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EMBODIED CONTROL

BIOPOLITICS IN THE WATER CRISIS OF FLINT, MI AND APPALACHIAN COAL

By Sarah Wheeler

Flint, Michigan still doesn't have clean water or safe pipes. On the border between West Virginia and Pennsylvania, a coal ash pond called Little Blue Run has been leaking toxic metals into nearby streams for four decades (Patterson, 2018). While these two regions differ in their location and history, similarities can be contextualized and understood based on class, race, state sanctioned water contamination, the exploitation of natural resources, and environmental crimes. Given the factors at work when water crises occur, it is crucial to recognize the United States' practice of knowingly poisoning their citizens, to draw parallels between the practice of state powers explicitly prioritizing industries and profit over the health of citizens under their jurisdiction, and to recognize it as a piece of how racialized biopolitics are put into practice. The locations where this abuse of state control generally occurs, in an increasingly militarized and authoritarian manner, are the regions

populated with higher percentages of people of color. In addition to the direct negative health effects of toxic water contaminants, these cases are indicators of how biopolitical control can be traced back to larger constructions of structural violence against state subjects. Not only do contaminants in the water (lead, trilemethanes, selenium, etc.) directly cause health problems, but constant systemic strife increases allostatic stress, as well as an unparalleled spike in what are referred to as "deaths of despair" (Lofton, 2018). All of these harms are facilitated by levels of continuous violence and obfuscation from direct blame, so it is urgent and necessary to name them and draw lines between them as a product of biopolitical control. The construction of the Flint water crisis, as well as the ongoing environmental degradation in the Appalachian region, are both instances of the state enacting a form of biopolitics onto the peo-

ple living in those places. Although environmental justice experts and critical legal theorists have engaged with potential avenues for finding state-based solutions for a state problem (not to dismiss the activist work that has laid the groundwork for understanding the reach of these issues), it could be argued that true justice and reconciliation cannot be fully achieved under the same structure of power that initially caused the harms.

Biopolitics is most simply defined as the power and ability that a state body has to “take life and give death.” Foucault named the concepts of biopower and biopolitics in *History of Sexuality*, but left concrete meanings of them somewhat elusive. However, as the genealogy of biopower is developed in later works and by other theorists, what emerges is “two poles of development linked together by a whole intermediary cluster of relations” (Adams, 2018). The first of these poles is discipline, which is implemented on the body. State institutions discipline and punish bodies under their control who do not fit the hegemonic demands of society. Poor people, people of color, and people affected by different disabilities and illnesses are the most vulnerable to state control and discipline. A modern biopolitical state constantly adapts the ways in which it enacts control, not only over the bodies of state subjects, but through the state’s conception of subjectivity and citizenship. The state also seeks to dehumanize and destroy that which does not fit into such a society. Genealogies are then crucial for the application of biopolitics since the technologies the state uses to exert control are constantly in flux over history and location, and those genealogies “will be insufficient unless they critically theorise settler colonialism as a historical and present condition and method of all power” (Morgenson, 2011). Biopower is a useful theoretical tool for describing and understanding the ways in which state apparatuses control populations. However, it would be disingenuous not to contextualize these actions within

