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What Shapes Uneven Access to Urban Amenities? Thick Injustice and the Legacy of Racial Discrimination in Denver's Parks

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Abstract

Like other urban amenities, parks are unevenly distributed throughout cities, with advantaged groups enjoying better access to better parks than more disadvantaged residents. Although such inequities are well documented, we know less about the mechanisms that shape them. We conduct a case study in Denver that includes a GIS analysis and interviews with local planners and historians. We find that while park funding systems have tended to steer investments into richer neighborhoods, racially discriminatory land use and housing policies that shape where low-income people of color can live have produced some of the deepest and most persistent inequities in access to parks. Recent improvements in park access for low-income people of color are based less on equity-oriented efforts by public agencies and more on residential location choices of affluent white residents.

Keywords

environmental justice, land use planning, racial discrimination, segregation, urban green space

Introduction

From parks and transportation infrastructure to toxic sites and nuisance uses, deep inequities in access to environmental amenities and exposure to burdens exist across the urban landscape. A trip to any major US city confirms what decades of research have proven: Historically marginalized neighborhoods tend to have more negative land uses and fewer positive ones than their well-off counterparts (Brulle and Pellow 2006). These distributional disparities are foundational to environmental justice (EJ) research and practice, which provides widespread evidence that race, ethnicity, and socioeconomic status—and the varying levels of power bound up in these identities—all play a major role in shaping access to environmental goods and bads (Schlosberg 2004; Schweitzer and Stephenson 2007).

Most of this work shows that low-income people of color are more likely than their better-off neighbors to live near noxious facilities such as landfills, highways, or fracking sites, but until recently this scholarship has overlooked an important facet of environmental justice: the inequitable distribution of *positive* infrastructure such as healthy food stores, parks and open spaces, or even bicycle lanes (see Agyeman et al. 2016; Boone et al. 2009). Environmental amenities such as parks are increasingly germane concerns for EJ advocates and scholars because of a growing awareness of the public health and environmental benefits that such amenities can bring to neighborhoods (Wolch, Byrne, and Newell 2014). As such, community organizations in underserved areas are taking a more proactive approach to increasing access to positive infrastructure instead of just protecting residents from hazardous land uses (see Anguelovski 2013).

In addition, most EJ studies emphasize how equitably such facilities are distributed, that is, the *outcomes* of policies and decisions that often serve to put people in harm's way. While critical to establishing baseline data on environmental disparities, this emphasis tends to overlook the mechanisms and institutions that create and sustain what Hayward and Swanstrom (2011) call "thick injustices."

We build on existing EJ scholarship by asking: What institutional and social mechanisms have shaped and continue to shape the inequitable distribution of environmental amenities? We conduct a detailed case study of spatial disparities in park access in Denver, Colorado from 1902 to 2015 and find that the distribution of urban parks in Denver

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has consistently benefited the city's affluent white residents more than low-income people of color. Our emphasis on mechanisms reveals robust linkages between residential geographies and the distribution of environmental amenities. In other words, we find that access to environmental goods and exposure to bads is not only about where we locate parks, in our case, but is also a function of where different demographic groups choose to, or are able to, live. Our historical analysis shows that although we have moved past an era of overtly discriminatory policies or race-based redlining, policies, plans, and practices from previous generations continue to impact equity decades later. By scaling out and emphasizing issues common to urban studies scholarship, we take an "upstream" approach to EJ, identifying root causes and contributing factors instead of focusing on symptoms alone (Manchanda 2013; Schweitzer and Stephenson 2007).

Our approach advances existing EJ and planning scholarship by making explicit the deep interactions between residential geographies and amenity distribution, building on the "which-came-first" analyses that ask whether environmental hazards are sited near existing communities of color or whether marginalized people tend to move to neighborhoods with environmental hazards because that is where the cheapest land exists (see Boone et al. 2009; Pulido 2000; Schweitzer and Stephenson 2007). In the process, we expose how decisions traditionally outside the realm of park planning—for example, land use, housing, and education—all have a powerful influence on a locality's capacity to establish parks that serve different socioeconomic and ethnic groups. We show that even though *intentions* of Denver city officials have shifted over the past century from overtly racist policies to chasing economic development above other priorities, significant inequities in park distribution persist due primarily to the durability of decisions made many decades ago.

