

Environmental Gentrification: Urban Sustainability and the Equity Deficit

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Abstract

The greening¹ conventions of contemporary urban sustainability have been shown to be an inequitable approach to achieving city resiliency. Vulnerable populations, typically consisting of low-income people and people of color, have less access to green amenities and are exposed to more environmental degradation than their white and more affluent counterparts. New green developments, which are often perceived as universally beneficial, pose the potential to gentrify² a neighborhood and displace long term residents. This report aims to examine the existing literature on environmental gentrification in order to identify the leading factors of the paradox between greening and displacement by synthesizing the history of American environmentalism, the research regarding racial, economic, and spatial disparities, as well as the incentives behind green planning. While solutions to preventing environmental gentrification are typically geographically specific, it can be generalized that equitable development strategies that incorporate affordable housing policy, environmental education and career programs, and transdisciplinary partnerships can be deployed to make greening compatible with social justice.

Keywords: gentrification, environmental justice, urban sustainability, greening, equitable development

Introduction

Cities in the United States have grown rapidly over the past century, with 80% of the country's population residing in urban areas [1]. This population density creates the opportunity for cities to be places of significant social and economic productivity by grouping large numbers of diverse and skilled individuals in one region. Conversely, the same concentration of human activity also

exacerbates social inequalities, resource scarcity, and environmental degradation [2]. Clustered populations can lead to overcrowding, housing shortages, homelessness, poverty, and high crime rates [3]. Cities are estimated to be responsible for 70% of carbon emissions and 60% of resource consumption [4]. As growing populations compound stress on the planet's limited resources and unbalanced social dynamics,

¹ Throughout this report, "greening" is used to refer to the addition and expansion of public parks, community gardens, tree canopies, and other similar amenities, as used by Checker [6].

² "Gentrify" is to undergo "gentrification," which is defined as "a process in which a poor area (as of a city) experiences an influx of middle-class or wealthy people who renovate and rebuild homes and businesses, and which often results in an increase in property values and the displacement of earlier, usually poorer residents" (Merriam-Webster, (n.d.)).

cities should be the main target of sustainable development, which is most commonly defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” [5].

Urban sustainability is a growing practice as cities recognize the necessity and advantages of establishing standards of operation that encourage ecosystem stability. Due to the pressures of climate change mitigation and aesthetic and recreational appeal, sustainable development has become increasingly preoccupied with expanding, restoring, and establishing green amenities such as parks, trees, and community gardens [6, 7]. Research [8, 9, 10] supports the environmental, economic, public health, and social benefits of having access to these spaces. The critical flaw of this approach is that green amenities are typically located in white and more affluent neighborhoods [11, 12], while vulnerable populations³ experience disproportionate levels of environmental degradation [13, 14, 15]. City-led sustainability initiatives are criticized for being deployed as “rebranding strategies” to stimulate an economic growth that fails to fortify low-income communities [16].

When implemented without taking wealth and racial disparities into account, green spaces pose the potential to gentrify a vulnerable neighborhood and displace its residents by exacerbating said financial and social inequities. Stable housing is a crucial factor to the wellbeing, both mental and physical, and success of individuals and families, especially for low-

³ For the purposes of this report, “vulnerable populations” and “vulnerable communities” includes people of color, people with low-incomes, immigrants, refugees, and individuals with limited English proficiency

income people [17]. A new green space cannot bolster a community if it threatens access to affordable housing. While there are many advantages for both society and the natural environment to more ecologically responsible urban centers, there are also social consequences that must be considered when implementing sustainable adaptations to a community.

Through equitable development, green spaces can be powerful resources that support the health of the environment while simultaneously combating social injustices. Inequality is a prevalent barrier to establishing sustainable cities that are both climate resilient and socially stable [2]. Urban sustainable development must be reapproached as existing within a socially dynamic landscape, thus establishing an inclusive interpretation of the environment. Greening strategies need to be implemented with community-centered practices involving housing policy, education and employment programs, and transdisciplinary partnerships in order to deter environmental gentrification and invigorate environmental justice.

