Studying brownfields: governmentality, the post-political, or non-essentialist materialism?

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This paper sets out to evaluate several common theoretical frameworks employed in critical studies of brownfield redevelopment. Specifically, it analyzes the relevance of governmentality, the post-political, and non-essentialist materialism in that context. To do so, it explores how these theoretical frameworks map on to Bridgeport, Connecticut's *BGreen 2020*, and its approach to the redevelopment of vacant and underutilized land – and brownfields more specifically. It argues that these frameworks come up short when applied to this empirical case because they put forth untenable ontological claims regarding the constitution of the subject and political agency. Going further, it asserts that these frameworks fail to identify a way forward for those seeking emancipatory political interventions in the context of brownfield redevelopment and urban environmental politics. In closing this paper suggests that Jason W. Moore's recent writing on "capitalism as world-ecology" can provide a way forward where these other frameworks fail.

Keywords: brownfields, world-ecology, governmentality, post-political, new materialism

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Introduction

When one thinks of urban environmental contamination and brownfields in the United States, Connecticut – the country's wealthiest state by per capita income (Kuriloff & Martin 2015) – is almost certainly not the first place to come to mind. Further still, Fairfield County, Connecticut, which recently included the single wealthiest metropolitan area in the country (Bertrand 2014), is even less likely to be considered. However, despite this impression, Fairfield County was also recently named the most unequal metropolitan area in the United States (*ibid*.). And, the city of Bridgeport – Fairfield County's largest urban center – is home to enclaves of deep post-industrial decline just miles from the geographic epicenter of American finance capital (Moran 2013). In fact, the city in many ways demonstrates the (so-called) "moral economy" upon which American racial capitalism operates (Buna & Wang 2018); some have called the city the "dumping ground" of the state (Knapp 2008), while others have dubbed it the fourth "dirtiest" city in the nation (Forbes 2012).

As such, brownfields – or, properties, "the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant" (EPA 2016) – are central to Bridgeport's environmental and economic concerns. Their emergence largely dates back to the 1970s, when the city experienced a major decline in its industrial sector – which only deepened in the 1980s, when the city lost half of its manufacturing jobs (Knapp

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2008). De-industrialization triggered a wave of racialized abandonment ("white flight") and disinvestment (Carpenter 2006), and left a trail of brownfields in its wake. According to recent reports, the city still has 772 acres (or, about 312 hectares) of brownfields, which disproportionately burden low income and minority communities (BGreen 2020 2010). In light of this, Bridgeport's local government launched a program in 2010, known as *BGreen 2020*, partly as an attempt to rebrand the city's vacant and underutilized land – and, as such, its brownfields – as potential sites of "green" investment and accumulation (cf. Kern 2015). Therefore, when given a closer look, Bridgeport seems to provide fertile ground for the study of brownfield redevelopment.

However, significant debate remains within the critical geography and brownfield literature surrounding the most appropriate theoretical framework to employ when studying the material and discursive nature of neoliberal brownfield redevelopment (see, for broader context, Latour 2004; Smith 2005). As such, this paper will draw on a close reading of Bridgeport's land use agenda under *BGreen 2020* to see how several of the most prominent theoretical frameworks map on to this empirical case. Specifically, it will read for the ways in which brownfields are discussed – both implicitly and explicitly – throughout the *BGreen 2020* sustainability plan and its companion documents, attending closely to the plan's subsection titled "Greenfields and Green Wheels," which deals directly with "vacant and underutilized" land. Then, this article will consider this empirical material in relation to the conceptual heuristics provided by work on governmentality, the post-political, and non-essentialist materialism. Ultimately, it will suggest that each of these theoretical frameworks comes up short in their analysis of *BGreen 2020* because they put forth untenable ontological claims regarding the constitution of the subject and political agency – which also limits their relevance for future emancipatory political projects. In closing, the paper will offer a brief discussion of how emerging work in "world-ecology" might provide more sound theoretical ground for the analysis of neoliberal brownfield redevelopment – and provide a way forward for anti-racist, post-capitalist, and feminist urban environmental politics.