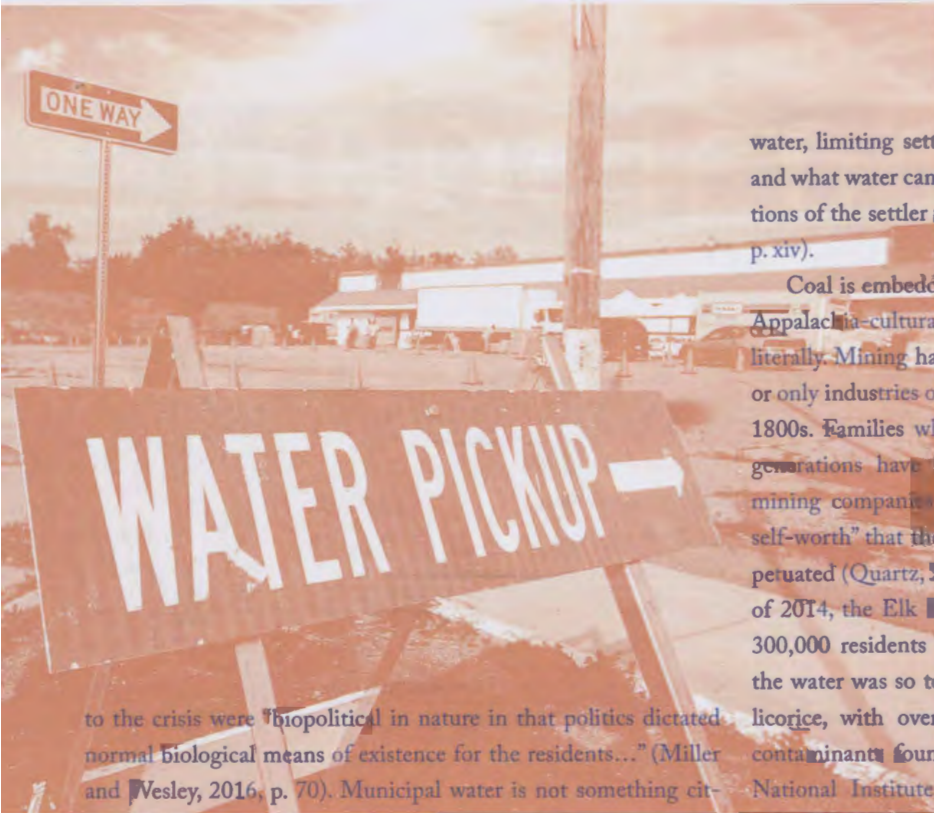
STATE INSTITUTIONS DISCIPLINE AND PUNISH BODIES UNDER THEIR CONTROL WHO DO NOT FIT THE HEGEMONIC DEMANDS OF SOCIETY. POOR PEOPLE, PEOPLE OF COLOR, AND PEOPLE AFFECTED BY DIFFERENT DISABILITIES AND ILLNESSES ARE THE MOST VULNERABLE TO STATE CONTROL AND DISCIPLINE.

CITIZENS OF ECONOMICALLY DEPRESSED AREAS STRUGGLE TO FIND THE TIME AND FUNDS TO ENGAGE IN FORMAL STRUCTURES OF RESISTANCE, SUCH AS LEGAL PROCEEDINGS, WHILE STILL SUPPORTING THEMSELVES AND THEIR FAMILIES.

a settler-colonial state project. The municipalities, city plans, state lines, and environments decimated by coal companies and chemicals all exist on stolen land, and biopolitical harm therefor results from the violent exploitation and genocide of indigenous people.

Citizens of economically depressed areas struggle to find the time and funds to engage in formal structures of resistance, such as legal proceedings, while still supporting themselves and their families. Court appeals, public disclosure requests, and public comment periods surrounding state actions like water policy, all have financial and time costs that create more distance between state actions and those who are most impacted and harmed. That disenfranchisement from state institutions compiles into another level of obfuscation for the sources of structural violence.

The next “pole” of biopower is the “species body”, which is the control over the biological processes of “births and mortality, the level of health, life expectancy, and longevity” (Adams, 2018). Understanding water sources and contamination as a unique site of biopolitics is key for both the regions of Appalachia and the city of Flint because the decisions leading up



to the crisis were “biopolitical in nature in that politics dictated normal biological means of existence for the residents...” (Miller and Wesley, 2016, p. 70). Municipal water is not something citizens who have minors or children living in their home can opt out of; not paying the water bill, or cutting off running water, is listed as a red flag under Michigan’s Department of Health and Human Services—a potential signifier of neglect of conditions in the home. In Flint, when the water was corrosive and filled with toxic metals such as lead and selenium, there was a fear of increased policing of homes on the basis of water bills and targeting (Hobson, 2018). In addition, McDowell County in West Virginia has been on a boil water advisory since 2010 (Gillespie, 2018), and incidents like the 2015 Charleston chemical spill left 300,000 residents without usable water. Both of these, and countless other incidents, are direct results of coal companies not adhering to environmental policies that have already been defanged by industry lobbyists (Quartz, 2018). Imposition of state power in the context of Appalachia is reflected by the policies that govern coal companies, and allow those companies to degrade water quality through mining, run-off, and the lack of protections for citizens. This state power and control of water can be understood as an extension of “settler subjectifications that perpetuate the enactment of settler colonial constructions of Indigenous waterways, it is also about how these constructions and the forms of subjective identification they give rise to foreclose upon the meaning of settler relations to

water, limiting settler worldviews as well, and what water can mean under the conditions of the settler state” (Stevenson, 2019, p. xiv).