A Brief History of Urban Environmentalism in the US

Over the past century, American environmentalism has evolved from an ideology concerned with wilderness conservation and preservation to a social movement calling for environmental justice [18]. Urban environmentalism is relatively a new movement. As the national backdrop rapidly became more urban, environmentalism gained traction during the 1960s and 70s as more people began to experience the consequences of

environmental degradation in their daily lives, often emerging as contaminated water and polluted air. These conditions lead to the creation and establishment of policies and agencies needed to ensure that cities were safe to live in. The Environmental Protection Agency (EPA), the Clean Air Act, and the Clean Water Act were all established within the two years following the first Earth Day on April 22, 1970 [19].

This city-centered phase of environmentalism was especially defined by grass-roots initiatives as citizens stepped up as dedicated community leaders and environmental activists. Their tactics involving direct action and relying on democracy proved to be particularly influential [18]. Yet, most of these efforts were organized by educated, white, middle class residents who already had the resources needed to forge such initiatives. Checker (2005) argues that as these “environmental agendas expanded, environmental movements increasingly institutionalized,” resulting in a discourse framed by the interests of privileged populations who have a shared experience of the natural environment (p.20).

Early urban environmentalism ironically failed to be inclusive to minorities, who statistically have contributed the least to but suffer the greatest from environmental degradation [14, 16]. Marginalized groups are exposed to the most environmental hazards (air pollution, water contamination, etc.), making environmental quality and quality of life two of the same conversations for low-income

communities. The momentous 1987 national report “Toxic Wastes and Race in the United States” revealed the persistence of racism in the United States in relation to environmental degradation, finding that race was the most significant factor regarding the location of a hazardous waste facility [20]. The resulting environmental justice movements of the 1980s specifically sought to eliminate the unequal distribution of toxic waste facilities in black neighborhoods, introducing inclusion into the arena of urban environmentalism and establishing an intersection between civil rights and environmental concerns.

Urban sustainability represents yet another shift in the environmental agenda. The concept of “sustainability” grew out of this aggregate of American environmental movements by incorporating the previous principles of conservation, preservation, and pollution reduction while also acknowledging the biophysical limitations of the planet [21]. In the past few decades, many large cities have introduced formal sustainable (re)development plans [6, 22]. These initiatives often rely heavily on urban greening, a process which entails the addition of parks and trees, farmers' markets, bike and pedestrian infrastructure, and community gardens to urban neighborhoods, as well as high-tech efforts to make cities more climate-friendly, mitigate urban heat island effect, and reduce CO₂ levels, such as green building or coastal adaptation” [7, p. 2]. Urban sustainable development is commonly appearing as waterfront restoration projects (as seen in Boston [16] and Washington, D.C. [23]) and multiplying public parks (as seen in New York City [6]). Modern cities around the globe, from Barcelona to Philadelphia, are eagerly

⁴ The SDGs are 17 targets outlined by the United Nations as the “a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030” [37].

joining the race towards a sustainable future [16].

Contemporary Sustainable Development and Environmental Gentrification

As summarized above, the approaches and incentives of urban environmental movements in the United States have evolved distinctively since the mid-20th century. There has been an exhibited shift in focus from eradicating human health hazards to pursuing the promising aesthetic and performance of green cities [6, 7, 24]. Despite the multiple Sustainable Development Goals⁴ (SDGs) that focus on social issues such as poverty (SDG 1), equality (SDG 10), and justice (SDG 16), critics of contemporary urban sustainability argue that sustainable development plans frequently undermine equity and fail to comprehensively benefit vulnerable populations due to an orthodoxy that is overly dependent on “nature-driven solutions” to achieve city resiliency [16, p. 26140].

