, the provenance of the crisis and the potentials for staving off ecological collapse are crucially hinged to the conceptual framing and naming of the problem. The Anthropocene, for example, has been advanced to name the scale of human impact on earth systems so extensive that it has left a stratigraphic footprint. A framing of the Capitalocene, however, critiques the Anthropocene as a euphemism for ecological degradation due to capitalism's unfolding which has served the interests of only a small group of "anthropos" and not humanity writ large. We propose

naming and framing the nature of the ecological crisis (including more intense hurricanes tied to climate change) through the Plantationocene. The Plantationocene allows us to contemplate the role of the plantation apparatus and imperialism in producing the ecological and social crises of the present (Davis *et al.* forthcoming; Haraway 2015; McKittrick 2013; Tsing 2015).

A notable exception to the post-Irma and Maria discussions that contemplated capitalisms role in Caribbean vulnerability was the University of the West Indies' (UWI) forum, "Irma and Maria: Relief, Reconstruction and Reparations", which asserted that the reconstruction agenda must prioritize improving regional sovereignty and advancing the case for reparations (see also Caricom Reparations Committee 2014). Attending to the vestiges of the plantation and racist capitalist development, reveals how in the Caribbean islands "the persistent loss of black life and the dereliction of poor peoples' materialism in a backward-built environment that was designed for the sole purpose of servicing imperial sugar plantations, reside squarely at the core of their respective metropolitan capitols" (Beckles 2017). Reparations are morally justified for the impacts of the expropriation of wealth, environmental degradation and social destruction of slavery and genocide. Reparations would be the practical response from the morally culpable (Europe and America), and would allow implementation of measures to counter the effects of the environmental crisis of racial capitalism/racial capitalocene (Sealey-Huggins 2017).

Discussions on adaptation, mitigation, resilience and reconstruction must be (re)oriented toward climate justice concerns. The notion of climate justice introduces matters of ethics and power to the way vulnerability is produced and managed. Following broader conceptualizations of justice, climate justice discourse considers three aspects: distribution (here, we would be concerned with the uneven distribution of climate impacts), procedure (of interest here is the extent to which these discussions of, and policy responses to, climate change are inclusive, as well as the relative transparency and accountability of the institutions tackling climate change) and recognition (where our focus is on the degree of equality and equity, and the level of legitimacy given to the differentiated experiences of climate disaster) (Baptiste and Rhiney 2016; Popke *et al.* 2016). Climate-justice demands profound changes in nature-society relationships toward environmental justice and social justice, rather than facile adjustments in policy (Running 2015; Sealey-Huggins 2017). Climate justice demands a change in the trajectory of reconstruction and recovery to remedy the damages and losses experienced, particularly by the most vulnerable who have contributed little to anthropogenic climate change. Reparations and resistance arc in the direction of climate justice.

A framework of climate justice seeks new socio-ecologies based on logics of abolition (Heynen 2015), liberation (Watts and Peet 2004) and reparation (Patel and Moore 2017) to 'bounce' the Caribbean forward by mapping the spaces of uncare and dereliction emergent from the coupling of white supremacy, racial capitalism, and imperialism in the uneven production of nature. And then, crucially, mobilizing reparative and abolitionist visions to imagine and materially produce commons that can serve as the ecological basis for new human and non-human relationships that refuse organization based on capitalism and the trauma of its violent abstraction.

In the next section, we offer a problematization of resilience drawing on Foucauldian scholarship. We do not intend to dispense with resilience, but to show how, without critiquing what is meant by it and how it is mobilized, it can lead to unjust outcomes. Work by Michel Foucault and his interlocutors has been concerned with such matters of governance and justice. This work has offered insightful scrutiny of the discourse around resilience. The conceptualization of governmentality, particularly the notions of biopower and biopolitics are of importance. We offer a necessarily limited overview of the contours of Foucault's notions to contextualize the paper's argument.

2. Resilience Troubles: Biopower and the Subjectivities of Resilience

Government in the Foucauldian literature is not simply, or only the administration of the state. Rather, it is "the historically constituted matrix within which are articulated all those dreams, schemes, strategies and maneuvers of authorities that seek to shape the beliefs and conduct of others in desired directions by acting upon their will, their circumstances or their environment" (Rose and Miller 1992: 175). Governmentality designates the ensemble of institutions, practices, analyses, strategies and calculations that enable very specific exercises of power which are concerned with the population. This form of power has political economy as its basis and apparatuses of security as its tactical instrument (Foucault 2007). Put simply, governmentality is, "a certain *mentality* of rule. Govern*mentality* is a way of problematizing life and seeking to act upon it. It both extends the concerns of rule to the ordering of the multitudinous affairs of a territory and its population in order to ensure its wellbeing, and simultaneously establishes divisions between the proper spheres of action of different types of authority" (Rose 2006: 288). Governmentality is the effect that brings the state into being and works insidiously and incessantly to achieve the state's control.

Biopower defines the regime of power attentive to the management of the materiality and affective atmosphere of the biosocial environment, or milieu. For

Foucault (2007: 23) biopower concerns "the perpetual conjunction, the perpetual intrication of a geographical, climatic, and physical milieu with the human species insofar as it has a body and a soul, a physical and moral existence". It is therefore, preoccupied with risk and contingency with a desire to eliminate such caprice. This form of management has become predominantly focused on the production of a neoliberal subject concerned with the individual and the securing of personal wellbeing and social progress (Anderson 2015; Venn 2009). Biopolitics is used to designate the techniques and bureaucracies by which a population becomes targeted for forms of biopower (Anderson 2011; Foucault 2003; Pugh 2014; Rutherford and Rutherford 2013). The task of biopolitics is the administration of the whole social body and not the individual human organism, though the minutiae of individuals are regulated toward that collective end. In this sense, life is knowable and manageable. Further as Lemke suggests, it "can be epistemologically and practically separated from concrete living beings and the singularity of individual experience" (Lemke 2011: 5).

Even considering this limited explication of Foucault's ideas, some limitations of and tensions within the idealization of resilience in the recovery agenda should come into sharper relief. In the remainder of this section, we build on our argument by examining how, through the discourse of resilience, the Caribbean milieu is imagined as a space for discipline. In the process, we note the discursive and material implications of this type of resilience thinking in guiding Irma and Maria recovery and reconstruction.

