Deconstructing citizenship and the growth of Detroit's green renaissance

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Abstract

Detroit is in the midst of a contemporary urban renewal project that is being carried out through green gentrification. The displacement of residents is happening through the discursive and political management of the water system, which produces conditions that leave residents with few options for remaining in the city. In this article, I explore how resource management, particularly water and wastewater infrastructure, has been used to degrade the political efficacy of Black Detroit residents. Drawing from ethnographic fieldwork and discourse analysis of news articles and government reports, I argue that in recent years the city of Detroit has developed a wasting economy. This political-economic structure relies on the coupling of deconstructive and constructive processes that promote the withering of citizenship in order to make way for radical racial transformation in access to and control over the city.

Keywords: Green gentrification, environmental racism, infrastructural violence, embodied metabolism

Resume

Detroit est au milieu d'un projet contemporain de renouvellement urbain qui est réalisé par la gentrification verte. Le déplacement des résidents se fait par le biais de la gestion discursive et politique du système d'eau, qui produit des conditions qui laissent aux résidents peu d'options pour rester dans la ville. Dans cet article, j'explore comment la gestion des ressources, en particulier l'eau urbaine et l'infrastructure des eaux usées, a été utilisée pour dégrader l'efficacité politique des résidents noirs de Détroit. À partir d'un travail ethnographique sur le terrain et d'une analyse du discours d'articles de presse et de rapports gouvernementaux, je soutiens que, ces dernières années, la ville de Détroit a développé une économie de la déperdition. Cette structure politico-économique repose sur le couplage de processus déconstructifs et constructifs qui favorisent le dépérissement de la citoyenneté afin de faire place à une transformation raciale radicale dans l'accès et le contrôle de la ville.

Mots-clés: Gentrification verte, racisme environnemental, violence infrastructurelle, métabolisme incarné

Resumen

La ciudad de Detroit está en medio de un proyecto contemporáneo de renovación urbana basado en la gentrificación verde. El desplazamiento de los residentes se presenta a través del manejo discursivo y político del sistema hídrico, lo que deja a la gente con pocas opciones para permanecer en la ciudad. En este artículo se explora cómo el manejo de recursos, particularmente del agua y la infraestructura de drenaje, ha sido utilizado para disminuir la capacidad política de los residentes de Detroit afroamericano. Con base en trabajo etnográfico y análisis discursivo de notas periodísticas y reportes gubernamentales, discuto que en años recientes la ciudad de Detroit ha desarrollado una economía del desperdicio. Esta estructura político-económica, se fundamenta en la articulación de procesos constructivos y deconstructivos que fomentan el debilitamiento de la ciudadanía para lograr transformaciones raciales radicales en términos del acceso y control de la ciudad.

Palabras clave: Gentrificación verde, racismo ambiental, violencia infraestructural, metabolismo incorporado

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1. Introduction

> The flows of power that are captured by urban water circulation also suggest how the question of urban sustainability is not just about achieving sound ecological and environmental conditions, but first and foremost about a social struggle for access and control; a struggle not just for the right to water, but for the right to the city itself. (Swyngedouw 2004: 4)

At the end of the 20th and beginning of the 21st century, the city of Detroit, Michigan has been characterized as a wasteland, marked by crime, poverty, and an absence of 'people who count.' Although Detroit's population has declined steadily since its peak shown by the 1950 U.S. Census at roughly 1.8 million residents, it is by no means empty. The 2020 U.S. Census reported a population of around 640,000 people. The city is comparable in population size to Portland, near that of Boston, and larger than Sacramento, Minneapolis, and even the city of Atlanta. Beyond the city limits, the metropolitan area of Detroit is larger than Seattle, Denver, and Minneapolis-St. Paul by some margin. So, what processes are at play and what purposes do they serve to cast such a significant population as insubstantial?

Detroit's narrative of systematic disinvestment and abandonment has facilitated a process in which extreme governance procedures proliferate. To name just a few, these have included the imposition of federal oversight of the water system over 35 years, shifting water bills into property taxes resulting in residents' eviction for unpaid water use, imposition of the state's emergency manager on the city, and the city's bankruptcy in 2013 which allowed for the regionalization of the water system. Residents, meanwhile, have been stripped of a political voice in decision-making processes that affect their lives and communities. The current state of the city acutely demonstrates a racialized process through which political voice is deconstructed via the material management and control of public infrastructure. The normative effects of this process lead to diminishing democratic practices. Given the crisis-driven tendency of capitalism, economic recovery remains elusive while the means to chase it are considered effective, fair, and as typical standards of practice in dealing with extreme conditions.

Before presenting the literature that grounds this article, I present my methodological approach and I frame the tension between the agency of residents and activists in Detroit against the broad public discourse that works to silence their efforts. I present my methodology to situate the approach of this analysis—trying not to add to the pressures that local activists struggle against. Next, I introduce the literature on metabolism, to show how the concept is used in political ecological and ecological Marxist analyses. While this literature stresses the decay of a sick political-economic-environmental nexus, it fails to consider the ways in which this same system works to rebuild itself. This gap in the literature suggests that an advancement of urban metabolism is through considering simultaneous deconstructive and constructive forces.

I show how in Detroit, these deconstructive and constructive forces work through environmental transformation to reshape the city in a way that displaces the political power of Black residents.[2] Environmental degradation and discursive erasure are the mechanisms through which Black residents are denied the ability to make claims on the larger political system. I argue that there exists a simultaneous coupling of catabolic processes that delegitimize the voice of the Black residents with anabolic processes that work to construct new features of citizenship and prosperity for other (white and affluent) residents. I suggest that these are interrelated features of a wasting economy. With these mechanisms we can better understand the metabolism of the city and how the struggle for water highlights the fight for the right to the city itself.

Communities of color are torn apart to make way for white wealth, which is not news for community members or scholars. Still, environmental sociology is dominated by white perspectives and needs to make way

[2] Because the population of the city of Detroit is majority Black, the focus in this article is on environmental racism's impacts on Black power. Environmental racism is not, as a concept, limited to Black communities and it is not the intent of this article to suggest it as such. Environmental racism and environmental injustices affect low-income communities regardless of race and communities of color in general. The 1987 report by the UCC on *Toxic wastes and race in the United States* (UCC 1987) and subsequent environmental justice scholarship established that race was the primary predictor of proximity to toxic waste facilities, even after controlling for income.

for theoretical frames that center the importance of racism in environmental transformation (Liévanos *et al*., 2021; Mascarenhas *et al*., 2017). This article advances a novel theoretical approach to metabolism, a core concept in environmental sociology, through integrating environmental racism with political ecological concepts of the hydrosocial cycle and embodied metabolism in order to offer a grounded interpretation of metabolism. I show the personal political implications for racialized individuals living within such a system.

2. Methodological approach

The analyses for this article draw from sustained engagement with water poverty organizations in Detroit that began in 2007 with the U.S. Social Forum held in Atlanta, Georgia. As part of a larger comparative study, in 2010 I conducted ethnographic fieldwork in Detroit for six months while volunteering with the Michigan Welfare Rights Organization, a member-run anti-poverty group based in Detroit, to study water shutoffs. During this fieldwork I completed twenty-six in-depth interviews with residents and activists in Detroit. From 2015-2018, I led a community based participatory research study with thirty-four participants using citizen science methods to study water quality in Detroit. This work was directed by a community advisory board comprised of Detroit residents, in partnership with *We the People of Detroit*, and involved iterative project design and water sampling in Detroit residences. Complementing interviews and field observations from these two projects, I analyzed the operation of power through discourse (Dryzek, 1990, 1997; Foucault, 1972) related to water management and its contestations in articles, websites, and reports from local public media, community organizations, and government agencies.

