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Analyzing and Evaluating Green Gentrification in Pittsburgh's East End

Introduction

Green gentrification poses a threat to long-term sustainability and equality in urban communities. City officials, philanthropic groups, and external developers are often well-intentioned when they develop spaces that include environmental amenities. Environmental or green amenities provide ecological and health benefits to community members. However, they also prompt a market-based response that often results in poor and minority residents not being able to access these features because they cannot afford to live near them. Over the last fifteen years, communities in Pittsburgh's East End, including Bloomfield, East Liberty, Garfield, Homewood, and Larimer have either started, or continue, to struggle with neighborhood change that negatively impacts community members of lower socioeconomic status. Green gentrification, while difficult to formally diagnose, has reinforced these inequalities. This paper provides a background on green gentrification as a subsidiary of neighborhood change and details the threat green gentrification currently poses to neighborhoods in Pittsburgh. This paper will then describe proposed solutions from both an economic efficiency perspective and a social justice perspective that aim to preserve communities and their access to green amenities.

Discussion of Green Gentrification

Gentrification describes the process where an influx of new residents and capital investment into an urban area prompts neighborhood change. Typically, gentrifying neighborhoods are inhabited primarily by low-income or minority residents. Affluent urbanites

who are fueling an economic and cultural "back to the city" movement tend to target gentrifying neighborhoods because they are seen as desirable. The primary result of gentrification is the turnover of businesses, increased rents, and the exit of low-income residents who can no longer afford the cost of living in the neighborhood. The displacement of long-term residents is seen as gentrification's most problematic consequence, as it fundamentally alters the identity of the area.

Recently, scholars have focused on green gentrification by defining and analyzing it within social science research as an independent phenomenon. Green gentrification is a subset of traditional gentrification, and reflects the idea that there is a correlation between the gentrification process and the existence, cultivation, and refurbishment of environmental amenities deemed valuable by residents. Environmental amenities include green features such as parks, trees, and other forms of biophilia in urban spaces. Environmental amenities may also refer to high-quality air and water resources and advanced infrastructure that promotes sustainable development.

Green gentrification and traditional gentrification share many similarities. While there is a consensus that gentrification can lead to displacement, it can also lead to positive consequences such as reduced crime, enhanced aesthetics and heightened economic activity. Gentrification is also a fluid process that manifests differently in different geographical areas, making it difficult to address. Green gentrification shares these characteristics, and in some ways is even more complicated than traditional gentrification. Green amenities such as urban parks and sustainable infrastructure are generally seen as beneficial to urban communities, especially among planners who attempt to make their cities resilient in the twenty-first century.

However, research suggests that large-scale environmental amenities accelerate gentrification. Linear parks, which have become a popular trend in American urban planning, are

one example of how projects that require significant funding have consequences for the surrounding community. The New York City Economic Development Council, for example, found that the value of property within a five-minute walk of the High Line, an elevated park that stretches for 1.45 miles through the west side of Manhattan, increased 103 percent from 2003 to 2011 (NYCEDC 2011). Another example is the Beltline project in Atlanta. The Beltline, built along abandoned railroad tracks, is considered by urbanists and sustainability advocates to be very innovative. Academics at Georgia State and Georgia Tech write that the Beltline "represents a growing trend of large-scale, adaptive reuse projects aimed at utilizing derelict urban infrastructure as a tool to revitalize public and surrounding private spaces in a fundamentally transformative way" (Immergluck and Balan 2018, 548). However, the Beltline also renders the 45 neighborhoods it intersects vulnerable to gentrification: property values rose between 17.9 and 26.6 percent more for homes near the Beltline than other areas of Atlanta (546).

Green gentrification also poses new challenges for environmental justice. Juliana Maantay and Andrew Maroko argue that because green gentrification forces the displacement of low-income residents from areas of the city that are environmentally healthy, residents "must often relocate to worse neighborhoods—worse in terms of having more hazardous environmental conditions as well as overcrowded and less salubrious housing choices" (Maantay and Maroko 2018, 4). This is reinforced by the idea that "municipal representatives and sustainability advocates who uncritically accept calls for more urban green space may, possibly against their own intentions, create new socio-spatial inequalities" (Anguelovski et al. 2018, 462).