The concept of resilience emerged from the fields of ecology and systems theory (Carpenter *et al.* 2001; Cretney 2014; Kelman *et al.* 2016). Folke (2006: 259) offers a definition of resilience that captures the common understanding: "the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks". Though other definitions abound, the consensus is that the concept designates a measure of an ability to cope with, respond to, and bounce back from change to some normal state (see Adger 2006; Anderson 2015; Grove 2014).

When climate change is framed as an intractable and exigent planetary hazard, resilience takes on amplified importance. It becomes an issue requiring urgent and sweeping measures for securitizing human and non-human populations (Cupples 2012). The definition of risk has an ordering effect, defining how life will be reconfigured, and how and which subjectivities should be newly produced (Grove and Adey 2015). The definition of risk, then, is a crucial moment of biopolitical production not to be glossed over. Anderson (2015) urges examination of what resilience is or is said to be, how conceptually and in practice it circulates, and how it is recuperated according to contexts and governmental rationalities. A failure to

consider how and why risk is produced, and how resilience is mobilized for purposes of governing can lead to the unquestioned extension of apparatuses of security into every domain of life through managerialist approaches working at a number of scales from governmental agencies down to the population, through educational, disaster management and financial institutions (Dalby 2013; Grove 2014; Rutherford 2007; Sealey-Huggins 2017).

Irma and Maria expose how the Caribbean populations in the former and current territories of America and Europe are perceived as continuing problems for colonial government now organized around climate biopower. We use climate biopower to designate regimes of power concerned with the adjudication of the metabolism of Caribbean life under the auspices of climate resilience. An effect of this regime is the valuation of life worth saving and recovery worth undertaking given how resilient populations are assumed to be. A conversation between Prime Minister Theresa May of the United Kingdom with her French and Dutch counterparts illustrates the operation of such climate biopower. A press release from May's office noted how, "The Prime Minister called the French President Emmanuel Macron this morning to discuss our response to Hurricane Irma. . .The Prime Minister updated the French President on our response. . . They agreed to cooperate closely, including with the Dutch, to understand the extent of the damage and to coordinate our relief efforts." (Office of the Prime Minister 2017). The Caribbean is fixed as a topic of discussion and a site of intervention among the leaders of nations that once and still hold the affected countries as colonies or territories. The coordination of relief efforts is for May, Macron and Mark Rutte (of the Netherlands) to strategize. And, this agreement for corporation declares no role for the leaders of the very countries that are to be the sites of intervention.

The assessment of such actions that Beckles (2017) offers is poignant: "The French and the British vied for political advantage and the moral high ground over who will give more to address the colonial mess magnified by Irma. Another Anglo-French war on Caribbean soil ensued. The Dutch, meanwhile, seeking to hide deceptive hands in mudslides of their St Maarten, quietly came as if in shame, and offered to help the hopeless." The visit of Foreign Secretary Boris Johnson to survey the damage in British territories and dependencies was one of these moments in the performance of care and morality, and thus a key biopolitical performance. As a stand in for the *sovereign* of the United Kingdom (UK), Johnson tours the British 'possessions' to render judgement on the resilience of Britain's Caribbean subjects. The visit came only after the UK's response was sharply criticized in the media (see for example, The Guardian 2017a,b). In Anguilla, Johnson opined that, "It's incredible to see the resilience of the people here, I've seen trees stripped of every leaf, telephone poles snapped in two,

electricity poles torn down, roofs blown off. Quite unbelievable destruction but you can't destroy the spirit of these people." Concerning the British Virgin Islands, Johnson declared that, "what's so incredible is the spirit of these Islands. The hurricane can come in, it can knock down absolutely everything in its path, but it can't bow or bend the spirit of the British Virgin Islands." (Foreign and Commonwealth Office 2017). The resilience of the people and the spirit of the islands are celebrated even as the colonial history that informs Johnson's very presence in the Caribbean and that undergirds Caribbean vulnerability was not acknowledged. Johnson narrows his descriptions of damage to physical infrastructure and leaves the social devastation of colonialism that sits just beneath the material debris unaddressed. That Anguilla, Turks and Caicos and the Virgin Islands as British Overseas Territories were ineligible for Official Development Assistance (ODA) due to gross-national incomes that were deemed too high, reflects another troubling aspect of the coloniality pervading the Irma and Maria recovery and response (House of Common 2018a,b). A reparative logic to the UK's response would have likely helped justify more funds.

For Kelman *et al.* (2016), calls for a return to a normal state are curious since society is always changing, and moreover, many aspects of society need to be changed. Biopolitically, resilience props up the *status quo* by hailing a supposedly normal state to which society should return. Extolling the resilient spirit of "these people", says nothing about the ways such devastation alters forever what can be understood as normal. The discursive and technical interventions that accompany a focus on resilience authorize biopolitics (of the population en masse) and anatomopolitics (of the individual citizen) (Foucault 1980, 2008; Lemke 2011; Rose *et al.* 2006).

Collectively and individually, the Caribbean population's self-regulation is coterminous with the metropolitan state's aims of well-behaved subjects. Such a regime of governing is anchored in neoliberal ideology and policies of self-sufficiency, market-centeredness and individualism (Anderson 2015). The very capacity to survive is cast as a commodity that can be financialized and traded upon. Governmental organizations like the WB and IMF, as well as disaster recovery agencies mobilize the idea of resilience based on this logic so that disasters become economic opportunities (Sealey-Huggins 2017). The Puerto Rico Fiscal Agency and Financial Advisory Authority (2018: 11) embraced this logic, noting how the hurricanes created "an opportunity to redesign major components of the island's critical infrastructure, invest in the quality and resiliency of public and private buildings, and restructure and modernize and reevaluate delivery of services to residents."