Before we proceed, however, we should underscore two caveats that inform and guide this paper. First, this paper will address each of the aforementioned theoretical approaches as a discrete body of thought – exploring, specifically, how they have appeared in work on urban land and brownfields, and generally ignoring the many ways in which these frameworks have been thought together. And yet, despite its ostensible tension with recent calls for "a multiplicity of [theoretical] starting points" within urban studies, this paper will also remain "stubbornly" attentive to the distinct ways in which each of these "local epistemologies" allows us to understand brownfield redevelopment in Bridgeport – avoiding, as much as possible, "polemical procedures and defensive rhetorical maneuvers" (Brenner 2018, 573–584). Second, this paper will focus predominantly on the negative aspects of *BGreen 2020*'s brownfield agenda, generally ignoring the plan's nods to more "community-oriented" modes of redevelopment related to affordable housing and urban agriculture, for instance. To do so, of course, is not to suggest individual nefariousness – or that urban planning in Bridgeport necessarily re-articulates an ideology of neoliberal space (Gunder 2010). However, following the critical literature on brownfields, it is to suggest that *BGreen 2020* is grounded by logics that inhibit its capacity to introduce the "non-reformist reforms" that the current conjuncture demands.

A note on theory

In order to develop the argument laid out above, it is important to first outline the key theoretical frameworks that have been employed in recent scholarship on brownfield redevelopment. Governmentality, to begin with, has been applied in a wide range of work on brownfields and environmental gentrification (e.g. Brand 2007; Leffers & Ballamingie 2013). Developed by Michel Foucault in the late 1970s (Foucault 1991), governmentality "denotes the micropolitical practices through which a governing agency conditions people to act in specific ways and through which people govern themselves" (McConnell 2012, 78). This concept extends the notion of government by moving it beyond the "top-down" coercive work of institutions, so as to include the work done by discourses, norms, and other forms of internalized disciplinary self-regulation (Ferguson & Gupta 2002). Therefore, for those that employ a governmentality perspective in the brownfield literature, power is no longer

seen as centralized or solely emanating from the "state" or "capital" (Murdoch 2004; Rutherford 2007). Much of this literature notes how power/knowledge creates "regimes of truth" related to brownfields, which variously shape subjectivities and the ways in which the world is known (Atkinson 1999). In doing so, this approach stresses an understanding of the "productive" dimensions of brownfield governance (Rutland & Aylett 2008; Cochran 2012).

As such, the governmentality perspective makes several provocative claims regarding the constitution of the subject and political agency, which are of central importance for the study of brownfield redevelopment. For one, it sees the production of the subject as inextricably bound to processes of biopower and governmental rationality. In fact, the concept of governmentality links "technologies of the self with technologies of domination, [and] the constitution of the subject to the formation of the state" (Lemke 2000, 3). Therefore, with a governmentality perspective nearly any aspect of one's subjectivity can be read as the "cooperation of [that] subject to the goals of governance" (cf. Lemos & Agrawal 2006, 311). This seemingly collapses any separation between agency and subjectification in the context of brownfield redevelopment and urban environmental management (Brand 2007). Taken to its logical conclusion, this suggests that any subversive or emancipatory act in the context of brownfield politics cannot be outside of "power itself" (Butler 1990, 29). Therefore, new urban spatialities are understood to emerge via "citational practices which produce and subvert discourse and knowledge" (Gregson & Rose 2000, 433).

In addition, much of the recent critical brownfield literature draws on the work of post-Marxist scholarship on the post-political (cf. Checker 2011). Following thinkers such as Rancière, Badiou, and Žižek, these writers argue that due to the hegemony of techno-managerial and consensual forms of neoliberal governance, recent years have seen the foreclosure of political dissensus (Swyngedouw 2009). They claim that under the prevailing post-political order, environmental problems, including brownfield redevelopment, are all handled in the same way (Swyngedouw 2009; Ioris 2013). For many, this represents the dominance of "the police" – or the established socio-environmental order – over the "distribution" of names, functions, and places (Dikeç 2005, 175). These thinkers assert that a truly political gesture in the context of brownfield redevelopment is that which poses a rupture in the police order by the "part who have no part" – a previously unidentifiable subjectivity – according to the "logic of equality" (May 2007). They maintain that a "properly political" gesture is always a potentiality in the context of brownfield redevelopment, because the police is never able to fully "suture" social space (Dikeç 2005); but, they often contend that such a gesture remains unforeseeable, and only recognizable in retrospect (Badiou 2006).

