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Amelia Morrison

James Madison University

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Equitable Sustainable Development in Small American Cities: The Northend Greenway and the
Path Forward

An Honors College Project Presented to
the Faculty of the Undergraduate
College of College of Integrated Science and Engineering
James Madison University

by Amelia Raine Morrison

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FACULTY COMMITTEE:

HONORS COLLEGE APPROVAL:

Project Advisor: Henry A. Way, Ph.D
Associate Professor, Geographic Science

Bradley R. Newcomer, Ph.D.,
Dean, Honors College

Reader: Mace L. Bentley, Ph.D
Professor, Geographic Science

Reader: Rob W. Alexander, Ph.D
Associate Professor, Political Science

PUBLIC PRESENTATION

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Abstract

As global climate change prompts a demand for “green” urban development, the representation of sustainability as a panacea to all environmental, economic, and social issues has been increasingly challenged by social justice advocates. In particular, critics of the social component of this supposedly balanced sustainability model have characterized holistic sustainability rhetoric as an appropriation of equity discourse to serve the interests of a narrow set of affluent consumers. The ongoing question of who benefits from sustainable development has revealed highly problematic patterns of displacement and gentrification that fall disproportionately on low-income neighborhoods and communities of color. This tension is examined within the context of Harrisonburg, Virginia’s Northend Greenway, a 2.5 mile shared use path and stream rehabilitation project that connects a cluster of underserved neighborhoods to key areas of business, education, and recreation in the city. The Northend Greenway provides an interesting case study for many reasons: while careful thought to social justice and ecological restoration were given to the design of the project, its practical application has eliminated key equity components to produce a project that looks remarkably similar to other gentrifying green development initiatives across the United States. Furthermore, Harrisonburg offers the unique context of a small city, compared with the bulk of literature examining the United States’ largest cities. Perspectives from policy makers, grassroots organizers, and residents are explored to analyze the risk of gentrification in a key neighborhood. Ultimately, it becomes clear that stronger commitments to affordable housing must be made from the beginning of projects like the Northend Greenway to ensure that well-intentioned sustainability initiatives do not displace vulnerable residents. Furthermore, a community participation structure that employs grassroots organizations as liaisons between city policy makers and residents of key neighborhoods should be developed to enhance the quality of community participation and information exchange in under-represented neighborhoods.

Introduction

This project seeks to understand the structures of power and processes in cities that make displacement of the vulnerable a symptom of sustainable development. This knowledge is then applied to the small city scale to reveal practical solutions to the exclusivity of green amenity projects that compensate for inequality from within the limited financial and human capacities of municipal governments. The primary recommendations offered by this study involve stronger provision of affordable housing and collaboration with community-based nexuses of power. These solutions are presented in a way that seeks to maximize municipal resources by identifying more efficient zoning and community participation models. Attention is devoted to the utility of geographic principles in addressing the inequities of sustainable development within complex urban environments. The geographic lens can help key actors in the city detect and organize various hubs of activity, identity, and vulnerability in the urban landscape. As a result, they can better understand the individual needs, advantages, and perceptions of a diverse set of micro-communities. This understanding is essential when city planners propose to alter the urban landscape. In the midst of global climate change, the geographic lens is a major factor in

understanding why the urban landscape must transition to a more sustainable and resilient form. But to execute this transition without displacing untold numbers of people who lack the resources and freedom to adapt to this massive shift, explicit policy tools must be utilized to mitigate the impact of change. This project will study the multi-scalar nature of urban decision making; resource allocation and development; power relations between various socioeconomic groups in terms of voice, types of capital, and sites of planning; and the significance of place, including the process through which it is shaped.

Gentrification reflects a timeless process in urban market landscapes wherein real estate developers exploit cheap property values in low income neighborhoods to populate disinvested neighborhoods with high-end housing and businesses, aimed at attracting affluent and educated residents (Goodling, Green & McClintock, 2015). In the era since the 1970's, developers have tied this process to the discourse of sustainability in order to attract environmentally-minded residents moving into the urban core (Goodling, Green & McClintock, 2015). The inevitable result of the in-flow of new, upwardly mobile residents to low-income, largely segregated neighborhoods is the displacement of the latter demographic (Howell, 2016). While the environmental justice movement has called serious attention to racial and socioeconomic disparities in environmental quality and resources, social justice advocates remain critical of the movement's commitment to equity. In practice, low-income communities and people of color remain disproportionately harmed by environmental initiatives and changes to the urban landscape (Checker, 2011; Howell, 2016; Goodling, Green & McClintock, 2015). Therefore, environmental gentrification describes the appropriation of intersectionality dialogue through the use of sustainability branding to achieve profit-minded development aimed at environmentally conscious consumers (Checker, 2011).

The case of the Northend Greenway Shared Use Trail is unique in part because its design successfully reflects a commitment to social justice issues and equitable sustainability. The project was first initiated by a group of grassroots organizers through the nonprofit Vine and Fig Sustainable Living Center, a faith-based nonprofit organization that works on the community level to build healthy interpersonal and inter-ecological relationships. Over the course of six years, a team of environmental activists, engineers, and community organizers developed a plan for a 2.5 mile shared use path that connects the city's two notable universities and the downtown area via a route that follows one of Virginia's top ten most-polluted streams. Furthermore, the route flows directly through a characteristically disinvested neighborhood, which for the purposes of this study we will call the North Central Neighborhood. The goal of the project was to create an ecological restoration project that simultaneously connected the under-represented North Central Neighborhood to key social and economic hubs in the city. Therefore the plan would serve multiple environmental and social needs: rehabilitating the severely impaired stream, Blacks' Run; expanding the city's network of shared use recreational paths, connecting the North Central Neighborhood with key areas of activity, and providing residents all over the city with a more connective and accessible network of alternative transportation pathways.

City planners are increasingly demonstrating greater commitment to social inclusion and environmentally sustainable development as public opinion, dramatic income disparity, climate

change pressures, and a multitude of other factors push municipalities in this direction. The Comprehensive Plan of Harrisonburg expresses the intent to realize a more equitable and sustainable city through goals such as improving access to quality educational opportunities and affordable housing for all, improving the quality of air and water, and building climate resiliency and social responsibility to protect the environment for future generations (City of Harrisonburg, 2017). This language reflects a clear response to principles of social and environmental justice rising up from public concern about climate change and social inequality. Yet, what measures do local, state, and federal governments take to ensure that these well-intentioned goals are not undermined by the pervasive influence of opportunistic market forces? Even in the most shining examples of sustainable, liveable cities, deep inequities structured along racial and socioeconomic lines persist (Goodling, Green, & McClintock, 2015). Not only are these deeply racial, class-dependent inequities present in the cities that most strongly represent holistic ideals of sustainability, but they are largely invisible to much of the population (Goodling, Green & McClintock, 2015). Examples from Portland, Oregon and other widely acclaimed models of sustainable urbanism will be examined later in the text. Therefore, it seems that a dissonance persists between the ideals of city government plans striving to improve urban quality of life, and the practical reality of profit-driven market forces acting within complex urban power networks. The question remains, then, how can urban planning structures evolve to reflect a deep understanding of the processes that produce social inequities while upholding commitments to transforming the urban landscape to a more sustainable form?

Challenges and Opportunities

The equity issues symptomatic of green development in cities raise a host of interesting challenges and opportunities for greater inclusion of disadvantaged social groups in the development process, as well as the advancement of sustainability agendas to a form more tailored to the size and culture of individual cities. Sustainable development is often theorized as a one-size-fits-all process (Way, 2016). The literature on sustainable development has yet to comprehensively acknowledge the unique situations of cities located in different parts of the country, within different demographics and politics, and within unique spatial and functional borders. Large cities, for example, have radically different assets to offer in their approach to sustainable development in comparison with smaller and mid-size cities. Similarly, a small city of 53,000 like Harrisonburg, located in the rural Shenandoah Valley, will face strikingly different opportunities than a city of similar size in suburban Northern Virginia, nestled in the shadow of metropolitan Washington, D.C. (Way, 2016).

As the literature will present, some of the key challenges facing larger cities (such as Portland, Oregon's 640,000 or Washington, D.C.'s 690,000) involve balancing the rapid in-flow of upwardly-mobile professional residents and the out-migration of lower-income residents from the urban core (Howell, 2016; Checker, 2011). Problematically, people of color are disproportionately represented in the lower-income out-migrants, while those flocking in to the urban core are much more likely to represent a white majority (Howell, 2016; Checker, 2011). Demographic changes in the urban core are partially a reflection of increasing cost of living in central urban areas as urban renewal efforts in city centers across the country are introducing

more professional opportunities and dramatically improved neighborhood quality to these areas (Howell, 2016). As a consequence, residents being ousted by increasing cost of living in the urban center are relocating to fringe areas where disproportionate environmental burdens, transportation costs, and unemployment rates are housed (Checker, 2011). Alternatively, residents are relocated to neighborhoods of concentrated poverty within the city, where quality of life, safety, and access to the improving amenities attracting more affluent residents remain inaccessible (Goodling, Green & McClintock, 2015). City planners and municipal governments are faced with the difficult task of maintaining the attractiveness of the urban center for incoming residents while supporting displaced residents who must rely on public assistance. At the same time, planners and other municipal actors face pressure to implement sustainability agendas, which require new forms of municipal investment and simultaneously continue to make increasingly desirable areas of the city inaccessible to marginalized residents (Checker, 2011).

