Article

Valuing plants in devalued spaces: Caring for Baltimore's Street trees

Mariya Shcheglovitova
University of Maryland, USA

Abstract

Baltimore City, MD is addressing its future with expansive sustainability initiatives. These include an aggressive tree planting campaign to double the city's tree canopy by 2037. While discourses of greening present tree plantings and related programs as a resolution for the legacies of racist housing market practices, these programs are themselves subject to the legacies of spatial inequalities in access to infrastructural care. Sustainability discourses present urban trees as inherently valuable economically and environmentally but these discourses are disconnected from trees' needs for ongoing care and maintenance. The daily material practices of caring for and maintaining trees are deprioritized in favor of planting more trees to gain these supposedly "inherent" benefits. In the spaces where trees were meant to bring economic and environmental vitality, their deaths reinforce the racist legacies they claim to correct. This paper examines these links and contradictions within the framework of relational urban political ecology. Through a lens of care, this paper shows how humans and non/humans actively co-construct urban space and how just spaces can come about through attention to the needs of humans and non/humans.

Introduction

On 9 August 2017, in a crowded auditorium on the grounds of a secluded wildlife refuge outside of Washington, DC, the *Trees for All: Chesapeake Regional Environmental Justice Workshop* closed with the remark "thank you for caring." The speaker, a young urban forestry consultant, stood on the stage addressing an audience of forestry practitioners and advocates. Earlier in the conference, we were reminded by the same speaker why we should be proud: "we plant trees for a living, we're privileged, we make communities better."[1]

I was struck, as I listened to talks and engaged in group exercises, by how often urban forestry professionals and advocates identified themselves as a group that "cares." But what does it mean to belong to such a group and in what ways does this group define and

Corresponding author:
Mariya Shcheglovitova, University of Maryland, Baltimore County, 1000 Hilltop Circle, Baltimore, MD 21205, USA.
Email: marsh7@umbc.edu

demonstrate care? Conversations with conference attendees revealed disconnects between congratulating oneself for caring and practicing care. These disconnects also emerged in interviews with forestry professionals and city residents. In both settings, forestry practitioners reiterated how much their programs focused on planting trees in contrast to the limited resources that were designated to maintain trees that were put in the ground.

This paper explores tensions between discourses and practices of care in Baltimore, MD, one of the cities included in the *Chesapeake Bay Urban Tree Canopy Management Strategy* and represented at the *Trees for All: Chesapeake Regional Environmental Justice Workshop*. In particular, I highlight how governmental discourses of care focus on the automatic benefits of planting trees while the responsibility of maintaining trees is shifted outside of the paid forestry community. This shifting of responsibility disproportionately impacts Baltimore's most marginalized neighborhoods where greening professionals position trees and other green amenities as providing a multitude of improvements—from reducing summer temperatures to increasing property values. However, this paper shows that neighborhoods may not benefit from the improvements trees are meant to provide when they lack the support to care for planted trees.

Neighborhood covenants, blockbusting, mortgage redlining, and urban renewal have left a mark of disinvestment and abandonment in Baltimore City. Throughout the city's history, marginalized neighborhoods have continuously lacked city services leaving residents to make due for themselves. These patterns are most notably linked to the racial segregation which shaped the city in the 1900s and manifested as mapped reality in the Home Owners' Loan Corporation (HOLC) redlining maps of the 1930s. While trees may seem removed from these legacies, I argue that trees are not only linked to a history of racial segregation but also reinforce that very history through the city's focus on tree planting at the expense of daily practices of tree care.

The focus on care in this paper serves as a theoretical intervention to illustrate what might be missed in critical urban scholarship that interprets sustainability initiatives within broad patterns of capitalist development. Scholars have warned that sustainability is a strategy for capital accumulation which leads to uneven urban development where "eco-friendly initiatives earn lucrative premiums from their sustainability branding and lay the groundwork for further accumulation via whatever development follows in its stead, green or not" (Goodling et al., 2016). This paper relates urban sustainability and greening to patterns of (dis)investment which have been foundational to theorizing form and process in urban geography and political ecology; however, the aim of this paper is to highlight the limitations to thinking only with a frame of uneven development. With its focus on capital, uneven development offers few options for considering everyday affect and more-than-human relations. For Baltimore's trees, neighborhoods, and people, cycles of uneven development are experienced and resisted daily through acts along a spectrum of care.

Political ecologies of care

Since the publication of Harvey's (1996) *Justice, Nature and the Geography of Difference*, urban political ecologists have been exploring the dialectical links between capital and nature. Recently, diverse political ecologies have been proposed which move beyond Marxist political economy to consider relations with nature that lay outside, between, and intertwined with diverse economic forces (e.g. Heynen, 2017). In this expansion of political ecology, non/humans increasingly assert themselves as economic (Perkins, 2007) and affective (Instone and Sweeney, 2014; Poe et al., 2014) agents.[2] The emerging framework

of relational political ecology merges political economic concerns over capital and power with attention to "affect, emotion, bodies and materials while grappling with issues of access to resources" (Instone and Sweeney, 2014). Poe et al. (2014) describe the relational turn in political ecology as "enabl[ing] us to rethink complex people–nature relationships as contingent and layered processes, practices, and projects of human and more-than-human inhabitation and belonging." Relationships of mutual care between humans and non/ humans are one productive area to explore as considerations of non/humans in political ecology are broadened from a role in capitalist economies as commodities to a role in everyday experiences of community.