In this writing on the post-political, the notion of the subject and political agency is somewhat ambiguous. For those that draw on Rancière, the subject is never fully constituted by discursive power (Swyngedouw 2009). Instead, political subjectivity is understood in relation to the contingent "distribution, or partitioning, of the sensible" (Dikeç 2012, 82). Because the subject is not fully constituted by hegemonic discourses, these writers are able to maintain a notion of political agency that is premised on the ability of a collectivity of subjects to introduce a radical rupture in the police order (Rancière 2004). However, for those that draw on Chantal Mouffe, another thinker that is highly influential for the post-political paradigm, the subject cannot exist outside of authoritarian discourse (Mouffe 1999). She asserts that "the master signifier" always distorts the "symbolic field…[and] curves its space" (*ibid.*, 751). However, because she claims that "both the subject and society are constituted through [Lacan's] *lack*" (Homer 2005, 114), the possibility of antagonistic political articulations remains "ever present" (Mouffe 2005, 17).

Finally, recent writing on brownfield redevelopment has drawn on what can be heuristically referred to as non-essentialist materialism (e.g. Kern 2015). Drawing on thinkers like Haraway (1991), Deleuze and Guattari (1987), and Latour (2000), this work rejects "arborescent" thinking – with its binary structures – and, in its place, puts forth a "rhizomatic" ontology that sees all beings on the same plane (Deleuze & Guattari 1987; Latham *et al.* 2009). As such, non-essentialist materialists see brownfields as the "contingent outcome of [human and non-human] practices or performances" (Anderson & Braun 2008, xv). These thinkers are often eager to employ the notion of *agencement* to illustrate the constant "coming together" and becoming of humans and non-humans, and their collective ability "to cause effects" in the context of brownfields (Hinchliffe & Whatmore 2006; Anderson & Braun 2008,

xv). And, in doing so, non-essentialist materialists are keen to illustrate how "non-human nature resists its incorporation into particular political-economic and spatial forms" (Braun 2008, 668), with case studies focusing on both agricultural and urban land (cf. Bryson 2013; Li 2014).

Of course, this framework also poses several challenging claims regarding subjectivity and political agency for brownfield scholarship. This thinking attempts to unsettle the subject/object binary so that the subject is seen to exist only in relational terms and through heterogeneous assemblages (St. Pierre 2013). In addition, this thinking moves away from an understanding of political agency as "something possessed" by an "intentional human subject" and toward an understanding that sees it as a temporary achievement gained through the interaction of human and non-human collectivities (Lorimer 2007, 913). Given this distributed notion of subjectivity and agency, "proper" political action in the context of brownfield redevelopment is generally presented as that which attends to the "multiplicity of more-than-human inhabitants" at any given site (Whatmore 2006). This is a politics of accommodation to always-emerging difference, which is attuned to the notion that a "political actor" does not simply "decide" to live convivially, but does so through a multiplicity of socio-material assemblages (Lorimer 2008; Chilvers & Kearnes 2015).

Brownfield redevelopment and *BGreen 2020*

In light of the brief introduction to Bridgeport's brownfields above, and the subsequent note on theory, we can now turn to an in-depth look at the city's recently developed and implemented agenda for the redevelopment of vacant and underutilized land – and brownfields more specifically. As noted, this agenda was introduced in 2010 in the city's *BGreen 2020* inaugural planning document, which outlined a 10-year sustainability plan for Bridgeport across a range of "environmental" sectors.[1] Two key components of *BGreen 2020* will be presented below, which relate to brownfield redevelopment. These include the plan's focus on deepened private sector engagement in vacant and underutilized land redevelopment, and its emphasis on increasing the city's "perceived livability" – and amenability to private investment – via knowledge production and subject formation.