Thus, sustainable development provides a new stage for process of social inequity that cities have grappled with for decades. This new fashion of development ideology reflects a larger shift in the attitudes of many people toward urban living, which has spurred a massive return of affluent residents to the urban core. This comes after a generation of “white flight,” or the flocking of former urban residents to the suburbs with the introduction of the automobile (Duany, Speck & Lydon, 2010). Today, urban centers are taking on a “renewed” quality of “liveability,” that incorporates compact, mixed-use neighborhoods and restaurants serving locally-sourced produce, all of which have attracted a certain class of environmentally-conscious, professional and upwardly-mobile residents (Goodling, Green & McClintock, 2015).

The class and racial disparities invoked by these new development trends has necessitated stronger efforts to provide affordable housing and employment opportunities for disadvantaged residents, with varied success. Case studies examined later in the text reveal that stated municipal efforts to increase affordable housing provision often fall short of their goals (Immergluck & Balan, 2017; Palm & Niemeier, 2017). The inadequate enforcement of affordable housing regulations seems to be a more significant constraint on municipalities ability to provide fair housing than their financial means to do so (Howell, 2016; Palm & Niemeier, 2017). Therefore, reform of the enforcement bodies and the zoning regulations that oversee affordable housing development as well as private-market development is both a challenge and an opportunity for municipal governments to mitigate displacement from green development. This paper goes on to recommend more efficient strategies for land use, zoning, and enforcement in the development of housing stocks.

While there are many functional and ideological barriers to overcome in the endeavor to justify green development processes, the opportunities presented by this effort are also abundant. Reform of the built environment using new development ideologies such as green development presents the opportunity to use more efficient and sustainable building and planning strategies (Duany, Speck, & Lydon, 2010). The era of planning that celebrated and idolized the automobile inflicted on the built environment a lasting legacy of sprawl and inefficient use of space (Duany, Speck & Lydon, 2010). New approaches to planning influenced by sustainable and ecological development theories propose innovative ways of maximizing space, integrated ecological

services into the built environment, and creating a higher quality environment in which to live (Duany, Speck & Lydon, 2010). Biophyllic urbanism, complete streets, liveable neighborhoods, and smart growth are only a few ideologies that identify efficient ways to maximize urban resources, channel waste, mitigate climate risks, and improve the aesthetic quality of urban neighborhoods (Way, 2016; Duany, Speck, & Lydon, 2010). Furthermore, discourses of privilege, voice, and community self-determination have infiltrated the public mind from traditionally confined academic circles (Howell, 2016; Checker, 2011). New conceptions of grassroots community organizations adopting a role as “translators” between policy makers and residents of communities in need has begun to strengthen the representation and access to resources of residential coalitions seeking to navigate complex municipal policy channels (Howell, 2016).

At the small city scale lies a unique set of challenges and opportunities. While small cities are often excluded from discussions of sustainability agendas, it is important to recognize their potential as distinct sites of community-based planning and grassroots sustainability efforts. Small to mid-size cities represent 87 million people in the United States—30% of the nation’s population (Way, 2016). Furthermore, the discourse on sustainability emphasizes the importance of compact urban design and neighborhood-scale planning (Duany, Speck & Lydon, 2010). Small cities lend themselves more easily to these scaled-down design principles than the much larger cities represented in the literature to follow (Way, 2016). With regard to the popular concept of “liveability” in sustainability and planning discourse, small cities may have an advantage in the sense that they offer the social and cultural cosmopolitanism of urban culture, but without the large-scale economies and magnified environmental impact of large cities (Way, 2016). Additionally, small cities offer a political environment more amenable to political engagement on the part of residents and advocacy organizations (Way, 2016). In Harrisonburg’s case, makes active efforts to engage with knowledgeable communities and make itself accessible to residents (Way, 2016). Moreover, the bureaucratic model of Harrisonburg’s municipal government is highly collaborative: managers and city planners across departments work very closely with each other, creating a personalized and tightly-networked system that is uncommonly seen in large cities.

Another advantage enjoyed by a city like Harrisonburg is its continued relationship with its agricultural roots. Agriculture remains a cornerstone of the local economy and landscape of Harrisonburg, and this proximal relationship with farming has supported a deep investment on the part of the city and residents in local agriculture initiatives (Way, 2016). A key principle of sustainable development and green lifestyle urbanism, local agriculture is a powerful tool for saving energy, reducing emissions, supporting healthy lifestyles, and divesting from harmful agrochemical industries that contribute substantially to environmental degradation (Draper & Freedman, 2010). Harrisonburg’s thriving bi-weekly farmer’s market and community of ecological and organic farmers (including Vine and Fig) serve as testament to the city’s commitment to this important principle of sustainable urbanism. Furthermore, the small size of cities with strong agricultural communities presents opportunities to develop landscape ecology and green infrastructure that connect central areas in the city to the outside environment, which

offers extremely cost-effective benefits for stormwater management and local water quality (Way, 2016).

Still, small cities face challenges in implementing effective sustainability agendas. First, the politics of a smaller city may represent a transitory point somewhere between deep rural conservatism and cosmopolitan urban progressivism (Way, 2016). This raises the question of how amenable the community will be to investing in sustainable development projects. Indeed, in an interview, one city staffer from the Harrisonburg municipal government described the difficulty of passing green amenity proposals amid a concurrent effort to build a new high school and expand free & reduced lunch programs (personal communication, city government staff, October, 2017). Another challenge is the difficulty of restricting spatial expansion amid the presence of a strong development community and more conservative polity (Way, 2016). Furthermore, small cities face the challenge of rescaling sustainability agendas formed with large cities in mind to the context of their smaller urban realms, smaller budgets, and smaller staff of personnel. Small cities also have a smaller range of economic activities on which they rely to produce much-needed revenue. If sustainability commitments threaten these economies, a small city will struggle to reconcile these competing interests. In Harrisonburg's case, the agriculture industry presents such a problem. The poultry processing industry of Harrisonburg is among the most important in the country. However, the pollution from these factories and their far-flung supply networks come into conflict with sustainable development goals. Similarly, James Madison University is a rapidly growing enterprise in the city, whose development goals often outpace and encroach on Harrisonburg's municipal development goals. A city like Harrisonburg must find the balance between these vital economic sectors and the longer-term challenge of ensuring the city is sustainable.

Literature

To begin, it is helpful to explain a planning theory that is increasingly gaining currency among a wide audience of actors that encourages compact, mixed-use development that offers a variety of housing and transportation options, builds within existing neighborhoods, and maximizes community engagement (Smart Growth America, 2018). The philosophy emerged out of a growing recognition among planners, economists, environmentalists, and public health advocates that six decades of sprawl-oriented development had degraded the functionality and quality of American life (Duany, Speck & Lydon, 2010). Many now recognize the shift toward sprawl-oriented development in the period following World War II as the explanatory factor in the global warming crisis, American dependence on foreign oil, the decline in air and water quality observed in our communities, the obesity epidemic, and the concerning number of car-related deaths per year (Duany, Speck, & Lydon, 2010). As authors of *The Smart Growth Manual* write, "single-use zoning, massive road construction, and urban disinvestment have turned a nation of ecologically sustainable neighborhoods into a collection of far-flung monocultures, connected only by the prosthetic device of the automobile" (Duany, Speck & Lydon, 2010). Therefore, advocates of Smart Growth development emphasize the need for multi-functional, compact, and resilient growth strategies that reduce the need to connect to places through automobiles.

The *Smart Growth Manual* identifies several guiding principles that help achieve the goals of efficient and human-centered development. First, the *Manual* promotes mixed-use zoning, or the integration of various forms of residential and commercial buildings. Second, the guidelines emphasize the importance of maximizing existing development. It is important to conserve resources by making use of what is already built. Another important principle is the “walkability” of neighborhoods. Residents should be able to reach basic services and amenities like grocery stores, schools, and parks by foot, because this access enhances the overall quality of the neighborhood and ensures that residents who lack the means to drive can meet their needs. Along this same logic, it is essential to provide a range of transportation options. Cars use space inefficiently, cause congestion, remove people from the social setting of the street, and emit air pollutants. Therefore, cities should invest in alternative forms of public transportation and bike trails, to maximize the efficiency of infrastructure and freedom for individuals to choose healthier transportation options. Smart Growth outlines a variety of other principles that conserve resources and enhance neighborhood quality, such as preserving historic buildings, offering a diverse range of housing options, and preserving existing parks, farmland, and undeveloped parcels. Advocates promote strategies like infill development, which recommends the siting of new construction projects on vacant or under-used parcels, to reduce the common phenomena of expanding the city despite the existence of centrally-located vacancies. Overall, Smart Growth has helped shape some of the nation’s strongest forays into green development. As the literature will go on to demonstrate, Smart Growth principles are in action in some of the most widely-regarded leaders of urban sustainability in the country (Duany, Speck, & Lydon, 2010).