Coal is embedded in the mountains of Appalachia—culturally, ideologically, and literally. Mining has been one of the main or only industries of the state since the late 1800s. Families who have lived there for generations have been impacted by the mining companies and a fervent “cult of self-worth” that the coal industry has perpetuated (Quartz, 2018). At the beginning of 2014, the Elk River chemical spill left 300,000 residents without potable water; the water was so toxic that it smelled like licorice, with over 5,000 different toxic contaminants found in the water by the National Institute of Health (Gillespie, 2018). Mountaintop removal is a type of mining that involves blasting the tops of hills and mountains to fully expose the coal underneath, as opposed to tunneling to the coal. This type of removal has a multitude of environmental and health impacts. Coal ash ponds are dump sites for coal that is crumbled down by the larger blasts. The danger of those ponds is due to their proximity to water, the thousands of different toxins in the dynamite used for blasting, and the other chemicals used in modern mining.

“Blowing off a mountaintop releases naturally occurring poisons like arsenic, selenium, lead, and manganese. These poisons then seep into streams and groundwater. Meanwhile, the blasting fogs the air with a toxic cocktail of dust that settles on roofs and windows in the valleys below, and cakes the lining of lungs. The

displaced soil and vegetation from mountaintop removal is plowed into valleys, creating enormous detritus piles and choking off waterways" (Quartz, 2018).

The physical detriment to citizens in the area was largely ignored by state and corporate entities, and is another manifestation of biopolitical control. People cannot opt out of being poisoned by the air and water in the area. This practice of mountaintop removal has increased in the wake of certain policies which were intended to control surface mining, such as the Surface Mining Control and Reclamation Act, but had an exploitable loophole allowing coal companies to continue mountaintop removal and avoid restoration costs if the land could be, "put to better use" (Frazier, 2018). The aluded use of the Surface Mining Control and Reclamation Act, was that it would create factory and manufacturing jobs meant to replace the mining jobs. However, this proved to be an empty promise, and in fact, these "flat land" spaces have not boosted the region's manufacturing sector. Rather, multiple factories and industrial parks remain empty (Quartz, 2018).

As mentioned previously, direct symptoms of contaminated water are not the only indicators of the health impact these conditions have on individuals and families. Allostatic stress is "the cost of chronic exposure to elevated or fluctuating endocrine or neural responses resulting from chronic or repeated challenges that the individual experiences as stressful" (Quartz, 2018). Essentially, the chronic stress of not only being stuck in a region with one main, unreliable, industry compiled with wage stress and a physically toxic and un-

safe environment, are apparent both in Flint and in Appalachia. Conditions such as heart disease, diabetes, depression, and other chronic conditions, correlate directly with the allostatic load put on individuals (Quartz, 2018).

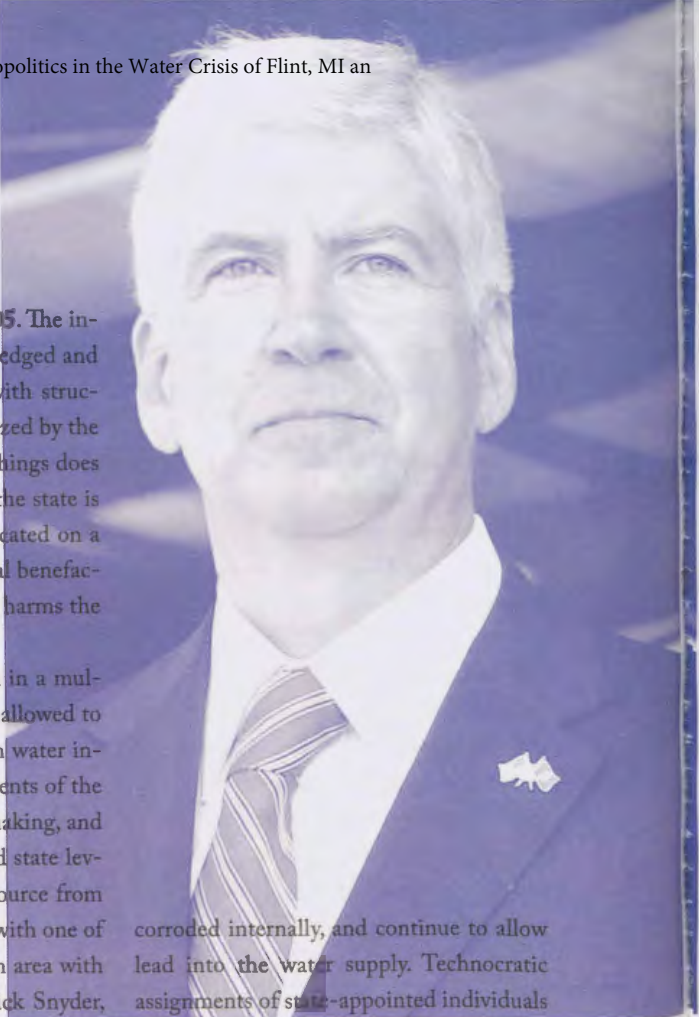
It should be noted, before further analysis of products of biopolitical control, that language matters. These chronic structural conditions and environments of high allostatic stress increase risks and rates of death from accidental, or intent-undetermined, alcohol and drug poisoning, suicides, and diseases associated with alcoholic livers and cirrhosis. The academic term groups these together as "deaths of despair" (Lofton, 2018). While this term will be used in reference to the statistics and research, it's important to acknowledge the sterilization and disconnect in that usage. Attributing these deaths and outcomes to the individual experiences of "despair" decontextualizes the material sources of that despair and how they are informed by oppressive power structures. The effects of structural violence, and biopolitical control, occur on a micro-level that is not universal despite an end result that can be accounted for in vast numerical studies. That said, West Virginia has had the highest combined death rate since 2016, one of the lowest life expectancies, and the largest increase in overdose deaths since 2005 (Lofton, 2018). The recent national spike of overdose deaths has led to a decrease in the average life expectancy in the area for the second consecutive year in a row. West Virginia currently has a rate of 83.1 deaths of despair per 100,000 (Lofton, 2018), the highest in the nation, and the rates of