In the following section, we outline relevant EJ research with a particular focus on access to parks and open spaces. We then explain our methods, reveal the results of our mixed-methods study, and conclude with a discussion of our study's main takeaways for scholars and practitioners.

Parks and Environmental Justice

The environmental justice movement developed in the 1980s to protest the inequitable distributions of hazardous facilities that disproportionally affected people of color (Bullard 2000; Schlosberg 2004). EJ activists and scholars found that low-income people of color are more exposed to air pollution from traffic, incinerators and industrial plants, solid waste landfills, and water contamination (Brulle and Pellow 2006). Yet a focus on environmental amenities such as parks, healthy food stores, and transportation infrastructure that contribute to health and quality of life has also become increasingly central to much recent EJ discourse. Anguelovski (2016) argues that the EJ movement has moved from resisting the siting of environmental hazards in communities of color to also advocating for environmental resources and confronting the seemingly inevitable gentrification that accompanies these new investments. This evolution is critical for EJ scholarship as it marks a shift from a reactive stance wherein communities of color are relegated to combating the unjust siting of environmental burdens, to a more proactive, even preventive, approach involving more comprehensive efforts to achieve community well-being by leveraging key planning goals and discourses (Anguelovski 2013).

The inclusion of parks and other desirable environmental amenities in mainstream EJ discourses is the result of a number of factors related to public health and sustainability, to the increased availability of data to track spatial injustices, and to "back to the city" trends that reemphasize the importance of public space and green infrastructure in current urban growth and development trends.

First, much research has shown that urban parks—especially when safe, amenity-rich, and well-maintained—can promote physical activity for people of all ages, and therefore contribute to better physical health (see Cohen et al. 2014; McCormack et al. 2010). When well used, such parks can also bring neighbors together and contribute to increased social capital and community well-being (Larson, Jennings, and Cloutier 2016). Parks can also have environmental benefits by providing critical ecosystem services such as mitigating the urban heat island effect, helping with stormwater management, and reducing air pollution (Wolch, Byrne, and Newell 2014). This emphasis on public health and environmental sustainability is now central to many mainstream planning and policy initiatives, as evidenced by programs like the United States' Office of Federal Sustainability and many similar initiatives in cities around the globe (see McKendry 2018).

Second, the increased availability of geospatial data and advances in geographic information systems (GIS) have allowed scholars and practitioners to start mapping differential access to parks on a large scale (Rigolon 2016). This research has proven that, like other urban amenities, urban parks are inequitably distributed in most cities of the Global North, and affluent and white neighborhoods not only have more acres of parks per person but these parks are also safer and of higher quality than those in low-income areas (Rigolon 2016; Wolch, Byrne, and Newell 2014).

Third, following an era of postwar suburbanization that reduced urban tax bases and thus the ability of cities to build quality parks in the urban core, the more recent "back to the city" movement has returned parks to the attention of elected officials, planners, and advocates seeking to attract well-heeled residents back to the center (Low, Taplin, and Scheld 2005; McKendry 2018). As cities have spent lavishly on new flagship parks to make their urban landscapes more attractive to investment, green spaces have become the triggers, even the symbols, of environmental gentrification dynamics that have led to the displacement of long-term low-income residents (Anguelovski 2016; Wolch, Byrne, and Newell 2014). In turn,

EJ activists seeking to keep marginalized residents in place have been forced to, paradoxically, fight *against* the very parks for which they so long advocated (Rigolon and Németh 2018b). In the context of environmental gentrification, or the influx of wealthy residents to historically disenfranchised neighborhoods due to new investments in green infrastructure, some parks are now considered locally unwanted land uses (LULUs; Anguelovski 2016; Popper 1981).