First, the city's emphasis on deepened private sector engagement in urban environmental governance is clear throughout *BGreen 2020*, and its approach to land redevelopment. In fact, private sector partners developed most of the *BGreen 2020* sustainability plan itself; the plan is the "result of a public-private partnership between the City of Bridgeport and the Bridgeport Regional Business Council, a consortium of local business groups" (BGreen 2020 2010, 16). And, the organizational structure established to define the plan's various policy strategies contained a wide range of private sector populated Technical Subcommittees. For instance, roughly half of the members within the Greenfields and Green Wheels Subcommittee, which oversaw the development of *BGreen 2020*'s land use interventions, were private sector representatives (BGreen 2020 Appendices 2010). Further still, under *BGreen 2020* the city has indicated a strong interest in redeveloping vacant and underutilized sites for "Class A" private sector partners – or "prestigious" tenets willing to pay above-average rents (BGreen 2020 Progress Report 2013). Generally, this seems to illustrate an ambition to partner with major financial services corporations (BGreen 2020 2010, 28); and, in addition to such office conversions, public investment in brownfield redevelopment is presented as a means to incentivize profitable ventures in housing, retail, and even tourism, as illustrated by the plan's celebration of the Steelpointe Harbor redevelopment (*ibid.*, 14–15; De Avila 2014).

Relatedly, the *BGreen 2020* land use redevelopment agenda places noteworthy emphasis on increasing the city's "perceived livability" among potential private sector investors (BGreen 2020 2010, 28). In this register, the plan identifies the importance of producing capital-friendly knowledge regarding the city's land in order to "facilitate redevelopment to the highest and best use" (*ibid.*, 27). One tool identified to facilitate this knowledge production is GIS, to map parcels and take account of known environmental factors that might inhibit – or enhance – future accumulation. This technology is understood to allow "every interested party and municipal planning department" the ability to make "informed decisions regarding a particular site's…development and development costs" (*ibid.*, 27). Following the implementation of *BGreen 2020* in 2010, first steps toward these modes of "optimized data" production were introduced, so as to contribute to more effective "capital planning" – and city

branding (BGreen 2020 Progress Report 2013). In fact, such technologies were used to monitor local level "sustainability projects," broadly understood under *BGreen 2020* as central to the promotion of the city to private sector investors in the urban land market (*ibid.*).

Finally, the creation of a new "environmental" subjectivity is also identified as necessary under *BGreen 2020* – no doubt intersecting with the plan's land use agenda, and its interest in increasing the city's perceived livability and environmental ethos. With this view, the production of such a subjectivity – particularly in low income and minority communities – is linked to efforts to attract private investment in the city's vacant and underutilized land, and attempts to attract "middle-class residents" (BGreen 2020 2010, 6). In a somewhat cynical register, it is possible to read this process of (undoubtedly racialized) subjectification in the city's Conservation Corps, an organization that promotes the internalization of effective strategies for sustainability; though, without a doubt, this program also intends to produce a host of other, more socially just outcomes (*ibid.*, 40). Here, it is useful to note that the city's writing on the Conservation Corps – and other, comparable initiatives – often slips between the language of environmental education and promotional marketing. "[S]ustainability education and youth engagement opportunities" are positioned within the broader "BGreen brand…[which aims to] attract residents and employers" to Bridgeport's neighborhoods (BGreen 2020 2010, 41). Put differently, it is possible to read these nominally "green" educational initiatives as attempting to create subjects that are not only "environmentally aware," but "unified" in their vision of Bridgeport's "sustainable" future, and attractive in a land market that is driven by racialized biopolitical capital (*ibid.*, 6).