deaths of despair in the state have quintupled since 2005. The insidious nature of biopolitics continues to go unacknowledged and internalized. Self-discipline, and methods of coping with structural violence and inequality, are demonized and ostracized by the general public because the acknowledgement of these things does not fit within the larger ideological assumption—that the state is looking out for their citizens. This assumption is predicated on a liberal understanding of the state as a positive or neutral benefactor for citizens, and fails to take into consideration the harms the state creates.

Water as a basis of biopolitical control can happen in a multitude of ways, whether it is how certain industries are allowed to operate in regions, or how municipalities control urban water infrastructure. How the pipes in Flint poisoned the residents of the city was not a mistake; the problem was years in the making, and was proven to be calculated by officials at both city and state level. When the city of Flint got their municipal water source from Lake Huron, it was a good quality water source, albeit with one of the highest billing rates for water in the country for an area with higher than average poverty rates (Hobson, 2018). Rick Snyder, the governor of Michigan, manufactured the crisis in an effort to control costs as well as instigate biopolitical control over Flint's population. Snyder instituted emergency managers in the city that were under the jurisdiction of the state, bypassing the authority of local elected officials. These managers switched the city water supply from Lake Huron to the Flint River, and chose not to treat the water with corrosion control (Hobson, 2018). Without the proper treatment of river water, there was bacteria in the water that caused the third largest outbreak of Legionnaires disease in history, with eighty-seven reported cases and twelve deaths (Hobson, 2018). Then, without the corrosion control treatment, Flint's pipe system

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A portrait of Rick Snyder, the Governor of Michigan, wearing a dark suit, white shirt, and striped tie. He is looking slightly upwards and to the right with a serious expression. The background is a blurred outdoor scene.

corroded internally, and continue to allow lead into the water supply. Technocratic assignments of state-appointed individuals with more power than normal local officials, allow the state to bypass transparency and institute more authoritarian control over the city. This can be articulated as another method of how biopolitics function in different state apparatuses, since the authority residing water sources became even more alienated from the residents affected by it, without their consent. Co-currently, Flint emergency management allowed the military to practice urban drills without public notice prior (Carmody, 2015). Increasing totalitarian methods of control in areas with proportionately higher populations of color and rates of poverty, created an environment of fear and totalitarianism in the city. In wake of realizing the extent of the harms that had been done, Flint residents began referring to the construction of the water crisis and its impacts as a genocide (Fonger, 2015).