While Smart Growth has produced highly integrated and innovative urban forms in cities all over the world, its implementation has proven to be concentrated and exclusive of a wide segment of the population. Today, it is common to see Smart Growth principles applied to certain neighborhoods in most large cities in the United States. However, these areas are also some of the most expensive places to live in those cities. In neighborhoods like Albina, Portland; Fort Green, Brooklyn, Georgetown, Washington D.C., and the Northend of Boston, to name only a few examples, old neighborhoods have been revitalized and rebranded as hot spots of urban living, complete with mixed use, multi-modal, transit oriented development, refurbished historic apartments, organic grocery markets and neighborhood parks (Goodling, Green & McClintock, 2014; Howell, 2016; Curan & Hamilton, 2012; Checker, 2011). The problem is that these high end neighborhoods were once some of the least endowed, most crime-ridden and impoverished sections of these cities, only three to four decades prior. Opportunistic investment on the behalf of developers and real estate speculators over the last twenty years catalyzed the drastic transition of these neighborhoods, and ultimately forced low income residents out in a phenomena known as gentrification (Goodling, Green & McClintock, 2014). As principles related to the Smart Growth ideals are introduced in disinvested neighborhoods, the deflated property values quickly increase, and often original residents find themselves unable to afford the rents in what had previously been a marginalized neighborhood. Suddenly, more affluent residents move in, and slowly the character of the neighborhood is deeply changed. This paper will go on to explore the implications of these changes.

To appreciate the process through which gentrification unfolds, it is instructive to first examine how capital operates on a broader, structural level. A capitalist economy is fueled by continual growth. Therefore, it is necessary to constantly seek out new opportunities for investment. Relying on the work of David Harvey and Goodling, Green, & McClintock (2015), this study examines the structural processes that sustain continual growth in the built environment. According to this model, the built environment and its patterns of demographic distribution are shaped by cycles of capital accumulation and depreciation, in tandem with social processes that act as mediators of these broader cycles (Goodling et al., 2015). Yet the spatial distribution of these processes must remain constantly in flux in order to sustain the accumulation (profit) that is necessary to spur new growth. In practice, disinvested neighborhoods end up undergoing a painstaking process of devaluation and re-development over long-term periods, so that low-income populations are systematically wrangled into impoverished neighborhoods, only to be forced out when investment is lured back by the low-cost real estate. Critical scholars refer to this cycle as structural poverty (Goodling, Green & McClintock, 2015).

Several prominent examples reveal the manifestations of structural poverty in the urban environment. Ironically, the projects outlined here are widely accepted as sustainability success stories, upheld by city planners, urban scholars, and residents as shining examples of the green development boat that lifts all tides. Indeed, the cities that we tend to associate with social progress and environmental idealism—Portland, Oregon; Austin, Texas; New York City—are by no means exempt from the systemic forces that reinforce and maintain inequality along socioeconomic lines. In fact, the following cases show that redevelopment plans exhibiting a strong focus on progressive planning principles such as sustainability, mixed-use, accessibility, and diversity can spur the most rapid gentrification processes.

No city demonstrates the paradoxical politics (Checker, 2011) of sustainability better than Portland, Oregon. The city has made truly progressive strides to create a more energy efficient, people-oriented, and liveable urban environment. However, serious inequalities persist between the upwardly mobile, middle class population to which the city tailors these efforts, and the lower-income, disproportionately African American and Latino population that has suffered continual displacement and disenfranchisement as a result of the city's "sustainable" development (Goodling, Green, & McClintock, 2015). Complete with an impressive renewable energy portfolio, light rail and biking infrastructure, and a self-sufficient local agriculture economy, Portland has successfully fashioned itself a leader for the United States in sustainable urbanism and smart growth (Duany, Speck, & Lydon, 2004). Yet the city's meticulously planned enhancements contrast strongly with the racialized poverty found east of Portland's 82nd avenue. The spatially demarcated boundary of this arterial boulevard presents a grotesque caveat to the city's apparently exceptional quality of life. East Portland, with its population of low-income residents, immigrants, and refugees, is the least affluent yet most diverse section of the city (Goodling, Green, & McClintock, 2015). Despite absorbing 44% of the city's population growth between 2000 and 2010, the area accounts for the highest poverty rate in Portland (Goodling, Green & McClintock, 2015). Goodling et al (2015) refer to this spatially concentrated enclave of underserved residents as Portland's "warehouse" for the poor.

The demographic disparity between residents of color and white residents in East Portland truly underscores the racialized displacement that occurs as a cost of sustainable development in absence of strong policies of protection. While African Americans make up only 8% of Portland's total population, 68% reside in East Portland. Of that proportion, 38% live below the poverty line. The proportion of people living in poverty in East Portland far out-paces that of the west side of the city. Furthermore, the proportion of white residents living in poverty in East Portland stands at the significantly smaller figure of 20% in comparison with all of the other demographics, despite making up 68% of the total population of East Portland (Goodling, Green, & McClintock, 2015). Obviously, white residents have an advantage over people of color, no matter where in the city they reside.

However the implications of this clear racial disparity extend beyond a mere recognition of segregation. Goodling et. al (2015) explain in great detail how many of East Portland's residents migrated internally from formerly disinvested parts of the urban core that have undergone hallmark urban renewal efforts in the last few decades, pushing long-term residents to the Eastern fringe. Whereas once the inner-city neighborhood of Albina was a segregated African American community heavily effected by exploitative speculation and federally-backed red-lining, today it is one of the most affluent areas of the city (Goodling, Green, & McClintock, 2015). The dramatic spike in rents in Albina unsurprisingly led to the departure of more than 6,000 African American residents between 1990 and 2010, many of whom relocated to East Portland (Goodling, Green, & McClintock, 2015). While the new residents of Albina benefitted from the municipal sustainability initiatives that make Portland famous, the former tenants were pushed to a new site of exclusion, where they would be unable to utilize or shape the initiatives that make Portland such a desirable place to live.

On the opposite coast, the process of structural poverty unfolds identically in New York City. As Checker (2011) demonstrates, the highly praised sustainable development plan under Mayor Bloomberg, PlaNYC 2030, reveals the deep divisions between long term residents of lower income neighborhoods, such as Harlem, and more affluent, incoming residents seeking to reap the benefits of a sustainable urban lifestyle. Checker (2011) outlines the evolution of Harlem's "greening and whitening" beginning in the late 1980's, when residents began staging coordinated, persistent protests to the neighborhood's disproportionate allocation of toxic waste sites, polluting truck depots, and sewage treatment plants. Even then, communities like Harlem were experiencing detrimental impacts from landmark environmental protection legislation like the Clean Water Act and the Clean Air Act. As a result of the laws enabling communities to participate in the siting decisions of polluting industries, well-resourced communities were able to push undesirable industrial activity out of their "backyards," and into less endowed communities-Harlem among them (Checker, 2011).

Between 1980 and 2010, Harlem was designated by a series of state-sponsored initiatives as a renewal area, and saw the introduction of new commercial and residential developments-including the city's historic selling of repossessed brownstones for \$1 (Checker, 2011). The enormously devalued real estate prices in Harlem spurred opportunistic development that introduced new businesses and residents to the neighborhood. At the same time, the

neighborhood still harbored the largest density of public housing projects in Manhattan. At the time of PlaNYC, the gentrification of Harlem rapidly accelerated with the concordant passage of major rezoning laws that allowed a 35-acre expansion of Colombia University's campus into West Harlem. In addition to the expansion of Colombia, the rezoning also prompted a significant increase in market-rate condominiums and high-rise offices (Checker, 2011). As the buzz around environmental consciousness grew through the 2000's, developers increasingly began using green branding to attract an affluent subset of eco-sensitive urban dwellers. Harlem was, in fact, home to New York City's first silver-LEED-certified townhouse (Checker, 2011). The increasing introduction of green amenities to the neighborhood led to several decisions by the city to renovate Harlem's parks. In turn, the newly-improved parks and luxury high-rise condominiums that followed close at the heels of the renovations spurred heated conflict between long-term residents and the neighborhood newcomers.

The renovation of Marcus Garvey Park in Central Harlem was completed in the late 2000's. Since 1970, the park had been host to the annual Harlem Cultural Festival, or "Black Woodstock" (Checker, 2011). The musical festival enshrined by the park had given rise to one of New York City's most venerable social traditions: a drum circle that played in the park every Saturday until 10 pm. With the introduction of new luxury apartments around Marcus Garvey Park, new tenants complained extensively about the noise caused by the drum circle each week. On several occasions, tenants called the police on the drummers and had them removed. Yet the group of musicians had peacefully held that space for four decades, and were an integral part of the community. In fact, they often acted as monitors of neighborhood safety, and stationed themselves in the park for hours on end to ensure children would have a safe place to play (Checker, 2011). The complaints of new neighbors established a completely new standard of conduct in the park, enforced by police, that incited the removal of benches, imposition of curfew, and inhibiting of acts as innocent as family picnics. As Checker (2011) articulates: "the enforcement of park rules privileged the needs and desires of Harlem's newer, more affluent community while disallowing the recreative customs and expressive culture of its old-timers."

The selective and paradoxical nature of sustainability policies in New York have cultivated a backlash response from low-income communities that has prompted residents to reject environmental amenities in order to avoid displacement and loss of cultural expression (Checker, 2011). Aside from the contradictions of PlaNYC 2030 that simultaneously paired green development with large-scale car-oriented infrastructure and intensive developments that destroyed swaths of remaining green space, Checker (2011) identifies a serious deficit in meaningful participation in the plan's development from low income communities of New York City. Indeed, the seemingly inclusive rhetoric of a sustainability approach that balances environmental, economic, and social concerns has actually achieved the implicit disenfranchisement of low income communities by de-legitimizing their complaints of marginalization (Checker, 2011). While the discourse surrounding sustainable development upholds the holistic visions of environmental and social justice, the practiced exclusion of vulnerable communities from the benefits of development actually ostracizes any constituent who opposes sustainability policies (Checker, 2011). Sustainability becomes de-politicized through the imagined notions of complete inclusion touted by its rhetoric, and therefore

subordinates the complaints of those residents systematically harmed by its process and effects. In Harlem's case, it became necessary for the neighborhood to organize itself over the course of 4 decades to ensure that the very real concerns about their local air and water quality could be expressed without signaling their imminent exclusion and displacement.