Theorizing through care can serve as a critique of capitalist space and the logics of measurement which produce this space to bridge the relational turn in political ecology and the fields' concerns with capital. Puig de la Bellacasa (2015) highlights the role of care in feminist critiques of political economy writing that "feminist approaches to care show how the work of reproduction and maintenance of life has traditionally been considered neglectable with regards to value-creating work." While acknowledging the neglected role of care in political economy, Puig de la Bellacasa notes that "feminists have contested the reduction of care work to traditional economic terms." Further resisting this reduction, feminist scholars argue that care itself encompasses a wide variety of activities and is interpreted differently by differently situated people (Aufseeser, 2018; Darling, 2011). Definitions of care range from essentialist typologies (Pitt, 2018) to situated embodied practices (Mol, 2008). Following Mol, Law (2010) provides a perspective on care emphasizing the importance of "instruments, and technologies together with other material elements, texts and inscriptions" in care practices. Law's observation stresses that care is a relational practice that extends beyond a subject administering care and an object receiving care but relies on a network of care. While studies of the material and psycho-social dimensions of care in geography have focused primarily on human relations (Conradson, 2003) scholars within geography (Pitt, 2018) and related disciplines (Harbers, 2010; Law, 2010; Puig de la Bellacasa, 2015) are beginning to interrogate dimensions of care between humans and non/humans. These studies shed light on caring practices in spaces from gardens (Pitt, 2018) to farms (Harbers, 2010; Law, 2010; Puig de la Bellacasa, 2015) and laboratories (Haraway, 2008).

Writing about soils, Puig de la Bellacasa (2015) develops a reciprocal formation of care suggesting that a caring approach to engaging with soils would not only recognize the services that soils provide for humans but also the maintenance that humans can provide to soils. Desai (2017) applies a notion of reciprocal care to trees, arguing that paying closer attention to "tree time" may facilitate "reimagining a sense of place that fosters cohabiting with trees in cities in more meaningful, caring, and focused ways." By placing trees in capitalist logics, the language of planning, at times, reinforces interactions with trees that do not nurture their liveliness. City trees are often described as "green infrastructure" and the economic language used to convey their value treats trees as infrastructural objects. For instance, TreeBaltimore (2014b) states that one of the "current value of services provided by Baltimore's trees" is "$3.3 million a year in energy savings by shading buildings from the summer sun and blocking winter winds." The Baltimore Office of Sustainability's (2009) mission statement to improve "the quality of human life while balancing the need for environmental protection, societal progress, and economic growth" further conflates the maintenance of human and non/human life with economic goals.

Critical studies of sustainability initiatives (e.g. Agyeman, 2008; Pearsall and Pierce, 2010) have noted that the balance between environmental and human well-being embedded in

sustainability discourses has yet to be attained. These scholars often see sustainability programs as failing to equitably meet human needs, calling for what Agyeman et al. (2002) term a ''just sustainability.'' The focus of just sustainability advocates has been on placing ''social needs and welfare and economic opportunity'' alongside ''environmental limits imposed by supporting ecosystems'' (Agyeman et al., 2002). However, taking seriously reciprocal care between humans and non/humans, to enliven discussions of passive non/human nature and foreground the social and asymmetrical relationships formed among humans and non/humans could be integral to envisioning a just sustainability. This is particularly relevant when sustainability discourses allude to non/human needs but present non/humans as infrastructural elements, living-for-us, not beings living with agency. Furthermore, as political ecologists continue to engage with urban landscapes where non/humans actively contribute to form and process, increased attention to caring relations with non/humans has the potential to deepen the field's understanding of the capitalist production of urban space while also paying attention to the relational embeddedness of non/humans in this space.

Case study: Baltimore's urban forest

The remainder of this paper turns to trees as a specific case study on relations between humans and non/humans. The analysis presented is part of a broader project based on three years of ethnographic and ecological field work, beginning in the summer of 2016, researching urban wood and forests in Baltimore, MD. During this time, I conducted participant observations and 28 interviews with forestry professionals, volunteers, and community residents. Interviews with professionals focused on how urban forestry was being practiced and re-interpreted, in Baltimore, as the city developed ambitious new sustainability goals. Interviews with residents explored daily experiences of living in Baltimore's uneven landscape of green spaces. I particularly sought out residents, for interviews, who were actively engaged in contributing to some urban forestry practice or living near newly planted, dead, or dying trees. Supplementary sources, meetings, and community events were often brought up in interviews, I included these sources in the discourse analysis and attended events when possible. Interview transcripts, field notes, policy documents, and other written materials were coded with particular attention to the ways that urban forestry was talked about and practiced. To observe spatial differences in tree care, I mapped trees on 90 randomly selected city blocks. Blocks were evenly sampled in low, medium, and high income census tracts. During this process, I engaged with city residents about trees and recruited interview participants.

I begin the following section by focusing on the role that trees play in Baltimore's greening campaigns and present discursive representations of trees as a strategy to care for communities. Drawing on examples from art, participant observation, interviews, policy documents, and media sources, I contrast discursive representations of tree planting as a caring act with the practice of maintaining trees. By contrasting discourses and practices of tree care, I highlight how the responsibility of tree maintenance can be disproportionately shifted onto city residents outside of the paid forestry community. Finally, I situate discourses and practices of tree care in histories of (dis)investment to show how the focus of practitioners and policymakers on tree planting as an act of care reproduces a lack of other tangible forms of governmental investment in the land, homes, and people of Baltimore's most marginalized communities.