The widespread results of green gentrification affect different types of residents. In Pittsburgh's East End, green gentrification impacts taxpaying city residents, including those who live in neighborhoods affected by green gentrification and those who live in adjacent

neighborhoods. In addition, there are socioeconomic subsets of city residents, including citizens grouped by race, income level, and residence status. Green gentrification affects these subgroups in different ways. For example, renters are more susceptible to displacement than homeowners because they do not own full property rights to their housing, and do not have control over their housing costs. Lower-income and minority residents are more likely to live in environmental justice communities. Many of the communities in Pittsburgh's East End fall within these subsets. According to American Community Survey 5-Year Estimates, for example, over 90 percent of Homewood's residents are African American, and in East Liberty over 40 percent of households spend at least 30 percent of their annual income on housing (Social Explorer 2016).

Other parties in green gentrification include those who hold decision-making power. This group largely consists of local officials who work in city and municipal government, and sometimes state and federal officials. Typically, a combination of leaders from different parts of government collectively impact city planning and public works. However, local business owners, community development corporations, and neighborhood interest groups are all intimately involved in conversations about green gentrification. In Pittsburgh, this includes groups such as the Urban Redevelopment Authority and the Bloomfield-Garfield Corporation.

Another major party is developers and owners of external capital. Developers often accelerate the gentrification process. While this group is traditionally composed of large property owners and real estate development groups, in the context of green gentrification it may also include local, state, and nationally-recognized foundations and philanthropic groups. Philanthropic funding of environmental amenities often has the unintended consequence of green gentrification.

Green Gentrification in Pittsburgh's East End

For the purpose of this paper Pittsburgh's East End will be defined as the neighborhoods of Bloomfield, Garfield, East Liberty, Larimer, and Homewood. Currently, there are close to twenty community parks, neighborhood parks, and regional parks either in or immediately adjacent to these neighborhoods. They include Mellon Park, a community park that borders Larimer to the south, and Highland Park, a regional park that borders Larimer to the north. Highland Park is the third largest park in the city. Other neighborhood parks include Fort Pitt Playground in Garfield, Friendship Park in Bloomfield, Homewood Playground in Homewood and Garland Parklet in East Liberty. While the combined area of these green spaces totals over 450 acres, Highland Park is approximately 378 acres and Mellon Park is approximately 32 acres, with the rest of the parks ranging from less than a single acre to close to eleven acres (WPRDC 2018). Residents in the East End who do not live near Highland Park or Mellon Park may not have significant access to green amenities.

Local leaders have recently sought external funding to cultivate additional green spaces in the East End. The most prominent example of this is Liberty Green Park, a 3.25-acre park on the border of East Liberty and Larimer. Liberty Green Park, scheduled to begin construction this fall, is funded by a $650,000 grant from the Richard King Mellon Foundation, a $30 million grant approved in 2014 by the Department of Housing and Urban Development, a $1 million state Redevelopment Assistance Capital Program grant, and potential matching funds from the Urban Redevelopment Authority (Pittsburgh Press Release 2018).

Liberty Green Park is touted as a destination project because of the amount of funding it has received. The City of Pittsburgh says that the park will feature a

> "community plaza, open picnic and lawn areas, and dynamic playground elements … [and] significant green infrastructure with the capacity to manage up to 4 million gallons

> of stormwater annually. The green infrastructure will culminate in a community driven art exhibit … and is a visible and functional celebration of a decade of Larimer citizens working together for a sustainable future" (Pittsburgh Press Release 2018).

The redevelopment of Willie Stargell Field in Homewood South is another example of external funding of green amenities in the East End. This project, announced in September 2018, will update and expand the existing green space, transforming it into an all-purpose athletic complex. Fourteen million dollars are being invested in the project. Funding sources include the city and state, local foundations, the Cal Ripken Sr. Foundation based in Baltimore and an Indianapolis-based insurance firm (Bauder 2018). Only 10% of the 14 million dollars in investment is provided by the city of Pittsburgh during the next fiscal year (Pittsburgh Capital Budget 2018).

Liberty Green Park and Willie Stargell Field represent large-scale investment in environmental amenities that promote green gentrification. Both of these projects are being pursued in areas susceptible to gentrification. In Homewood, the median household income of the census groups in Homewood North, Homewood South and Homewood West range from $16,200 to $32,650. In East Liberty, the median household income is $29,044, and there is a significant racial disparity in the neighborhood. The median household income for white households is $40,077 (about 33 percent of the neighborhood population), while the median household income for African American households is $23,982 (about 58 percent of the neighborhood population) (Social Explorer 2016).

