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“A mild despotism of sugar”: Race, labor, and flood management in British Guiana

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ABSTRACT

Volumes of research have demonstrated the ways in which the production of sugar served as a key economic motivator for the development of capitalism. Embedded within this extractive economy is a requirement for strict environmental management and large pools of seasonal labor, typically within the context of the racial geographies of colonialism. In this article, I draw on archival research conducted at the National Archives in London, UK to examine the relationship between these agrarian economies, the social and economic requirements for flood control on a low-lying coastal plain, and British colonial-racial politics in British Guiana. I argue that colonial planters manipulated flood control systems and legislation in a way that produced and maintained a reserve army of black labor and in the process producing a racial geography meant primarily to ensure the survival of the crop even as prices plummeted in the twentieth century.

1. Introduction

Since its establishment as a British colony in 1814, sugar production has been the primary economic motivator on the small, low-lying coastal plain of British Guiana (Thompson, 2006). As with other colonial locations, this economic position gave rise to political order and disorder centered on the continued successful production of the commodity (see e.g. Hollander, 2008; Merleaux, 2015). While working as the postal inspector in the colony, the Victorian novelist Anthony Trollope (1859) described the political situation as a “mild despotism tamed by sugar” (p.170). A few years later, during a study of the conditions in which indentured laborers were being forced to live and work, Edward Jenkins (1871) offered a corrective, stating instead that it was more accurately a “mild despotism of sugar” (p.58). Beyond the role of the plantocracy in guiding colonial policy, the development and protection of the sugar industry was the principal concern of the government. In this article, I draw on archival research conducted between 2015 and 2017 at the National Archives in London, UK to examine this “despotism of sugar.” I utilize a variety of letters, memoranda, and minutes between colonial administrators and sugar estate representatives as well as newspaper commentaries related to sugar and flooding in order to understand the ways in which sugar production and the water management infrastructure that made it possible affected labor and race relations in the colony, acting as both a means through

which colonial politics were enacted and as a form of colonial governance in itself. This is done through an examination of the legislation surrounding the construction and especially the maintenance of infrastructural systems.

I coded these archival materials based on keywords, dates, and subjects relevant to the research project. I then examined coded sections both in relationship to each other and in the broader historical context in which they occurred. By disassociating the various archival documents from their colonial orderings and placing them in the broader context of the colonial project I was able to reassemble the stories that had been unceremoniously scattered into hundreds of small boxes and folders in London. In the production and location of specific documents within the archive, colonial administrators produced contexts from which they wanted their thoughts and ideas to be understood (Stoler, 2016). The arrangement of pages, the notes and corrections made long after the fact, and the inclusion and exclusion of related materials were a way ordering knowledge and producing specific Truths about the colonial project. While this ordering can in itself provide important insights into colonialism writ large (e.g. Stoler, 2009) it was in this case more successful in its obscurantist goals, effectively hiding the racialized logics used in the maintenance of the flood control system.

Beyond official memoranda, the archives contained the conversations between administrators and minutes from their meetings that,

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detached and spread across dozens of locations show cool discussions but which expose larger colonial anxieties when reassembled into the broader context of colonial governance. The large quantities of archival materials gathered, even if not quoted or cited in this article, helped to inform the broader social topographies in which colonial ideas, practices, and the decisions made by individuals within and outside the Colonial Office are here understood (cf. [Stoler, 2016](#)). It is through this process of reassembly that I analyze the discourses surrounding why maintenance schemes were enacted as they were in order to understand maintenance not as a means to correct an objective failure, but instead to maintain “the social and political relationships in which that object is embedded” ([Barnes, 2017, p.3](#)).

While much can be said on race, labor, and water management during colonial slavery, the focus of my analysis is on Guyana’s post-emancipation period. The reason for this is two-fold. First, there exists a significant body of literature on sugar and slavery with much less emphasis on sugar in the post-slavery period. Centuries of writing on the subject have produced detailed accounts on the conditions and resistance of enslaved Africans ([Viotti da Costa, 1997](#)), the role of sugar and slavery in the development of capitalism ([Mintz, 1985](#); [Williams, 1944](#)), and the role of the sugar industry in the abolition of the slave trade ([Carrington, 2002](#)), to name only a few, while considerably less has been written about the ways in which the commodity continued to be a driving force in the Caribbean long after both the end of slavery and perhaps after the crop’s economic viability had come to an end.