Discourses of care: Baltimore has "prioritized caring for its people through aggressively restoring the tree canopy"

The language of policy seeks to promote trees from the perspective of their benefits to city residents and the sustainability agendas of city planners. On their website, TreeBaltimore poses the question, "Why plant a tree?".They then respond:

> Beyond looking good, trees protect and enhance city dwellers' health and property. Trees literally clean the air by absorbing pollutants and releasing oxygen. They reduce rain-water runoff and erosion, thus improving the Bay's water quality. Trees temper climate; they save energy; they can improve health, serve as screens, and strengthen communities. Trees can even help contribute to a community's economy and improve our way of life—and provide habitat for wildlife we might otherwise not see in our urban environment.

This passage conveys the ways in which greening organizations portray city trees as valuable for the environment and communities. Cohen (2014) documents how, within American environmental movements, such systems of valuation equate trees with social and environmental change while never addressing the corporate, industrial, or governmental causes of environmental degradation. In Baltimore, this conflation extends to racial inequality. The Baltimore Department of Planning equates greening projects with social justice when they write: "Greening and improved maintenance of green spaces and vacant lots can improve the economic vitality of neighborhoods still adversely affected by the legacy of harmful policies like mortgage redlining."[3] Trees are presented as a key strategy in these goals of neighborhood improvement. The abstract for a panel of Baltimore City forestry practitioners, in the program for the *Trees for All: Chesapeake Regional Environmental Justice Workshop*, situates their planting agenda:

> Baltimore, MD is one of many American cities decimated by the decline of industry in the post WWII era, and the exiting of much of its population steadily thereafter. Today, as the city emerges to care for its aging infrastructure, it has also prioritized caring for its people through aggressively restoring the tree canopy.

Yet, there is evidence to suggest that presenting trees and other "green amenities" as the solution to racist legacies, such as mortgage redlining, hides how these legacies have shaped and continue to shape trees. Olivia Robinson, in her quilt work titled *Near and Far Enemies: Shade* set out to document tree form across Baltimore's neighborhoods and relate this to the HOLC redlining map. Robinson was inspired by "Fullilove's ... observation that the largest trees of a city grow in neighborhoods today that were areas of increased funding 80 years ago" (quoted in Kuthy, 2017). Robinson produced a quilted re-creation of a redlining map above which she stitched tree silhouettes displaying the higher prevalence of smaller trees or the absence of trees in redlined districts. In this work, Robinson shows that it matters where and when trees are planted.

Natalie Jeremijenko's project mixing art and arboriculture further demonstrates the impact of urban space on trees. In his description of the project, Driessen (2017) writes:

> In 1999, [Jeremijenko] produced through cloning a set of 20 genetically identical walnut trees, and placed them in various spots across the San Francisco Bay Area ('Onetrees'). As the trees started to grow, collectively they highlighted how the genetic makeup of organisms is not the sole determinant of their lives. The product was a field laboratory in which different environmental conditions became visualized through how the trees were doing based on a range of determinants, such as being in affluent or industrial areas.

Years later, after passing a dead tree that was once part of the *OneTrees* exhibit, arborists living in San Francisco conducted a survey of the planted trees. They reported that 10 years after planting, "out of 13 planting sites in San Francisco and Palo Alto, we have living trees still at 9 of them" (Shea, 2014). As the arborists revisited *OneTrees*, they reflected on Jeremijenko's lack of consideration of tree time in planning her project: "There seems to have been no activity on the project website since 2004. The digital landscape and the trees have a forgotten feeling about them" (Shea, 2014). A lack of consideration of tree time is not unique to the *OneTrees* project, Desai (2017) observes that caring for trees in cities requires a consideration of a slower pace of life than humans are used to living.

Urban foresters are aware of the need to invest time and consideration in planted trees. In 2012 the *International Society of Arboriculture* (ISA) awarded a grant to a group of forestry scientists to investigate "the costs of maintaining and not maintaining urban trees." This award resulted in publications (Hauer et al., 2015; Vogt et al., 2015) and a summit for researchers and practitioners. In both the publications and at the summit, researchers quantified the money and benefits that are lost when urban trees are not maintained, and proposed best practices for maintenance activities. Yet despite these attempts to foreground and systematize tree maintenance by the ISA and forestry scientists, tree care continues to be discussed as a fraught and misunderstood issue among practitioners. A forester, at the *Trees for All: Chesapeake Regional Environmental Justice Workshop*, voices this concern:

> A lot of people think that planting a tree is simple — dig a hole in the ground and walk away — well then you're doomed from the beginning. Urban trees have a tough life. They need planning and long-term care and commitment.

But, despite this forester's deep understanding of what trees need to flourish in cities, as *OneTrees* demonstrates there are times when this long-term care and commitment may be missing. The following sections consider how care is practiced for city trees in Baltimore and the implications for the production of urban space when this care is missing.

Practicing care: Caring for the forest at the expense of the trees

The "long-term care and commitment" mentioned above, often referred to as "tree maintenance" is an ongoing frustration for greening practitioners. An environmental program organizer at the *Trees For All* workshop explains: "there is no funding for maintenance because you are handing over a shit ton of money without any deliverables." Quantifying the number of trees that are planted is the deliverable that drives greening efforts; what happens to those trees rarely figures in the funding equation. During a presentation that occurred shortly after the program organizer's frustrated comment, a Baltimore City forestry team member emphasized that a lack of funding for maintenance creates community mistrust of greening projects:

> Funding for maintenance is the piece that's most difficult to find . . . ghost town hoop houses . . . DPW [Department of Public Works] puts in great BMPs [Best Management Practices] but who's taking care of them? This creates doubt in the community about green space.