Making sense of *BGreen 2020*

Thus, *BGreen 2020*'s brownfield agenda – read, albeit, somewhat indirectly through its broad discussion of vacant and underutilized land – illustrates both the relevance and limitations of the dominant theoretical approaches employed in the brownfield literature. To begin with, Bridgeport's land use redevelopment strategy under *BGreen 2020* illustrates some of the useful insights provided by a Foucauldian governmentality perspective. The program's planning documents alone clearly demonstrate a desire to construct a regime of truth in which Bridgeport's relative poverty is seen in isolation, rather than in reference to the political-economic structures – such as racialized post-Fordist economic restructuring – that have played a large role in the production of vacant and underutilized land since the 1970s. As a governmentality perspective would expect, the city seems to combine power/knowledge and subject formation in order to pursue "urban corporatization" under *BGreen 2020*, which is (arguably) most clearly seen in its use of the Conservation Corps. In a sense, such practices also illustrate the ostensibly "productive" dimension of governmentality, as they generate new forms of knowing and being.

However, while these efforts at knowledge production and subject formation under *BGreen 2020* give some credence to the governmentality perspective, they also illustrate the limits of this theory and its ontological foundations. Given governmentality's general reluctance to identify causal structures, this theoretical lens is ultimately unable to identify *why* such knowledge and subjectivities are being produced in Bridgeport. In part, a governmentality approach is lacking here because (broadly speaking) its notion of the subject and political agency is discursive "all the way down." Therefore, the common sense ideologies expressed in *BGreen 2020* regarding private sector engagement and subject formation can only be read as the result of myriad "cultural inscriptions and habitual practices," seemingly "abstracted from social, spatial, and economic production" (Houston & Pulido 2002, 404). In contrast to a governmentality reading, a thorough review of *BGreen 2020* seems to suggest that the common sense articulations embedded in this program emanate from the very material and racial logics of (biopolitical production and) capital accumulation. Notably, *BGreen 2020* primarily seems interested in opening up "arenas to [racialized] private capital accumulation and exchange value considerations," which, given the ideological hegemony of capital, are presented as common sense by city planners (Gramsci 1996; Harvey 2014, 23).

The post-political lens also proves to be limited when applied to the case of brownfield redevelopment under *BGreen 2020*, given its ontological claims regarding the subject and political

agency. Specifically, its limitations are in its inability to guide future emancipatory political action, rather than in its analysis of the redevelopment program itself. In fact, this lens is quite useful for recognizing that *BGreen 2020* – with its deep emphasis on private-sector engagement – illustrates an attempt to foreclose dissensus in the context of land redevelopment. It helps to illuminate that this shift toward private sector engagement enables the suturing of potential urban commons. However, this lens fails to provide a way forward for those that desire a just urban commons, rather than an urban landscape defined by the "closed spaces of malls, freeways, and gated communities" (Hardt 1998, 141). This is because the post-political literature tends to understand political agency as illustrated either by an unforeseeable and momentary rupture in the police order, or by an antagonistic articulation in the context of (always) provisional hegemony. And, given the depth of the post-political condition in Bridgeport, such formulations seem insufficient. Instead, the issue of brownfield redevelopment in Bridgeport demonstrates the need for modes of political subjectification and political agency that can function as motors for "*transformation* and *duration*" (cf. Hardt 2011, 676, emphasis added).

Finally, a close reading of *BGreen 2020* is also not very sympathetic to understandings of brownfield redevelopment that draw on non-essentialist materialism. Of course, the *BGreen 2020* program forces us to recognize that the materiality of brownfield sites matters, and that non-human *actants* are constitutive of capital accumulation, knowledge production, and other "fundamentally social" activities, which complicates liberal notions of subjectivity and agency. This is evident in the context of the plan's GIS initiatives, which seek to catalog the "materiality" of potential redevelopment sites, and to identify the opportunities and barriers to profitability and accumulation that they present. Still, despite what many non-essentialist materialists would suggest, this insight only gets us so far in reference to the *BGreen 2020* literature – suggesting that an understanding of vacant land and brownfield redevelopment in Bridgeport depends on more than a recognition of human/non-human relationality. In fact, while it remains clear from *BGreen 2020* that human subjectivity is "always within, and dialectically bound to, nature as a whole," it also seems clear that brownfield redevelopment in Bridgeport should not be understood according to the theoretical lexicon of "generalized symmetry" (Moore 2013, 4).