Second, while writings on labor relations and the sugar industry in the post-slavery era exist, including some with a focus on Guyana (e.g. [Rodney, 1981a](#); [Thomas, 1984](#)), the role of water management infrastructure as a technology of government (see [Kooy and Bakker, 2008](#)) within this system has not yet been included in these analyses. This is a significant omission from the literature. In their respective examinations of sugar and labor in Guyana, [Adamson \(1972\)](#), [Rodney \(1981a\)](#), [Thomas \(1984\)](#), and others treat infrastructure as a background upon which colonial relations were structured rather than as a structuring object within the colonial system itself. In this way, the drainage, irrigation, and sea defense systems have been treated as simply another means by which the exploitation of the working people of the country could be seen and quantified. While this is certainly true, I argue that water management as a whole was one of the principle means through which colonial governance occurred. It directly shaped experiences of colonialism, producing a black subjectivity that was co-constituted with a specific class position in relation to the plantation economy and spatially situated in the denial of black anticolonial places. This black subjectivity served as an avenue not only for providing general economic stability and staving off crisis but also for population control.

I begin with a brief overview of the “politics of things.” Here, I review the existing literature on the many ways that artefacts are used to affirm and reproduce existing systems of power in capitalist political economies as well as the ways in which these systems draw on racialized bodies to act as vehicles for this reproduction. I use two case studies to show how infrastructure construction and maintenance carries with it a particular set of politics related to prevailing socio-economic (rather than strictly geophysical or ecological) characteristics. First, I argue that flood events are not necessarily the result of colonial negligence but were actively used to reincorporate the colony’s black population back into the plantation economy after the legal end of slavery. In this way, this article makes not only an empirical contribution to scholarship on the geographies of colonialism in the Caribbean but also contributes to recent and ongoing discussions about the coproduction of race and class as part of ongoing processes of the accumulation and management of capital in colonial spaces ([Cullen, 2018](#); [Hardy et al., 2017](#); [Roediger, 2017](#)). I extend these arguments to more fully consider the ways in which these processes of racialization are implicated in apparently banal forms of colonial governance such as the maintenance of infrastructure.

Next, with the sugar industry undergoing financial struggles in the

early-to-mid-20th century, I show how relief projects, including the construction of drainage and irrigation and sea defense works, was used as a means of economic support for the large and growing number of black unemployed in the country during economically down years without fundamentally changing their position in society. Through a series of policy changes and direct acts of legislature, the crown was able to sustain the sugar industry through the promotion of these works without ever providing direct financial support to white planters. In fact, in at least one case, planters profited off of these policy changes and the dire financial situation of the colony. I connect these temporally disparate events in order to argue that planters, with the implicit support of the colonial government, used flooding to undermine attempts at black placemaking and mobilize a reserve army of labor ([Marx, 1887](#)) economically located outside the sugar industry and spatially located in black villages.

2. Infrastructure, racial governance, and the politics of things

In one of the seminal essays of science and technology studies, [Winner \(1986\)](#) asked a simple question: “do artefacts have politics?” Winner argues not only that they do, but that “The kinds of things we are apt to see as ‘mere’ technological entities become much more interesting and problematic if we begin to observe how broadly they are involved in conditions of social and moral life” ([Winner, 1986, p.6](#)). Technology, in the broadest sense of the term, serves a mediating role in everyday life not only through the ways we interact with it, but also by establishing clear boundaries of who belongs in particular spaces at a given time. This techno-material culture, including in this case the dykes, dams, kokers, and pumps meant to keep coastal Guyana dry “embody specific forms of power and authority” ([Winner, 1986, p.19](#)). This power and authority comes from larger systems and structures of power, they are reflections not only of the society in which they exist but also that which built them. This confluence of power and material culture may be seen as accidental or exploitative (i.e. they create a condition which can be taken advantage of but were not designed to meet any particular goals), but it is worth asking whether these creations were designed to serve any purpose prior to those professed in their design.

In the decades since Winner posed his question, a large body of scholarly literature has developed around questions of the power of artefacts, particularly around water infrastructure. [Mitchell \(2002\)](#) argues that various forms of infrastructure served as a site in which colonial and postcolonial governments demonstrated not only their technological, but also their economic power. The ability to “tame” nature in the name of capitalist production was the sign of a modern and efficient state, in which technology was the means by which the economy could survive. [Meehan \(2014\)](#) has shown how water infrastructure acts as sites for building and resisting state power, in turn becoming spaces “reflective of deep sociospatial inequalities” (216). These infrastructural systems were likewise created for a world that will cease to exist long before that technology is no longer useful for its stated purpose but which maintain unequal spaces ([Winner, 1986](#); [Stoler, 2016](#)).