I follow up on this point in an interview with Daryl Senko,[4] an urban forester working in Baltimore. Daryl links community mistrust to a lack of resources for maintenance. "We're getting better," he says. "We have to fight through our negative past of trees not being maintained. Not because we are slackers it's just demand for the resources were not in place." As Daryl acknowledges the past lack of maintenance, he looks toward how it can be corrected in the future. Daryl has hope that a comprehensive tree inventory will provide

the city with information on where there is the greatest maintenance need. But a promise of future care may not fully correct the impacts of missing maintenance in the past. As Pincetl (2010) observes, "nature's services infrastructure is in plain sight, it takes up real physical space, and if it is not regularly maintained, (gardened) it will look unattractive, may not work and/or it will die." Pincetl alludes to a need to read acts and discourses of maintenance more deeply because life itself is on the line.

California's Urban Forestry Act (Fletcher, 2017), the only piece of legislation in the United States which sets urban forestry standards, defines urban forest maintenance as: "Those activities that reduce tree mortality, ensure optimal tree health, preserve carbon sequestration and climate resilience benefits, and improve the full functionality of the urban forest. This includes, but is not limited to, mulching, watering, and proper pruning practices." But while these guidelines promote the preservation of the urban forest as a whole, the maintenance activities proposed are enacted upon individual trees. The two levels of forestry agendas, caring for individual trees and for the urban forest, can at times be incommensurable. While large scale urban forestry programs are focused on city wide tree planting campaigns, to promote the forest's collective capacity to care for the city, the care of trees (minor pruning, watering, mulching, making city service requests for major pruning, etc.) falls to city residents. As one Baltimore City based practitioner explains: "[the city] maintenance contract is for two years, for long term care you need community buy in."

Community support for tree care often takes the form of trained volunteers holding the titles of *TreeKeepers*. While it is described as a city wide program, *TreeKeepers* do not have a presence in all of Baltimore's neighborhoods. In 2015, the most recent annual report available, the Baltimore Tree Trust estimated that there are 99 certified planting leaders, 21 certified pruners, and 750 participants who have completed some portion of the *TreeKeepers* program without receiving certification (Baltimore Tree Trust, 2015: 3). These numbers pale in comparison to the total projected number of street trees in Baltimore: "approximately 100,000 street trees or one street tree for every six residents" (TreeBaltimore, 2014). Regardless of this discrepancy, forestry practitioners rely on the presence of *TreeKeepers*. As one forestry professional explains: "TreeBaltimore tries to get forestry crews to proactively prune before tree plantings. When they proactively prune they don't touch trees that are 5 years old or younger because *TreeKeepers* need to be taking care of those trees."

Many city residents however, are unable or unwilling to take on the responsibility of tree care. Lawrence a Baltimore resident who has been tending city trees for the past four years as part of the *TreeKeepers* program, reflects on this inability in an interview.

> Mariya: "So you are a ... resident of Baltimore City and you're pruning street trees, do you think it's a resident's responsibility to take care of Baltimore's trees?"
> Lawrence: "I certainly wish but less than one percent of the residents that would be enticed or ought to be [enticed] to even ... take care of a tree or water it [do]. Really again it depends on the neighborhood. Like you know [in my neighborhood] we got a lot of people that really do love the trees that are either on their property or on their side walk. ... But that's what I see in [my neighborhood], people are more aware of the trees and take good care of them. In [a lower income neighborhood in East Baltimore] it has to be more of an education that [if you] …. water the tree in a dry spell on hot summer days the tree will survive better. Some people in the city they just take trees for granted and the trees could use all the help that's possible from people that live nearby."

TreeBaltimore (2014c) describes the *TreeKeepers* program as an initiative to "promote healthy trees by educating residents and increasing their role in the care of the city's trees." Yet Lawrence points to the potential unevenness of this care.

When I ask Milton Bynun, a forestry practitioner who is involved in the *TreeKeepers* program, about how evenly *TreeKeepers* are represented across Baltimore's neighborhoods, he replies:

> We could always have room for a better representation of our neighborhoods. Because that's what we're finding in these areas that need trees the most, or care for trees, is that there's no buy-in. There's no community buy-in to wanna help with the trees.

Milton elaborates on the lack of "community buy-in" by saying that in neighborhoods where he sees that it is reduced or missing, "the resistance is work, they [the residents] don't wanna do work. They don't want to maintain the tree well." Milton recognizes that there are certain barriers that can keep residents from maintaining tree wells. He brings up physical ability, age ("So if you're volunteering out there, planting street trees, or in the park, you're probably out doing pretty good . . . You're young"), and lack of familiarity with city policies that mandate resident responsibility for tree care. But ultimately, he always moves forward with the tree plantings:

> Most people don't know what the rules are, but I'm from the city. I say, "Well, okay. We still are gonna plant a tree, because we own the land." And then, really, what I'm also supposed to tell them is that it's their duty to maintain that tree and that little tree pit in front of their townhouse. So it's a double standard thing. It's weird, but raking leaves and messy fruits and rats and "It's gonna fall on my house." It's not gonna be your problem in 30, 40 years. I'm not saying you're gonna die in 30, 40 years, but you know.

Milton uses the mismatch of human and tree time to rationalize moving forward with tree plantings even when they are unwanted because he understands the majority of tree nuisances to come when trees are older.