As the previous cases demonstrate, gentrification is a phenomena occurring in cities across the United States, including those most praised for their exceptional quality of life. But it would be wrong to infer that cities have not made efforts to respond to the displacement caused by gentrification. Still, the municipal approach to solving this problem continues to fall short of effectively facilitating community input from those most affected, and following up with those communities to monitor the success of policy initiatives. In an intensive study of housing and community development in Washington, D.C., Howell (2015) finds that the interactive spheres of government, advocacy, and grassroots actors must be in harmonic collaboration if effective and fair housing policy is to be realized.

In Washington, DC, a fairly progressive municipal government has taken steps beyond the average to safeguard affordable housing and distribute mixed-income housing options throughout neighborhoods across the city (Howell, 2016). However, Howell (2016) makes the excellent argument that even the most progressive city initiatives cannot properly function without buy-in from residents and community organizations. Howell breaks down a dichotomy in which she distinguishes discursive from institutionalized rights, and proceeds to argue that both realms of policy execution must be active to effectively initiate an equity-based policy program (2016). Howell defines discursive rights as the social power cultivated by communities through active advocacy and self-organization. Institutional rights, on the other hand, are formal policy items that offer protection and authority to individuals. In other words, the collaboration between policy makers, active residents, and advocacy organizations is crucial to establishing the legal conditions through which community discourse of equity can be realized. To illustrate this point, Howell examines planning interventions in the District neighborhood of Colombia Heights amid rapid physical and demographic change (2016). The sustained collaboration between housing organizers, affordable housing developers, policy advocates, and city agencies enabled the neighborhood to resist gentrification to a significant degree. Situated at the center of a three-mile radius encompassing the White House, the historically African-American Howard University, and Rock Creek Park, Colombia Heights underwent the textbook cycles of capital accumulation and disinvestment that characterize gentrification histories (Goodling, Green, & McClintock, 2015). Between 1950 and 1996, white flight shifted a formerly affluent suburb to a blighted repository for federally-subsidized housing. However, in 1996, the construction of a new Metro stop spurred a whirlwind of investment that dramatically shifted the economic and demographic profile of the neighborhood. A neighborhood that had been overwhelmingly African American saw its white population grow 330%, accompanied by a significant rise in the average household income (Howell, 2016). At the same time, the African American and Latino populations fell 25% and 11%, respectively (Howell, 2016). Yet the neighborhood revitalization plan that spurred these massive changes had incorporated the full scope of inclusive, smart growth urban planning principles: a participatory community planning process; mixed-use, mixed-income, multi-modal development with affordable housing reserves; a mix of corporate

chain and local retail, and considerable open green space (Howell, 2016). Even with these supposedly ideal principles at work, the changes were far from desirable for the residents most vulnerable to displacement and cultural subordination.

Amid these challenges, social advocacy organizations came into play to achieve an impressive resistance to forces that could have easily gentrified Colombia Heights completely. Grassroots organizations acted as translators between their constituent groups of residents, city government actors, and landlords to ensure that the neighborhood's 20% long-term affordable housing was effectual and adequate for tenants (Howell, 2016). The key challenges facing tenants vulnerable to displacement included addressing ways in which landlords avoided compliance with legislation designed for fair housing practices, navigating complex policy and legal channels, and effectively diffusing conflict with new tenants and law enforcement officers. Advocates were able to translate not only the institutional obstacles faced by tenants, but also their voices and experiences that were often colored by racial and socioeconomic prejudices (Howell, 2016). Over many years, community organizations were able to represent tenants in transgressions concerning fair housing rights, building code violations, and the long-term stability of affordable housing. In addition, they also worked to build stronger relationships between newcomers in the neighborhood and older residents, a step that proved crucial in the fight to ensuring residents of color and low income residents would not be disenfranchised from their right to belong to this community, along with their ability to afford living there.

Methodology

The data for this paper were collected from a wide body of literature, summarized above, as well as a series of interviews with key actors involved with the Northend Greenway's development. The author worked closely with Vine and Fig Sustainable Living Center to understand the factors that drove their decision to advocate for the Northend Greenway. In addition, the author conducted surveys with residents, community organizers from Vine and Fig, and city government actors to gain an understanding of the North Central Neighborhood, residents' perceptions of the Northend Greenway, and the potential risk for gentrification in the neighborhood. Residents were asked what they knew about the Northend Greenway and what kind of amenities they would like to see included in the project to best reflect their interests and needs.

What amenities would you like to see in Northend Greenway parks?	<input checked="" type="checkbox"/> Seating <input checked="" type="checkbox"/> Playgrounds <input type="checkbox"/> Grilling area <input checked="" type="checkbox"/> Picnic tables <input type="checkbox"/> Water fountains <input checked="" type="checkbox"/> Nature trails <input type="checkbox"/> Wildlife shelter <input type="checkbox"/> Pocket gardens <input checked="" type="checkbox"/> Wildlife identification <input checked="" type="checkbox"/> Environmental Education <input checked="" type="checkbox"/> Trash Cans <input type="checkbox"/> Exercise Equipment <input type="checkbox"/> Street Lamps <input type="checkbox"/> Doggie Bags/Bowls
How often do you think you'll use the Northend Greenway?	<input type="checkbox"/> Never <input type="checkbox"/> Occasionally/rarely <input type="checkbox"/> 2-5 times per month <input type="checkbox"/> Every week <input checked="" type="checkbox"/> 3+ times per week
What do you think you'll use the Northend Greenway for?	<input checked="" type="checkbox"/> Biking/walking/running <input checked="" type="checkbox"/> Commuting/transportation <input checked="" type="checkbox"/> Education <input checked="" type="checkbox"/> Enjoying nature <input type="checkbox"/> Park space <input type="checkbox"/> Gardening <input type="checkbox"/> Watching wildlife <input type="checkbox"/> Other: _____
What is currently the closest green space/park to you?	<input checked="" type="radio"/> Walking distance (about ¼ mile) <input type="radio"/> 10 minute or less drive <input type="radio"/> 20 minute or less drive <input type="radio"/> Not applicable
Additional comments?	<i>It is important that the City owns this project and understands it to be an investment in community health and social connectivity</i>

FIG 1: A survey of residents of the North Central Neighborhood on amenities for the Northend Greenway

A total of 15 community surveys and 7 interviews with influential actors were collected. Part of this interview process involved attending monthly meetings of the Northend Greenway Steering Committee, a collection of community members and city government staff designed to maintain communications between the city and advocates of the Greenway on the progress of the project. The author identified herself as a researcher in all of these interactions, and all participants in interviews are protected by confidentiality in this study. The author also draws on her experience as a community organizer with Vine and Fig, among other groups, and networks with advocacy organizations working to promote the Northend Greenway to develop best practices and principles to create a more equitable urban planning process.

Multiple unexpected challenges arose in the process of executing this study. First, the unexpected amount of Spanish speakers in the North Central Neighborhood required the author to recruit a translator. Several different students from James Madison University assisted the author in translating surveys and conversations with residents. Second, poor communication with

city government actors led the author to misunderstand the potential for the community to influence amenities included in the path. Information revealed after the administration of the survey above revealed that most of the suggested amenity features would not be available to the Northend Greenway. This rendered the information in the surveys largely irrelevant for the purposes of this study. Finally, the door-to-door surveying method chosen for data collection in this study proved challenging. In many cases, the social distance between the author and residents proved intimidating. There is little opportunity for forewarning or follow up with this method, and the reliability of results is questionable given a lack of trust and investment between the resident and the project and researcher.