The persistence of political and economic conditions embedded within water management is also in line with [Pritchard’s \(2012\)](#) “hydroimperialism,” in which “water management practices both revealed and reproduced unequal power relationships based upon an expansionist *mentalité*” (592). In the cases below, the expansionist ideology that supports unequal power relationships is tied directly to the establishment of a colonial agrarian economy that required copious amounts of inexpensive labor not only to work in the cane fields and factories during planting and harvesting season, but also to construct the system itself. While Guyana’s coastal plain contains nutrient rich soils ideal for cane production, it features very little geographical prominence and poor natural drainage resulting in heavy flooding unless altered by the drainage and irrigation system. This is in line with

the recent “infrastructural turn” in political ecology (Carse and Lewis, 2017; Hauser, 2017; Wakefield, 2018), which has highlighted the ways in which infrastructure becomes tied to and can be easily understood through colonial and postcolonial political economic practices.

Missing from these analyses is the role that the racial categories imposed by colonialism played in the production and reproduction of political and economic arrangements in colonial society and their lasting impacts on postcolonial racial formations, particularly in coastal areas which rely heavily on water management infrastructure for daily survival (see Hardy et al., 2017). In British Guiana, coastal areas were developed specifically for the purpose agricultural production through land reclamation and drainage practices resulting in a coastal geography that sits largely below sea level and, without proper maintenance, is prone to flooding from a variety of sources (Rodney, 1981a). The construction and maintenance of British Guiana’s system of coastal drainage infrastructure required enslaved and later poorly paid black laborers to move thousands of tons of earth (Rodney, 1981a). Thus, as I show in more detail below, infrastructure development and maintenance are central themes in these processes of race and class formation in British Guiana and this is likely to be the case in other low-lying coastal regions as well. Even as the political and economic system changed from one based on slavery to one based on “free” labor, the material conditions set in place by the construction of the colony’s coastal water management system were reproduced even (and especially) when a portion of those lands no longer served the purposes of a colonial, agrarian political economy.

Through these processes, water management practices denied attempts at black autonomy and black place-making in the post-slavery economy. This denial helped to realize and reproduce colonial capitalist orderings, deepening the already uneven terrain of political and economic power in colonial spaces (Pritchard, 2012). McKittrick (2011) argues that “black geographies in the Americas are connected to practices of domination and deliberate attempts to destroy a black sense of place” (947). As I show below, in British Guiana, blackness was mobilized around attempts to separate black life from the structures of domination inherent in the plantation economy with floods – themselves deployed upon the black population through failures in maintenance – acting as a significant force in undermining these spaces. Thus, this article contributes to understandings of black geographies and black experiences of place-making (see Carter, 2014; Hunter et al., 2016; McKittrick, 2011) by highlighting the ways in which black non-colonial spaces were formed and refused around systems of flood control in British Guiana.

3. Flooding, labor, and the sugar industry in East Coast Demerara

With the end of slavery in British territories 1834, planters were granted four years to hire the formerly enslaved people on their plantations as “apprentices.” Under apprenticeship, emancipated Africans experienced a kind of indentured servitude where they worked in the fields in exchange for food, shelter, and a small wage (Moore, 1987). When apprenticeship ended, many left the plantation system and sought a life outside of it, in part through the creation of what would later be called the African Village Movement (Moore, 1987; Young, 1958). This period saw formerly enslaved people pool their economic resources and purchase abandoned plantation lands on which they could settle and grow their own food and crops, relying significantly less on the plantation system and colonial government in order to survive in the colony while simultaneously producing spaces on which they could begin to make the land their own (Haynes, 2016; Jackson, 2012; Young, 1958). According to Moore (1987), “it was the newly established village communities along the coast which provided the institutional framework for organizing the black and coloured section into a coherent corporate group. They were the vehicle by which the disenfranchised majority could develop the organizational structure and leadership with which to challenge the political and social

dominance of the white minority” (93).

The development of villages as places where black identity could thrive thus served as a significant threat both to white social domination and to the continued existence of the colonial-capitalist economy. However, removal from plantation life did not mean removal from the sugar industry and a number of Afro-Guyanese sought work in industries ancillary to the plantation economy (e.g. shipping; Rodney, 1981a, 1981b; Thompson, 1987). To offset this loss of labor, the government established an official system of indentureship which, between 1851 and 1917, saw 226,723 South and Southeast Asians brought into the colony and provided with food and shelter in exchange for their labor on the sugar plantations (Follett-Smith, 1954). As indentureship ended, many of these workers also left the plantation system, moving to villages alongside Afro-Guyanese or to ones specifically established for the expansion of the sugar and rice industries along the coast as part of a new land settlement scheme (see Greenidge, 2001).