Lawrence and Milton describe how the responsibility of caring for individual trees can be overlooked or displaced to (current and future) city residents when forestry initiatives are guided by goals focused on entire cities or watersheds—Baltimore City has a goal to increase the tree canopy by 40% by 2037 and the *Chesapeake Bay Urban Tree Canopy Management Strategy* sets a goal to increase the tree canopy by 2400 acres in the Chesapeake Bay watershed by 2025. Further, assertions that tree care varies by neighborhood and that it is just a matter of educating people in some neighborhoods to care for trees reinforce a belief that people, in some spaces, are living in the products of their own bad behavior, not in spaces brought about by discriminatory planning policies and practices. The following sections relate discourses and practices of caring for street trees to Baltimore's current and historic patterns of development.

(Re)producing disinvestment

Baltimore City employs planning frameworks that mobilize notions of maintenance, but these ideas are applied unevenly across neighborhoods. Baltimore's 2014 Housing Market Typology (HMT), a map based tool developed by the city in partnership with The Reinvestment Fund to match "available public resources to neighborhood housing market conditions" (City of Baltimore, 2017) divides the city into "choice," "middle," and "stressed" neighborhoods designated by analysis of quantitative neighborhood characteristics such as housing prices. The typology recommends that municipal services be prioritized in "choice markets" where they are "essential to maintaining these markets," "aggressive code enforcement" is the intervention promoted in "middle markets," while "stressed markets" should be targeted for demolitions, publicly subsidized development

projects and "green amenities" (City of Baltimore, 2017). In "choice" neighborhoods, municipal services are enacted to maintain their existing value for housing sales, while in "stressed" neighborhoods value must be created through new development and greening. However, as discourses and practices of greening demonstrate, approaches to creating value through greening proceed very slowly and are more about transferring responsibility to community members or, as the following example will show, removing some community members from these spaces entirely.

In Baltimore city's narrative of urban decline, practitioners and planners view trees and green space as a tool of revitalization and value creation. This can be traced to the early 1900s when the Commission on Housing Conditions proposed to "convert [Baltimore's] 'worst infected blocks' into parks" (Power, 1983). Greening was one tool used by city government for "slum clearance" and segregation as Baltimore entered a period of growth following the First World War. Preston Gardens is a notable example of this. The park was built in 1917 in place of a demolished neighborhood whose residents were predominantly Black. Baltimore's Mayor James H. Preston evoked the containment of tuberculosis which was being constructed as a condition of Baltimore's, already stigmatized, Black residents as the reason for neighborhood demolition (Pietila, 2012; Roberts, 2009). Catherine Pugh, Baltimore's current mayor, in backing a project to invest $6.75M in Preston Gardens, cited the value of Baltimore's green space: "what makes Baltimore special is our unique natural places [...] we are always looking for innovative ways to create and preserve green spaces within our city" (Wells, 2016).

In contrast to the city's presentation of green space as inherently valuable, certain neighborhoods are systemically devalued (Smith, 1979) and their inhabitants are portrayed "in pathological and stigmatizing terms" (Steacy, 2017). Past and present housing market policies have worked hard to materially turn parts of Baltimore into wastelands. But to be revitalized, Baltimore must also be discursively turned into a wasteland (this has been shown for other cities, e.g. Detroit; Safransky, 2014). This agenda is echoed by Baltimore's Green Network Plan (City of Baltimore, 2018) which states that:

> By targeting resources towards areas of blight and underinvestment, the Plan will increase opportunity, create safe and healthy spaces, and support economic development. The final Plan will be a vision for vibrant green open spaces and corridors connecting the entire city and laying the foundation for the revitalization of some of Baltimore's most challenged neighborhoods.

Just as large scale care for the urban forest and everyday care for individual trees are dissociated in practice, portions of individual neighborhoods may be sacrificed as room is made for "vibrant green open spaces."

In linking greening to strategies for revitalization, Baltimore aims to address both a lack of green space in certain neighborhoods and the dangers and negative perceptions surrounding vacant and abandoned housing. For example, the Team Leader of the USFS Baltimore Field Station is quoted in an interview saying: "Baltimore housing is way too dense with a lot of concrete. What we're trying to instill in Baltimore is more open space with healthy tree canopies and greener lots" (Peltier, 2017). Yet this is not the full story. While the Team Leader quoted above stresses the over-abundance of homes in Baltimore, access to quality affordable housing remains unattainable for many of Baltimore's residents. This sets up an inherent tension between those advocating for "more open space" and those advocating for quality affordable housing. While advocates of greening see an opportunity to remove vacant housing to create more open space, advocates for

affordable housing see an opportunity to rebuild Baltimore with living opportunities and green amenities for *all* of its residents (Sabonis and Hill, 2016; Shen, 2017).

Baltimore's Green Network Plan presents greening as a strategy to "improve the economic vitality of neighborhoods still adversely affected by the legacy of harmful policies like mortgage redlining" yet as the example of Preston Gardens shows, it is also one of the tools which contributed to these legacies. Furthermore, Baltimore's HMT, which links housing and greening, perpetuates patterns of (dis)investment that effectively maintain the status quo of redlining's histories. Safransky (2014) observes how Detroit's HMT perpetuates inequalities, neighborhood erasure, and dispossession. Safransky critiques the algorithm used to produce Detroit's HMT for exclusively employing economic indices of value to appraise neighborhoods and ignoring "informal economies and quotidian practices of care through which Detroiters maintain land in their neighborhoods." The final sections of this paper elaborate on practices of caring for people, trees, and land in Baltimore to show how caring for trees is obstructed in disinvested spaces while other caring practices flourish.