Urban sustainability is often accepted as politically neutral under the assumption that sustainability initiatives don’t actively contribute to apparent social inequalities and provide benefits that are uniformly enjoyed [24]. However, while greening projects appear to be a wholly advantageous public good, they can actually contribute to “dynamics of exclusion, polarization, segregation, and invisibilization” that inflict harm on vulnerable populations [23, p. 419]. Researchers have criticized green infrastructure as being employed primarily as a marketing strategy to attract residential and commercial wealth rather than being used to minimize the environmental

footprint and social inequalities of the built environment [6, 7, 22]. This shallow emphasis of expanding, restoring, and establishing green amenities (public parks, community gardens, trees, greenways, waterfronts, etc.) has been exposed as a catalyst for gentrification [6, 24, 23].

While it may appear that providing more public environmental amenities increases the accessibility of urban sustainability, greening efforts actually have the potential to displace low-income populations through the process of “environmental gentrification,”⁵ a term coined by Checker [6]. Gentrification occurs in historically disinvested urban neighborhoods as wealthier individuals, businesses, and developments displace lower income residents, which are often people of color. A gentrifying neighborhood can be identified by a notable change in socioeconomic character, which reshapes the cultural, political, and physical disposition of the community [25]. In the context of greening, an issue arises as urban sustainable development tends to prioritize green infrastructure over the additional planning measures that are crucial to minimize the risk of displacement [16]. Green spaces are also known to increase property values, influence rent, encourage tourism, entice private investment, and attract wealthier residents [22, 7, 23], all of which are ingredients of gentrification. Environmental gentrification is most commonly derived from large-scale greening projects that are sponsored by governments or private investors and entail reinventing industrial areas into “promenades, hotels, luxury residential towers, restaurants, up-scale retail stores, and open space” [26, p. 4].

⁵ Also referred to as “ecological gentrification,” “climate gentrification,” “eco-gentrification,” and “green gentrification”

The vulnerable populations of this area may not only fail to benefit from a new green space but may also be actively harmed by its presence if the new development does not explicitly incorporate equitable development considerations to discourage displacement.

This phenomenon has been observed across the country. A case study examining the low-income areas of Brooklyn, New York found a correlation between gentrification (measured by per capita income) and the placement of community gardens [26]. These small-scale, green developments contributed to making the neighborhood more attractive to developers, thus fueling the gentrification process. In New Orleans, Louisiana, post-hurricane Katrina recovery strategies relied heavily on enhancing green infrastructure in order to facilitate stormwater management and prevent flooding. This citywide system has been criticized for exuding a superficial equity rhetoric while working to increase property values along the waterfront, creating a “green mirage” shielding the ongoing gentrification process [23]. In Seattle, Washington, green spaces physically replaced homeless shelters and affordable housing units in efforts to “enhance the ecological functioning of the city” [24, p. 630]. Other circumstances of environmental gentrification in the United States can be found alongside sustainable development projects such as the Atlanta Beltline, the 606 Trail in Chicago, the 11th Street Bridge in Washington, DC, and the Midtown Greenway in Minneapolis [27].

This is not to say that urban greening is without advantages or that it doesn’t contribute to realizing sustainability goals. There is a large

body of research indicating the variety of ecological, social, economic, and health benefits green amenities provide in urban environments. Urban green spaces act as a refuge from the industrialism of modern cities for both human and nonhuman species. Cities are increasingly turning to nature-based solutions to create climate resilience as green spaces provide ecosystem services such as the mitigation of flooding, the urban heat island effect, and stormwater management [16]. Trees improve air quality [9] while community gardens support the social capital of a neighborhood [8]. New green developments create more jobs, referred to as “green-collar” occupations, as they require regular park maintenance [22]. Experiments exploring the mental health aspects of urban green spaces have concluded that they are psychologically beneficial and have the potential to reduce anxiety and depression [10]. Public parks also provide the space for people to experience reprieve from the sedentary lifestyle norm, which is attributed to the American obesity epidemic. These amenities encourage physical activity such as walking, biking, running, and other types of exercise, and access to green spaces makes residents more likely to exercise regularly [28]. Green amenities play an important role in urban areas and contribute to the vitality of a neighborhood.