Similarly, in Barbuda, Prime Minister, Gaston Browne, decried the system of communal land rights as a hurdle to recovery, and cast devastation and evacuation

of the island as an opportunity to pursue land privatization. The plan has been criticized as "disaster capitalism and cultural genocide" (Ransome 2017). The folk belief and traditional practices on the island have held that the island was bequeathed to islanders after the abolition of slavery. All the land outside the village of Codrington is held in common under a use-rights system (Berleant-Schiller 1978). Though it cannot be given serious discussion here (see Baptiste and Devonish in this issue), the dynamic between Barbuda and Antigua parallels that between Caribbean overseas territories *vis-à-vis* Europe and America. Barbuda is governed from Antigua, and there have been long standing conflicts over Burbudan autonomy, the commons, and the tourism motivated privatization of beachfront lands (see, for example, Berleant-Schiller 1991; Lowenthal and Clarke 2007). What is of interest here is how resilience and neoliberalism are aligned to open aspects of social reproduction (such as land tenancy) and affect (such as a collective ethos) to governmental intervention. Gould and Lewis (2018: 149) have noted how, "Barbuda, like its neighbors, is now being strong-armed into a capital-intensive luxury ecotourism-based model of development, which global elites are spinning as a post-disaster, humanitarian, "green" recovery… Irma cleared a path for the green growth machine to gentrify the island and shift control away from Barbudans toward global capital."

Resilience provides the discursive cover for biopolitical interventions that aim to foster the vitality of the population against the alterity of 'natural' systems. The effect is "a thoroughly depoliticized and depotentialized landscape of vulnerability, in which newly 'resilient' peoples live with vulnerability rather than remake the world to remove the sources of their insecurity" (Grove 2014: 207). The continued existence of the population — its proper adaptation — requires the management of life given nature's capriciousness. Implicit in this approach is a critique of the population that requires assistance after a disaster. The supposedly poorly adapted and non-resilient are cast as responsible for their calamity. The sovereign makes such subjects die, or let death come to them by not addressing the conditions whereby their death is made more possible (Foucault 2008; Mbembé 2003).

A particularly dire instantiation of this mode of biopower was the American Federal Government's treatment of Puerto Ricans. Portnoy (2017) and Weiss *et al.* (2018) note how the slow and apathetic response of both local and federal authorities reminded Puerto Ricans of their second-class citizenship, and signaled to the wider Caribbean that outside of the tourist imaginary, the region was not seen as worthy of attention. The federal government framed Puerto Rico as undeserving of aid and leveraged assistance for economic reforms. The declaration of disaster in Puerto Rico limited the Federal Emergency Management Agency (FEMA) to only search and rescue, public health and safety, and debris removal activities. Tellingly,

President Trump gave $1 million from his personal funds to Harvey recovery on the mainland, but regarding Maria and Puerto Rico he tweeted criticisms: “Now, I hate to tell you, Puerto Rico, but you’ve thrown our budget a little out of whack”; “such poor leadership. . . they want everything to be done for them”; “Electric and all infrastructure was disaster before hurricanes. . . We cannot keep FEMA, the Military & the First Responders. . . in P.R. forever!” (Lloréns 2018; Riotta 2017). Even at the time of this writing, almost a full year since the storms made landfall, Puerto Rico remains in a dire situation and recovery is incomplete. Kishore *et al.* (2018) and a joint report from researchers at the George Washington University and University of Puerto Rico (GWU/UPR 2018) contest the Trump administration’s accepted death toll of 64, asserting that conservative estimates of actual fatalities from the storm exceed 4,000. These deaths occurred not only as a direct result of the storm, but also as a result of a slow and ineffective recovery effort.

The underreporting or underestimation of deaths reflects not only an impediment to “the immediate response, as well as for future risk reduction and preparedness planning” (Kishore *et al.* 2018: 163), but a disregard for the uncounted dead. The position of the federal government, especially Trump, in disputing the (un)counting and discounting of the dead in Puerto Rico reveals how the American mentality of climate biopower works by rendering the deaths from Harvey (on the US mainland) more important than those from Irma and Maria (in Puerto Rico and wider Caribbean). That, and the positioning of climate change as a hoax or otherwise some possible future problem amounts to what Cupples (2012: 13) has critiqued as “an insidious erasure of those killed and displaced by climate-related disasters at the present time.” Such an approach is “clearly a key part of the neocolonial global order, in which the deaths of third world inhabitants in disasters are more acceptable, more justifiable, than the future potential deaths of first world people who haven’t been born yet” (Cupples 2012: 13). The crisis is the consequence of the years of mismanagement and neoliberalization that have driven the Puerto Rican livelihood to precarity. However, these factors enter the discussion only to further justify why the population needs more discipline. Caribbean residents are, therefore, redirected toward risk responsive modes of citizenship in which they are to develop independence from federal assistance.

In the foregoing discussion, we have considered the social and political contexts of vulnerability and have called into question resilience as the guiding concept of Western-inspired climate disaster interventions in the Caribbean post-Irma and Maria (and by extension, in the rest of the global south). However, our insistence on a critical assessment of the ways in which resilience can be used to prop up biopolitical governing or neoliberal discipline has not led us to abandon the concept. We believe that critical evaluations of resilience denaturalize, politicize

and historicize it so that it can be reimagined for emancipatory purposes (Biermann *et al.* 2015; Cretney 2014). Resilience can signal an affirmative biopolitics; transformative, autonomous, community-based responses that imagine and practice post-disaster recovery in ways that seek more socially just and environmentally sustainable spaces. Such a subversive resilience is coterminous with the vision of bouncing forward because it would strengthen collective subjectivities, deepen networks of care and guide the reproduction of social-ecological commons (Cretney 2014; Grove 2017; Hornborg 2013; Nelson 2014; Sparke 2008). In the next section, we point to Cuba for an illustration of what such an alternative resilience might entail.