Detroit is popularly held to be a largely abandoned city in need of intervention and recovery. This comes in spite of its population of over 600,000, 78% of whom identify as Black or African American, who engage in daily creative and radical forms of resistance merely by living in the city. While Detroit's history of labor and Black power organizing is widely recognized, less well known is the fact that today Detroit is the U.S. focal point and a leader in the international movement for the human right to water. This movement is structured through regularized local coalitions on water poverty, intersectional engagement and networking with national and international activist organizations. Major social movement gatherings are organized with national and international poverty and water rights organizations. The residents of Detroit are lacking neither in number nor agency, but political-economic discourses frame them as absent or passive, despite the city's leadership in human rights, poverty, and water rights movements. The emphasis of this article is on this process of discourse framing and its implications for the distribution of power in the city. In no way should this article's analysis of the process that constructs Detroit residents as invisible be interpreted as claiming their physical or political absence. To the contrary, it is my hope that denaturalizing and making visible the processes that work to diminish the influence of the city's residents will support countering these processes in favor of more democratic and equitable governance practices.

3. The hydrosocial cycle, metabolism, and citizenship

Political erasure makes populations invisible by pushing them into the landscape—dehumanizing them through naturalizing the urgency of their circumstances as merely ecological. Political ecology offers a critical lens for making these relationships between humans, environments, and the operations of power that configure them visible. Karen Bakker (2012) argues that the properties of water and its integration into social systems makes it particularly useful for understanding the organization of those systems. Bakker says that water is a tangible object with material properties that physically affect the environment it occupies. Water is essential for life and is found in all life that we currently understand. Its dynamic state (ice, liquid, vapor), its tendency to flow, and its properties as a solvent mean water is continuously transformed, and it transforms the entities it interacts with (Barnes, 2014; Barnes & Alatout, 2012; Paerregaard, 2018; Walker, 2019). Water is internal to the objects and systems that it impacts, remaking their very nature and remaking itself in the process (Barnes & Alatout, 2012).

These transformations give water an agential role in the transformation of society through cultural and political systems (Budds, 2016). Water is a political object: power structures emerge around it and through its manipulation (Bakker, 2012). Some argue that water crises are not problems of actual scarcity but problems of

governance; water is hoarded by some, denied to others, and industrial systems operate resource management practices leading to poor water use practices and increasing water pollution (Hukka, Castro, & Pietilä, 2010). The management and control of water has political consequences with inequitable outcomes. Finally, Bakker argues that water is a biopolitical object, because of the ways through which it shapes human cultural systems, structures of power over populations related to the control of water, and symbolic concepts of purity, wellbeing, and health.

The use of water to study flows of power within society is characterized as the hydrosocial cycle. The hydrosocial cycle describes the relational exchange between water and society which mutually constitute each other and remake each other dialectically across space and over time (Linton & Budds, 2014). This concept extends the hydrologic model, which details the flow of water in the 'natural environment' through evaporation, precipitation, groundwater storage and discharge, and surface water storage (Horton, 1931). Merrett (1997) first added to this concept by additionally considering how water moves through human technological systems including collection, treatment, consumption, wastewater collection, treatment, and disposal. He called this coupling the hydrosocial cycle, but his analysis was purely mechanical, only focusing on human technologies with no consideration of social or cultural systems. Political ecologists have extended the hydrosocial cycle to study the interconnections between natural, technological, and social (cultural and political) systems, thus allowing water to serve as a material surrogate for the mapping of power within social systems (Swyngedouw, 2004).

Water is a hybrid of its material form and discursive practices (Linton & Budds, 2014; Swyngedouw, 2004). Water-social hybrids need to be understood within their embedded contexts and not as pre-existing entities outside of one another (Linton & Budds, 2014). For example, bottled water represents a different social, economic, symbolic, and political configuration than does water in a lake frequented by recreational users and these relations are further removed from those making up virtual water in loaves of bread at a supermarket. Through these hybrids water and social power are internally related (Linton & Budds, 2014). From a hydrosocial perspective, water has an agential role in shaping social relations, meaning the materiality and flow of water and its various hybrids have a direct impact on the forms of social organization that develop within those hybrids (Linton & Budds, 2014; Walker, 2019).

Swyngedouw (2006) used a hydrosocial analysis of urban water flows to consider how hybrid water forms are indicative of metabolic functioning in society. His analysis of water points towards a social metabolic process that illuminates the conflicts and contradictions of social power as exercised within the materiality of human life, wherein water is a symptom of what he calls a "socio-environmental pathology" (2011). Metabolism accounts for the ways in which the interchanges between humans and environments make and remake each other within dynamic infrastructures that produce complex and heterogenous outcomes for different groups (Swyngedouw, 2006). The coproduction of humans and environments within urban spaces constitutes a system of hybrid infrastructures that reflect interwoven and contested operations of power (Swyngedouw, 2006). These systems produce inequitable outcomes with benefits for some and disadvantages for others (Heynen *et al*., 2006; Swyngedouw, 2006). Hybrid configurations of humans and environments should be understood in the context of the political processes that produce them (Heynen *et al*., 2006).

Metabolism, used as a metaphor for understanding the organization of society, has been significantly advanced within the ecological Marxist tradition. This approach stresses circulatory flows of capital as a global metabolic system that mediates exchange between humans and nature (Clark & Foster, 2010). Marx argued that just as industry is destructive to the metabolic interaction of humans in organizing and reorganizing society, large-scale agriculture interrupts natural rhythms of soil renewal, necessary for sustaining life, by extracting nutrients for capitalist gains (Marx, 1894). John Bellamy Foster (1999) calls this contradiction a "metabolic rift" that emerges from the disconnect in resource exchanges between town and country. A faithful Marxist analysis points to the collapse of economic and/or ecological systems due to inherent contradictions within capitalism. Dickens (2002) criticized the cataclysmic conclusion within ecological Marxist analyses for underestimating capitalism's flexibility and its dependency on crises to spur on restructuring and to stimulate new possibilities for growth. Through highlighting the overemphasis of deconstructive forces that imply a

broken system, Dickens suggests we need to consider both deconstructive and constructive political-economic forces and their relationship to the environment.

In communities of color, the refrain 'the system is not broken; it is working as it was designed' can be heard frequently (Butler, 2020). This statement counters arguments that racism is a sickness within an otherwise healthy system. Rather, racism is a fundamental characteristic of capitalism, which was designed to be inequitable (Bauman, 2004; Du Bois, 1920; Gandy, 2006; Pellow, 2007; Robinson, 1983). Seamster and Purifoy (2021) argue that environmental racism is a core feature of racial capitalism. They describe environmental racism as operating through a relational process of 'creative extraction' where white communities act upon Black communities to steal land and finances, support environmental degradation, and exclude Black residents from political participation in order to build white community assets and a sense of place. By coupling racial capitalism within a metabolic analysis of natural resource management and political power, we can see how environmental inequities reinforce the stripping of political power from certain populations.

Additionally, considering race in a metabolic analysis allows for a shift in scale from macro-political economic processes to the operations of power at the individual level. The hydrosocial cycle is not only useful for mapping power relations across space, but also for understanding the shifting subjectivities of people within those systems (Radonic 2019). Residents living within a water system may make claims on it based upon their perceived rights to access water, what Anand (2012) refers to as hydraulic citizenship. Citizenship is actively performed through the process of making claims on the system (Sultana 2020). Similarly, political systems can deny the rights of publics to the system through direct denial of access or through abandonment and abjection (Anand 2012).

Following Adriana Petryna's (2003) development of the term 'biological citizenship', I treat citizenship not as a status earned by birthright within a state, but as membership within a group upon which one is able to make claims where that ability is mediated based upon one's living conditions.[3] While scholarship on citizenship offers frames within which individuals are able to make claims on a larger political system, Giorgio Agamben illustrated a process through which individual political agency is sheared away. He develops an analysis of the production of bare life within Nazi concentration camps in the Second World War. Agamben (1998) makes a distinction between two kinds of life common to all humans: *zoë*, which is the life characteristic of all living beings and *bios*, which orders that life according to a particular way of living. On its own, the notion of *zoë*, or bare life, describes the condition of life devoid of political existence. Being cleaved of political personhood is to be rendered bare life, meaning one is gripped in a state of exception—stripped of voice, legal protection, and agency and defined in opposition to the law (Agamben, 2005). With this concept, Agamben alludes to how capitalist systems render the poor into a state of exception and cast entire populations as bare life.