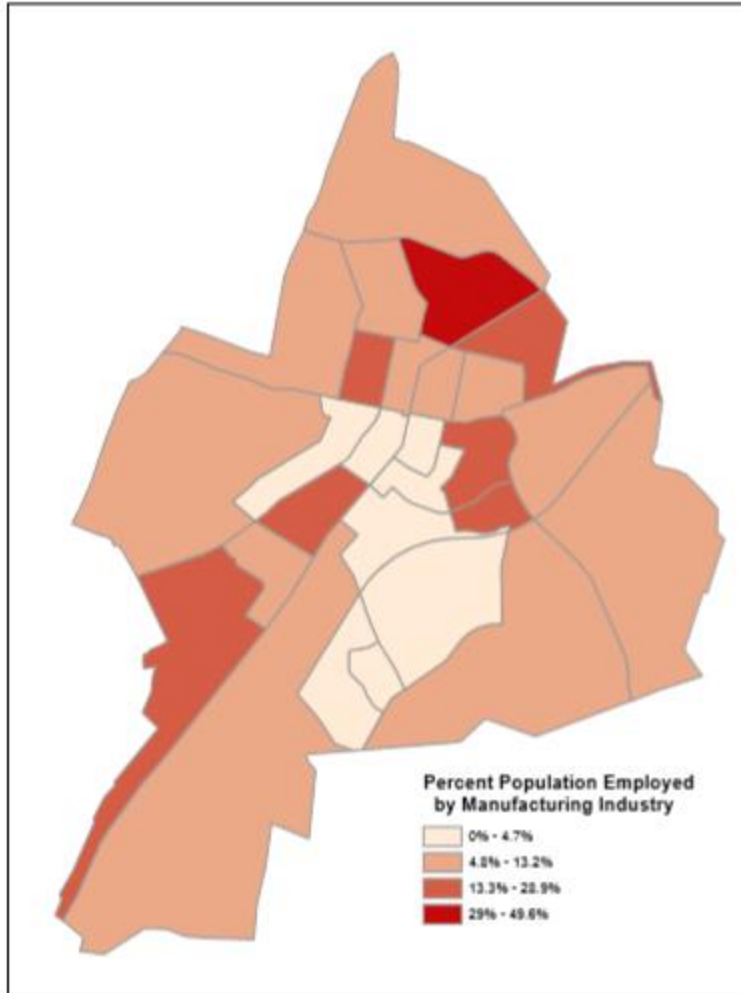
Case Study: The Northend Greenway

This study examines the risks of gentrification in the context of Harrisonburg, Virginia's Northend Greenway project and the North Central Neighborhood. This case presents multiple unique conditions that offer a new lens for understanding the process through which urban sustainability projects develop into sites of gentrification. First, the Northend Greenway was originally conceived and developed by equity-focused community activists. The group that shaped the idea for the Northend Greenway devoted meaningful consideration, based in experience and collaboration, to equity for the most vulnerable residents of the neighborhood in the development of the concept. Second, the gentrifying risk presented by the project crystallizes at its very heart, in the North Central Neighborhood. The situation of the most vulnerable, ethnically diverse, and lowest-income neighborhood at the center of the Northend Greenway's route is not accidental: it is a crucial component of the equity planning on the part of the project's leaders. Finally, the study of the Northend Greenway re-scales the research on gentrification within sustainability projects to examine the small city context. Unlike the cases from America's most prominent cities in the bulk of the literature on this topic, the small city case captures a more transitory social context; a snapshot of a city's evolution from rural to urban, mono-cultural to cosmopolitan, industrial to institutional. Harrisonburg falls definitively into this intriguing context.

The city of Harrisonburg is located in the Shenandoah Valley of Northwestern Virginia. Its population of 51,000 represents a rapid growth rate of 200% between 1980 and 2000, attributable to its rapidly growing state university, its situation on the national thoroughfare of Interstate 81, its consistently low unemployment rate (less than 3%), and growing economy in service, retail, agriculture, and manufacturing (US Census, 2017). The Central Shenandoah Valley has been home to a strong Mennonite community since the colonial period, and their pacifist tradition helps explain the presence of a substantial immigrant and refugee community (Zarrugh, 2008). In 1980, the city established its national Refugee Resettlement program, but the Mennonite Church of the Brethren has a longer history in sponsoring the resettlement of refugees in the area that dates back to the 1950's (Zurrugh, 2008). Today, the largest refugee populations include Eastern Europeans, Iraqi Kurds, Congolese, Sudanese, and Afghans, although the program has settled refugees of many nationalities (Virginia Newcomer Information System, 2013). As a result of a separate migration process, Harrisonburg's Latino community grew an astonishing 400% between 1990 and 2000, from less than 800 to 3,700 (Zarrugh, 2008). In

addition to the abundance of religious organizations willing to support new migrants in Harrisonburg, the poultry processing industry and other agro-industries have actively recruited Latin American migrants to areas all over the American South since at least the 1990's (Zarrugh, 2008). Harrisonburg and surrounding Rockingham County support Virginia's largest chicken production industry, as well as the second-largest turkey producing industry in the United States (Zarrugh, 2008). An additional factor in the Hispanic population boom is the Central American wars that waged through the 1980s and 1990s, which compelled unofficial refugees from Guatemala, El Salvador, and Nicaragua to relocate in Harrisonburg (Zarrugh, 2008).

Therefore, the demographic profile of Harrisonburg is unique in many ways. The rapid population growth presents an array of development opportunities for the city, but the unique subsets of this population growth present equity challenges as well. The induction of migrants and refugees to the economy in Harrisonburg seems extremely confined to the agricultural industries, especially poultry processing (Zarrugh, 2008). Line jobs in the poultry processing plants require little English, education, or training, but investigations show that even highly educated migrants who had professional vocations in their home countries fail to find work outside the industry in the initial period of resettlement (Zarrugh, 2008). Not only are the opportunities for entry into the economy limited for refugees and migrants, but few avenues for advancement exist for workers in these industries (Zarrugh, 2008). Testimonies from line workers reveal that the majority of line leaders and virtually all management executives are American in the poultry processing industry (Zarrugh, 2008). Conversations with local residents and community advocates of the North Cental Neighborhood revealed that many members of the community are employed with the nearby poultry processing plant. One concern tied to the Northend Greenway's potential gentrification effect is the displacement of these residents, who earn perhaps the lowest wage of any occupation in the city.



Map 1: Proportion of Harrisonburg Population Employed by Manufacturing Industry (Peterson, 2018)

The North Central Neighborhood was originally a residential fringe to Harrisonburg's historically African American Northeast Neighborhood. The Northeast Neighborhood spanned much of what is now Downtown Harrisonburg, and acted as an important community space where the city's small African American population was highly concentrated (Northeast Neighborhood Association, 2016). In the 1950's and 1960's, the city received a series of urban renewal grants for the redevelopment of the downtown area. The plan initiated an infamous demolition of the Northeast Neighborhood to make way for new businesses, supposedly aimed at revitalizing the local economy (personal communication, community organizer, November, 2017). The demolition fragmented the Northeast Neighborhood and the displaced families were pushed out of the central core of the city, where a much smaller African American community reestablished itself further to the east. The North Central Neighborhood was also a result of Harrisonburg's expansion in the 1940's and 1950's, but unlike the Northeast Neighborhood, it was always intended for low income residents (personal communication, community organizer, November, 2017). The neighborhood was zoned for low-income residents upon its construction. As a result, the plot sizes were considerably smaller than the norm, and the area was zoned for light manufacturing and industry mixed with residences.

Today, the North Central Neighborhood harbors a cluster of key industries, including the poultry, plastics, and gas, as well as commercial auto parts dealers, trucking depots, and other light industrial markets. The neighborhood raises environmental and social justice concerns because of the regular gas flares at the natural gas facility, the heavy traffic from trucks, additional air pollution from nearby factories, and the absence of easily accessible grocery stores and park spaces. The population was about 20% Hispanic in 2000, officially, but it is likely that the current figure is close to half the population, because a considerable number of residents are undocumented migrants from Latin America (personal communication, community organizer, November 2017).



Map 2: Proportion of Harrisonburg Latino Population per Census Block, Park Proximity, and Proximity to Northend Greenway (Peterson, 2018).

As shown above, the North Central Neighborhood, marked by the northern-most black block in the map, is home to the highest density of Latino residents in the city. Concurrently, it also falls outside the quarter-mile range of proximity to nearby parks in the city. The map shows that the Northend Greenway would alleviate this isolation from green recreational spaces. As

explained earlier, Vine and Fig recognized this disparity in distribution of green space in the city and designed the Northend Greenway to connect the North Central Neighborhood to a recreational park and transportation infrastructure.

The North Central Neighborhood was chosen as a site location for the nonprofit Vine and Fig in 2010. Vine and Fig is part of a national network of nonprofit organizations that work to cultivate healthy and sustainable communities by investing in disadvantaged neighborhoods and establishing unique sites within them. Though the organization is non-denominational, its mission of peace and community reconciliation is heavily influenced by the Mennonite tradition, which proved to be a strong source of connection for the new site in Harrisonburg's network of Mennonite organizations. The organization's choice in the site was influenced by many of the same environmental and social justice concerns highlighted above. Over the past twenty years, a culture of community social and environmental justice advocacy has been growing in the neighborhood, beginning with a cooperatively-owned community center founded in 1990 as a shelter and kitchen for the large homeless population and low-income residents in the area. In 2000, the owners bought a larger property across the street from the original space, and converted the initial center into a restaurant cooperative called the Little Grill. The new space continued to operate as a welcoming space for the neighborhood's troubled residents that offered sustenance and community to all who came in peace. In 2010, a team of Vine and Fig advocates bought and renovated a collection of dilapidated houses on the same block as the established community centers, and over the course of seven years, cultivated a permaculture community gardening site founded on the same principles of community empowerment, rehabilitation, and sustainable living (personal communication, community organizer, November 2017). They named the site Vine and Fig Sustainable Living Center. Together, these grassroots community centers unified the neighborhoods most vulnerable residents under a social contract that traded nourishment, support, and a strongly connected community for sobriety, volunteer labor, and cooperation with all community members. Today, the strong community presence of this family of advocates has shaped the neighborhood by cultivating a shared space along the main arterial road, North Main Street, enabling residents to become neighbors who know each other, monitor each other's safety, and mutually support each other. The same informal community network has manifested the project of the Northend Greenway.