3. Toward Decolonial Resilience: Cuba as an Exception in Caribbean Disaster Response

When Irma made landfall in Cuba on September 9 as a Category 5 hurricane, some 150,000 homes were damaged and nearly 15,000 homes destroyed. This was the first time since 1932 that a Category 5 hurricane had made landfall on the island. Yet, the passage of Irma did not eventuate the disaster it had in the rest of the Caribbean. Scholarship on disaster response in the Caribbean often cites Cuba as having a unique status not only in disaster preparedness and emergency response, but also in rebuilding efforts following storm events (see Sims and Vogelmann 2002; Oxfam 2004; Pichler and Striessnig 2013). Cuba challenges the axiom that vulnerability and potential for loss of life reflect degrees of poverty (Smith 2007). Cuba's unique political status, colonial history, and the relationship between the state and its people have seemingly demanded a different approach to hazards and reconstruction. This has also allowed for the emergence of a decidedly distinct manifestation of resilience on the island (Lizarralde *et al.* 2015). Instead of a resilience predicated upon a biopolitical regime that either "make live or let die", Cuban governance attempts to foster life; the state is responsible to its citizens for mitigating the damage to both life and property while also championing recovery in the wake of such events.

The metric for legitimate governance in Cuba has long been tied to the government's ability to provide for its citizens, especially in the context of tropical storms and hurricanes. Perhaps unsurprisingly, this moral economy has been a central tenet of governmentality in the socialist era (see Wilson 2012, 2013), but it is not entirely a novelty of this latest historical phase. As several contemporary Cuban scholars note (see, for example, Scarpaci and Portela 2009), governmental accountability *vis-à-vis* subsistence and provisioning in the context of natural disasters has a long socio-political history within Cuba. Prior to storms, the Cuban

government invests in timely evacuations and shelter preparations for evacuees 48–72 hours in advance of any predicted landfall of a major storm (Sims and Vogelmann 2002; Moore *et al.* 2009). Following any storm, the Cuban state contributes substantially to rebuilding efforts and often coordinates such work by mobilizing the Cuban national police, the Cuban Armed Forces, and various civic organizations and work brigades (Garnett and Moore 2010; Moore *et al.* 2009; Sims and Vogelmann 2002). It is this ability in Cuba to define a relationship "between a responsible government and its population" (Pichler and Striessnig 2013: 84) that enables the country to achieve consistently exceptional disaster response results in the Caribbean, and this even despite significant material limitations.

These realities challenge the traditional notions of resilience in the Caribbean, in which colonial narratives naturalize these disasters and obscure the underlying causes. Cuba's ability to eschew its colonial ties has allowed for a more responsive form of governance about disaster events. While up-to-date scholarship on Cuban disaster management is limited due to several practical and political reasons (see Fernández *et al.* 2018; Machado 2018; see also Lizarralde *et al.* 2015), reports from both the Cuban government and humanitarian organizations indicate that Cuba's response in the 2017–2018 hurricane season followed the same integrated framework with comparable results. It is such "good governance" in the face of disasters, founded as it is on a decolonial constellation of biopolitical relations, that stands in stark contrast to the disaster response seen elsewhere in the Caribbean, such as neighboring Puerto Rico. Comparisons of deaths and dislocation between any of the Caribbean islands should be cautiously approached. We suggest a comparison between Cuba and Puerto Rico only to highlight the crucial importance of the social and political terrain in the outcome of the hurricanes' passage. Both countries, after all, have been in different ways entangled in American imperialist designs for the Caribbean.

In Puerto Rico, the devastation wrought by Irma and Maria left the country without power and other utilities for months. Disaster preparation and response in Puerto Rico was greatly inhibited by poor communication between the government of Puerto Rico and agencies at multiple levels of the US federal government, including the Center for Disease Control (CDC), Department of Health and Human Services (DHHS) and the Federal Emergency Management Agency (FEMA). Additionally, outdated emergency plans did not account for hurricanes beyond Category 1 (Santos-Burgoa *et al.* 2018). The hurricanes, while destructive in their own right, functioned to exacerbate a profound economic crisis (Aja *et al.* 2018) as well as a prolonged humanitarian emergency that had been ongoing in Puerto Rico for over a decade (Mora *et al.* 2017). The "natural" disaster that occurred in Puerto Rico following hurricanes Irma and Maria cannot be divorced from the island's

colonial connection to the United States. This connection allows the use of inconsistent development plans that have left the island in a perpetual state of vulnerability (Dinzey-Flores 2018).

In contrast to Puerto Rico, much of Cuba's disaster response rests on popular mobilization and education which embeds disaster prevention and response within strong social structures and institutions at multiple scales (Lizarralde *et al.* 2015; Sims and Vogelmann 2002). This Community-Based Disaster Management (CBDM) approach "focuses on strengthening capacity and building skills for risk reduction at the community level", which has been shown to also reduce risk on the national level (Oxfam 2004: 4). In the short-term, the CBDM model dramatically reduces fatalities during storms. In the long-term, it helps to improve social and institutional support, create a general culture of safety and preparedness, and empower women, in particular (Moore *et al.* 2009; Pichler and Striessnig 2013). This is achieved in part through increased participation in civic institutions, such as the Federation of Cuban Women (FMC) and the Committees for the Defense of the Revolution (CDR), which contribute to social solidarity and networks of mutual assistance at the community level (Oxfam 2004). While the physical impacts of the 2017–2018 hurricane season were substantial, consistent with the damage in the rest of the Caribbean, Cuba's disaster management model functioned to limit fatalities with official reports indicating around 10 deaths. Recovery efforts have since rebuilt infrastructure and rehoused displaced inhabitants.

Beyond the local and community levels, disaster response and recovery are also coordinated and addressed at the regional and national scale in several ways. Disaster response is centrally coordinated by the National Civil Defense (DCN) through various institutions and organizations throughout the country according to the emergency plans that are reviewed and updated annually (Moore *et al.* 2009). It is the combination of this centralized decision-making and decentralized implementation which makes Cuban disaster response so effective (Moore *et al.* 2009). A cornerstone of these disaster response efforts is a "socio-economic model that reduces vulnerability and invests in social capital through universal access to government services and promotion of social equity" (Oxfam 2004: 6). Indeed, general socio-economic equality and access to universal basic services, such as education, health and physical infrastructure not only function to mitigate the impact of these storm events, but also distributes the risk and thereby reduces overall vulnerability (Oxfam 2004).