Distribution of these green spaces varies according to the ethnic and socioeconomic composition of an area as neighborhoods with high minority concentrations statistically have less access to parks and other elements of green infrastructure [29]. 70% of low-income Americans are estimated to live in these “nature deprived” communities [11, p. 7] and

the green spaces that these populations do have access to are often of lesser quality than those in more affluent areas [26]. Due to the United States' history and persisting patterns of discrimination and racism, people of color have been deliberately excluded from green amenities through the political processes of redlining and economic segregation [11]. Along with lacking access to environmental goods (green amenities), communities of color have consistently been plagued by an unequal distribution of environmental bads, such as toxic waste facilities and air pollution [14, 6]. As concluded by Rowland-Shea et al. (2020), "In the United States today, the color of one's skin or the size of one's bank account is a solid predictor of whether one has safe access to nature and all of its benefits" [11, p. 21]. This pattern continues to plague modern cities, and the contradictions between discrimination and urban environmentalism have not been sufficiently acknowledged in the standards for greening.

There is a common disconnect between environmental development plans and maintaining affordable housing within a community targeted for green revitalization. If property values rise as a result of the revitalization, the lease rates for businesses and residential properties in the area may also rise [7]. If local retailers and low-income residents can no longer afford their rent, they are likely to be forced to close their operations, incur the costs of relocating, move into more crowded conditions, or even face homelessness. Not a single state in the US has an adequate supply of affordable rental housing [30] and the wealth gap between classes continues to grow [31].

Residents in a gentrifying or gentrified neighborhood will experience a rise in living costs and a further exaggerated shortage of affordable housing, which in turn threatens childhood education, mental and physical health, and community vitality [17]. Studies show that residents are also likely to experience a sense of sociocultural displacement. Researchers interviewed long-term community members from a neighborhood in Boston after a waterfront development and found that they felt excluded from the new green spaces [16]. It's been reported that even if residents have the financial means to avoid displacement, they often feel out of place due to the new changes in their neighborhood [26]. Residential displacement is at the core of environmental gentrification, but the risks associated with displacement go much farther than losing the physical security that shelter provides. Housing stability is a form of healthcare, an embodiment of culture, and a foundation for education; all of which are necessary to the cohesion and success of a city overall.

Gentrification is a result of a political system that prioritizes a creation of capital over a creation of communities and is correlated to the history of systemic racism in the United States [32]. Environmental gentrification is no exception, and an ecological rationality that is fueled by profit incentives and the intrinsic value of nature is deployed to seemingly excuse the injustice of displacement [24]. Vulnerable communities are consistently exposed to excessive environmental hazards and also typically have the least access to green amenities. Ironically, this population is also the most at risk for residential and social

displacement with the implementation of green infrastructure. Checker (2011) describes this situation as a “pernicious paradox- must [vulnerable communities] reject environmental amenities in their neighborhood in order to resist gentrification that tends to follow from such amenities?” [6, p. 211]. Environmental gentrification is a new form of environmental injustice, and if sustainable adaptations are not implemented with equity as a main concern, they become a source for further disparity.

Equitable Development and Urban Greening

Understanding the existence of the paradox between greening and gentrification raises important questions. Can environmental amenities and equity be compatible? How can urban sustainability incorporate or even support social justice? All around the world it has been shown that human equality and the quality of the natural environment are highly connected; the places that are the most environmentally degraded also have the greatest social disparities [14]. Considering the social, economic, and environmental interconnectedness of cities, inequity is a significant obstruction to the sustainable regeneration of urban centers [2]. As articulated by Agyeman et al. (2002), “Sustainability [...] cannot be simply a ‘green’ or ‘environmental’ concern, important though ‘environmental’ aspects of sustainability are. A truly sustainable society is one where wider questions of social needs and welfare, and economic opportunity, are integrally related to environmental limits imposed by supporting ecosystems” [14, p. 78]. Imbedding equity protocols into sustainable development will encourage urban planning to

go beyond a greener façade, benefiting the city as a whole and making it a healthier and more productive center for all its citizens.