In the interceding years there would be a number of small breaches of coastal sea defenses, including floods in the black village of Plaisance in 1847 that inundated the front properties as far as a mile back from the sea wall and in 1849 that saw villagers petition Governor Barclay to not levy assessments against their property for damages to nearby lands as a result of the breach of the Plaisance front dam (Haynes, 2016). It was not until The Great Kingston Flood of 1855, when flooding directly threatened colonial lands and the sugar plantations that supported the colonial economy, that things came to a head. Flooding affected not only the emerging capital city of Georgetown, but also many of the plantations that would eventually become integrated into the city. With such a large portion of the coast inundated, including both private and colonial lands, the question of how to manage floods become one of critical importance for the continued governance of the colony. When the flood waters receded, construction on sea defense works began on all of the colonial coastal lands with the construction of a new permanent sea wall from the mouth of the Demerara River reaching the village of Kitty by the end of 1874. Meanwhile, planters and nascent villages were still largely left to construct and maintain their defenses or to pay the government for the works at a later date via loans, costs which planters argued they could not afford to bear after emancipation and which villages that were largely self-sufficient were in no economic condition to pay.

In 1856, the Village Management Bill was passed, providing the first legal definition of a village and outlining their responsibility in relation to the colonial government and the estates. It also created the legal infrastructure for the requirement of all independent villages to maintain their drainage and irrigation systems as well as their sea and river defenses (and other infrastructure) or risk losing their land entirely (Haynes, 2016). While Kingston and the colonial parts of Georgetown were now well protected, nearby areas were still exposed to severe threats of coastal flooding as a result of a general lack of maintenance to both sea walls and drainage canals. Environmental engineers working on the system of sea defense warned that these weaker areas could cause significant distress to other parts of the colony (Douglas-Jones, 1929). The situation became so dire that, in 1883, the government was forced to enact further legislation placing the legal onus of construction and maintenance of *all* sea and river defenses as well as all estate back dams on the proprietors and villagers while shifting the responsibility for kokers, pumps, and other large drainage infrastructure to the government, paid for via taxes (Adamson, 1972; Douglas-Jones, 1929). Failure to maintain defense works could result in legal action including the loss of the plantations and for the villagers the loss of the entire village, which would usually then be sold and incorporated into an adjacent plantation (Adamson, 1972; Young, 1958).

The severity of this law was justified by the fact that the failure of one estate to maintain the works also threatened the entire coast with inundation. If that was the case, however, sea defenses should be considered a colonial matter and handled by the colonial state. In April 1886, estates from the West Coast Demerara region of the colony

argued exactly this, stating that sea defense should be a colonial matter and arguing for it in the Court of Policy (Douglas-Jones, 1929). At least one member of the court agreed with the estates and stated that “small capitalists, individual proprietors, were not able to struggle with the sea defenses of the colony. No individual owner of a small property could run out a strong and expensive sea wall, where there was much granite work” (*Daily Chronicle*, 1886, n.p.). Meanwhile, a system was established where estates and villages would be able to draw on loans-in-aid from the colonial office and government to either pay for construction themselves or to pay the Public Works Department to cover the costs if they could not do manage it themselves (Douglas-Jones, 1929).

So dramatic was the flooding during this period that, reflecting on the matter in 1929 the Colonial Secretary described the history of Sea Defense in British Guiana prior to the 1880s as “a continuous fight between the landed proprietor and the sea, in which the proprietor was usually defeated” (Douglas-Jones, 1929). Now codified into law with punitive measures, proprietors – including villagers – were forced to take pre-emptive action. The new costs imposed by this legislation found smaller planters seeking to extend the cane season by modifying the amount of water in the drainage system to allow for a prolonged cultivation and to find ways in which they could lower labor costs during cultivation and processing while the larger estates and sugar firms lobbied for continued preferential treatment to insure the economic viability of the British Guiana sugar market.

It is within this context that Plaisance and the nearby village of Beterverwagting flooded in 1886 and 1887. The village of Plaisance was, in the late 1880s, sandwiched between two sugar estates, Goedverwagting and Sparendam, with which it shared side dams and a back dam meant to protect all three from water running down from the upland savannahs. Utilizing the existing network of drainage and irrigation established when the land was used as a cotton plantation, villagers produced subsistence and market crops including plantains, cassava, yams, and other tropical staples, allowing them to supplement wages earned on the sugar plantations and in the city, diversify their local economies, and live with at least somewhat less reliance on the colonial agrarian economy established in the 17th century (Denham, 1934b; Haynes, 2016). In January 1886, heavy rainfall along the East Coast Demerara region caused the water in the canals to rise, eventually inundating the village.