Affluent residents who are interested in living near a manmade natural feature such as Liberty Green Park and Willie Stargell Field are more likely to rent or purchase a home nearby, as opposed to areas that lack green amenities. The movement of new residents begins the economics of gentrification, where more wealth is concentrated in the area, resulting in higher

property taxes and new businesses that heighten the cost of living. This eventually culminates in the displacement of existing residents. What makes green gentrification such a difficult problem to solve is that both of these projects were designed with significant consideration for current residents. Local leaders saw a need for more green space in East Liberty, or better athletic facilities for Homewood's youth, and are making legitimate efforts to improve the sustainability of the existing community.

It remains to be seen whether a correlation appears between these projects and gentrification. However, past cases of neighborhood change in the East End indicate they may. In Bloomfield, average gross rent from 2010 to 2016 has increased from $705 to $905, an increase of 28 percent. The trend is similar across other neighborhoods in the East End: from 2010 to 2016, average gross rent has increased from $519 to $627 in Larimer (21 percent), $635 to $722 in Garfield (14 percent), and $649 to $750 in East Liberty (16 percent). Average gross rent has actually decreased in Homewood by 5 percent, from $544 to $519 (Social Explorer 2010, 2016). This is likely due to a relative lack of sizable investment in Homewood compared to the rest of the East End. Multiple large-scale projects in these neighborhoods since 2010 have contributed to increased rents in the area. Walnut on Highland (East Liberty) and Bloomfield Lofts (Bloomfield) are examples of recent luxury housing developments that have been built in an attempt to attract wealthy residents to "the best in urban living." Luxury housing developments appeal to new residents in a similar manner as environmental amenities. These projects reflect the reality that large developments involving sustainable infrastructure or green spaces are likely to cause the same problems associated with more traditional forms of gentrification.

The City of Pittsburgh has made recent attempts to alleviate the consequences of traditional gentrification. In August 2018, Mayor Bill Peduto announced a series of efforts to prevent further gentrification, specifically in East Liberty. Some of the proposed ideas include affordable housing projects, rent subsidies for minority-owned businesses and the establishment of a citizen development review board to oversee new development projects (Sheehan 2018). While these are all rational interventions, they only address traditional forms of gentrification. Green gentrification is a more complex process that originates from developments that already attempt to help the community. In cases of green gentrification, market-based solutions typically fail to consider the needs of local residents. In addition, solutions produced by local leaders on the neighborhood level may not be the most efficient outcome. Thus, a more thorough examination of solutions is needed to adequately address green gentrification.

Proposed Solutions

Some of the potential solutions to green gentrification do mirror solutions to traditional gentrification. This is mostly because green gentrification is a field that is continuing to emerge. In addition, green gentrification and traditional gentrification both exist as consequences of rational urban economic processes. It is especially hard to address green gentrification because while many people advocate for the "reversal" of traditional gentrification, environmental amenities that spur green gentrification are often prudent to the health of the gentrifying community. Despite these inherent challenges, there are multiple ways to design solutions to green gentrification using the lenses of economics and social justice.

Community land trusts are the most viable solution to traditional gentrification that effectively translates to green gentrification. Community land trusts are generally non-profit organizations led by members of the community who own and control real estate assets. This

gives individual residents more control over their own neighborhood. There are currently two community land trusts in Pittsburgh, in Oakland and Lawrenceville. According to a study from Texas A&M University, Pittsburgh's community land trusts decrease the likelihood of gentrification (Deto 2018).

Community land trusts can be extremely effective as a mechanism for addressing green gentrification. Community land trust expansions, with a particular emphasis on controlling properties near environmental amenities, may control the cost of living in the area. If local and federal government, foundations and philanthropists offer financial support for community land trusts, resource-strapped communities will be empowered with monetary tools to mitigate the increase in property values in areas sensitive to green gentrification.

Original solutions to green gentrification come from two different points of view: an economic efficiency perspective and a social justice perspective. An economics-oriented approach to addressing green gentrification defines environmental amenities as a good with fluctuating levels of supply and demand. The supply of green amenities is provided by neighborhood communities and local government, and demand is based upon consumer preferences (in this instance East End residents). Currently, city residents have a high demand for environmental amenities, which results in a high cost for the good. In this case, a high cost is reflected by expensive rents and increasing property values. Demand for environmental amenities is not very reflexive; environmental amenities are important to the health and sustainability of a community. City policymakers and neighborhood leaders must explore ways to expand the supply of environmental amenities in a way that will lower the cost of accessing them.