Image 1: Vine and Fig Sustainable Living Center (Photo taken by the author, 2018)

The plan for the Northend Greenway connects Eastern Mennonite University in the northern-most part of the city to the downtown area and James Madison University, via the North Central Neighborhood. The path will run directly through the center of the North Central Neighborhood, adjacent to a mobile home community of mostly undocumented migrants employed at the poultry industry, through the Vine and Fig site, letting out to North Main Street right next to the Little Grill. The Northend Greenway was inspired by biking infrastructure in larger United States cities, such as Davis, California, Madison, Wisconsin, and Portland, Oregon. Advocates from Vine and Fig wanted to design a much-needed stream restoration project for Black's Run that simultaneously expanded the city's alternative transportation infrastructure and added a family-friendly amenity to the community (personal communication, community organizer, November 2017). At the time, the city of Harrisonburg was developing a new Bike Pedestrian Plan that introduced the city's first shared-use trails, and laid out a long term plan for the building of a network of trails. However, the network excluded areas like the North Central Neighborhood, despite serious need for alternative transportation routes for residents who did not own cars (personal communication, community organizer, November 2017). Activists at Vine and Fig began designing and advocating for a route that would incorporate the North Central Neighborhood into the proposed network of trails. They even organized a group of city council members to accompany them on a trip to Davis, California, to witness the positive social benefits gained from a thriving biking culture for themselves. Their committed goal was to make Harrisonburg the "Biking City of the East."



Map 3: The Northend Greenway (City of Harrisonburg, 2017)

Northend Greenway activists did the leg work of designing a route for the trail, devising a stream restoration component for the project, drawing up blue prints, and talking with private land owners along the route to confirm their cooperation for the proposal. The team began working with Harrisonburg Public Works, the City Planning Commission, and other city government offices to develop a formal proposal for the plan. The group was even able to raise \$10,000 for the project expenses by identifying a local Department of Transportation grant and a state-level matching grant, with the help of Public Works Staff. During this time, the efficiency and steadfast motivation of the group became increasingly clear. Advocates from Vine and Fig were determined to take steps to accelerate the implementation of the project, hoping to bypass what they perceived as the inefficiency and painstakingly slow process of the city's bureaucracy (personal communication, community organizer, 2017). However, after the \$10,000 grant was

approved for the project, the city took over the planning process. From that point, the project did indeed undergo a crawling implementation process that delayed its initiation for six years (personal communication, community organizer, 2017).

The primary source of delay in the Northend Greenway's final approval was its position behind two other shared use trail projects scheduled to be completed by the city (personal communication, city government staff, November 2017). The Bluestone trail, a shared use trail that connected neighborhoods near James Madison University's campus via the popular Purcell Park, was a project of major focus for the city until its completion in 2014 (personal communication, city government staff, November 2017). The Garber's Church Shared Use Path, underway at the time of this study since 2016, served as a connection between Harrisonburg High School and the nearby Thomas Harrison Middle School (personal communication, city government staff, November 2017). While both of these projects reflect positive investment in the city's recreational and alternative transportation infrastructure, their benefits certainly follow the familiar pattern of exclusion of low-income neighborhoods, which are consistently the victims of disinvestment. Therefore, advocates of the Northend Greenway had to compete for attention from the city as it prioritized these other shared use paths ahead of the Northend Greenway. The city's small staff and limited resources necessitated the distillation of the process into steps that addressed each project individually.

Finally, in the summer of 2017, Vine and Fig received notice that the permitting process for the Northend Greenway had been finalized, qualifying the project to move on to the design phase. The city declined to use the formal design drawn up by the advocates from Vine and Fig, given concern about code compliance and right of way cession, or the formal ceding of parcels on private property for public use. Again, advocates expressed frustration with the pace of the city's process, revealing a gap between the expectations of the community actors versus those representing the city government (personal communication, community organizer, 2017).

While the route of the Northend Greenway was designed with the North Central Neighborhood's benefit strongly in mind, the potential risk of gentrification posed by the introduction of an attractive environmental amenity cannot be ignored. As discussed earlier, the North Central Neighborhood has several characteristics that would make it a desirable spot for investment and redevelopment. Its proximity to Downtown businesses and amenities, situation between several well-established neighborhoods, and cheap real estate values could be significant factors in the potential gentrification of the neighborhood. While the proximity to unsightly industries and the poor air quality of the neighborhood may have prevented the gentrifying effect so far, the introduction of a high-profile new shared-use path and stream restoration project could spur drastic changes.

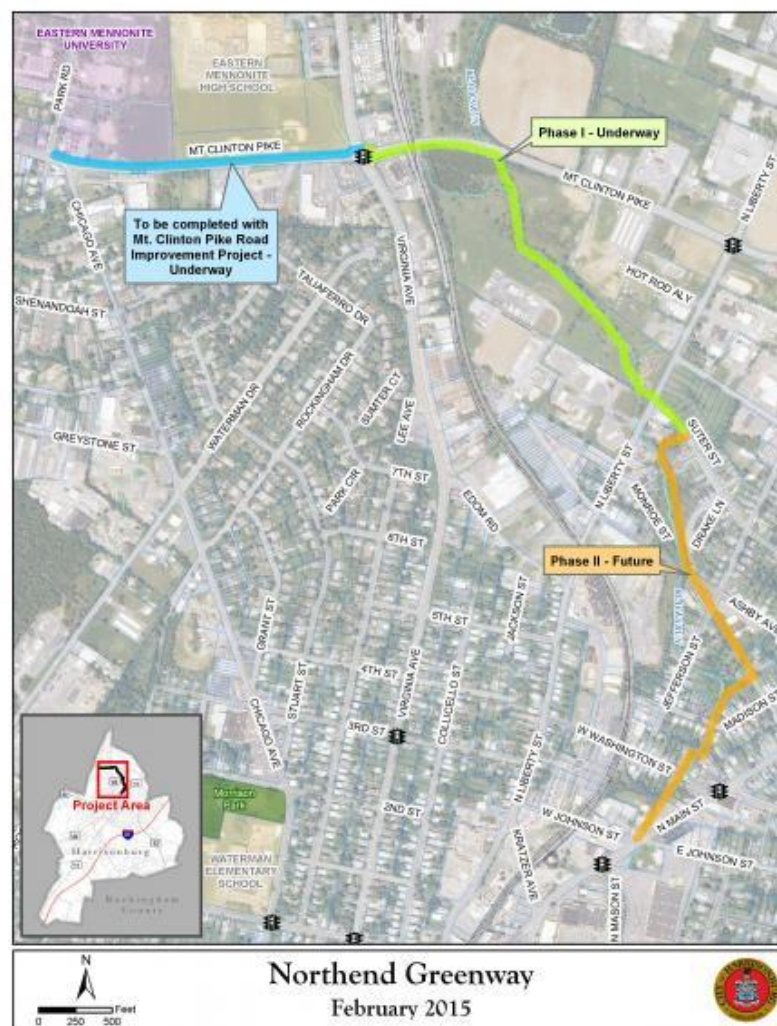
The main concern stemming from projects like the Northend Greenway for low-income residents is the increase in property values that environmental amenities usually cause in surrounding neighborhoods. As developers and real estate speculators notice an increased interest in the area, the prices of homes go up (Immergluck & Balan, 2017). Take, for example, the Atlanta Beltline adaptive reuse project in Georgia. The project adapted an abandoned railroad route into a 22 mile loop of shared use trails and parks. In their study on changes in housing

values within one half mile of the Beltline from 2011 to 2015, Immergluck & Balan (2017) find that real estate values rose between 18-27% as a result of the new amenity. Similar trends can be observed in other adaptive reuse projects, like the 606 Trail in Chicago, the Midtown Greenway in Minneapolis, the 11th Street Bridge Park in Washington, DC, and Dallas' Highway Cap Park (Immergluck & Balan, 2017).

In the North Central Neighborhood, the considerable proportion of residents working in the poultry processing plant or similar industries indicates a troubling vulnerability. Employment in these industries suggests extremely weak social capital to secure employment in other positions. The poultry industry's recruitment of undocumented workers and migrants lacking the cultural and financial needs to find more desirable work is well documented (Zarrugh, 2008). These non-unionized industries often exploit the most vulnerable workers to establish inexpensive labor for undesirable work. Therefore, it could be the case that some residents of the Northeast Neighborhood employed in such industries would lack adequate transportation to reach their appointed posts, if they were pushed out of the neighborhood by gentrification. Furthermore, many of the Hispanic residents living in the neighborhood have undocumented immigration status (personal communication, community organizer, 2017). It is more difficult for undocumented immigrants to find and maintain housing, while also maintaining their safety and security. One specific area in the neighborhood is home to residents who are almost all undocumented migrants working in the poultry processing plant. The living conditions and air quality in this mobile home community are extremely poor. Vine and Fig has maintained a special concern for this group of people, as they struggle with many environmental and social justice deficiencies: exceptionally poor air quality, spatial marginalization, food insecurity, poverty, exceptionally poor insulation, and lack of virtually any green space. In a survey, one resident told me that to get to the grocery store, the neighbors organize a carpool by taxi every two weeks to take them to and from Walmart, two to three miles away (personal communication, resident, October 2017).

The Northend Greenway will run practically adjacent to this enclave. While the provision of a shared use trail where residents can play with their families, exercise, and enjoy nature will be a great improvement to the current recreational and natural quality of the neighborhood, the Northend Greenway falls short of leading commuters to an affordable grocery store. Therefore, one of the principal intentions of the Northend Greenway is not addressed by the path's design. The route leads downtown, where there is an organic food cooperative, however this ventures beyond the price ranges of most families in the North Central Neighborhood. Furthermore, it is very doubtful that these residents would be resilient to displacement if the Northend Greenway caused property values to increase. The small lot on which their trailers sit could easily be sold for some kind of alternative development purpose. Losing their homes would leave the residents of the community vulnerable to homelessness, debt, or deportation. If they were successfully relocated, many of the residents still would not have reliable means of transportation to adjust to a different commute to their places of work. Therefore, without careful planning for affordable housing and the protection of these vulnerable micro-communities in the North Central Neighborhood, the Northend Greenway presents an extremely unpredictable outcome, despite its earnest effort to benefit them.