While Plaisance had experienced flooding before, the causes had appeared to either be anomalous (e.g. the failure of a defense work due to erosion or wave action) or just part of coastal life, afflicting much of the adjacent coast in a similar fashion (Haynes, 2016). With the floods of 1886, however, villagers began to understand coastal flooding in terms of racial power, a view expressed in their public complaints about flooding and flood responses. The large steam-powered mechanical pump, which was meant to drain the village in the event that gravity drainage was unfeasible, was left inoperable due to the poor condition of its boiler resulting from a lack of maintenance by the colonial government (Ratepayer, 1886). While plantations and villagers were generally required to maintain their own drainage and irrigation and sea defenses, villagers in Plaisance opted to pay a maintenance rate to the colonial government in exchange for assistance (Haynes, 2016). In a letter to the editor of the *Daily Chronicle* dated February 1st, an anonymous villager asked in anger, “how must the people undertake again to put their labor in the ground when the white man allows negroes’ plantains and cassava to be inundated and thus suffer?” (Ratepayer, 1886, n.p.).

The following year, flooding struck Plaisance again and villagers again used the *Daily Chronicle* to voice their frustrations and, this time, to demand direct compensation for the crops that were destroyed in the flood. Villagers blamed this second major flood explicitly on the manager of the adjacent sugar estate of Goedverwagting. They maintained that the estate manager modified a stop-off used to hold back conservancy waters at the rear of the plantation in order to extend the cultivation of sugar in his fields (Truth, 1887). With the stop-off not

functioning as intended, a period of heavy rainfall caused additional pressure to be placed on the Plaisance village back dam which eventually gave way; flooding their fields and destroying acres of crops used for subsistence. Other villages in the East Coast Demerara region, including nearby Beterverwagting were also deeply affected as the storms caused a breach in their sea defense system which they could not sufficiently repair on their own. The result of this was the temporary dislocation of villagers on the East Coast who did not have a dry place to sleep as well as a steep decline in the availability of plantains, a staple food in the diet of the country’s black laboring population (Pro Bono Publico, 1887).

At least one villager demanded action, stating in a letter to the *Daily Chronicle* that “the condition of the people wandering about, some huddled under the railway station, and in the open verandah, struggling to obtain a dry spot for human existence, exhibits a deplorable scene. All that the friends of the manager may say either by telegram to the governor or in the public prints in extenuation of his acts will not compensate in any way for the sufferings of the villagers” (Truth, 1887, n.p.). The response by the white, colonial population was to say that the black villagers should give up their attempts at building their own spaces outside of the plantation economy and take jobs in it as a means for recovering from the effects of the flood. Harry Garnett, from the Plantation Nonpareil, shared the sentiment of many colonials that the black place in the plantation economy was as a laborer in the sugar industry, responding publicly to the villagers via the *Daily Chronicle*: “let another industry be started by all means, at which the black man will work for love or that can afford to pay him his own value, but in the mean time (sic) we are one and all dependent on sugar” (Garnett, 1887b, n.p.).

Like the villagers of Plaisance a year prior, Garnett framed the issue of village flooding and the inundation of ground crops in racial terms. Garnett characterized black villagers working their own fields instead of his as lazy, stating previously that “provisions during [the immediate post-emancipation period] were cheap and we naturally expected cheaper labor; but no, Quashie¹ preferred to eat his own provisions that he had planted rather than work at a rate which did not enable him to sit down two and a half days out of the six” (Garnett, 1887a, n.p.). Elsewhere in his letter, he noted the role of sugar in dominating the politics and legislature of the coast, particularly around questions of flooding but dismissed village concerns because it was sugar, and nothing else, that would make coastal life successful. Thus Garnett expressed an understanding of coastal life in which Afro-Guyanese villagers did not have the right to live outside of the plantation economy or to even imagine alternatives to it. After emancipation, the low wages offered by the estates played a key role in the movement of Africans to other industries, including the village movement (Moore, 1987). That this would now be turned on them in times of need is unsurprising, but exemplary of the general abhorrence of the villagers by the plantation owners.

The labor necessary for sugar production can take multiple forms. Workers are needed not only for planting and cultivation, but for processing in the factories and for general labor and maintenance of the plantations. Some of these jobs were necessary year-round and others seasonal. Indentures and former indentures provided the bulk of this labor force. Garnett (1887a) suggests that the ratio at Plantation Nonpareil was 2/3 Indo-Guyanese and 1/3 Afro-Guyanese. Outside of the plantation system, Afro-Guyanese worked as a combination of yeoman and subsistence farmers and as an urban proletariat working in shipping and manufacturing in Georgetown and New Amsterdam. Those working in the autonomous agricultural spaces of the African Village Movement – and thus involved in processes of black place-making – were actively undermining a colonial ordering in which black life was tied to a

¹ A generic, derogatory name for an Afro-Caribbean person, particularly in the anglophone Caribbean.

particular class position the colonial political economy (cf. Roediger, 2017). This racial differentiation of the classes was common throughout the Caribbean but was uniquely spatialized in Guyana where there was no white settler population to speak of and where historical conditions and a relative abundance of land lead to the segregation of the racialized ethnic groups within the country (Hintzen, 2004).