While not entirely free of its colonial legacies, Cuba's strong government and political autonomy have afforded it a uniquely effective system of disaster response and therefore, a more decolonial model of resilience in comparison to other Caribbean nations. On an even broader level, the Cuban state is engaged with this

same problem of resilience not only regarding support and provisioning before and after large storms and disaster events, but also in regard to non-disaster provisioning, specifically through its national food and agricultural system. This is made possible by the fact that governmental legitimacy is beholden to the physical well-being of its citizens, not outside interests, market priorities, or residual colonial entanglements. The Cuban government today remains highly attuned to hurricane preparedness and response, even despite the significant material limitations since the economic crises of the early 1990s. As with other social services in Cuba, such as healthcare, education, and food rationing, the centrality of these support systems to responsible governance and governmental legitimacy have meant their survival through even the extreme economic trials of the post-Soviet era in Cuba and have contributed in part to the building of a decolonial resilience on the island.

Perhaps the most radical manifestation of this decolonial resilience can be seen in the transformation of Cuba's food and agricultural system since the early 1990s. After the fall of the Soviet Union, Cuba was plunged into a profound economic crisis with particularly devastating effects for the national agricultural system (see Alvarez 2004). In response to these crises and considering the Cuban government's commitment to provisioning for its citizens, the state restructured its agricultural sector, rapidly transitioning from highly-centralized, highly-industrialized state-operations to more localized, decentralized, non-state smallholder operations (Alvarez 2004; Machado 2018). In the absence of new machinery and chemical inputs and in the midst of large-scale petroleum shortages, the Cuban agricultural sector adopted many of the principles and methods of agroecology, a loosely-defined model of low-input agricultural production (Machado 2017).

The radical transition of Cuba's agricultural system has contributed to improved climate change mitigation and on-farm socio-ecological resilience to both climate change and hurricanes (see Altieri *et al.* 2015; Greenpeace 2015; Holt-Giménez 2002; Machín Sosa *et al.* 2010). More recent work indicates that this may be the case at the community- and landscape-level as well (Galford *et al.* 2018; Machado 2018). Indeed, in the wake of hurricanes Irma and Maria, there have been calls for the implementation of such an agroecological model of development as a way of revamping Puerto Rico's food and agricultural system, which like disaster response on the island, is also deeply entangled with a long history of colonialism (Félix and Holt-Giménez 2017).

In Cuba, paralleling the decolonial framework for disaster response, the food and agricultural system is also largely divorced from external influence, corporate interests, and global markets, being instead locally focused as well as institutionalized at multiple scales (Nelson *et al.* 2009). The resilience of the Cuban agroecological system, it then appears, is defined according to an entirely different

set of biopolitical calculations that do not prioritize the return to an exploitative *status quo*, but that orient the national food system toward local and domestic food production, nutrition and food security. While serious debates still exist about the overall efficacy of Cuba's agroecological system in addressing such concerns (see Fernández *et al.* 2018; Machado 2017), its contribution to overall resilience and reduced vulnerability on the island, especially when compared with the dire crises of the early 1990s, is far less debatable.

These various contours of disaster response, government accountability, and a sustainable agricultural system together outline the broad contours of what might be called a decolonial framework for resilience. Resilience, in this sense, has been enabled through Cuba's ability to rectify its contemporary challenges with its colonial history. While reparations between Cuba and its prior colonizers have not taken place in an official way, the nationalization of vast quantities of land and many businesses in the years following the 1959 revolution performed this process in a defacto sense. Interestingly, it was this nationalized land from the 1960s that would eventually fall under state control until the 1990s, when it became the land that fueled Cuba's agroecological transition at the hands of small-scale, low-input farmers. While not an uncomplicated example of reparative justice, Cuba's experience provides an interesting corollary for confronting the multiple dimensions of climate change resilience in the Caribbean.

4. Conclusion: Resistance, Reparations and Transformation Toward Climate Justice

The 2017 hurricane season has laid bare the limits of championing resilience without confronting the deep-seated political, economic and social entanglements that shape the regional and individual Caribbean nation's preparedness and responses to a changing climate. An uneven terrain of social and economic abandonment is the legacy of the colonialism that still haunts the region. The grip of colonialism and imperialism is a chokehold on actual self-determination, the commons, and economies able to support satisfying social reproduction. And this is not the case only for those countries which bear the official designation of department, dependency, territory or other euphemisms of continuing coloniality. As Anderson (2015) suggests, we have to ask, "What kind of thing is resilience? And what are the implications of considering this question for the claims we make about resilience and the contemporary condition?"

The concept of resilience is agreeable and to eschew it entirely would be irrational, it evokes sustainability and persistence in the face of catastrophe (White and O'Hare 2014). However, if resilience in the Caribbean is defined only

as a return to the *status quo* of colonial dependency and exploitation, it will, as we have suggested, too easily be mobilized for such instrumental purposes. The implications of resilience in this sense are not only discursive, but material. Taken up by colonial governmentality, resilience becomes a strategy for mobilizing post-disaster readjustments that only reinforce hegemonic political and economic discourses. The lives of the privileged are securitized even as those of the less privileged are discounted; the less privileged are encouraged to adapt and become resilient to a volatile, unequal and capricious global economic and ecological system.

The material and symbolic reconstruction of the region requires transformation. This demands a sense of resilience that, as a counter-politics to neoliberalism, mobilizes the collective Caribbean subject to experiment with anti-hegemonic systems and non-capitalist social systems. We have offered Cuba as an example of such a path to reconstruction and resistance for reorganizing Caribbean metabolisms. More sustainable socio-ecological metabolisms that are centered on convivial human and non-human relationships offer common grounds for life affirming practices, resilient agroecological systems, and care. A new proactive community-based culture of readiness that is nested within national and regional hazard response systems is needed. Reparations can serve the crucial need to fund such a model. Reparations for the developmental and climate debt owed to the region offer both ethical and practical paths to redressing the consequences of two and a half centuries of industrialization and overdevelopment in the 'First World' and the unequal distribution of the wealth that is tied to such processes.

Disasters are often accepted as an opportunity to reset the milieu. Rather than aspiring toward resilience as popularly celebrated — absorbing the shock of Irma and Maria and bouncing back — the region must bounce forward, toward a new reality funded in part by reparations and based on a politics of resistance. The exposed ruins of colonialism and material shambles seen in the wake of the hurricanes will be merely renovated if resistance and reparations are not constitutive elements in the reconstruction effort.