The author attended several meetings gathering advocates from the Northend Greenway Steering Committee, a coalition of community organizers, professionals, and city staff interested in promoting the project. In October, a meeting between Public Works managers, engineers responsible for designing the stream restoration component, and Steering Committee representatives gathered to review the working design plan for the Northend Greenway. The Public Works staff presented a broken-down vision for the path, to be completed in multiple phases. The design presented to the Committee represented “Phase 1B,” a secondary piece of the first arm of the path, which would theoretically connect the area around Eastern Mennonite University, a mixed residential and commercial area with a strong focus on local businesses, to the northern-most edge of the North Central neighborhood. While the city had previously communicated to the Committee that the path’s construction process would be broken up into three phases as funds became available, the further segmenting of the first phase was both unexpected and troubling to the Committee (personal communication, community organizer, December 2017).



Map 4: The Northend Greenway (City of Harrisonburg, 2017)

Public Works staff explained that the portion labeled “Phase I – Underway” in the map above would break ground within the next 6 to 10 months. However, the portion of the path to the west of Phase I, marked as a piece of a separate, undated Road Improvement Project, was the source of concern for advocates of the Greenway. As the map shows, this is the piece that connects the well-resourced neighborhoods surrounding EMU to the North Central Neighborhood, marked as “Phase II” on the map. The concern was that the elimination of the Mount Clinton Pike piece of the path’s first phase greatly weakened the crucial connectivity element of the path. Without it, the path was little more than a well-manicured walkway passing through a half-mile stretch of field. Residents coming from the North Central, who could access the path just outside of their neighborhood, would gain an open green space alongside Black’s Run, but the path would not serve the intended purpose of connecting them to other hubs and destinations in the city. At the end of the path, they would be greeted by a busy intersection with no bike lane to continue onto on the other side.

Furthermore, the city’s schedule gave advocates reason to be skeptical. The map above is dated February, 2015, and both Phase I and the Mount Clinton Pike Road Improvement Project are indicated as being “underway” at the time the map was made. In fact, the Northend Greenway permit was not approved until July, 2017, and at the time of this study in March, 2018, neither project had progressed to the construction phase. Phase II, moreover, which would pass through the North Central Neighborhood, had not yet been assigned a schedule or budget. Some advocates expressed concern that the city would continue to drag its feet on the second phase indefinitely, given the low capacity of the residents of the North Central Neighborhood to advocate on their own behalf for the completion of the project (personal communication, community organizer, November 2017). The staff from Public Works announced at the Committee meeting that the construction for Phase 1B would begin during the summer of 2018, and would hopefully be completed by the end of the year.

Therefore, the city’s approach to collaborating with advocates of the Northend Greenway poses two primary issues: first, the exchange of information about the project was inconsistent, and at times misleading; and second, the city’s intention to complete the whole project, consistent with its planned route, seems uncertain. Throughout the six-year advocacy effort for the project sustained by Vine and Fig and its network of supporters, the communication from the city about the project changed constantly. Many of these changes were costly to the organization’s investment of time and credibility to the community members it was trying to advocate for. For example, the city’s prioritization of the Bluestone trail and Garber’s Church trail over the Northend Greenway, and the separation of the Mount Clinton Pike piece of the route into the Road Improvement Project were poorly communicated to advocates. This delegitimated the outreach work community organizers had done over many years. When conducting surveys for this study, many residents of the North Central neighborhood were familiar with the Northend Greenway because Vine and Fig had reached out to them about it in the past. However, the residents expressed doubt or surprise that the project would ever reach completion, after so many years of stalling (personal communication, resident, October 2017). Furthermore, the discussion of possible amenities to be included in the path changed drastically by the time of the Steering Committee meeting. While the advocates had previously been told

that amenities along the path such as pocket parks, small gardens, or even picnic areas would be considered for the project, the conversation was eventually reduced to allowing only a handful of benches. These added amenities would have to be funded privately (personal communication, city staff, November 2017).

The inconsistency of details pertaining to the Northend Greenway in communications between the city and the community advocates can cultivate negative relationships between city government actors and their constituents, and weaken the potential for collaborative community improvement. The misinformation about the timeline and available amenities of the Northend Greenway led to several instances of false promises between residents of the North Central Neighborhood and advocates working through Vine and Fig. In fact, the surveys developed for this study operated on incorrect information about the inclusion of amenities on the Northend Greenway, and therefore many of the residents in the neighborhood were given the false impression that they could exercise their input on their choice of a range of amenities for the path.

It is crucial for city government actors and community organizers to maintain productive relationships, characterized by consistent communication of information, in order to create collaborative partnerships that show mutual respect for the responsibilities and mission of each group. The Northend Greenway case study demonstrates that different entities in the urban landscape, despite sharing a similar goal, can suffer from a failure to understand each other's work, and working environment. The case reinforces the need for more effective approaches to collaboration between community organizations, city government actors, and the residents they both strive to represent, especially in the face of complex dynamics such as vulnerability, racial divisions, structural poverty, and gentrification.

Principles and Best Practices

As the literature elucidates, the benefits of green development are exclusionary by nature. Without intervention on the municipal level to provide affordable housing and protections against the drastic changes that occur in tandem, green development cannot be considered sustainable in the holistic sense it is so often branded with. Gentrification is a pervasive phenomenon that reflects unequal electoral and financial power in cities that exclude low income citizens and people of color from their right to shape and belong to their communities. However, the power of community-based advocacy organizations to act as translators between vulnerable residents and policy actors holds great potential to integrate the typically disconnected spheres of discursive and institutionalized rights, achieving more representative and durable equity planning (Howell, 2016). It is essential for decision makers to understand that the conventional community participation model, which requires neighborhoods to organize themselves and negotiate their interests within a complex scene of urban development, overwhelmingly benefits self-possessed communities. Low income communities often lack the coherent identity, resources, and time to organize themselves into effective delegations (Howell, 2016). Take, for example, the uneven benefits of community input processes tied to the Clean Water and Air acts.

The inadvertent result of the expulsion of polluting industries from self-possessed communities was their accumulation in marginalized communities (Checker, 2011). Without the active investment of a devoted entity, it is difficult for a poorly-resourced neighborhood to develop the kind of coalition needed to advocate for itself (Howell, 2016). Therefore, the community participation model continues to reinforce existing power dynamics in the city. It is necessary for city actors to better utilize their potential relationships with community advocacy organizations to find solutions to the difficult problems of securing adequate affordable housing and preventing the systematic displacement of disadvantaged residents.

The Small City

The smaller urban scale in which we find the Northend Greenway and the North Central neighborhood provides an interesting context for the examination of gentrification in urban neighborhoods. The research on gentrification finds key inequities observable in all cities: the unequal distribution of low income neighborhoods in manufacturing zones, the heightened vulnerability of low income residents to displacement, and the disproportionate experience of marginalization imposed on communities of color. Yet small cities undoubtedly operate under a different set of circumstances (Way, 2016). Municipalities the size of Harrisonburg underwent urban development far more recently than large cities like New York, Washington, D.C., and Portland. Only in the last one hundred years has Harrisonburg begun to assume an urban identity, and even today the rural character of the area is strongly present in the city's economy, politics, and society. Many small cities share this recent history of transition from a rural town to an emerging urban place. Along with this transition comes a complete spectrum of intriguing evolutions in form, thought, and practice that define cities. Additionally, the smaller urban form and remaining strong influence of agriculture presents opportunities for innovative landscape ecology, green infrastructure, and urban agriculture (Way, 2016). For these reason, small cities are interesting laboratories for sustainable development that hold great potential. Still, the small financial and human capacities of small municipal governments limits the extent to which small cities can pursue sustainable development. More to the point, the capacity of small governments to provide mitigation services against gentrification for disadvantaged residents is also small.

Harrisonburg's unique ethnic diversity and thriving economy are good examples of some of the opportunities that arise from a newly formed city. The inception of the refugee resettlement program was a major building block in Harrisonburg's effort to redefine its identity as a city in the 1980's (Zarrugh, 2008). The city's abnormally low land values and tax rates enable it to remain an affordable place to live, despite the exponential population growth between 1980 and 2000 (US Census, 2000). The low cost of living and huge range in career opportunities, spanning from the poultry and plastic plants to James Madison University, offers an ideal resettlement location for refugees. At the same time, the influx of residents who speak little English and cannot easily assimilate into the work force bolsters the manufacturing sector, where low-grade jobs are abundant (Zarrugh, 2008).