While Agamben's critics often dismiss his arguments as extreme and that society at large cannot be compared with the unique context of the concentration camp (for example see Comaroff, 2007 or Laclau, 2007), I believe that critics miss the opportunity to consider the production of bare life as *processual*—the slow, gradual stripping of political power with the intent of rendering a body with vanishing political influence. Agamben described this process as like one of severe wasting from malnutrition.

> Two phases must be distinguished in the symptoms of malnutrition. The first is characterized by weight loss, muscular asthenia, and progressive energy loss in movement. At this stage, the organism is not yet deeply damaged. Aside from the slowness of movement and the loss of strength, those suffering from malnutrition still do not show any symptoms…In some cases [the passage into the second stage] happened slowly and gradually; in others it happened very

[3] Although it might seem intuitive to draw from the concepts of *environmental citizenship* or *ecological citizenship* as developed by Dobson (2003), these concepts focus more on environmental stewardship and rights to the environment. For the purposes of this article, biological citizenship offers a more apt foundation. The focus of catabolic citizenship is on how environmental contexts serve to degrade or affirm a person's ability to make claims on a political body as a valid, rights holding member of that group. Petryna's (2013) analysis of biological citizenship speaks to the ways in which individuals' experiences of harm during the Chernobyl disaster allowed them to make claims as beneficiaries of the funds and resources designated for survivors. This framing of citizenship speaks to the way in which one's embodiment is transformed by the material context in a way that affects that individual's political status within a group.

> quickly. It was possible to ascertain that the second phase began when the starving individual lost a third of his normal weight…He became sensitive to every kind of infection and contagion…In this phase, they became indifferent to everything happening around them. They excluded themselves from all relations to their environment (Agamben 1999: 42-43).

Agamben makes clear that his focus is not specifically on the camps as sites of death—death as a terminal outcome. Rather, the camps are sites of the production of death as a vanishing point, where the state of living and the state of death converge so that the two are indistinguishable. Agamben gives no name to the state of being that precedes full embodiment of the living dead and ironically, he becomes fixated on corporeal wasting when his theoretical frame suggests otherwise: that more consideration should be given to political deprivation. His frame is also limited in its singular focus towards the vanishing point, but if we shift from endpoint to considering process, a space opens to consider the form of citizenship that takes shape along this pathway. As the biological body is cleaved from the political body, a deconstructive citizenship, which I call *catabolic citizenship*, is imposed wherein the material conditions of existence are taken as a legitimation of declining political influence.

Through the production of bare life, a space is recast as people-less—as wasteland:

> It is not simply a matter of something like a desert, a geographical space empty of inhabitants… Hitler's 'peopleless space' instead designates a fundamental biopolitical intensity, an intensity that can persist in every space and through which peoples pass into populations and populations pass into *Muselmänner.* (Agamben 1999: 85)

In the separation of the political self from the bodily self, a separation occurs between what is valued as human from that which is designated to be nature—politic from body. If a space is desirable for certain purposes in contradistinction to its current uses, and that space is occupied by residents that have a political and legal right to contest new uses, the space is shaped as devoid of legitimate occupants and available for transformation through the imposition of catabolic citizenship. To this end the space, filled only with phantoms, is designated as sacrificial and is made available for plunder and desecration.

As I show later, water shutoffs in Detroit are a key mechanism through which the city is transformed into an 'empty' space. Disconnection is an active process of pushing residents out of a system; it is not just a lack of connection but an active process of denial (Anand 2012). The denial of connection and abandonment from water maintenance serves as a mechanism of a hydraulic state to show the tenuousness of citizenship—the ways it can be reinforced through connection and the ways that it can be stripped through exclusion from the infrastructures that mark a person as a member. The condition of the bodies of the residents then becomes a reinforcing mechanism through which to show that they are not worthy of citizenship.

Within a racial capitalist system, Black bodies and Black communities are deemed worthless and disposable (Burden-Stelly, 2020; Pulido, 2016). Black political will is specifically treated as counter to the goals of capital accumulation (Pulido, 2016). To this end, Black communities have experienced systematic deprivation through active urban renewal projects that tear down Black wealth to make way for white infrastructure and through passive denial, via lack of investment in public infrastructure for Black communities (Sugrue, 1996). The exclusion of marginalized communities from the formal infrastructure that ties, organizes and defines society is referred to as "infrastructural violence" by Rodgers and O'Neil (2012).

While environmental sociologists have done much to advance the concept of metabolism through looking at economic circulations, their analyses often frame circulation as merely consisting of economic exchanges, neglecting the hybrid socio-natural transformative dimensions of capital flows (Swyngedouw, 2006). Such top-down political economic theories of metabolism favor male labor and capital as opposed to interconnections between humans and environments through embodied metabolic pathways (Davies, 2019).

Additionally, for critical nutrition scholars, metabolism is the means through which the body processes its environment (Landecker, 2011). They have adopted an embodied model of metabolism that understands food as a form of exposure where the metabolism of food and toxics positions the body as an integrated aspect

of infrastructure (Andueza, *et al*., 2021; Landecker, 2011). In this way, inequalities in infrastructure occur in everyday material practices at the bodily level through intersectional pathways. These are particularly with respect to access to food and food quality (Truelove, 2019). They argue that as environments are social constructs, bodies need to be understood in terms of their integration within infrastructures (Landecker, 2011; Mansfield & Guthman, 2015). We tend to study bodies separately from their environments and present health problems as problems of individual flawed bodies as opposed to inequitable infrastructural problems (Guthman & Mansfield, 2015). Alternatively, we can understand bodies as an integrated metabolic aspect of embodied water infrastructure, through the organization of particular water hybrids and the resulting material and political configurations that arise.

To summarize, studying water can reveal processes of dehumanization and the naturalization of environmental inequities. Water is not merely a pre-existing object flowing through and distinct from social systems. It is hybrid with social systems, and integrated within processes and bodies in ways that make up unique socio-environmental configurations with specific cultural and political forms. Metabolism as a metaphor has been useful for understanding circulations of capital within society. But more than that it points to moving processes of destruction and reconstruction. A metabolic analysis of the manipulation of water hybrids is particularly useful for examining the processes that work to naturalize environmental degradation in communities of color. Such an analysis reveals the integration of destructive forces upon Black communities with constructive forces that rationalize white wealth and control. While global political economic analyses of metabolism emphasize general environmental degradation, an embodied approach to metabolism focuses on a *grounded wasting*—breaking down bodies and cleaving political power. The destruction of Black communities and degradation of Black bodies is the mechanism through which the political will of Black individuals is rendered invisible. Metabolism as used in this article considers the integration of bodies as part of the system of infrastructure where they are vulnerable to degradation and desecration through exposure to hybrid water forms that deny the worth of their existence.

Detroit demonstrates an active metabolic system wherein the catabolic extraction of energy and power from Black and Brown communities occurs through direct and discursive environmental degradation. This discursive breakdown is used in an anabolic way to fuel rebuilding that transforms the urban space from Black, to empty, to frontier,[4] and growth through white capital via green gentrification (Radonic, Cooper, & Omans, 2020). Detroit provides a powerful example of these processes at work, and the city has broad implications for how the degradation of political power for vulnerable populations serves to facilitate environmental transformation under racial capitalism.

4. Deconstruction and construction in Detroit

Catabolic decline

Detroit has been described as empty "except for poor, Black residents" (Voyles 2015: 26). Despite its substantial population, Detroit has been constructed as a space devoid of people that count. From its industrial peak in automobile manufacturing (1948-1967), an implicit focus has been on the presence or absence of white control of wealth. White residents fled the city as Black political power increased, while simultaneously Black political power was framed as lawless, incapable of self-governance, and in need of white intervention for salvation. The discursive deconstruction of Black political power in Detroit is evident in processes that demonstrate 1) the racialization of the city, 2) efforts to impose external control on the city's water system, 3) the blighting of Black and Brown neighborhoods through tax lien foreclosures, and 4) the reframing of the city as empty of a population that counts.