References

Adger, WN (2006). Vulnerability. *Global Environmental Change*, 16(3): 268–281.

Aja, AA, Lefebvre S, Darity W Jr, Ortiz-Minaya R and Hamilton D (2018). Bold policies for Puerto Rico: A blueprint for transformative, justice-centered recovery. *Diálogo*, 21(2): 3–14.

Altieri, M, Nicholls C, Henao A and Lana M (2015). Agroecology and the design of climate change-resilient farming systems. *Agronomy for Sustainable Development*, 35(3): 869–890.

Alvarez, J (2004). *Cuba's Agricultural Sector.* University Press of Florida.

Anderson, B (2011). Affect and biopower: Towards a politics of life. *Transactions of the Institute of British Geographers*, 37: 28–43.

Anderson, B (2015). What kind of thing is resilience?, *Politics*, 35(1): 60–66.

Baptiste, AK and Rhiney K (2016). Climate justice and the Caribbean: An introduction. *Geoforum*, 73: 17–21.

Beckles, HM (1997). Capitalism, slavery and Caribbean modernity. *Callaloo*, 20(4): 777–789.

Beckles, HM (2017). Irma-Maria: A reparations requiem for Caribbean. University of the West Indies Regional Headquarters, Jamaica. poverty. http://www.open.uwi.edu/irma-maria-reparations-requiem-caribbean-poverty [June 15, 2018].

Bender, MA, Knutson TR, Tuleya RE, Sirutis JJ, Vecchi GA, Garner ST and Held IM (2010). Modeled impact of anthropogenic warming on the frequency of intense Atlantic hurricanes. *Science*, 327(5964): 454–458.

Berleant-Schiller, R (1978). Ecology and politics in Barbudan land tenure. In *Land and Development in the Caribbean*, Besson, J and Momsen J (eds.), London: Macmillan, pp. 116–131.

Berleant-Schiller, R (1991). Statehood, the commons and the landscape in Barbuda. *Caribbean Geography*, 3(1): 43–52.

Biermann, M, Hillmer-Pegram K, Knapp CN and Hum RE (2016). Approaching a critical turn? A content analysis of the politics of resilience in key bodies of resilience literature. *Resilience*, 4(2): 59–78.

Blake, ES (2018). The 2017 Atlantic Hurricane Season: Catastrophic Losses and Costs. *Weatherwise*, 71(3): 28–37.

Burkett, M (2009). Climate reparations. *Melbourne Journal of International Law*, 10: 509–542.

Caricom Reparations Committee (2014). Ten point plan for reparatory justice. Kingston: Jamaica. http://caricomreparations.org/caricom/caricoms-10-point-reparation-plan/ [July 15, 2018].

Carpenter, S, Walker B, Anderies JM and Abel N (2001). From metaphor to measurement: Resilience of what to what? *Ecosystems*, 4(8): 765–781.

Clegg, P (2015). Non-self-governing territories of the Caribbean and debates over autonomy. In *South America, Central America and the Caribbean 2016*. 24th ed., West, J (ed.), Abingdon: Routledge, pp. 33–39.

Cretney, R (2014). Resilience for whom? Emerging critical geographies of socio-ecological resilience. *Geography Compass*, 8(9): 627–640.

Crutzen, PJ and Stoermer EF (2000). The Anthropocene. *International Geosphere-Biosphere Programme Newsletter*, 41: 17–18.

Cupples, J (2012). Wild globalization: The biopolitics of climate change and global capitalism on Nicaragua's Mosquito Coast. *Antipode*, 44(1): 10–30.

Dalby, S (2013). The geopolitics of climate change. *Political Geography*, 37: 38–47.

Davis, J, Moulton AA, Williams B and Van Sant L (*forthcoming*). Anthropocene, capitalocene, . . .plantationocene?: A manifesto for ecological justice in an age of global crises. *Geography Compass*.

Dinzey-Flores, ZZ (2018). The development paradox: A century of inconsistent development plans has left Puerto Rico in a perpetual state of vulnerability. *NACLA Report on the Americas*, 50(2): 163–169.

Félix, GF and Holt-Giménez F (2017). *Hurricane María: An Agroecological Turning Point for Puerto Rico?*. Food First publishing.

Fernández, M, Williams J, Figueroa G, Machado MR, Vásquez L, Pérez N, Graddy-Lovelace G, Casimiro L, Romero G and Funes Aguilar F (2018). New opportunities, new challenges: Harnessing Cuba's advances in sustainable agriculture under normalizing relations. *Elementa: Science of the Anthropocene*.

Folke, C (2006). Resilience: The emergence of a perspective for social–ecological systems analyses. *Global Environmental Change*, 16(3): 253–267.

Foreign and Commonwealth Office (2017). Hurricane Irma: Foreign Secretary's visit to the UK overseas territories in the Caribbean. https://www.gov.uk/government/organisations/foreign-commonwealth-office [July 31, 2018].

Foucault, M (1980). Truth and power. In *Power/Knowledge: Selected Interviews and Other Writings 1972–1977*. Gordon C (ed.), New York: Pantheon Books, pp. 109–133.

Foucault, M (2003). *Society Must be Defended: Lectures at the Collège de France, 1975–76*. New York: Palgrave Macmillan.

Foucault, M (2007). *Security, Territory, Population: Lectures at the Collège de France, 1977–78*. New York: Palgrave Macmillan.

Foucault, M (2008). *The Birth of Biopolitics: Lectures at the Collège de France, 1978–79*. New York: Palgrave Macmillan.

Galford, GL, Fernandez M, Roman J, Monasterolo I, Ahamed S, Fiske G and Kaufman L (2018). Cuban land use and conservation, from rainforests to coral reefs. *Bulletin of Marine Science*, 94(2): 171–191.

Garnett, JD and Moore M (2010). Enhancing disaster recovery: Lessons from exemplary international disaster management practices. *Journal of Homeland Security and Emergency Management*, 7(1): 1–20.

Gould, KA and Lewis TL (2018). Green gentrification and disaster capitalism in Barbuda. *NACLA Report on the Americas*, 50(2): 148–153.

Greenpeace (2015). *Fostering Economic Resilience: The Financial Benefits of Ecological Farming in Kenya and Malawi*. Johannesburg: Greenpeace Africa.