Tim Beatley argues on behalf of biophilic spaces, which refers to a city "with abundant nature and natural systems that are visible and accessible to urbanites" (Beatley 2011: 17). According to Beatley, there are multiple ways to add biophilia to urban spaces, and not every project has to be extremely ambitious or capital-intensive. In neighborhoods that are not interested in large external investments that may lead to gentrification, communities can make smaller adjustments to create more green spaces. For example, in neighborhoods such as Homewood where there is a high concentration of vacant lots, communities can take ownership of vacant land and transform it into something that offers private benefits for the community. Vacant lots can be transformed into community gardens, gateways, play spaces, and gathering spaces. Projects that revitalize vacant property, plant trees on sidewalks, and conduct other minor improvements offer tangible benefits but are often small enough in scale so they do not translate into a fundamental shift in property values. Small-scale initiatives align with the idea of "just green enough," which finds a balance between ecological health and potential green gentrification.

Local government also plays an important role in expanding the quantity of green amenities in urban communities. Government officials can subsidize green infrastructure projects that offer environmental benefits to the entire city, which would reduce the cost for individual neighborhoods. For example, North American cities such as Toronto and Chicago have passed legislation that promotes the building of green rooftops (GSA 2017). Green vegetative roofs pose a number of ecological benefits, including cultivating biodiversity, reducing storm water runoff and reducing the urban heat island effect. These initiatives would stimulate the economy for sustainable resources and incentivize economic development in Pittsburgh that makes environmental amenities more accessible.

The second way of designing solutions to green gentrification is the social justice-oriented approach. According to the National Pro Bono Resource Centre, "the concept of social justice involves finding the optimum balance between our joint responsibilities as a society and our responsibilities as individuals to contribute to a just society" (Ho 2011, 2). In the context of green gentrification, a just society dictates that instead of defining environmental amenities as a market-based good, individuals must have an inherent right to the environment. Members of society have the responsibility of ensuring that right for all parties. Therefore, in order to build truly equitable communities, municipal leaders must conduct interventions that ensure each citizen has equal access to a healthy built environment.

City leaders can take multiple steps that protect the right to the environment. For example, local government can mandate adequate air and water quality levels in the city. For communities in Pittsburgh that are located near former steel plants or Superfund sites, public remediation may be necessary. In the private sector, placing a production tax on companies that heavily pollute will reduce air pollution in the city. While the impact of these macro-level adjustments may not be measureable in individual neighborhoods, they help set an important precedent that environmental standards affect residents across the entire city.

Another important way to enhance environmental amenities in a community without subjecting it to green gentrification is to protect environmental justice communities. In Pittsburgh, the majority of the East End is composed of environmental justice communities, which is defined by the state of Pennsylvania as "any census tract where 20 percent or more individuals live in poverty, and/or 30 percent or more of the population is minority" (PA DEP 2018). Although these are relatively general parameters, they serve as a good starting point for parties to identify which groups of people need financial and legislative support in order to

ensure environmental equity. This is especially consequential because scholars point out that "lower income or minority groups cannot always organize against the siting of polluting facilities or industries" (Anguelovski 2016, 25).

Initiatives that secure citizens' right to the environment in environmental justice communities are largely dependent on the security of property. It is more likely that lower-income residents are renters who do not have full property rights to their housing. This makes them vulnerable to forced displacement from both the public sector and the private sector. The prohibition of eminent domain practices and other forms of government takings in areas near currently existing environmental amenities will solidify residents' access to those resources. Legislation that promotes community organizing and strengthening property rights specifically for environmental justice communities will empower marginalized residents. These types of social justice-oriented approaches reinforce the notion that curbing green gentrification is a mechanism of combating urban inequality and ensuring that low-income and minority groups have access to the same ecological and health benefits of environmental amenities as more privileged residents.

Conclusion

Participants in gentrification discourse must continue to address green gentrification. Although they share sources, relevant parties, and consequences, the two concepts should be addressed in different ways. This is largely due to green gentrification stemming from interventions that are meant to improve the communities where green gentrification occurs. In Pittsburgh's East End, large-scale investment projects place neighborhoods such as East Liberty and Homewood at risk of green gentrification in the same way that neighborhood change has raised the price of rent in East Liberty, Bloomfield, Larimer and Garfield. Green gentrification

results in the displacement of residents and the perpetuation of health and ecological inequalities, especially in environmental justice communities. Understanding green gentrification as an economics issue as well as a social justice issue is the most logical solution. This will holistically address the problem in a way that promotes both equity and efficiency.

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