[4] Both Safransky (2017, 2014) and Kinney (2016) have offered excellent and detailed descriptions of wasteland Detroit and the framing of Detroit as a new American frontier open for conquest and development.

Racialization of the city

Many depictions of Detroit focus on its decay (for examples see Bluestone and Harrison 1982; LeDuff 2013; or McGraw 2007) and literature that examines the deindustrialization process in rust belt cities like Detroit is plentiful (such as Arnold 2015; Digaetano 1989; Highsmith 2015; Ross and Mitchell 2004; Smith 2007; Sugrue 1996). With the decline of the automotive industry in Detroit in the middle of the 20th century, the city was said to have "gradually [sunk] into a wasteland of idle men and idle factories" (Widick 1989: 44).

While the automation of factories led to a decline in manufacturing jobs, throughout the 1940s and 1950s African Americans continued to move from the South to Detroit in search of secure, living wages. At the same time, G.I. Bill programs (the Servicemen's Readjustment Act of 1944, benefiting returning WWII veterans) hastened the outmigration of white people across the country to new suburban homes. The relative percentage of white residents in Detroit began to decline rapidly after rioting took place in 1943 following a large rise in the population from elsewhere in the United States due to an increase in military vehicle production. The demographic shift from a majority white to a majority Black city took place after rioting again broke out in response to unfair policing practices by white police against Black residents in 1967. While white residents characterize this period as the '1967 Riots', many Black residents of Detroit refer to this period as 'the Rebellion,' emphasizing Black resistance to the oppressive operation of white power structures in the city. After 1967, many white residents decided to abandon Detroit and allow it to fester as they wiped their hands clean of what they regarded as a city full of Black criminality and violence (Sugrue, 1996). The 1967 Rebellion marked the pivotal moment in which Detroit was recast as a landscape of waste (Boyle, 2001). Today, Detroit's metropolitan statistical area remains highly segregated, with white residents making up 77% of the communities outside of the city; the majority of these communities in Metro Detroit are over 90% white according to the 2020 US Census.

Historically, the mere withdrawal of white bodies and capital from Detroit did not immediately lead to the economic and social collapse of the city. The process of deconstructing the city was more active than passive. In the 1950s and 1960s, homes in thriving, predominately Black neighborhoods in Detroit were bulldozed to make way for the Chrysler Freeway, a one-mile (1.6 km) stretch of Interstate 375, and the development of Lafayette Park, which today is home to high-rise apartment buildings (Sugrue, 1996).

> You know, my grandfather got displaced by freeways three times. Three times! And the last time he sat on the porch with a shotgun…He was the last house before the freeway came through…Your house gets torn down by freeways over and over again, it just gives you like…you're either gonna move on or your gonna root yourself so deeply that nothing is gonna move you…Just root down as deep as you can go and refuse to go (Sophia, Detroit resident, personal communication, May 13, 2010).

In 1973, majority Black residents in Detroit elected the city's first Black mayor. Coleman A. Young served for twenty years as the mayor of Detroit from 1974 to 1994 after having served on the Michigan state senate from 1965-1973. He was an outspoken and fiery former Tuskegee Airman whose history was grounded in Black radicalism and the Black Power movement (Darden & Thomas, 2013). Young saw the financial struggles of Detroit as explicitly linked to racialized practices and racist, exploitative attitudes. The election of Young was an important symbol of the growth of Black power in the city, but as the representative of the Black city, he also served as a focal point for white suburban vitriol.

Control of water

Three years into Young's tenure as mayor, Detroit was found to be in violation of the Clean Water Act through its National Pollutant Discharge Elimination System (NPDES) permit. The violation was a result of sewage releases during rain events that inundated the city's combined sewerage overflow (CSO) system. In September 1977, Federal Judge John Feikens entered into a consent agreement with the city to establish a schedule for getting back into compliance. The consent agreement specified not only explicit expectations to be met for the effluent stream, but also expectations for adequate staffing, training, and procurement oversight

at the Detroit Water and Sewerage Department (DWSD).[5] Detroit violated the effluent quality standards of its NPDES permits several more times over the next thirty-five years but the majority of that time the city was in compliance with its permits; it was not in compliance with the consent agreements established by Feikens. Importantly, though, the continuation of judicial oversight gave the impression that Detroit was in violation of its NPDES permits that entire time. Largely, Judge Feikens continued oversight because of problems he felt existed in staffing and purchasing. As such, over the course of thirty-five years Judge Feikens retained ultimate control over which contracts were entered into and how finances were distributed at DWSD.

Over time, many skilled staff at DWSD were not replaced with permanent hires, and services that would have previously been carried out by the Department were outsourced through contracts with private companies. In addition to presenting lucrative opportunities for companies outside of the city, contracts also signify the slow erosion of the capacity of DWSD to conduct independent operations on, and maintenance of the water system. In the 2000s external pressure increased for regionalization and privatization of the water system. State Representative Kurt Heise (Republican, Plymouth) introduced House Bills in 2011 and 2013 with the intent of regionalizing the Detroit Water and Sewerage Department. In Heise's plan, all 125 customer communities within the DWSD service area would be members of a regional consortium. Ownership of the water system would remain with the city of Detroit but decision-making power over the system would be held by the regional authority. Neither of Heise's Bills were signed into law, but the City of Detroit declared bankruptcy in 2013. A regional authority was then established unilaterally by the city's appointed Emergency Manager. Despite protests from Detroit's residents wanting to retain control of the water system, viewed as the last remaining asset in control of the Black majority city, the bankruptcy allowed the state to redistribute power over water treatment and supply to the oversight of the newly created Great Lakes Water Authority (GLWA). This is a regional authority serving the Detroit metropolitan area.

Neighborhood destabilization

As early as 2005, the Michigan Welfare Rights Organization was made aware of the regular annual shutoff of water for tens of thousands of Detroit households. Official estimates were difficult to obtain, but in a contentious meeting in 2007, officials reportedly confirmed that at least 40,000 Detroit households had their water shut off annually. While residential poverty is one contributing factor to residents being behind on their payments to the water authorities, additional challenges around payment suggest structural problems due to diminished capacity with DWSD. Some of these include lack of cooperation from DWSD with accepting partial payments, or adopting an income-based water affordability plan. The billing system that issues bills to addresses rather than occupants, and there have been errors in which usage is attributed to incorrect addresses. The system suffers from widespread infrastructure failures, leading to leaks and inflated usage fees.

When residents were unable to pay water bills for prolonged periods of time, DWSD moved the water bill to the property taxes collected by city authorities, making it possible for a lien[6] to be placed on their home. If delinquent property taxes are not paid after two years, the city can move to foreclose (i.e. take possession of the property). According to a DWSD FAQ sheet on the Department's Tax Roll Program, as early as 2005 DWSD began shifting delinquent water bills onto property taxes under the authority given to them by the "Municipal Water Lien Act MCL 123.161, the General Property Tax Act MCL 211.78k, [and] the City Charter Section 7-1502."[7] Once the outstanding bill has been shifted to the property taxes it cannot be shifted back to a water bill, and the entirety must be paid to avoid foreclosure. This transfer was an important sleight of hand in the representation of poverty in Detroit. The discursive turn from poor residents who cannot afford their water, to

[5] Cox, Sean F. 2009. "D.E. #2397." Retrieved December 19, 2016 from https://www.scribd.com/document/64383011/2011-09-09-Opinion-and-Order-Denying-Without-Prejudice-City-of-Detroit-Motion-to-Dismiss-EPA-Lawsuit.

[6] A claim or legal right issued against assets that are typically used as collateral to satisfy a debt.

[7] Detroit Water and Sewerage Department (2013). "Frequently Asked Questions regarding the Detroit Water and Sewerage Department (DWSD) Tax Roll Program." Retrieved January 9, 2017 from http://archive.dwsd.org/downloads_n/customer_service/customer_information/dwsd_tax_roll_faq.pdf (old link)

a foreclosure and loss of property, fits neatly within the larger abandonment narrative of the city as it suggests that residents have willfully abandoned their properties.