(De)valued spaces

Despite being presented as wastelands in need of revitalization by dominant narratives, Baltimore's communities targeted for revitalization are far from wastelands, due to the care of humans and non/humans who live there and struggle to make them home. After the unrest in Baltimore following the murder of Freddie Gray in police custody, NPR published an article titled "This is a dead neighborhood" (Peralta, 2015). The article title references a quote by local resident, Veronica Boodoo: "'This is a dead neighborhood,' she declared. Sometimes, she said, she doesn't even want to look out of her front window, because what she sees is decay. She sees sagging stoops and broken windows and nothing, she said, changes."

But the article ended on Veronica's hope for her neighborhood: "... [S]he has invested a lot of money and time into making her slice of Sandtown-Winchester a better place to live. Not too long ago, she even got the city to plant a tree in front of her house." This narrative evokes the hope and potential that is often associated with the act of tree planting, suggesting that life can thrive even in a "dead neighborhood." But the symbolism of trees goes beyond standing in for the abstract notion of life. In her work on western tree activism, Rival (1998; quoted in Jones and Cloke, 2002) symbolically links trees not only to life but also to "social justice and public space." Trees are constructed as symbols of the normatively good and materially beneficial (Braverman, 2008) and they are often tended, in cities, as symbolic fixes for dead neighborhoods and not as living bodies.

I see the 2015 uprising creep into the concerns of sustainability professionals throughout my interviews. Daryl specifically links the uprising to city forestry practices:

> So right now there's a lot of attention going on [...] after [...] the uprising, of projects to revamp [a major road passing through Baltimore]. From the east end all the way to the west. You know, they're trying to breathe life back into this major corridor. And there are a bunch of trees that were recently planted that are in desperate need of being on track. [...] And so that's one of our number one targets. It's like we need to get out there and do that. I think the more we target those hot spots, that will help rebuild the trust in residents, that we're gonna be able to maintain things.

Daryl describes how planting trees was an immediate response to the uprising to "breathe life back" into the city. But when these trees are noticeably not thriving, following up to care for them is an intention, a promise. In the meantime trees die and the effect of a dead tree on

a city block is felt by the people who must live with them, especially in those neighborhoods that have experienced other forms of disinvestment. Ms Avery, who lives along the corridor of recent tree planting described by Daryl, remarks on this experience when she tells me about the trees that were planted in front of her home: ''They planted them and they're dead. They're dead. You want to be making the neighborhood look better not worse.''

Ms Avery feels like she does not have much control over the trees planted in front of her home nor does she believe them to be fully her responsibility. While she would like to see the trees replaced, there is still a question in her mind about how well they will survive and whether they will be properly cared for. When I ask Ms Avery about who should be taking care of trees and other plants in the expanded curbside tree wells installed in-front of her home, she distributes the responsibility between herself and the city: ''Well if it's in front of my door, I feel as though it is mine as far as not cutting the grass and stuff, but it's the city's because they want to put it there.'' As she distributes responsibility, Ms Avery recognizes that there are limitations to what she can do on her own. ''We want this block to start blooming'' she says, ''to start looking like something. We can't do it by ourselves, you know what I'm saying?''

Daryl offers insight into how some neighborhoods cultivate the collective responsibility that Ms Avery suggests is needed for a neighborhood to bloom:

> The sad thing too comparing Bolton Hill to Penn North. To be honest, they have a different set of resources. They have the ability to get external support. Not from an NGO. Not from the forestry division. You know, they [Bolton Hill residents] have other means of trying to . . . you know . . . maintain their stuff.[5]

I hear this repeated by other foresters who tell me about city residents who hire private landscaping companies to maintain their street trees and city residents who describe how some community associations collect payments and set up funds that are allocated to the maintenance of neighborhood trees.

Tending trees to grow on city streets requires financial resources and technical knowledge of arboriculture, and is performed, in Baltimore, by city residents, trained volunteers, city maintenance crews, and contract arborists. However, tree maintenance services are often contingent on resident funds, assistance, and time. Without maintenance, trees can grow in a manner which is unsafe for both people (snapped branches can cause property damage, injury, or death) and trees (snapped branches, cavities, and wounds open trees up to attacks by boring insects and pathogens; Vogt et al., 2015). Limited funding and staffing in Baltimore's forestry department coupled with city planning tools, such as the HMT, that unevenly prioritize maintenance, and uneven resources available to residents to fill in the gaps, can lead to disparate growing conditions for trees.

Trees are affected by varying light levels (Takagi and Gyokusen, 2004), different amounts of traffic congestion (Popek et al., 2018), spatial differences in soil type (Mullaney et al., 2015), and other differences in growing conditions. Peter Wohlleben (2016) discusses some of the ways trees experience cities. He highlights the shorter life spans of city trees due to circadian disruptions caused by street lamps and hints at the potentially disruptive effects on tree sociality due to their isolation from mycelial networks connecting tree roots. Daryl gives an example of how forestry practices are adapting to the needs of trees:

> And so of course as we learn through forestry practices over time. There are tons of 4 by 4 pits that are out there and the sidewalk is buckling, so we're trying to explain that our planting techniques have changed. Now we're going with 4 by 8's. [. . .] They have shown that [4 by 8 pits] help reduce buckling.

But these adaptive practices do not always translate to perceptible differences when there are broader structural patterns affecting human and vegetative experiences of space.

Sam Musolf, is spending his first summer working in Baltimore on the city's street tree inventory. When Sam and I sit down to talk about the inventory we begin by discussing his impressions of the city. Sam tells me about where he has been working.