When floods occurred, this race-class dynamic combined with systems of infrastructure to determine the lines along which people were affected. Already working in the sugar industry and living in the housing schemes associated with the sugar estates, Indo-Guyanese were in some ways shielded from the long-term impacts of these floods as were Afro-Guyanese who had secure work in the cities. Those Africans who refused the colonial economy and sought a new life altogether in the villages were often left homeless, starving, and generally helpless in times of flood, with no choice but to work in the industry for severely depressed wages. Even during the worst floods of this period, the sugar industry was able to avoid the worst impacts, even if inconvenienced. Instead, as shown above, black villages became sites in which severe floods had the greatest impacts to the general population. Estate managers and other colonizers recommended little more than for the country's black population to give up their desires for total emancipation from the plantation system and return to it in order to pay for the necessary repairs and for their own survival, regardless of what caused the floods themselves. With this loss of economic independence, colonial issues of race and flooding combined to govern the livelihoods of villagers and, by denying alternatives to acting as proletarian labor in planter capitalism, black life on the coast as a whole.

4. The sugar industry, infrastructure, and relief works

Despite improvements in sea defense, coastal flooding in Guyana continued to be a burden to both plantations and villages, with neither able to afford the excessive costs associated with flood control works. A series of strikes in the sugar industry did not help the situation for the plantations who continued to expect and rely on low wages and poor conditions for workers and who refused to pay full prices for the needed works (see Rodney, 1981a). According to the official history used by legislators through the 1930s, in partial response to the worsening economic situation, in 1913 new sea defense legislation was passed that allowed the Government of British Guiana to provide up to 25 percent of the costs of sea defense for a plantation or village (Douglas-Jones, 1929). This was funded by an acreage tax levied against all property owners outside of Georgetown, which was exempted from certain provisions of the ordinance due to its status as colonial land. This shift in policy from one in which only the city of Georgetown was protected by the state to one where the state played a role in all defense works was due in part to sea defense becoming a “colonial question” (Douglas-Jones, 1929). By the mid-1910s, the warnings from West Coast Demerara in the 1880s became more obvious to the rest of the coast and it came to be increasingly clear that flooding in the region could not be left up to the actions of individuals, it required a more coordinated effort. In this regard, colonial officials drew an arbitrary line 10 miles inland from the coast and declared all lands between the ocean and that line as part of a number of sea defense districts (Douglas-Jones, 1929). This new boundary, defined on the principle that all land within it would be inundated if not for a functioning sea defense system, provided the basis for the country's first integrated system of flood control.

The logic of undertaking such a massive change in policy was clear: the government was already spending a considerable sum of money on sea defense and emergency works due to the failure of the estates and villages to do so to colonial standards. By taking it upon themselves, the colonial government could mandate and implement necessary changes and develop a tax scheme to fund them (Douglas-Jones, 1929). A failed version of this policy, sent to the Court of Policy in 1921, stated this rather clearly when it said that one of the purposes of such bills was “to obviate along the whole 270 miles of the Colony's seaboard the

recurrence hereafter of disasters such as those which have involved an expenditure of more than five million dollars² during the past five years to protect permanently a seaboard of 52 1/2 miles only” (Douglas-Jones, 1929). In this way, the burden of the cost would no longer fall only on those adjacent to the sea, but to all who were protected by the system of sea defense whether directly or indirectly (although, notably, none of the proposed or passed bills dealt with the burden faced by past sea defense expenditures – such as those weighing heavily on the black villages still struggling to survive but by now having largely given up on autonomy.) One major issue arises from this new arrangement, however. It would take decades for the taxes to raise the funds necessary for the construction and maintenance of new flood control projects. However, the works cannot take decades to build or the risk of catastrophic flooding remains. While fundraising through grants and loans from the Colonial Office is possible, the colony needed to find a way to cut costs in the short-term to reduce their loan burden.