In 2007, the year of a global financial crisis, Detroit had 72,616 new default filings and 41,273 houses already in foreclosure.[8] Houses in foreclosure in Detroit comprised 4.9 percent of all properties, which was nearly five times the national average for that year. This meant Detroit had the highest rate of foreclosures of any city in the nation. It is estimated that 28.7 percent of all foreclosures in Detroit became abandoned homes, and in 2011 that there were at least 70,000 such abandoned homes in the city of Detroit.[9] The city has since auctioned off properties for a little as US$500, and US$200 for vacant lots.[10]

In 2015 more than 60,000 homes were facing foreclosure and nearly sixty percent of them were occupied.[11] Michigan Act 206 established that property values should be reassessed annually. But in 2016 the chief assessor for the city, Gary Evanko, stated that Detroit had not completed a city-wide assessment of values in 45 years.[12] In September 2016, 14,000 homes were available through the city's foreclosure auction.[13] Housing activists argue that many homeowners are still dealing with property taxes from assessments done twenty years earlier, when property values were substantially higher. "You're getting taxes assessed on a $30,000 or $40,000 property value for a house that probably couldn't sell for more than $5,000," explained Ted Phillips, Executive Director of the advocacy group United Community Housing Coalition.[14] While more recently efforts have been made to reassess the value of the city's properties, property taxes were not expected to decline more than 15 percent, and this adjustment was not retroactive. When residents are evicted due to foreclosure, only a small percentage of homes gain new occupants. Instead, within a couple of years recently occupied homes fall to devastation and blight as scavengers strip the house of any valuable materials. Various blight elimination programs projected the demolition and removal of between 40,000-80,000 homes by 2019.[15]

Unseen population

In 1995, photographer Camilo Vergara described with the excitement of a fedora-clad treasure hunter, a scene of ancient ruins, still, and separate from the busy life of capitalism. He said "…people joke about the emptiness of Detroit's core, saying that you could shoot a cannon through the main streets and not hit a single person. Signs have faded; a few homeless people walk amidst the giant buildings talking to themselves; while overhead, the empty people mover circles the skyscraper graveyard" (Vergara 1995:18). Vergara's descriptions are haunted by silhouettes of people no longer there or not quite *there* anymore. Even the (one million) people

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[8] Rooney, B. (2008). Rust and Sun Belt cities lead '07 foreclosures. *CNN Money*. Retrieved June 2022 from https://money.cnn.com/2008/02/12/real_estate/realtytrac/index.htm

[9] Forer, B. (2011). Destroying Detroit: City to demolish 10,000 homes. *ABC News*. Retrieved April 6, 2014 http://abcnews.go.com/US/destroying-detroit-city-demolish-10000-homes/story?_Id=13830479 and Sauter, M. (2013). Cities with the most abandoned homes. *USA Today*. Retrieved June 2022 from http://www.usatoday.com/story/money/business/2013/06/22/cities-with-most-abandoned-homes/2447613/.

[10] Sands, D. (2012). Wayne County to hold tax auction on foreclosed properties starting on June 22. *The Huffington Post*. https://www.huffingtonpost.co.uk/entry/wayne-county-tax-auction-foreclosures_n_1609940

[11] Bukowski, D. (2015). Unprecedented 'Katrina' of Tax foreclosures to hit Detroit, Wayne County March 31. *Voice of Detroit*. Retrieved June 2022 from http://voiceofdetroit.net/2015/03/29/unprecedented-katrina-of-tax-foreclosures-to-hit-detroit-wayne-county-march-31/.

[12] Helms, M. (2016). Taxes fall in Detroit neighborhoods. *Detroit Free Press*. Retrieved December 16, 2016 https://www.freep.com/story/news/local/michigan/detroit/2016/02/01/detroit-property-tax-assessments-drop-again/79644748/.

[13] Zagorin, E. (2016). Detroit's housing disaster is its leaders' fault. *Huffington Post*. Retrieved June 2022 from http://www.huffingtonpost.com/entry/detroit-tax-foreclosure_us_57e18a91e4b0e80b1b9ec242.

[14] Zagorin, E. (2016). Detroit's housing disaster is its leaders' fault. *Huffington Post*. Retrieved June 2022 from http://www.huffingtonpost.com/entry/detroit-tax-foreclosure_us_57e18a91e4b0e80b1b9ec242.

[15] Environmental Protection Agency. (2015). Green infrastructure projects in Detroit's Lower East Side and Recovery Park. Retrieved June 2022 from https://www.epa.gov/land-revitalization/success-story-green-infrastructure-projects-detroits-lower-east-side-and

who remained in Detroit in 1995, according to Vergara, were but shadows or—as ones who would talk to themselves—no longer part of a shared reality that *we* understand as *living* people.

French photographers Yves Marchand and Romain Meffre, who in 2011 published their photographs in a book entitled *The Ruins of Detroit*, captured a city devoid of people, crumbling, and returning to nature. An image of a twisted clock hanging over peeling walls in the Cass Technical High School invites the viewer to see the city as frozen in time and captured in a surreal, dystopian dream:

> Detroit is a very symbolic place in modern history…In Europe, the ruins were mostly anecdotal, they were the very last pieces of a changing and gentrifying landscape... Detroit's ruins seemed a bit like a natural component of the cityscape. You could find all the archetypal buildings of an American city in a state of abandonment, like an American Pompeii.[16]

Pompeii was destroyed in 79 AD when rock and ash from Mount Vesuvius buried the city. While many residents of the city escaped the volcano's destructive fury, thousands perished during the eruption. When the buried city was rediscovered some 1,500 years later, explorers found voids in the hardened ash. When filled with plaster, the voids revealed the forms of bodies captured in their final agonies. The images of Detroit as if caught in a 'natural' disaster, frozen in time yet on display for the world to see, imply the mummification of its residents, no longer part of the world around them but instead inanimate specters bound to a forgotten time and place. Distinctly absent from these depictions of Detroit were any signs of the residents that still occupied the city.

Throughout the 2000s Detroit was a focal point for the 'ruins porn' tourism industry where adventuresome, predominately white tourists would visit the city to tour and photograph sites of decay including significant industrial, residential, and commercial sites such as the Packard Plant, Old Cass Tech High School, Scott Mansion, and the Cadillac Hotel.[17] These photographs consistently omitted the lives of residents still in Detroit. Since the city's bankruptcy, a shift in the landscape has taken hold with many old sites of decay demolished or slated for redevelopment. As of this writing, 'ruins porn' tourism has largely ended in Detroit. Instead, the discourse about Detroit has shifted to one of opportunity and growth.

Anabolic growth

Within the narrative of a city that has been allowed to fester, long-term development initiatives have focused on green urban renewal. In particular, green infrastructure plans are being advanced through the leadership of DWSD in their efforts to claim blighted, 'abandoned' spaces in the city and transform them into development opportunities. Two key ways in which this is happening are 1) in the discursive transformation of water from a pollutant (i.e. excess storm water) into a manageable and clean resource and 2) in the use of greening—specifically trees—to convert unsightly land into areas with added aesthetic and economic value.

From waste to resource

Leading up to 2007, DWSD invested over US$750 million into the construction of improvements to the city's basins and pumping systems to store and treat overflow from the CSO system. However, during the economic recession in 2008 the city reevaluated its plan to construct a massive storage tunnel for an additional US$880 million.[18] At least as far back as 2010, DWSD investigated opportunities to use green infrastructure to address the city's stormwater management problems. DWSD said that it was looking towards the future in how to shift from grey infrastructure to blue-green infrastructure—that is, the use of alternative and environmentally

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[16] Neugeboren, M. and Valera, S. (2013). Modern ruins of abandoned Detroit (photos). TriplePundit.com. Retrieved June 2022 https://weather.com/travel/news/modern-ruins-abandoned-detroit-photos-20130715

[17] Reindl, J.C. (2018). How Detroit lost its title as 'ruin porn' capital. *Detroit Free Press*. Retrieved March 11, 2022 https://www.freep.com/story/news/local/michigan/detroit/2018/08/16/detroit-ruin-porn/979984002/

[18] Detroit Water and Sewerage Department & Hinshon Environmental Consulting. (2011). Alternative Rouge River CSO Control Program executive summary. Retrieved December 21, 2016 http://www.dwsd.org/downloads_n/announcements/general_announcements/alternativerougeriverfeb2011.pdf.

sustainable practices (green) to manage water systems (blue) in place of traditional, concrete pipe-based systems (grey).