> So it's over by [a city park]. And it's a really nice neighborhood and those trees are big, they're mostly healthy and well-cared for. And there's a notable difference. Like, if you go into a poor neighborhood, you're going to get trees that are in rougher shape.

My impressions mirror Sam's. When I survey street trees, I find a greater prevalence of dead and dying trees in low income census tracts, many of which are designated as "stressed" by Baltimore's HMT (of all surveyed trees 0.01, 0.01, and 0.03% were dead on blocks designated as "choice," "middle market," and "stressed" in the HMT).

While causes of tree death can vary, from storms or environmental conditions to acts of vandalism or neglect, the end result is the same. In the prevailing discourse of trees as green infrastructure, as a tree dies it becomes another piece of decaying infrastructure akin to vacant buildings and broken pavement. Dwight Pursley, a resident living in east Baltimore on a block where all the trees have been removed leaving a row of tree wells containing stumps and overgrown grass, describes how for him trees have become part of both landscapes of hope and neglect.

> Mariya: How do you think [the dead trees] affect the overall feel of the community and the neighborhood?
> Dwight: I guess I could best describe it like this: When you look at a blank piece of paper, but then you look at a picture and it's full of color, and vibrant, you feel from what you can see.
> Mariya: So it's kind of dreary, and colorless?
> Dwight: Yeah. You've got the dead trees, you've got the supermarket that's closed. Right across the street you've got the [...] Multipurpose Center with the vibrant trees, with grass, it's clean, it's neat, nice little playground for the kids. But you look across the street and it's totally different.

Dwight entangles trees with the other things he sees in his community, a closed grocery store, a play ground, a community center. In the process he provides a glimpse into how trees in their various states of growth, death, and decay are linked to broader patterns of uneven development to become part of everyday life in his neighborhood.

Caring for non/human communities

In contrast to trees, one final example highlights the radical reciprocal care that can flourish in devalued spaces. On 22 April 2018, Baltimore Green Space, a local nonprofit providing support for community owned green space, organized a workshop titled *Land Love for the Long-Term*. There, four gardeners who belong to a growing group of Black community land trust members spoke about their experiences creating and tending land trust gardens. Like the urban forestry workshop which opened this paper, the discourse at this panel focused on the care and maintenance that goes into growing urban green space. Yet rather than abstract notions of care or barriers to care, the gardeners spoke explicitly about the material daily practices of showing up and tending to their gardens and how they felt tended to in return. One gardener said of her space "the ... garden is hope amid everything that is depressing, if it was not there it would just be an empty space" another gardener chimed in to say that her garden gives her a feeling of "agency over the sort of neighborhood [she] want[s] to see."

Gardeners also spoke of the agency of their gardens. One gardener described his garden as like "a living organism that will outlast you" he knew that while his care was needed for the garden, the stability provided by the garden's land trust status meant that while there were people to take care of it the garden would continue to exist and nourish its future stewards.

These gardens offer a stark contrast to the impermanence of street trees and the policies that promote neighborhood erasure while trees and people struggle to make devalued spaces home. Tree plantings are presented as simple solutions for addressing human needs, portrayed as a social justice project, and even an act of societal care by urban forestry and sustainability organizations. But planting trees means that tree needs must also be considered to some extent as well. Trees will not care for humans by attending to their needs if they are not alive. Tree needs and human needs are entangled as trees take on the role of active providers of care. When urban planning campaigns evoke social justice as a spatial project for imagining equitable urban sustainabilities these evocations must recognize that trees are not passive infrastructural tools for achieving sustainability but members of increasingly non/human communities.

Conclusion

In Baltimore, greening initiatives favor planting more trees to enhance access to urban forest services over ensuring trees are planted in an environment where they will survive with the resources they need to flourish. An organizational discourse of tree care is actively overshadowed by a commitment to tree planting to achieve ambitious canopy expansion goals—a 40% increase by 2037. While increasing the tree canopy, planting a tree is more of a symbolic act of environmental stewardship and revitalization. This has the effect of creating what Krupar (2018) calls a "sustainable spectacle" through which a perpetuation of existing power relations within a sustainability frame presents "a durable obstruction to living differently." The act of tree planting is intertwined with caring for neighborhoods through municipal services where some neighborhoods are maintained while others are demolished and planted over. These acts of making live and letting die are performed by city organizations within the goals of establishing a sustainable Baltimore. While planting trees performs the sustainable city, at times trees function more as compelling metaphors for the sustainability narrative than as a material presence.

Funding for greening campaigns prioritizes tree plantings, leading to difficulties securing funding for tree care. Yet the concern over tree care is voiced repeatedly without any clear resolution. When the floor was opened for discussion about how to value urban forests, an audience member at Baltimore's *Fantastic Forest Forum* asked: "I'm questioning what we do to trees with our polluted air and water versus what trees do for us." In sustainable forestry planning, attending to the reciprocity of people's relationships with city trees is complicated. City trees are living bodies that require care and cared for spaces to flourish but while care is pervasive in greening discourses and the concerns of greening professionals, it is often missing from funding initiatives. This displaces the responsibility of paying for and doing maintenance onto city residents and volunteers. Contradicting discourses of greening as care is a need to discursively produce some spaces in Baltimore as dead to justify their revitalization through greening. This can be linked to Baltimore's HMT which enacts a biopolitics of space where some spaces are maintained for their market value while others are cast as waste to be demolished and greened.