Grove, K (2014). Agency, affect, and the immunological politics of disaster resilience. *Environment and Planning D: Society and Space*, 32(2): 240–256.

Grove, K (2017). Security beyond resilience. *Environment and Planning D: Society and Space*, 35(1): 184–194.

Grove, K and Adey P (2015). Security and the politics of resilience: An aesthetic response. *Politics*, 35(1): 78–84.

GWU/UPR (2018). Ascertainment of the estimated excess mortality from Hurricane Maria in Puerto Rico. George Washington University and University of Puerto Rico.

Halverson, JB (2018). The Costliest Hurricane Season in US History. *Weatherwise*, 71(2): 20–27.

Haraway, DJ (2015). Anthropocene, capitalocene, plantationocene, chthulucene: Making kin. *Environmental Humanities*, 6(1): 159–165.

Haraway, DJ (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press.

Heynen, N (2016). Urban political ecology II: The abolitionist century. *Progress in Human Geography*, 40(6): 839–845.

Holt-Giménez, E (2002). Measuring farmers' agroecological resistance after Hurricane Mitch in Nicaragua: A case study in participatory, sustainable land management impact monitoring. *Agriculture, Ecosystems and Environment*, 93(1–3): 87–105.

Hornborg, A (2013). Revelations of resilience: From the ideological disarmament of disaster to the revolutionary implications of (p)anarchy. *Resilience: International Policies, Practices and Discourses*, 1: 116–129.

House of Common (2018a). The UK's response to hurricanes in its Overseas Territories. Fifth Report of Session 2017–19, HC 722. (March 07). https://publications.parliament.uk/pa/cm201719/cmselect/cmfaff/722/722.pdf [August 15, 2018].

House of Common (2018b). The UK's response to hurricanes in its Overseas Territories: Government response to the Committee's Fifth Report of Session 2017–19, HC 1052. (May 24). https://publications.parliament.uk/pa/cm201719/cmselect/cmfaff/1052/1052.pdf [August 15, 2018].

Hudson, PJ (2018). *Bankers and Empire: How Wall Street Colonized the Caribbean*. University of Chicago Press.

Kelman, I, Gaillard JC, Lewis J and Mercer J (2016). Learning from the history of disaster vulnerability and resilience research and practice for climate change. *Natural Hazards*, 82(1): 129–143.

Kishore, N, Marqués D, Mahmud A, Kiang MV, Rodriguez I, Fuller A, Ebner P, Sorensen C, Racy F, Lemery J, Maas L, Leaning J, Irizarry RA, Balsari S and Buckee CO (2018). Mortality in Puerto Rico after Hurricane Maria. *New England Journal of Medicine*, 379(2): 162–170.

Kugler, NR and Sariego PM (2016). "Climate change damages", conceptualization of a legal notion with regard to reparation under international law. *Climate Risk Management*, 13: 103–111.

Lemke, T (2011). *Biopolitics: An Advanced Introduction*. NYU Press.

Lewis, GK (1967). British colonialism in the West Indies: The Political Legacy. *Caribbean Studies*, 7(1): 3–22.

Lizarralde, G, Valladares A, Olivera A, Bornstein L, Gould K and Barenstein JD (2015). A systems approach to resilience in the built environment: The case of Cuba. *Disasters*, 39(s1): s76–s95.

Lloréns, H (2018). Ruin Nation. *NACLA Report on the Americas*, 50(2): 154–159.

Lowenthal, D and Clarke C (2007). The Triumph of the Commons: Barbuda Belongs to All Barbudans Together. In *Caribbean Land and Development Revisited*, Besson, J and Momsen J (eds.), pp. 147–158. New York: Palgrave Macmillan.

Machado, MR (2017). Alternative to what? Agroecology, food sovereignty and Cuba's agricultural revolution. *Human Geography*, 10(3): 7–21.

Machado, MR (2018). What's going on with land-use in Cuba? Disparate data sets and the Cuban agricultural transition. *Journal of Land Use Science*, 13(4): 439–446.

Machín Sosa, B, Jaime R, Lozano A and Rosset PM (2010). *Revolución agroecológicael movimiento de campesino a campesino de la ANAP en Cuba: Cuando el campesino ve, hace fe*, Havana: ANAP and La Vía Campesina.

Mbembé, JA (2003). Necropolitics. *Public Culture*, 15(1): 11–40.

McKittrick, K (2013). Plantation Futures. *Small Axe: A Caribbean Journal of Criticism*, 17 (3(42)): 1–15.

Mintz, SW (1986). *Sweetness and Power: The Place of Sugar in Modern History*. Penguin.

Mora, MT, Dávila A and Rodríguez H (2017). *Population, Migration, and Socioeconomic Outcomes among Island and Mainland Puerto Ricans: La Crisis Boricua*. Lexington Books.

Moore, JW (2016). Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism. In *Anthropocene or Capitalocene?*, Moore JW (ed.), pp. 1–11. Oakland: PM Press.

Moore, M, Trujillo HR, Stearns BK, Basurto-Davila R and Evans DK (2009). Learning from exemplary practices in international disaster management: A fresh avenue to inform US policy? *Journal of Homeland Security and Emergency Management*, 6(1): 1–40.

Moulton, AA and Popke J (2017). Greenhouse governmentality: Protected agriculture and the changing biopolitical management of agrarian life in Jamaica. *Environment and Planning D: Society and Space*, 35(4): 714–732.

Nelson, E, Scott S, Cukier J and Galán AL (2009). Institutionalizing agroecology: Successes and challenges in Cuba. *Agriculture and Human Values*, 26(3): 233–243.

Nelson, SH (2014). Resilience and the neoliberal counter-revolution: From ecologies of control to production of the common. *Resilience: International Policies, Practices and Discourses*, 2(1): 1–17.

Office of the Prime Minister (2017, Sep. 7) PM call with President Macron. https://www.gov.uk/government/news/pm-call-with-president-macron-7-sept-2017 [July 31, 2018].

Oxfam (2004). Weathering the Storm: Lessons in Risk Reduction from Cuba. Washington, DC: Oxfam America. https://www.oxfamamerica.org/static/oa3/files/OA-Cuba_Weathering_the_Storm_2004.pdf [July 15, 2018].