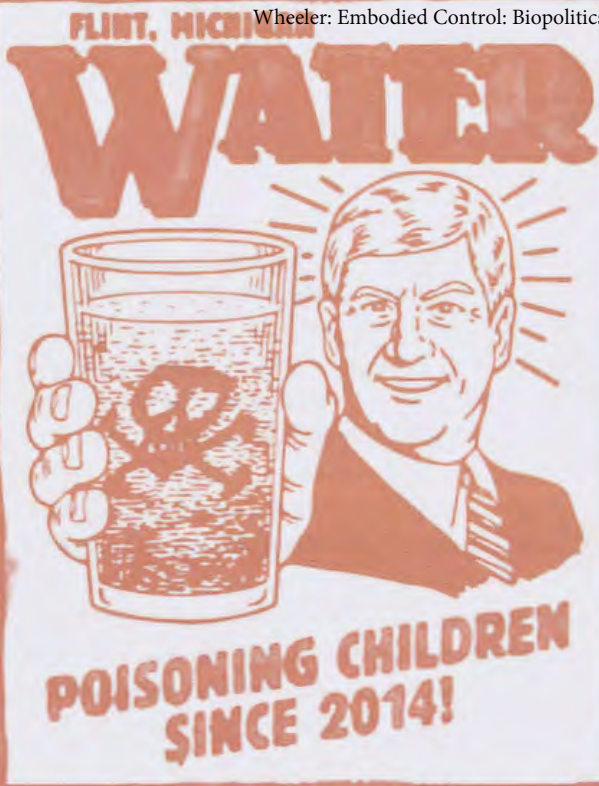
IN WAKE OF REALIZING THE EXTENT OF THE HARMS THAT HAD BEEN DONE, FLINT RESIDENTS BEGAN REFERRING TO THE CONSTRUCTION OF THE WATER CRISIS AND ITS IMPACTS AS A GENOCIDE.

Scholars Miller and Wesley use biopolitics to connect the harms between Rick Snyder putting the city of Flint under managerial control, and changing the water source for the residents of Flint. Intersecting state and corporate desire for profit and biopolitical control makes itself apparent not only in the first wave of the shift to managerial control in Flint, but also in the fallout and the fight for acknowledgment of the problem. Bureaucratic control of lead level testing, and the subsequent falsifying of those numbers, is a blatant show of disregard for the health of the citizens of Flint (Miller and Wesley, 2016, p. 73). Not only were the children and citizens with toxic lead poisoning not informed about potential dangers, but there was no move to address the cause of the lead poisoning. It is clear that resident health was not the priority for those in charge of Flint's water during the transition between water sources. The main industry and job-provider in Flint is the General Motors auto-manufacturing plant. This plant was also switched to Flint River water, but successfully lobbied to have the water source switched back to Lake Huron because the river water was corroding the auto parts during assembly (Hobson, 2018). Refusing to address the bodily harm that this water is capable of, while accommodating businesses, is another example of the ways in which officials explicitly practiced biopolitical control. The state acknowledging the property damage untreated water has on the major economic industry, while simultaneously condemning residents to permanent health impacts, make it glaringly obvious that the state regards the population of Flint as disposable, by prioritizing profit over the basic needs of citizens. The

state uses its power to hurt vulnerable populations, and will deny this reality indefinitely if not called to account by the public.

These two regions are tied together by their proximity to poisonous water, but also by the fact that they are some of the poorest in the country, a similarity that heightens vulnerability to state exploitation. When working through the intersections of biopolitics, class interest, and the struggle for the recognition of wide-reaching resident concerns, complexities can aid in understanding how a neoliberal state weighs citizens' health against corporate profits, and prioritizes such profits. These intersections, and material conditions, leave residents alienated and devalued (Sparke, 2009, p. 292). Contending with a state that deems one's body disposable, with the allostatic stress of cyclical poverty and institutionalized racism, is a type of trauma that is difficult to name and give justice to with an academic voice. Because of the specific harms of ongoing chemical poisoning, as well as the health effects of years of grueling manual labor, the impact on populations and their quality of life is drastically affected long after the news crew leaves. Continuous spotlighting of these persisting, state sanctioned harms and realities are key. However, because state institutions have spent so much time and effort denying the direct links between the actions done unto populations, coverage and acknowledgement are uphill battles of their own.

Once we understand how environmental crimes have a direct impact on the health of citizens, we must also articulate some paths toward resistance. When addressing the crossover between environmental crimes and their health impacts, the field of environmental health justice is a useful position to start from. Environmental health justice has three quality framing points: "(1) equity at all jurisdictional levels in the distribution of environmental hazards and amenities, (2) access to information and meaningful participation in decisions that influence the optimal conditions for health and well-being, and (3) recognition of and respect for the diversity of people and their experiences in communities



wake of these crimes. As mentioned previously, legal costs, the schedule flexibility necessary to continue long and drawn out legal proceedings, and the energy and organizing ability to make all of those possible, constitute unacknowledged and intentional barriers. This application of the law in order to limit access reveals “modern biopower as governmentality [...] its extra-legal appearance is a recent adaptation of qualities intrinsic to Western law. [...] It can even be argued that the production of a biopolitical body is the original activity of sovereign power” (Morgenson, 2011, p. 54). Constructions of citizenship and access to the law informs residents’ ability to access the spaces where these discourses occur. While these would be important topics to explore and apply to the proceedings in the wake of environmental health crimes, litigation directly with corporations is usually not accessible to the general public, and the private communication between corporations and the state is another locus of violence and institutional power.