Goodling et al. (2015) have shown how, in Portland, "sustainability initiatives [...] reproduce racialized and spatialized social inequalities" producing what Heynen (2018) terms "uneven racial development." As Heynen (2016) reminds us, "racial capitalism has

always produced urban political ecologies"; this is particularly notable in Baltimore which has been shaped by a history of neighborhood covenants, blockbusting, mortgage redlining, slum clearance, urban renewal, and a current HMT. But the (re)production of space by capital is only part of the story. Reese (2018) observes, with regard to food access in Washington, DC: "[t]his uneven development is not simply a backdrop against which residents decide when and where to buy food. Instead, it is the context in which the materiality of Black life unfolds." Further arguing for the relevance of daily life in urban scholarship, Huron (2018: 49) writes that when capitalism is privileged "as the only mechanism at work" when understanding cities, this "risks overlooking all sorts of ways that cities, and people living in cities actually work." Huron suggests that rather than "attempting to create an abstract unifying theory of 'the urban'" scholars might look toward "how the urban actually operates at the scale of the everyday."

This paper foregrounds care in an effort to understand how uneven development is (re)produced and experienced in daily life. Care emerged as a concern about the urban forest in the discourses of greening professionals and in the daily uneven practices of maintenance of the urban forest. This dual formation of care has been articulated as "care about" and "care for" (Harbers, 2010). The disconnects between care discourses and care practices showed how, in Baltimore, discourses of "care about" the urban forest frame trees and people as intimately intertwined in creating a just city while simultaneously uneven practices of "caring for" trees perpetuate injustices. As trees are planted to correct racial inequalities, the displacement of maintenance activities to city residents relies on unequal access to finances to pay for tree care or time to perform volunteer maintenance activities. Law and Mol (2002) write that discursive modes of dealing with "the good" are often utopian, these modes are disconnected from the context and embeddedness of what must be done at a specific site in a specific moment. Discourses of caring for trees and urban green space describe an urban utopia where "greening and improved maintenance of green spaces and vacant lots can improve the economic vitality of neighborhoods still adversely affected by the legacy of harmful policies like mortgage redlining." But practicing care for these green spaces is more complicated. Practices of care reveal disconnects between who imagines and who enacts urban futures.

Scholars have shown how the unevenness of Baltimore's tree canopy is linked to legacies of past inequalities such as mortgage redlining (Grove et al., 2018). The unequal distributions of care and capital are also legacies of racial inequalities. These spatial economic processes and everyday practices have daily impacts on how people experience their neighborhoods and how well trees are able to grow on city streets. As discourses of social justice and care continue to define sustainability campaigns and trees are planted as symbolic fixes for injustice, critical scholars are in a position to ask how and for whom is social justice enacted in the sustainable city. This paper has focused on discourses and practices of care to explore how caring for people, trees, and places is connected in such a way that social justice cannot be conceived of as a strictly human project.

While the centrality of socionatures to sustaining the urban process has always been recognized in political ecology (Swyngedouw and Heynen, 2003), there is still room to consider the possibilities of how urban processes sustain socionatures through acts of reciprocal care. This has implications for "emancipatory urban politics" which Swyngedouw and Heynen (2003) characterize as "...acquiring the power to produce urban environments in line with the aspirations, needs and desires of those inhabiting these spaces." Largely, emancipatory politics and urban political ecology has been focused on primarily human needs. Yet the needs of non/humans inhabiting urban space have always been intertwined with human needs. This paper has drawn on the call of

relational political ecology to focus on daily entanglements between humans and non/humans by attending to discourses and practices of care between people, trees, and urban spaces. These daily entanglements revealed how care can be invoked as a colorblind utopian discourse while daily practices of taking care of city trees expose and (re)produce uneven power relations between people and trees as well as between differently situated groups of people.

Highlights

- Baltimore, MD is the site of an ambitious tree planting campaign that aims to double the city's tree canopy by 2037.
- Sustainability advocates claim that tree planting and other forms of greening are a strategy to improve neighborhoods that have lacked investment.
- A discourse of planting trees as a caring act underpins these claims.
- Yet responsibleness of maintaining trees are often shifted to city residents.
- The disconnect between discourses of care and practices of caring for trees perpetuates inequality rather than correcting it.

Notes

1. This workshop was part of an initiative established by the *Chesapeake Bay Urban Tree Canopy Management Strategy*, which laid out steps to bring together federal, state, city, and private partners, to plant an additional 2400 acres of trees by 2025 in the Chesapeake Bay watershed (Chesapeake Bay Program, 2014).
2. In using the word "non/human" I follow Giffney and Hird (2008). Giffney and Hird write "non/human" as a "deliberate and precise" way of "recognizing the trace of the nonhuman in every figuration of the human." In this paper I use non/human as a reminder that people and trees in cities are always entangled with one another and also with the spaces where they live, grow, and die.

3. I first encountered this description in a slideshow presentation while attending a town hall meeting hosted by the Baltimore Department of Planning in November 2016. The meeting was meant to engage city residents in a new plan for greening the city. The presentation can be accessed on-line at: https://www.baltimoresustainability.org/wp-content/uploads/2016/05/MayPublicMtg_GREEN NETWORK_Presentation.pdf.
4. All names in this paper are pseudonyms.
5. Census data for Bolton Hill and Penn North show demographic and economic differences in these neighborhoods. On the most recent census, 48% of residents living in Bolton Hill identified as white and 34% identified as Black. In Penn North the majority of the residents identified as Black (96%). The median income in Bolton Hill is $40,178 and 19% of the population lives below the poverty level. In Penn North, the median income is $30,883 and 32% of the population lives below the poverty level.

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