Proximity within spatial and social networks is another factor that strengthens the functionality of this cosmopolitan social fabric. In a smaller city, both the physical and social distances between groups of people are smaller. Vine and Fig in the North Central neighborhood

provides an excellent example. Vine and Fig is one of the resettlement locations where refugee families can be housed. One of the five houses on the Vine and Fig shared property is designated for a refugee family, who stay for a year as they adapt to life in their new community. The strong community of community members living at Vine and Fig or constantly passing through the site, in addition to the permaculture garden that allows families coming mostly from agrarian backgrounds to enjoy access to fresh produce in their backyard, is immensely empowering to refugees seeking to join a new community. The same proactive welcoming of Vine and Fig's neighbors in the North Central neighborhood and the wider community has cultivated a flourishing social network of people in need and people seeking to help: recent migrants, recovering addicts, homeless, low income people, people with disabilities, community activists, students, ecological farmers, Mennonites, teachers, city government staff, and a wealth of other members of the community. The organization then mines these networks for productive relationships to catalyze projects like the Northend Greenway.

In addition to informal social networks, the small city scale is likely to offer enhanced professional networks. In a city of 51,000, the city government has a far greater capacity to engage with constituents and understand diverse perspectives on local issues. There are fewer competing interests and larger-scale input factors to consider in a small city government. Furthermore, the professional relationships within city government and between municipal employees tend to be more familiar. In Harrisonburg, the overall city staff is relatively small. Most of the staff between city departments are well acquainted with each other. Furthermore, many of the staff work part time and occupy other positions outside the local government in addition to their municipal work. This duality between the municipal government and the private sector expands the professional networks municipal actors have access to and helps move information and resources between actors in the city.

On the other hand, the divided professional commitments and small size of city staff also imposes limitations on the productive capacity of the municipal government. The relatively small size of the city staff and limited budget reduces the amount of projects they can process at once. The city's bicycle and pedestrian infrastructure process presents an example of this. The city was unable to shift its attention to the Northend Greenway for six years because they were focused on the Bluestone trail, and later the Garber's Church Trail. As mentioned already, the city had the capacity to focus only on one trail at a time. Obviously, this implicates constraints on the city's ability to manage new proposals. The city government of a larger city would have access to greater human and material resources to delegate and manage tasks. However, the quantity and complexity of issues in larger cities also augments with its resource allocation. Therefore, it is difficult to say whether the small or the large city scale is capable of greater efficiency, but there are interesting factors to be considered that are promising for future research.

The comparatively higher rate of conservative political ideology in small cities, especially cities with rural backgrounds, can present further restraints on the smaller budget of these cities. Harrisonburg's rural identity throughout multiple generations gives it a different political character than large cities, which are typically the leaders in progressive politics across the country. Harrisonburg is proud to have one of the lowest tax rates of any city in Virginia

(Fleming, 2017) The city's comparatively low tax rate prompts some constituents to oppose what they view as unnecessary park and bike trail projects, because they believe they will invite tax increases, and that they are frivolous expenditures from the limited city budget. Furthermore, the strong developer community often lobbies for other kinds of more profit-generating development, such as private apartment complexes and high rise offices. All of these factors pose challenges to the implementation of new improvement projects in Harrisonburg.

Community Organizations as liaisons

At the small city scale, community organizations have far greater access to their municipal representatives, and this social proximity can be maximized to help advocates and governors safeguard the most disadvantaged residents of the city. Furthermore, advocates are often able to assume positions on city-sponsored committees relating to their issues of concern. In the case of the Northend Greenway, advocates from Vine and Fig were able to secure positions on the Northend Greenway Steering Committee to gain greater access to the process and updates as they became available. Furthermore, advocates from Vine and Fig serve on a variety of committees in their pursuit of other campaigns to improve the community, such as a committee overseeing environmental performance standards of municipal buildings and a screening committee in the hiring process of the City Manager.

As the Washington D.C. case demonstrated, community organizations are powerful actors in the city who hold great potential for cooperation between governors and residents in achieving shared goals. In that case, community organizations were able to help residents navigate complex legal and political channels required to defend their affordable housing rights. At the same time, the liaison role helped the city understand the infractions occurring on the part of landlords and culminated in a far greater degree of protection and stability for residents that had little means to advocate on their own behalf.

In Harrisonburg, the relationships between Vine and Fig and the city government are already strong. Advocates have a great degree of access to their representatives, because they are always willing to meet with community members to help them learn about issues and discuss potential solutions. But while this traditional community participation model is exercised well in Harrisonburg, the city could go further in maximizing the social capital Vine and Fig commands by seeking their knowledge of the North Central neighborhood and the larger communities of Latin Americans and poultry workers who live in the neighborhood.

Community organizations like Vine and Fig hold great power to foster understanding between actors in positions of authority and vulnerable residents like many of those living in the North Central Neighborhood. With that understanding, these residents can grow to be viewed by municipal decision makers as members of the community who are deserving of the same quality of life as the more visible residents of Harrisonburg. While this quality of life may never be attainable for all residents of any city, bringing members of these marginalized communities into the light for municipal actors may strengthen the effort to secure affordable housing and other protections that will ensure residents will not be forced out by efforts to improve the city.

A deep understanding of these dynamics on the part of city government actors and policy makers may prevent the staggering degree to which we see vulnerable communities bearing the enormous burden of polluting industry, volatile real estate values, housing insecurity, and a risk of displacement, to name only a few challenges relevant to this study. The geographic lens can offer perspective on both the human, environmental and economic aspects of the urban transition to a greener, more sustainable form.

Therefore, the following practices are proposed: integrate an educational framework filtered through the geographic lens into the education and professional training programs of urban decision makers, whether in the planning, policy-making, law-enforcement, or managerial arenas. Additionally, a community collaboration model informed by Howell (2016) should take a greater role in decision making processes, especially when concerning-or potentially affecting-communities that lack the self-possession useful in utilizing conventional participation processes. Finally, and perhaps most importantly, affordable housing planning should be integrated into redevelopment plans from the beginning of the planning process, and not considered as an afterthought in the planning process (Palm & Niemeier, 2017). Too often, affordable housing mandates are weakened by exclusionary zoning, disadvantaging land use regulations, or noncompliance with protective housing laws, whatever their strength, results in the inadequate supply of affordable housing (Palm & Niemeier, 2017; Immergluck & Balan, 2017).

Perhaps the most important insight to take away from this study is the troubling degree to which deep divisions and inequities are systematically reinforced by the programs and processes of every city, no matter how progressive or committed to equity. For this reason, it may be important to find new ways to incentivize policy makers at all levels of government to safeguard affordable housing and promote the positive integration of people belonging to different class, racial, national, religious, and vocational groups. It seems clear that the limited capacity of city governments to procure adequate resources and distribute them evenly will continue to stand in the way of justice for vulnerable communities, who will always serve as the repository for unwanted burdens as long as they cannot resist, unless incentivized to act otherwise.

Even without the support of state and national resource allocation to provide such incentives, city governments can take leadership to meaningfully improve the fair allocation of affordable housing. For example, a stronger effort to locate affordable housing in job-rich areas will drastically improve the functionality of the lives of affordable housing dwellers, by cutting the exorbitant transportation costs often imposed on poorly-placed subsidized housing residents (Immergluck & Balan, 2017). Along the same vein, devoting a serious effort to re-examining zoning and land use regulations will make it easier to maximize the number of beneficiaries of affordable housing spaces. While re-evaluations of zoning codes and land use regulations are routine in most city governments, much greater attention must be devoted to identifying and updating exclusionary zoning codes. For example, it is common practice for cities to impose minimum lot sizes and prohibitions on multifamily housing, amid affordable housing requirements that are already weakly designed and enforced (Palm & Niemeier, 2017). Only 25 states in the United States require an affordable housing element in the Comprehensive Plans,

and in most cases cities are considered to be in compliance if they have some kind of plan for affordable housing, regardless of its success or equity (Palm & Niemeier, 2017).

Yet another potential solution involves a specific type of gentrifying development known as an adaptive reuse project. This is a redevelopment of old infrastructure or space, usually through public-private partnerships. In the case of the Atlanta Beltline Project, an adaptive reuse of an old railroad that the city converted into 22 miles of parks and trails, a Tax Increment Financing District redirected increases in property taxes from the Beltline to project-related expenses (Immergluck & Balan, 2017). 15% of all accumulated proceeds were designated by the program for affordable housing. However, the available funds ultimately went to home owners for home renovations, and after 7 years the program was on track to reach less than half of its affordable housing target (Immergluck & Balan, 2017). In addition, the private arm of the partnership contributed nothing to the effort. While this case exhibits troubling flaws, the organizational funding mechanism presents an opportunity to devise means of funding affordable housing within adaptive reuse projects and other public-private partnership developments.

Conclusion

Green development indicates a crucial transition to adopting more sustainable urban growth patterns that will ultimately shape the resiliency of cities to pressing future issues, both environmental and social. However, it is important to examine the ways in which structures of power along socioeconomic and racial lines are perpetuating an unsustainable exploitation of the most disadvantaged urban residents. It is also important to recognize that sustainable development in practice becomes a profit-driven process, of which displacement of the most disadvantaged residents is a symptom. Without explicit protections for the least resilient communities, green development will cause widespread displacement of low income residents. Protectionary affordable housing provisions and collaboration with community organizations can help city actors maximize resources to reconcile sustainability-focused improvement projects with the security of people already living in those spaces. Additional efforts to prevent gentrification include reexamining zoning and land use codes to remove exclusionary zoning regulations. The lens of geographic knowledge, with its emphasis on spatial interaction, distributive patterns, social networks of power, and ecology, can be extremely useful in building a deeper and more holistic understanding of these dynamics in the urban environment. To achieve equity-focused urban redevelopment and sustainable development, city planners must build on the existing social identities and foundations of communities in order to create a safe and high quality city for all.

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