Green infrastructure plans offer to reduce the flow of stormwater into the system, and the demand for treatment and storage capacity (Zuniga-Teran, *et al.*, 2020). DWSD's more recent 25-year plan called for pervious pavements, downspout disconnections, tree planting and water management strategies on vacant lots to "right-size" the CSO system.[19] To decrease the water moving through the pipes that DWSD is responsible for treating, the Department has focused on 1) making property owners responsible for the water that leaves their properties through imposing drainage fees, and 2) mobilizing large areas of vacant land for water recovery to prevent it from entering the storm drains.

Beginning in 2016, DWSD also started to phase in an adjustment to its drainage billing practices. According to DWSD, previously there were inconsistencies in billing practices and some customers were charged for drainage based on the size of their water meter, while others were charged based on a calculation of impermeable surface on the property. Rather than being charged for sewerage in relation to water consumed, as of 2016, all property owners were to be charged for drainage based on the amount of impermeable surface on the property, regardless of whether they were current DWSD customers. Property owners were billed for up to $750 a month per acre (0.4 ha) of impermeable surface, as calculated based on aerial photography. Homeowners at the average 0.04 acres (0.016 ha or 162 m^2) of impermeable surface for residences were expected to see their charge go from US$20.36 to US$30 per month, or US$22.50 with a 25 percent residential credit.[20] The Department argues "equitable and accurate billing together with a citywide embrace of Green Infrastructure practices will help prevent untreated overflows, preserve water quality and help Detroit become one of the 'greenest' cities in America."[21]

While having a 'greener' environment seems undeniably beneficial, this emphasis obscures the impact these policies were expected to have on already strained resources for low-income residents. Many local businesses and churches feared that the fee would force them to close their doors and stop providing some services for the poor, such as soup kitchens, to compensate for the increase. While DWSD estimated that most nonresidential customers would see a decrease in their billing, nearly 6,000 were to see a slight increase, more than 7,000 would pay more than US$500 more, and 700 would pay more than US$30,000 additionally each year.[22] Some of those significantly impacted by the change were the city's churches, which have large impermeable surface areas due to rooftops and parking lots. Joe Kohn, the Director of Public Relations for the Archdioceses of Detroit noted that starting in January 2018 five of their churches would receive additional charges of more than $1,000 per month.[23]

Another key feature of DWSD's plan for stormwater management regards the mobilization of vacant land for green infrastructure. The city controls around 40 percent of the land in Detroit, "giving city leaders a vast canvas" to work with.[24] DWSD is at the center of a movement to make Detroit the model city for economic recovery and growth using green technologies, infrastructure, and planning. "The city of Detroit is going

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[19] Detroit Water and Sewerage Department. (2013). Green Infrastructure Program progress report. Retrieved December 19, 2016. http://www.dwsd.org/downloads_n/about_dwsd/npdes/dwsd_green_infrastructure_progress_report_2013-08-01.pdf.

[20] Detroit Water and Sewerage Department. (2016). Detroit Water and Sewerage Department Drainage Charge questions and answers. Retrieved June 2022 (http://www.detroitmi.gov/Portals/0/docs/DWSD/FAQ - Drainage Charge and Credit Program - 11232016.pdf?ver=2016-11-23-153604-303).

[21] Detroit Water and Sewerage Department. (2016). Fair Share Drainage Charge. Retrieved June 2022 http://www.detroitmi.gov/Portals/0/docs/DWSD/Flier_DWSDDrainageOverview_08052016.pdf?ver=2016-08-05-162656-523.

[22] Pinho, K. (2016). New billing policy could drain more from Detroit water customers. *Crain's Detroit*. Retrieved June 2022 https://www.crainsdetroit.com/article/20160821/NEWS/160829980/new-billing-policy-could-drain-more-from-detroit-water-customers

[23] Hahn, N. G. III. (2016). Water fee taps Detroit churches. *The Detroit News*. Retrieved June 2022 http://www.detroitnews.com/story/opinion/columnists/nicholas-g-hahn-iii/2016/08/22/church-drainage-fees/89089118/.

[24] Kuban, K. (2016). Detroit banks on green infrastructure to rescue city from heavy rains. *MLive*. Retrieved June 2022 http://www.mlive.com/news/index.ssf/2016/09/detroit_banks_on_green_infrast.html

through a tremendous renaissance right now," said Gary Brown, director of the Detroit Water and Sewerage Department. "We can and should be the greenest city in America. Shame on us if we don't earn that title."[25] To achieve the status of greenest city in America, DWSD engaged in demolition efforts throughout the city. Blighted properties are removed and the landscape is transformed from impermeable to permeable surfaces. Through this process of demolition and removal of structures, vacant lots become a mechanism through which water is transformed from an undesirable state of being—a contaminant infiltrating the urban space. Water returns to its preferred symbol as a pure and plentiful resource while the 'abandoned' lot is remade from an eyesore to an intentional, 'green' water-catchment technology.

Dendro-remediation

Former Mayor Dave Bing (2009-2013) attempted to address blight throughout the city of Detroit through his right-sizing initiative, which aimed to consolidate city resources by terminating services to parts of the city where many (but not necessarily all) houses in a neighborhood were vacant. He sought to shrink the city by 30 percent and end services to 39 of the city's 54 neighborhoods.[26] His plans for the redevelopment of the city included creating rural, agricultural spaces in pockets or rings around an urban core.[27] Mayor Bing received significant backlash for his initiatives that were viewed as a new form of urban renewal aimed at the forced removal of poor and Black families.

In an effort to avoid the kind of backlash that Mayor Bing received from his earlier rightsizing plans, a more recent version of the master plan for the city made no mention of the use of eminent domain. The phrase only appeared once in *The Detroit Future City Strategic Framework Plan*, where it was quoted as a recommendation by a resident.[28] In spite of this, there is sentiment among planners and speculators that the vacant land spread across the city is a resource to be taken advantage of. Laundered through the language of green infrastructure, the *Detroit Future City* plan touted the share of land held by the city—around 70,000 lots—and reframed the apocalyptic narrative of Detroit to one of hope and optimism for growth:

> The DFC Strategic Framework outlines a number of strategies that are critical to fulfilling a vision for transforming vacant land in Detroit. These include establishing the city as a leader in innovative open space land uses that provide employment opportunities, blue and green infrastructure that will help to clean our air and water, and greater recreational space.[29]

Rather than focusing on cutting services and shrinking neighborhoods, newer initiatives target the growth of nature throughout the city. In particular, the cultivation of trees has been argued for in multiple projects to develop a new kind of landscape that is worth investing in.