In addition, the EJ movement has recently moved beyond a focus on spatial distribution to incorporate analyses of the processes that precipitated these inequities (see Boone et al. 2009). Environmental inequalities are built and maintained through complex processes that involve exchanges between different actors in the public sector and civil society (Pellow 2000; Pulido 2000). Though distributional disparities in access to public goods constitute injustice regardless of how such disparities were formed, a "just distribution of parks [as with other environmental amenities] does not constitute justice unless the procedures to allocate them are just as well" (Boone et al. 2009, 770; Walker 2009). As such, analyzing the mechanisms that contribute to establishing and perpetuating distributional inequities is a critical first step in eventually reversing spatial disparities (Pellow 2000). Indeed, Iris Young (1990) argues, justice-oriented analyses that focus solely on the distribution of goods and resources "tend to ignore the social structure and institutional context that often helps determine distributive patterns" (15).

Yet only a few investigations of environmental justice explicitly analyze the mechanisms that foster park access inequities in US cities. Boone et al. (2009) highlight that inequities in park acreage in Baltimore, Maryland, are linked to residential segregation perpetuated by federal government decisions and the real estate industry and to unbalanced park investments that prioritized wealthy neighborhoods. In their study of park distribution in Los Angeles, California, Wolch, Wilson, and Fehrenbach (2005) find that a park funding program in the 1990s served to increase inequities in park access by funneling more recreation dollars per child to wealthy white areas compared to disadvantaged neighborhoods of color. Other analyses have shown that funding distribution systems and racial discrimination have led to the unfair distribution of urban environmental amenities such as street trees and healthy food stores (see Heynen, Perkins, and Roy 2006; McClintock 2011). We build on this important work by looking at more than a century of political, economic, and cultural factors in Denver that precipitated park access inequities and perpetuates them to this day.

Denver: "A City in a Park"

With a population of 693,060, Denver, Colorado, is situated a few miles east of the Rocky Mountains in the Front Range metropolitan area (United States Census Bureau 2016b). Initially a mining town taking advantage of its proximity to the Rockies, Denver evolved to become the center of the largest metropolitan area in the Rocky Mountain region, also thanks to its proximity to numerous outdoor recreation opportunities and its pleasant climate that boasts more than 300 days of sunshine per year (Goetz 2013; Leonard and Noel 1990).

With regard to park planning and changing residential geographies, Denver's history falls into three periods: the "City Beautiful and New Deal" period (1902–1945), the "Post-WWII Era" marked by major suburbanization (1946–1982), and the most recent "Urban Renaissance" period (1983–present). The first era began with the establishment of the City and County of Denver in 1902 and included significant efforts to establish parks and parkways as well as deep racial discrimination against African Americans, both of which shaped residential segregation in the city (Leonard and Noel 1990; Noel and Norgren 1987). The second period was marked by suburbanization trends, disinvestment in public amenities, and a major commitment by the city to annex nearby areas on its city limits (Leonard and Noel 1990). Racial tensions related to school integration resulted in white residents banding together to prevent busing of schoolchildren of color into its established neighborhoods and newly annexed areas at the urban fringe (Romero 2004). The city's Urban Renaissance era began with the 1983 election of Federico Peña, the city's first Mayor of color. During Peña's administration, the city invested heavily in a variety of public amenities, and voter-approved bonds funded flagship projects such as a new downtown baseball stadium (Coors Field), a new airport, and dozens of new parks and schools. Subsequent mayors continued these efforts to revive Denver's core, with investments in a regional light rail network and incentives to stimulate infill development.

We selected Denver as a case study for several reasons. First, parks have shaped Denver's planning efforts from its early history. The idea of "a city in a park," the central focus of the city's most recent park planning framework (City and County of Denver 2003), is linked to City Beautiful efforts that established a connected system of parks and parkways in the first decades of the twentieth century (Leonard and Noel 1990). Denver's park system is still well-regarded today: The Trust for Public Land (2017) ranks it number twenty of the one hundred largest cities in the United States, above places like Austin, TX, and Baltimore, MD, but below San Francisco, CA, and Seattle, WA. Second, a recent study by Rigolon (2017) exposed significant inequities in park access in the city, echoing findings from other US cities. Third, as with many other US urban areas, Denver's history is marked by racial discrimination in housing (redlining, racial steering, and racially restrictive covenants), recreation (segregated parks and pools), and education (gerrymandering and state policies), all of which contributed to substantial residential segregation among white, black, and Latinx citizens (Leonard and Noel 1990; Romero 2004). Fourth, Denver has seen substantial population growth in the last fifteen years, with a 15.5 percent increase during that period (United States