The activists fighting for clean water and a safe environment in both Appalachia and Flint have been incomparable in their vigor and adherence to their values and protection of their communities. When demanding acknowledgement of the harms and realities that the state produces is an uphill battle, accountability for those at fault verges on impossible in terms of its feasibility. This remark is not to discredit the amazing work that has been done to spotlight the failures of government institutions to provide safe access to water and a non-poisonous environment, or the organizations that provide harm reduction in the status quo. Rather, it is

traditionally marginalized from mainstream environmental discourse” (Masuada, in Miller and Wesley, 2016, p. 75). These points are tools for increasing equitable access to policy discourse, decisions, and justice when civic trust has been violated by the state. Inclusive decision making would be a direct rebuke to biopolitical actions by the state, since one of the main functions of biopolitical structures is to take power from citizens in order to more easily control them. While inclusion in these processes is a crucial point of discussion, it should only be one aspect of redressing the intersections of oppression that marginalized groups face in the

important to question what “justice” looks like in practice, and if those ideas can be actualized when the same institutions that created the harms are the ones implementing steps to amend them. A justice system that functions along the letter of the law cannot, and willfully will not, enforce or go beyond the laws, which, as previously mentioned, were massively influenced by lobbyists prior to enactment. Any legislation protecting the land from mining practices will have an exploitable loophole, rendering the rest of the legal word useless. Mike Glasgow, a former city employee of Flint, was charged with a felony for tampering with evidence, and falsifying blood lead levels along with the notices of the poisoning for residents of Flint (Hobson, 2018). Despite being directly complicit in, and contributing to, the health crisis from water poisoning, Glasgow pled guilty to a lesser charge of willful neglect of duty, avoiding the full extent of prosecution for the crimes he committed. This is an example of how different institutions of the state function to protect the status quo, serve their own profit motive, and are thereby complicit in enacting and reinforcing biopower.

The scope and power of the state is daunting, in terms of how easily and flippantly harms can and have occurred. With the insidious nature of state biopolitical control, the underlying methods by which such control is deployed can be obfuscated. Water is a vital resource necessary for survival, as well as a large interconnected ecosystem that has far-reaching impacts not just for humans. Biopower,

BIOPOWER, AND ITS USE BY THE STATE IS NOT ONLY MEANT TO CONTROL BODIES THROUGH STATE-SANCTIONED POISONING AND THE HARMS OF ALLOSTATIC STRESS, BUT IS ALSO INDICATIVE OF THE LARGER STATE PROJECT OF NATION-BUILDING AND THE CONSTRUCTION OF CITIZENSHIP.

LEAD NEVER LEAVES THE BODY ONCE IT HAS BEEN INTRODUCED; POISONED WATER FROM COAL ASH PONDS AND MOUNTAINTOP REMOVAL IS CYCLED THROUGH ECOSYSTEMS AND PERMEATES THE SURROUNDING GEOGRAPHY. THUS, RAMIFICATIONS OF BIOPOLITICAL POWER HAVE LED TO DEHUMANIZATION AND VIOLENCE AGAINST ALREADY MARGINALIZED POPULATIONS, ULTIMATELY CREATING A VICIOUS CYCLE OF SELF-PERPETUATING HARMS.

and its use by the state is not only meant to control bodies through state-sanctioned poisoning and the harms of allostatic stress, but is also indicative of the larger state project of nation-building and the construction of citizenship. Biopolitical control, through the mechanism of water, is situated within a larger project of settler-colonialism that assumes control and ownership of the land and resources that have been poisoned, to the detriment of people living in these places, and to the benefit of the profit margins and state desire to control populations. The government prioritizes a model of private profitability over the well-being and health of the general public, in both the case of managing municipal water sources and oversight of the coal industry's use of water. Lead never leaves the body once it has been introduced; poisoned water from coal ash ponds and mountaintop removal is cycled through ecosystems and permeates the surrounding geography. Thus, ramifications of biopolitical power have led to dehumanization and violence against already marginalized populations, ultimately creating a vicious cycle of self-perpetuating harms.

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