Patel, R and Moore JW (2017). *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet*. University of California Press.

Pérez-López, J (1991). The economics of Cuban sugar. University of Pittsburgh Pre.

Pérez, LA (2001). *Winds of Change: Hurricanes and the Transformation of Nineteenth-Century Cuba*. Chapel Hill: University of North Carolina Press.

Pichler, A and Striessnig E (2013). Differential vulnerability to hurricanes in Cuba, Haiti, and the Dominican Republic: The contribution of education. *Ecology and Society*, 18(3): 1–31.

Popke, J, Curtis S and Gamble DW (2016). A social justice framing of climate change discourse and policy: Adaptation, resilience and vulnerability in a Jamaican agricultural landscape. *Geoforum*, 73: 70–80.

Portnoy, A (2017). Irma and María: Shedding Light on Puerto Rico's Colonial Reality. https://www.counterpunch.org/2017/09/28/irma-and-maria-shedding-light-on-puerto-ricos-colonial-reality/ [July 27, 2018].

Puerto Rico Fiscal Agency and Financial Advisory Authority (2018). New Fiscal Plan for Puerto Rico (Draft Submission). Government of Puerto Rico. (February 12): http://www.aafaf.pr.gov/assets/newfiscalplanforpr-02-12-2018.pdf.

Pugh, J (2014). Resilience, complexity and post-liberalism. *Area*, 46(3): 313–319.

Ransome, D (2017). Barbuda seeking to define "normal" after a devastating hurricane. Caribbean Intelligence. https://www.caribbeanintelligence.com/content/barbuda-seeking-define-normal-after-devastating-hurricane [November 1, 2018].

Robinson, CJ (1983). *Black Marxism: The Making of the Black Radical Tradition*. Chapel Hill: University of North Carolina Press.

Riotta, C (2017). Trump donated his own money to Texas, But he's threatening to cut off aid to Puerto Rico. Newsweek. https://www.newsweek.com/donald-trump-hurricane-response-puerto-rico-texas-florida-harvey-maria-irma-683534 [July 31, 2018].

Rose, N (2006). Government, authority and expertise in advanced liberalism. *Economy and Society*, 22(3): 283–299.

Rose, N and Miller P (1992). Political power beyond the state: Problematics of Government. *The British Journal of Sociology*, 43(2): 173–205.

Rose, N, O'Malley P and Valverde M (2006). Governmentality. *Annual Review of Law and Social Science*, 2: 83–104.

Running, K (2015). Towards climate justice: How do the most vulnerable weigh environment–economy trade-offs? *Social Science Research*, 50: 217–228.

Rutherford, S (2007). Green governmentality: Insights and opportunities in the study of nature's rule. *Progress in Human Geography*, 31(3): 291–307.

Rutherford, S and Rutherford P (2013). Geography and biopolitics. *Geography Compass*, 7/6: 423–434.

Scarpaci, JL and Portela AH (2009). *Cuban Landscapes: Heritage, Memory, and Place*. Guilford Press.

Sealey-Huggins, L (2017). '1.5°C to stay alive': Climate change, imperialism and justice for the Caribbean. *Third World Quarterly*, 38(11): 2444–2463.

Shuckburgh, E, Mitchell D and Stott P (2017). Hurricanes Harvey, Irma and Maria: How natural were these 'natural disasters'? *Weather*, 72(11): 353–354.

Simmonds, AM (2017). Plans to rebuild hurricane-ravaged Barbuda reignite a decades-old land dispute. LA Times. https://www.latimes.com/world/global-development/la-fg-barbuda-land-dispute-20171009-story.html [July 27, 2018].

Sims, H and Vogelmann K (2002). Popular mobilization and disaster management in Cuba. *Public Administration and Development: The International Journal of Management Research and Practice*, 22(5): 389–400.

Smith, N (2007). Disastrous accumulation. *South Atlantic Quarterly*, 106(4): 769–787.

Stone, R (2018). Cuba's 100-year plan for climate change. *Nature*, 359(6372): 144–145.

Streissguth, T (2009). *The Roaring Twenties*. Infobase Publishing.

The Guardian (2017a). Theresa May urged to explain lacklustre Hurricane Irma response. (Sep. 08) https://www.theguardian.com/politics/2017/sep/08/uk-response-to-hurricane-irma-was-swift-says-no-10 [September 03, 2018].

The Guardian (2017b). Boris Johnson flies to Caribbean amid criticism over UK response. (Sep. 12). https://www.theguardian.com/politics/2017/sep/12/boris-johnson-flies-to-caribbean-amid-storm-of-criticism-over-uk-response [September 03, 2018].

Tsing, AL (2015). A Feminist Approach to the Anthropocene. Public lecture, Barnard Center for Research on Women, Barnard College, 10 November. https://jeremyjschmidt.com/2016/02/17/anna-tsing-a-feminist-approach-to-the-anthropocene/ [November 01, 2018].

Venn, C (2009). Neoliberal political economy, biopolitics and colonialism: A transcolonial genealogy of inequality. *Theory, Culture and Society*, 26(6): 206–233.

Watts, P and Watts M (2004). Liberating Political Ecology. In *Liberation Ecologies: Environment, Development and Social Movements*, Peet, R and Watts M (eds.), pp. 3–43. Routledge.

Weiss, L, Lebrón M and Chase M (2018). Eye of the Storm: Colonialism, Capitalism, and Climate in the Caribbean. *NACLA Report on the Americas*, 50(2): 109–111.

Wilkinson, E (2018). Towards a more resilient Caribbean after the 2017 hurricanes. Report from roundtable discussions, January 30, 2018. Conference Report. Overseas Development Institute. https://www.odi.org/sites/odi.org.uk/files/resource-documents/12114.pdf.

Williams, E (1944). *Capitalism and Slavery.* Chapel Hill: University of North Carolina.

Wilson, M (2012). Moral economies of food in Cuba. *Food, Culture & Society*, 15(2): 277–291.

Wilson, M (2013). *Everyday Moral Economies: Food, Politics and Scale in Cuba*. John Wiley & Sons.