Census Bureau 2016b). This growth has been facilitated by planning efforts that promote dense infill development and has been accompanied by skyrocketing rents and property values that have pushed low-income people of color to the edges of the metropolitan area (Goetz 2013). Finally, we have long-standing connections to city agencies responsible for park and land use planning, having lived in the region for a combined fifteen years.

Denver's park disparities, racial history, and recent urban resurgence make it similar to other US cities. Yet, its tri-ethnic mix (white–black–Latinx) makes it distinct from several metro areas with a strong white–black divide or with a substantial presence of Asian American residents. In addition, the sprawling physical layout of its metro area is dissimilar from many cities in the East and West coasts, and its politics (a liberal city surrounded by a historically conservative state) are unlike those in more traditionally progressive states. Since most studies of environmental justice are centered on cities in California or the Rust Belt, our focus on Denver also enables us to move the literature toward one of the fastest-growing regions in the country (Schweitzer and Stephenson 2007).

Methodology

We use a case study approach to analyze the factors that shaped inequities in access to parks in Denver. We focus concurrently on amenity distribution and the residential geographies of different racial and ethnic groups. We analyze public policies, initiatives, and social mechanisms that impacted land use, housing, and education, which shed light on residential geographies, and on park funding and planning, which elucidate where parks have been created or improved. While we focus on one city, our approach exposes broader processes that lead to spatial inequalities in access to public amenities in urban areas.

Following Boone et al. (2009), we analyze both *institutional* mechanisms, such as public policy and planning acts, and *social* mechanisms, or actions taken by private individuals and groups. The former include Federal Housing Administration (FHA) policy, exclusionary zoning, and park funding mechanisms, and the latter include racially restrictive homeowners' associations (HOA) covenants, racial steering by realtors, and predatory lending by mortgage brokers. Although separating mechanisms into these categories presents a sort of false dichotomy, differentiating between them allows us to highlight which actors have contributed to distributional inequities as well as the variety of barriers that planners, community activists, and policymakers face when ultimately seeking to address park inequities.

We rely on GIS mapping, interviews with local experts, and archival data. In the geospatial analysis, we calculate the mean acres of parks and parkways included in Census tracts with different demographic compositions. We use decennial Census data for 1940 and 1980 from the Minnesota Population Center (2016), 2015 American Community Survey data (5-year estimates from the United States Census Bureau 2016a), and park data from the City and County of Denver (2016). We focus on 1940, 1980, and 2015 because they represent the dates nearest to the end of each period for which demographic data were available. We also conduct semistructured interviews with 17 planners and historians (five females and 12 males) between March 2015 and January 2016. Six are current or retired planners at the Department of Parks and Recreation, three are current or retired planners at the Department of Community Planning and Development, one is a planner at the US Department of Housing and Urban Development (HUD), three are Denver historians, and four are staff members of local nonprofits working on urban green space issues. Interviewing planners who are currently practicing and those who have practiced in the past (dating back to the 1980s) provides important historical depth to our analysis. We then conduct an in-depth analysis of archival data, including historic land use plans, park plans, park funding documents, housing policies and programs, and newspaper articles (see Table A1 in the online Appendix A). To analyze these data, we use constant comparative analysis, a qualitative data analysis technique involving open coding and the development of themes (Leech and Onwuegbuzie 2007). We then develop *meta-inferences* that integrate quantitative and qualitative analyses by relating the distributions of parks in the three different periods to the policies and regulations that were in place at the time (see Onwuegbuzie and Johnson 2006).

Findings

Inequities in park acreage produced during the City Beautiful and New Deal eras persist today, highlighting the challenges of reversing the long-lasting legacy of racist public policy. Table 1 provides detail on park distribution across these three historical periods and shows that, although inequities in park acreage have diminished over time, white residents have always enjoyed better park access than people of color.