Beginning in 1922, a series of coastal works projects took place and by 1923 the British Guiana government took over all responsibility for sea defenses (Minute 26 July, 1929). Funded in part by the government and in part by proprietors (including both plantation land owners and local authorities), these works were meant to overhaul and generally improve agricultural productivity on the coast for both planters and small holder farmers (i.e. villagers and former indentureds.) Over the six-year period of the projects, 22 new drainage areas were declared, 20 new drainage boards were established, and over 88,000 acres of newly cultivatable land were now under a drainage scheme (Director of Public Works, 1929). Within a decade of their completion, these projects were largely deemed failures due to a lack of maintenance and poor planning prior to their implementation (Director of Public Works, 1929). The situation was so dire that W. Jackson, a member of the West India Committee, one of the main legislative bodies for all of the British Caribbean territories, stated in a letter to then Secretary of State for the Colonies Malcom MacDonald “that the financial position of local authorities and proprietors concerned is at present so unsatisfactory and the present economic value of the lands included in the drainage areas so low that comprehensive measures of relief are necessary” (Jackson, 1939).

The black villages were in particularly poor condition. In his witness testimony to the West India Committee some years later, Gerald Case, an environmental engineer then serving as Director of Public Works and Sea Defences in British Guiana, suggested that the government take over all of the main drainage works in these locations because the villages themselves simply could not afford to maintain them (“Witness: Mr. G.O. Case,” 1939). Case thus argued for state intervention into the village drainage system as a means of easing the financial burden of the villagers, a burden born in part from decades of economic precarity stemming from their decision to live outside of the plantation system even in the face of colonial threats against their ability to do so.

Despite implementing changes meant to mitigate the impacts of falling sugar prices, by 1930, British Guiana was facing a full-blown economic crisis, with colonial officials seeking a series of grants and loans to cover current expenses. Part of these expenses included funds needed for the construction and repair of sea defenses. Sir Alfred Sherlock, chairman of Bookers Bros. McConnell & Co. Sugar, spoke candidly about this situation by calling the British Guiana government takeover of sea defense works in 1923 a “colossal blunder,” stating that “Our firm is very anxious indeed over sea defenses. Government made a colossal blunder when sea defenses were put under the charge of the Public Works. I certainly do not wish to belittle in any way the Director of Public Works or his assistants, but I think it is very unfair to ask a man to undertake a job which he does not understand, and it is still more unfair to those who have to pay and who are dependent on the

² British West Indies dollars, the local currency of Guyana and all British Caribbean territories at the time.

maintenance of their sea defences for efficient work” (“*Economic Conditions in British Guiana Reach Critical Stage*,” 1930). Meanwhile, directors from the sugar firm Sandbach Park and Co. offered to either loan the government money to repair a section of sea defenses on their land or to do the work themselves under the supervision and direction of the Division of Public Works, under the expectation that the capital invested in the project would be paid back at a later date with interest, an offer which the government accepted (Douglas-Jones, 1930). The conditions were so bad in the country, the governor sent a letter to the Secretary of State for the Colonies warning that inaction could lead the rise of anticolonial sentiment during the country’s local elections (Denham, 1930b).

The laborers for this new era of sea defense construction and maintenance came in the form of unemployment relief. The introduction of beet sugar in Europe and the United States caused the prices of cane sugar to drop significantly as early as 1883 (Follett-Smith, 1954; see also Mintz, 1985). This caused a number of smaller estates and factories to close as it was no longer profitable to grow sugar on a relatively small scale in the country (Denham, 1930a). Even then, the ones that survive did so primarily on the surge in sugar prices during the First World War and through Colonial and Imperial preference (Follett-Smith, 1954). In order to reduce their production costs, other estates changed their production schedules in such a way that allowed them to hire more workers while reducing the total cost of labor. In the case of one large estate, between 1928 and 1930 the total number of laborers increase by 90 while the total monthly wages paid decreased by \$34,000 (Gray et al., 1930). The average wage on another estate went from \$11.78 per month to \$9.24 per month over this period while on another it went from over \$15 per month to \$9 per month (Gray et al., 1930). Black workers bore the brunt of these layoffs and reductions of pay as their Indian counterparts were largely being resettled into the emerging rice industry through government land settlement schemes during this period (Greenidge, 2001).

At the same time, producers increased production and expanded as they had a guaranteed market, but the prices for which were still so low that they refused to aid the entirely non-white and increasingly black working populations. R.R. Follett-Smith, then-chairman of Bookers Sugar Estates Limited, stated as much noting that the prices during these preferential periods “did not permit improvement of living conditions or of factory equipment” but did allow estates to continue in these socially detrimental production schemes while passing off their increased infrastructural burdens onto the state (Follett-Smith, 1954, p.9).