Put differently, the non-essentialist materialist lens proves to maintain relatively little analytical purchase for addressing questions of power and political agency in the context of Bridgeport's brownfields (for context, see Escobar 2008, 130). Clearly, in Bridgeport some *actants* – namely, white private sector stakeholders – hold much more sway in brownfield redevelopment – and land use generally – and are able to delineate the boundaries of certain assemblages. However, the flat ontology of non-essentialist materialism fails to provide the grammar for a historically grounded causal analysis that accounts for these differentials in political power, or their positionality in the broader cartography of global capitalism (Fine 2005). Moreover, this approach proves to be relatively silent on Bridgeport's place in the increasingly unequal production of urban space over the past 40 years (Lefebvre 1991), and on the racialized nature of *BGreen 2020*'s new subject forming efforts, which seek to create subjects that will encourage white middle-class consumption (cf. Brahinsky *et al.* 2014; Dillon 2014). Without a means to analyze these questions of power and political agency, this approach's calls for openness to immanence, fluidity, and difference seem relatively futile.

Conclusion: brownfields and capitalism's world-ecological contradictions

So far, this paper has attempted to rise "from the abstract to the concrete" (Marx 1857) to illustrate the limitations of several commonly employed theoretical perspectives in the brownfields literature: governmentality, the post-political, and non-essentialist materialism. It has done so by exploring how these approaches map on to the empirical case of Bridgeport, Connecticut's *BGreen 2020*, and its (implicit as well as explicit) approach to vacant and underutilized land redevelopment – and brownfield redevelopment in particular. Ultimately, through their application to this empirical case, these theoretical perspectives have come up short given their ontological claims regarding the constitution of the subject and political agency. Therefore, going forward it will be necessary to reconsider the theoretical framework used to both analyze brownfield redevelopment in the neoliberal city, and to formulate the basis for an anti-racist, post-capitalist, and feminist urban environmental politics.

In light of this necessary reformulation, Moore's recent work on "capitalism as world-ecology" seems to be particularly useful (for an introduction, see Moore 2015a). This may seem like an odd proposition to those broadly familiar with Moore's world-ecology framework. This is because Moore has taken the development of capitalism over the *longue durée* as his primary empirical object of inquiry. And, he has taken as his primary theoretical foil, the latent "green arithmetic" found in Marxian theories of metabolic rift. In doing so, he has explored the emergence of the ceaseless, *planetary* expansion of "relations of exploitation and appropriation" under capitalism. That is, the "historical and logical *nonidentity* between the value form and its necessarily more expansive value relations" (Moore 2017a, 328) – as well as the *problematique* of "overproduction" (in fixed capital) and "underproduction" (in circulating capital) (Moore 2015b, 12). Further still, in a more explicitly philosophical register, Moore has primarily worked to call into question a host of Cartesian binaries so as to both understand capitalism's "double internality" (Moore 2014), and to explain what previous theorists have only presupposed: an ontology of "Nature as external" (Moore 2017b, 8). Put differently, Moore's work has largely avoided those mundane issues of brownfield redevelopment and contemporary urban environmental governance – and, to a large extent, the three theoretical perspectives at issue in this paper.