One of the more controversial green development projects for Detroit was the Hantz Farms project. It took a for-profit approach to urban greening. Hantz is certainly not the only effort at generating a profit from urban farming in Detroit, but its scale and the intent of its development differ from other urban community gardening efforts.[30] Mike Score, President of Hantz Farms, described a picture of structured and organized nature in his call for removing blight through silviculture. "Picture oaks, maples, and other high value trees

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[25] Kuban, K. (2016). Detroit banks on green infrastructure to rescue city from heavy rains. *MLive*. Retrieved June 2022 http://www.mlive.com/news/index.ssf/2016/09/detroit_banks_on_green_infrast.html

[26] Muller, J. (2010). Detroit must shrink to grow. *Forbes*. Retrieved June 2022 http://www.forbes.com/forbes/2010/1108/focus-dave-bing-motown-autos-detroit-must-shrink.html

[27] Glaeser, Edward L. (2010). Shrinking Detroit Back to Greatness. *New York Times*. Retrieved June 2022 http://economix.blogs.nytimes.com/2010/03/16/shrinking-detroit-back-to-greatness/?_php=trueand_type=blogsand_r=0

[28] Detroit Future City. (2012). Detroit Future City: 2012 Detroit Strategic Framework Plan. Retrieved June 2022 https://detroitfuturecity.com/wp-content/uploads/2014/02/DFC_ExecutiveSummary_2ndEd.pdf

[29] Detroit Future City. (2016). Land and Building Assets. Retrieved June 2022 https://detroitfuturecity.com/wp-content/uploads/2017/07/DFC_LandBuildingAssets_2nd.pdf

[30] Allnutt, B. (2016). Detroit's urban farms embrace green infrastructure for sustainable water use. *Model D*. Retrieved June 2022 http://www.modeldmedia.com/features/green-infrastructure-urban-farms-111016.aspx.

planted in straight, evenly spaced rows. Grass between rows of trees will be mowed regularly, and flowering trees will be planted between streets and sidewalks to create a breathtaking place of beauty each spring and fall season. … We can build a new, green economy in Detroit, and lead the world by example. Join us."[31] His vision features taking publicly owned land (i.e. lots now stripped of houses and the predominately Black families that occupied and owned them) and putting it into commercial production through urban agriculture. By inviting his audience to join him, he was not asking for shareholders in his company, but for a shared community vision that transforms the Detroit landscape from a residential city to a (white) agricultural capitalist marketplace.

This kind of urban agriculture differs from Detroit's numerous urban community gardens which aim to provide low-cost healthy foods to families and neighborhoods out of necessity, for community organizing and as a form of resistance (Figure 1, 2; White, 2011). Rather, commercial projects are about using trees to eliminate the contaminated, unsightly and undesirable aspects of the city so as to provide a product for sale (e.g. through commercial silviculture) or to increase the value of goods and services for sale in the city. The Detroit Future City group laid out on its website how trees serve this purpose: "Dendro-remediation is the process by which trees are used to reduce and eliminate toxic substances in the soil over time. It is a low cost, long-term means for treating the soil and preparing it for future use."[32] In the context of Detroit, trees are used not only to remove physical contaminants; they are used transform spaces in concert with blight removal—the demolition and removal of houses. This is taking place with an eye to reclaiming and restructuring the space while wiping away the unsightly phantoms of lives that do not fit with the future vision of the city.

Figure 1: Website of *Keep Growing Detroit*, whose mission is "to promote a food sovereign city where the majority of fruits and vegetables consumed by Detroiters are grown by residents within the city's limits." ... "To these ends, KGD operates a number of nationally recognized programs including the *Garden Resource Program*, which supports a network of more than 2,000 urban gardens and farms in the city and *Grown in Detroit*, which provides urban growers with low-barrier opportunities to sell the fruits and vegetables they grow at local market outlets." Source: https://www.detroitagriculture.net

[31] Score, M. (2015). Introducing Hantz Woodlands. Retrieved June 2022 https://www.hantzfarmsdetroit.com/index.html or https://www.mlive.com/news/detroit/2012/07/hantz_farms_for-profit_urban_f.html

[32] Detroit Future City. (2016). Land and Building Assets. Retrieved June 2022 https://detroitfuturecity.com/wp-content/uploads/2017/07/DFC_LandBuildingAssets_2nd.pdf

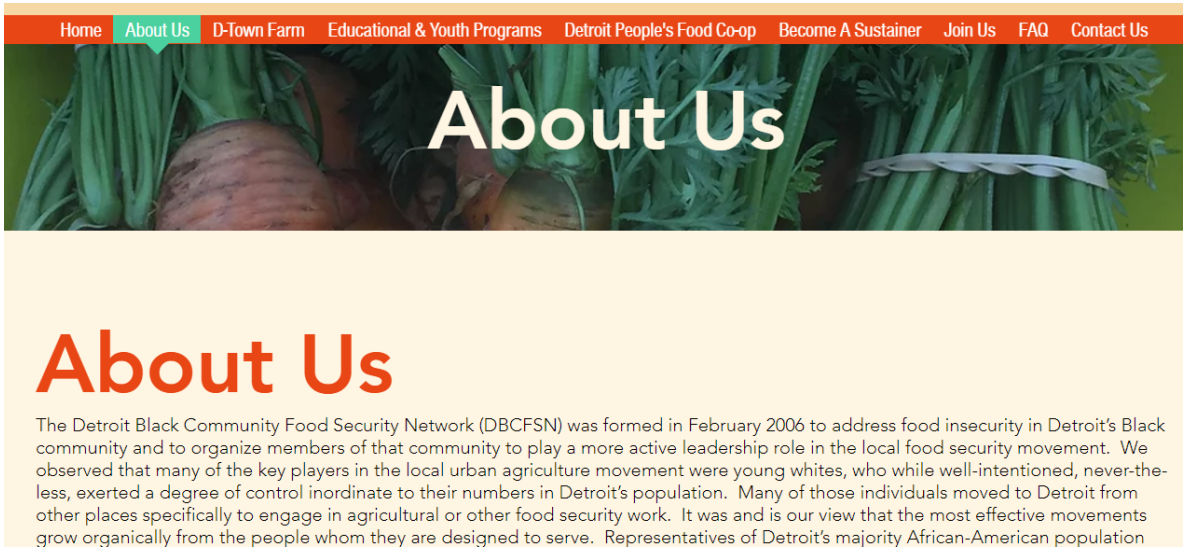

Figure 2: The Detroit Black Community Food Security Network. Source: https://www.dbcfsn.org/about-us

By making Detroit greener, the city is being marketed to young, educated, white professionals so that they will move there and work in the growing service industry. Rebecca Kinney (2016) shows how efforts to revitalize the city of Detroit have focused on the economic development of the downtown corridor, dubbed "7.2 square miles." Specifically, these have largely been strategic efforts by Dan Gilbert, CEO of Quicken Loans, to shift the demographics of the downtown core. According to a 2015 edition of a report titled "7.2 SQ MI," Gilbert "has acquired over 9 million square feet of real estate, created 6,500 jobs in the city, and recruited over 120 companies and businesses as tenants."[33] Kinney highlights how the 2013 first edition of the report suggests that the influx of young, white professionals presents a more desirable class that is displacing less desirable Black residents: "Greater Downtown continues to be racially diverse, with Black residents accounting for the racial majority (68%). Between 2000 and 2010, the Black population **declined**, the white population **increased**, and Asian and Hispanic populations **remained steady**." (Kinney 2016: 131; emphasis in the original text).[34] Kinney points out how the decline of Detroit's Black population and the relative increase in the city's white population is emphasized by bold typeface in the text. The significance of such an overt emphasis on demographic change was not lost on the residents in the city. An updated version of the report eliminated the explicit language on racial demographic shift.[35] The updated report continued to use coded language (emphasis on young, college-educated, and foreign born) and imagery (frequent images of white people disproportionate to what would randomly be encountered in the city and images of predominately culturally white spaces such as Whole Foods,

[33] Mahoney, K. (Hudson-Webber Foundation). (2015). *7.2 SQ MI: A report on Greater Downtown Detroit*, 2nd Edition. Retrieved June 2022 https://static1.squarespace.com/static/5ab01e379d5abb3869926931/t/5babece5e79c704c5f3f7565/1537993966446/7.2SQ_MI_Book_FINAL_LoRes.pdf (p.13)

[34] Ali, A. (Hudson-Webber Foundation). (2015). *7.2 SQ MI: A report on Greater Downtown Detroit*, 2nd Edition. Retrieved June 2022 https://static1.squarespace.com/static/5ab01e379d5abb3869926931/t/5babece5e79c704c5f3f7565/1537993966446/7.2SQ_MI_Book_FINAL_LoRes.pdf

[35] The updated report makes no mention of the white population and instead discusses the relatively large rate of foreign-born residents: "Greater Downtown has become increasingly racially diverse with black residents accounting for the racial majority (69 percent). The percentage of foreign-born residents in the Greater Downtown exceeds the percentage of foreign-born residents in the city and state" (Mahoney 2015: 34).

a white woman walking her dog in what could be interpreted as a dog park, and enclosed outdoor eating spaces with predominantly white patrons) to suggest that downtown Detroit is (desirably) becoming a whiter space.