Relief schemes allowed the government to kill two birds with one stone. The elevated levels of unemployment among black workers suppressed wages to the extent that a large number could be hired on by the state for relatively little money. These workers could then be contracted out to individual plantations or to sugar producing firms to build and maintain flood control infrastructure for much less than would otherwise have been possible in normal economic conditions or if the workers were in a position to demand higher wages, addressing the financial shortcomings of the new flood defense policies. This combination of Afro-Guyanese un- and underemployment as well as the state intervention into flood control infrastructure effectively provided the estates with a new source of free labor. In the case of the loan provided by Sandbach Parker, estates were also able to directly profit off of the situation.

Despite these efforts, the East Coast Demerara region, home to many of the black villages, saw severe flooding in January 1934, with several villages – including Plaisance – and remote sugar and rice estates being inundated almost entirely while the large estates that most benefitted from the free labor provided by the Department of Public Works were left relatively unscathed (Denham, 1934a). While this could be coincidental, considering the geography of the flood (inundating the entirety of the east coast for a variety of reasons, mostly infrastructural failure) it seems unlikely.

5. Conclusion: sugar, floods, and reserve armies of labor

Barnes (2017) has argued that maintenance of infrastructure works serves as a way for states to exert their authority over a population. She notes that maintenance serves to produce not only the desired material order but also the social order of the world. If this is the case, the inverse may also be true: lack of maintenance can be used to produce state-desired material and social orderings as well. Thus, in the case of Plaisance, infrastructure systems working properly allowed black villagers to live relatively successful lives outside of the colonial economy, undermining the colonial understandings of the proper class-role of black workers in the post-slavery plantation economy while simultaneously serving as a location in which black identity could be developed on its own terms. This meant that, with a properly functioning flood control system, acts of black place-making served to undermine colonial race-class orderings. Only when the infrastructural systems that secured black village life failed were the conditions such that they would be forced to return to the plantation system en masse, ensuring that colonial economic processes maintained a racial order suitable to colonial interests.

The clear result of these floods and the colonial responses to them is the reincorporation of black villagers and other colonized people into the plantation system in the wake of any failure of the flood control system. Coastal flooding, rather than serving as a severe threat to the colonial political economy, ultimately benefited the sugar industry by providing them with a pool of cheap labor who lack other options for the very means of their survival. Flood control technologies and the legal requirements surrounding them could be manipulated in such a way as to turn flood control efforts into part of a larger racial politics of social control through the precarity – either threatened or experienced – of the Afro-Guyanese population. In this way and despite their apparent autonomy from the plantation system, villagers fill the role of what Marx (1887) refers to as a “reserve army of labor.” In times of economic crisis, villagers served as “a mass of human material always ready for exploitation” and able to be mobilized for the accumulation of capital in times of crisis, in particular times of flooding (784).

While typical Marxian analysis of surplus labor considers primarily the unemployed, which coastal villagers were often not, the broader operations of power within the colonial environment meant that, effectively, the population of surplus laborers in British Guiana were treated as such and the economic precarity introduced by the threat or experience of coastal flooding rendered this treatment visible. The portions of their lives outside of the plantation system, rather than posing a threat to the plantocracy or even providing them with other means by which they could survive the environmental and economic shocks of colonialism served its purposes particularly well. As floods threatened the coast, either in the imminent form of failed drainage and sea defenses or in the direct form of a flood itself, the conditions were always in such a way that the threat was not only more immediate to but also directed toward the villages, be they African or Indian in racial composition.

The breakdown of village life, including the economic autonomy that came with it, provided the sugar industry with labor at rates well below those that which could otherwise be paid. This arrangement was structured by the legal system and its imposition of equal treatment of the villages and estates under the law, an arrangement lobbied for by sugar interests. The end result is a sort of resilience for the sugar plantations (and thus the economic system which propped up colonialism) at the expense of resilience for village populations. The potential of a life free from unstable and capitalistic plantation economy was denied to those who sought to make refigure the social, political, and economic spaces in which they live on their own terms. Instead, the burdens of broader economy were placed on their tables through their incorporation into the primary system they shared: infrastructure. What was once the promise of freedom from the fluctuations of the sugar market, the promise of a self-reliant economy that could handle the

shocks of the global economy through its distance, became a promise of continued precarity as water infrastructure was used to reincorporate them back into plantation life.

Though not entirely outside of the plantation system (see Rodney, 1981b; Sugar Producers Association, 1954), African villages were ideal spaces to serve as banks for surplus labor to be drawn upon when the financial situation of the sugar industry was under threat. The threat of flooding and its ever-changing legal requirements and repercussions ensured that this was the case, allowing floods and the flood management infrastructure meant to mitigate against them to become key tools in the colonial – and thus racial – governance of the colonies.

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