However, despite his ostensibly peripheral set of historical and theoretical concerns, Moore's writing on world-ecology has much to offer in relation to the ontological issues outlined throughout this paper – and, thus, to the study of brownfields. Put bluntly, his primary assertion is that capitalism is not an economic system that acts upon an external "nature," but is rather a "continually shifting dialectical unity of accumulation, power and appropriation within 'the web of life'" (Soper 2015). Therefore, he argues that capitalism and capitalists emerge through the oikeia – used to name "the creative, historical, and dialectical relation between, and also always within, human and extra-human natures" (Moore 2013, 2) – establishing a number of dialectical human/non-human "bundles" that enable accumulation, including the "bundles" of Nature and Society (Moore 2013). He maintains – drawing heavily on the work of feminist and anti-racist critiques (e.g. Fanon 1961; Robinson 1983; Mies 1986; Federici 2012) – that capital not only extracts surplus value from labor but also *necessarily* appropriates the work of those (racialized and gendered actors) that it has historically relegated to the Cartesian category of Nature (Moore 2017b). (Here, world-ecology differs most significantly from those existing theoretical frameworks that understand brownfield redevelopment through institutional and network analysis (see Doak & Karadimitriou 2007a, 2007b).[2]) And, he notes that these processes of accumulation and appropriation are only possible with the help of new knowledges, subjectivities, and state formations (Moore 2012). That is, he identifies the centrality of particular "state-capital-science complexes" (Moore 2015c, 22) to the extension of frontiers for capitalization and appropriation.

In doing so, Moore is able to resolve several of the key tensions that plague critical writing on brownfield redevelopment. Unlike the governmentality perspective, he is able to provide a reading of brownfield knowledge production and racialized subject formation that recognizes capillary forms of power and modes of internalized disciplinary self-regulation, while also remaining aware of the repetitive *material* architecture – namely, the capitalist drive for profit – at the root of such projects. Furthermore, he is able to account for the post-political condition of the neoliberal city – which emerges here largely as the result of capital's historically contingent *technics* – while also providing an understanding of political subjectivity that is not limited to "the part who have no part" – including all those subjected to capital's methods of exploitation and appropriation, within the web of life. Finally, this framework enables us to reject the Nature/Society binary that many non-essentialist materialists are keen to reject in their brownfield writing, while also stressing that capitalism operates through, and depends upon, that "peculiarly modern" ontology. That is, while noting that this binary establishes "conditions for [the] revival of profitability" (Moore 2011, 139), predicated on a racialized and gendered "logic of *cheapening* in an ethico-political sense" (Moore 2018, 242).

Moreover, a world-ecological perspective also helps to address some of the problems that inevitably arise when one attempts to construct a radical urban environmental politics out of the theories outlined above. Specifically, it leaves open the possibility of political action beyond citational gestures, momentary and unforeseeable ruptures, and empty claims regarding the construction of open and multi-natural assemblages. As noted, the world-ecology framework suggests a coalitional politics that includes all those subjected to capital's methods of exploitation and appropriation, across the web of

life – quite clearly gesturing toward the contours of a lasting, more-than-human, ontological politics "grounded in interdependence and solidarity rather than unidirectional management, ownership, or stewardship" (Battistoni 2017, 7). Further still, this perspective specifically suggests how such a politics might also be articulated in reference to the "state-capital-science" nexus, given its discursive and material role in the *re-articulation* of ontological cheapening; and, it does not simply take equality as axiomatic, but calls for a "*new conception of wealth*, in which equity and sustainability in the reproduction of life (of *all* life) is central" (Moore 2016, 10). Therefore, unlike governmentality, the post-political, and non-essentialist materialism, a world-ecological perspective explicitly leads us toward a brownfield politics – and, more broadly, an urban environmental politics – that poses a new vision outside of both capitalist valuation and Cartesian dualism. In doing so, it demands new transformative modes of being in the web of life (Moore 2016).

Notes

[1] The city's implementation of this program – based on available documentation – seems to have petered out since the mayoral election of Joe Ganim in 2015, given that it was a particular priority of the city's former mayor, Bill Finch, who was in office from 2007–2015.

[2] Many thanks to an anonymous peer reviewer for drawing my attention to this literature. At its best, this work maintains a passing resemblance to Moore's. It understands the notion of "structure" as that which "potentially privileges 'some actors, some identities, some strategies, some spatial and temporal horizons' over others" while understanding that actors operate on this "differential privileging through 'strategic-context' analysis when undertaking a course of action" (Jessop 2005 quoted in Doak & Karadimitriou 2007b, 214). Nevertheless, this literature largely fails to attend to the racialized and gendered character of capital accumulation, and as such, is less fitting for brownfield analysis than Moore's framework.

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