5. Discussion

The systematic process that has worked to tear apart and rebuild the social, political and economic organization of Detroit has happened through coupled catabolic and anabolic processes. While Detroit was an important site for the accumulation of white wealth through automobile manufacturing, it also became a focal point for the accumulation of Black wealth and power. Black wealth came about as recruiters for the automobile industry sought to bring Black workers from the South in order to disrupt the union organizing of the white labor movement by playing off racial conflict (Sugrue, 1996). Instead, Black workers joined the labor movement and established their own structures of labor organizing. Black accumulation of wealth and power was viewed as dangerous and contrary to the accumulation of white wealth. So began a process of transforming the city of Detroit, tearing apart structures that uplifted Black independence in favor of features more consistent with white control.

The process of tearing apart Black wealth and power ultimately constructs the city as devoid of a population that counts—ready and available as a vast canvas for white development. I argue that this catabolic tearing apart of Detroit operated first though a racialization of the city as a Black space. This space was feared by white suburbanites who fled the city for the suburbs because they associated Black spaces as violent and dangerous. The long-fought public racial dispute between Mayor Coleman Young and Oakland County executive L. Brooks Patterson was exemplary of this polarization. With the city positioned as a Black space, the leadership and management of the city was deemed a corrupt failure without any contextualization of the overt racist practices of policing and segregation or covert practices of resource denial and withdrawal. Thus, the imposition of Feikens as overseer of the water system for 35 years seemed necessary and appropriate to those outside the city convinced of the inherent failures of Black political power. This process saw systematic withdrawal of resources from the city's most significant resource, the control of the public water system. Declines in staffing and outsourcing of contracts left DWSD without the resources necessary to support the infrastructure or the community. DWSD was then positioned as a key mechanism through which Black households could be displaced via water shutoffs and tax lien foreclosures.

The outcome of this process is the political wasting of a community and the creation of a peopleless space. While the water system was valued as a key resource and hard fought for by the city's residents, from the outside, the will of the city's residents did not matter. Framing the city as a financial failure made way for redistribution of the control of the water system. The discursive construction of Detroit as a wasteland is an essential feature that renders the redevelopment of the city as benign and necessary.

Catabolic citizenship

This discursive production of Detroit residents as absent and unable to influence the future development of the city in which they reside is not merely an uncomfortable aberration of a unique city in crisis, as an emergency framing would suggest. Rather, the fate of Detroit residents provides insight into a disconcerting implementation of capitalist ideals that serves to actively produce a depoliticized public, stripped of its political power to intervene and self-govern as should be guaranteed within a democratic state. This cleavage of rights from individual bodies endowed with citizenship, I argue, operates significantly, but not exclusively, through material pathways of *passive* infrastructural violence wherein the slow deprivation of resources and services serves as evidence of a body's lack of fitness to participate in democratic processes (Rodgers and O'Neill 2012). Through this process, the individual occupies a kind of catabolic citizenship wherein rights are deconstructed and delegitimated through material context.

Wasting economy

Because residents have been discursively produced as not present or incapable of caring for the land (which has value for development), intervention is required (predominately by white investors from outside the

city) to introduce new governance structures that give a specific order and valuation of the area. The end product is the imposition of subjectivities for the residents who are driven to disappear politically, either by physical removal or through being cast as phantoms unable to interact meaningfully with city governance.

Representations of waste in Detroit have shifted from a vision of 'waste as trash', wherein the city was abandoned by its white residents for lacking value in the evolving global economy; 'waste as toxins' and contaminants held within the space from industrial pollutants, blighted homes, or even excess water flowing as matter out of place (see Douglas 1966); to the 'landscape as wasteland', trapped in poverty and ultimately abandoned by its ghosts. Most recently a 'missed economic opportunity' has been depicted—what a waste not to transform this fallowed land into a new green paradise? All of these, through the mobilization of the concept of waste, constitute forms of wasting—actively, processually constructing the city as waste. None of them are accomplished, however, without also systematically stripping the city's residents of their political being. That is, the process of separating *zoë* from *bios* is explicit within a wasting economy. An economic structure that establishes this process, which serves steadily to erode the protections of citizenship, establishes a catabolic citizenship among disenfranchised residents. Using a metabolic metaphor, in Detroit we see that this process is dynamic and dialectical—catabolic decline making way for anabolic development.

I argue that the symbiotic construction and mobilization of waste constitutes a *wasting economy*. The findings in Detroit indicate that a wasting economy should be characterized by the following traits. Wasting occurs as an active embodied process of decline. By drawing not simply from a resource definition of 'degraded waste' but instead using the public health concept of 'wasting' from starvation, attention to the process of decay and degradation is emphasized. Degradation of human and non-human spaces take place concurrently, both physically and discursively, constructing a wasteland which is devoid of recognized citizens and available for conquest. As an active process, a wasting economy fits within a metabolic understanding of a racial capitalism, wherein wasting operates as a catabolic precursor to anabolic production. Contrary to framings that see environmental degradation as destructive to capitalist forms, a wasting economy provides a conduit through which environmental degradation facilitates exploitative capitalist economic production. Through the apparent disorder that arises from wasting, increased legitimacy for authoritarian state intervention emerges, in this case through forays into emergency governance.

Finally, a wasting economy is predicated on structures of domination that render certain populations as more and less valuable than others. Persistent, entrenched racism is characteristic of the manifestation of a wasting economy in Detroit. Casting populations as invisible is made possible through colorblind narratives that discount structures of marginalization. Communities in which racial narratives have worked to delegitimize Black political forms have resulted in totalizing control over governance structures, especially in Detroit. Race in such cases is fundamental to the ways in which wasting appears.

6. Conclusion

By tracing management of water in Detroit we can follow its interconnections with Black political power and white wealth. This is an important implementation of a hydrosocial analysis for understanding the management of the environment within the context of racial capitalism. In Detroit we can see the ways in which particular discursive constructions of water are hybrids that frame the political fitness of Black residents. These hybrids are mobilized in strategic ways that facilitate new processes of white colonization (Safransky, 2014, 2017). Understanding that this process operates to both degrade the environment (for Black communities) and develop the environment (for white capital accumulation), we can see this as a generative metabolic process rather than as a broken circulatory system.

I delineate metabolism as a tool for analyzing how degraded environments are co-produced along with economically constructive processes. Using the concept of wasteland, I show how both spaces and the populations that occupy them are constructed as waste; this renders the space empty and the population (politically) invisible, thereby transforming the space into a new frontier for development. Through the concept of bare life, I consider how some people are rendered as waste in a way that strengthens certain relations of power. With this analysis, I propose a new political-economic-environmental theory that has both catabolic and anabolic dimensions and which is driven through the cleaving of political power from populations, pushing

them into a catabolic citizenship. I call this system a wasting economy, which specifically ties the co-production of environmental spaces with the racialized depoliticization of the population in that space. Importantly, while in this article I make use of a biological metaphor, I do not suggest this to be a deterministic process that should be naturalized or made normative. Rather, the metabolic frame offers a mechanism for understanding the organization of a system rife with contradictions and injustices, which should not operate in any civil society and yet it thrives.

This article uses Detroit as an archetypal site where the decomposition of citizenship has occurred with an evolving notion of democracy under racial capitalism. Over mere decades, Detroit offers an acute case study of the manufacturing of social and environmental inequalities. In this article I emphasize a metabolic process and propose that catabolic citizenship is a key insight, which I further offer is constructed within the context of a wasting economy. This insight 1) expands upon the hydrosocial system by integrating an analysis of racial capitalism, 2) suggests that when considering the relationship between environments and their occupants the metabolic construct is not disjointed but functional for certain populations, and 3) offers an important contribution for environmental sociology to make a more welcoming space for scholars of color and racial analyses to contribute to our collective understanding of social and environmental transformations.

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