Equitable development, as defined by the EPA, is a successful place-based planning process that aims to uphold environmental justice by prioritizing “the needs of underserved communities through policies and programs that reduce disparities while fostering places that are healthy and vibrant” [33]. Equitable development represents a cooperative endeavor between sustainable development goals and environmental justice methods. This prioritizes the empowerment of a community alongside the protection of the environment. Research regarding environmental gentrification consistently indicates that community driven approaches to urban greening are key to minimizing displacement and environmental disparities. The objective of green amenities must be reevaluated in a way that improves the environmental quality of a neighborhood without drastically altering its socioeconomic character. This will require rejecting the parks/cafés/high-rises model of sustainable planning. Instead, environmental adaptation must be addressed through community engagement and implemented gradually, on a smaller scale. There are many ingredients to equitable development, much of which are determined by an area’s unique history and racial and economic distribution. Broadly speaking, the most commonly advocated-for solutions to environmental gentrification are housing policies to preserve affordability and commitment to authentic community participation, which involves education programs, career development, and

transdisciplinary partnerships. Community involvement should be regarded as a catalyst for equity and as a guide for environmental justice.

The housing stock is the most observable change in a neighborhood undergoing gentrification. The two biggest challenges faced by the national housing industry are the affordability crisis and the risks associated with a changing climate [31, p. 36]. Climate resilience has been the focus of sustainable development while the affordability aspect has been overlooked despite the interconnectedness of these two problems. Going forward, greening initiatives need to involve measures to protect long-term residents and discourage gentrification in the form of housing policy, which is perhaps the most effective anti-displacement tool. This should entail a variety of measures in order to serve diverse communities and their individual circumstances. Government intervention is necessary in this area and responsible for applying legislation for rent controls, anti-gentrification zoning ordinances, financing new affordable housing, and regulating large developments [26, 24].

Greening developments and their corresponding environmental groups (whether they are government agencies, private companies, or nonprofit organizations) need to incorporate career pathways and environmental education into their services. Environmental organizations in the US are dominated by white professionals as people of color make up less than 16% of the industry [34]. This lack of diversity, called the “green ceiling,” is another form of environmental discrimination which contributes to the fact that the most

underrepresented groups of people are the most impacted by environmental degradation. Committing to diverse hiring practices is the “first step toward breaking down the cultural barriers that alienate and endanger people of color in parks and natural areas” [11, p. 17]. In order for green spaces to truly serve the communities they are situated in, they must combat the green ceiling by offering environmental education programs that promote environmental occupations and stewardship for populations who are typically excluded from the field. If sustainable urban development is to be inclusive and equitable, it must broaden the perspectives of environmental science by welcoming and encouraging minorities into the greening practice.

Another way to secure the necessary community participation in green planning is to pursue civic engagement with a highly cooperative approach. Childers et al. (2015) calls for “transdisciplinary design,” a practice that values the expertise of specialists (architects, environmental scientists, etc.) equally as much as the contributions from students and city residents. Planners must acknowledge the importance of vernacular knowledge that is unique to the sociocultural dynamic of a neighborhood. Doing so will ensure that new green spaces are intentionally designed to meet the specific needs of the proximate community.

Environmental gentrification does not need to be an inherent characteristic of green infrastructure development. The rhetoric of urban sustainability can be reshaped to be more inclusive. Cities can prioritize housing stability alongside environmental responsibility if

equitable development measures are integrated into the expansion of green amenities. Equitable development must be the foundation of greening endeavors rather than a decorative addition and achieved through housing legislature and community-centric practices such as environmental education and career programs alongside cooperative design. The importance of housing stability and access to green space is well researched, and if implemented with equitable development strategies to prevent displacement, green infrastructure can be a powerful asset to vulnerable communities and a tool for both social and climate resiliency.

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