Table 2 introduces the major social and institutional mechanisms that have shaped Denver's park inequities in the three main phases of its urban history. Following the table, we show that through each period, the majority of the most powerful and durable forces shaping these inequities fall outside the purview of park planners.

Although white residents have always enjoyed better access to parks throughout the past century, it is important to discuss the factors leading to gradually improving park access for black and Latinx residents depicted in Table 1. First, the percentage of white residents in the city overall shifted from 90 percent in 1940 (Native whites) to 53 percent in 2015 (non-Hispanic whites), with the share of people of color increasing proportionally over that same period (United States Census Bureau 2016a; Minnesota Population Center 2016). From 1940 to 1980, with white residents leaving Denver in large numbers in the decades following World War II (Leonard and Noel 1990), many black and Latinx residents

Table 1. Park Acres for Different Demographic Groups in the Three Periods.

1940—City Beautiful and New Deal			
	Native White Residents > 85%	Black Residents > 25%	Foreign Born Residents > 25%
Acres[a]	74.83	4.27	7.49
Acres per 1,000 people[b]	12.87	0.50	1.81
1980—Post–World War II era			
	Majority white	Majority black	Majority Spanish[c] Origin
Acres	54.19	16.07	35.03
Acres per 1,000 people	18.87	3.34	9.61
2015—Urban renaissance			
	Majority non-Hispanic white	Majority non-Hispanic black	Majority Hispanic Origin (Latinx)
Acres	34.14	27.61	28.27
Acres per 1,000 people	31.28	21.51	21.26

Source: Minnesota Population Center (2016) and United States Census Bureau (2016a) for demographic data. City and County of Denver (2016) for park data.
[a]Mean number of park acres contained in Census tracts with these demographic compositions.
[b]Mean number of park acres per 1,000 people living in Census tracts with these demographic compositions.
[c]Category used in the 1980 Census.

Table 2. Mechanisms Leading to Inequities in Park Acreage in Denver.

	Amenity Distribution		Residential Location	
	Institutional	Social	Institutional	Social
City Beautiful and New Deal (1902–1945)	- Park districts distribute park funds to areas collecting more property taxes[a] - City Beautiful park plans to increase the city's prestige[a]	- Developers donate land for parks in upscale subdivisions[a] - *De facto* segregated parks and pools[a]	- Exclusionary zoning near large parks/ parkways (1925 code)[b] - Redlining traditionally black neighborhoods[c] - Lack of state or federal laws combating housing discrimination[c]	- Racially-restrictive residential covenants[c] - Exclusionary subdivision regulations[b] - Violence against black residents moving to majority-white neighborhoods[c]
Post–World War II era (1946–1982)	- Public disinvestment in parks[a] - Department of Improvements and Parks is split; parks department loses funds[a]	- Voters approve the Poundstone Amendment to the Colorado Constitution[b,d]	- Exclusionary zoning near large parks-parkways (1956 code)[b] - Gerrymandered school attendance zones[d]	- Racial steering by Realtors[c] - Neighborhood associations form task forces to enforce exclusionary zoning[b]
Urban renaissance (1983–present)	- Lack of impact fees and parkland dedication requirement for infill projects[a] - Capital improvement park budgets often ignore park need[a] - New large parks used for urban marketing, mostly serving white affluent areas[a]	- Developers and HOAs establish privately owned parks in upscale master-planned communities[a] - The most vocal groups (white and affluent) influence how park funds are distributed via yearly budget and bond money[a]	- Exclusionary zoning near large parks/ parkways still in place (1956 and 2010 codes)[c] - Failure of inclusionary zoning: Few affordable housing in new master-planned communities[b,c]	

Sources: See Table A1 in the online Appendix A and interviews.
[a]Park funding and planning.
[b]Land use law.
[c]Housing.
[d]Education.

spread out from deep inner-city areas such as Five Points and Highland into surrounding neighborhoods with more parks per acre than the urban core (compare Figure 1 to Figure 2 below). Park access improved further for people of color from 1980 to 2015 as a result of the migration of white residents back to Denver's core. From 2000 to 2015 alone, white

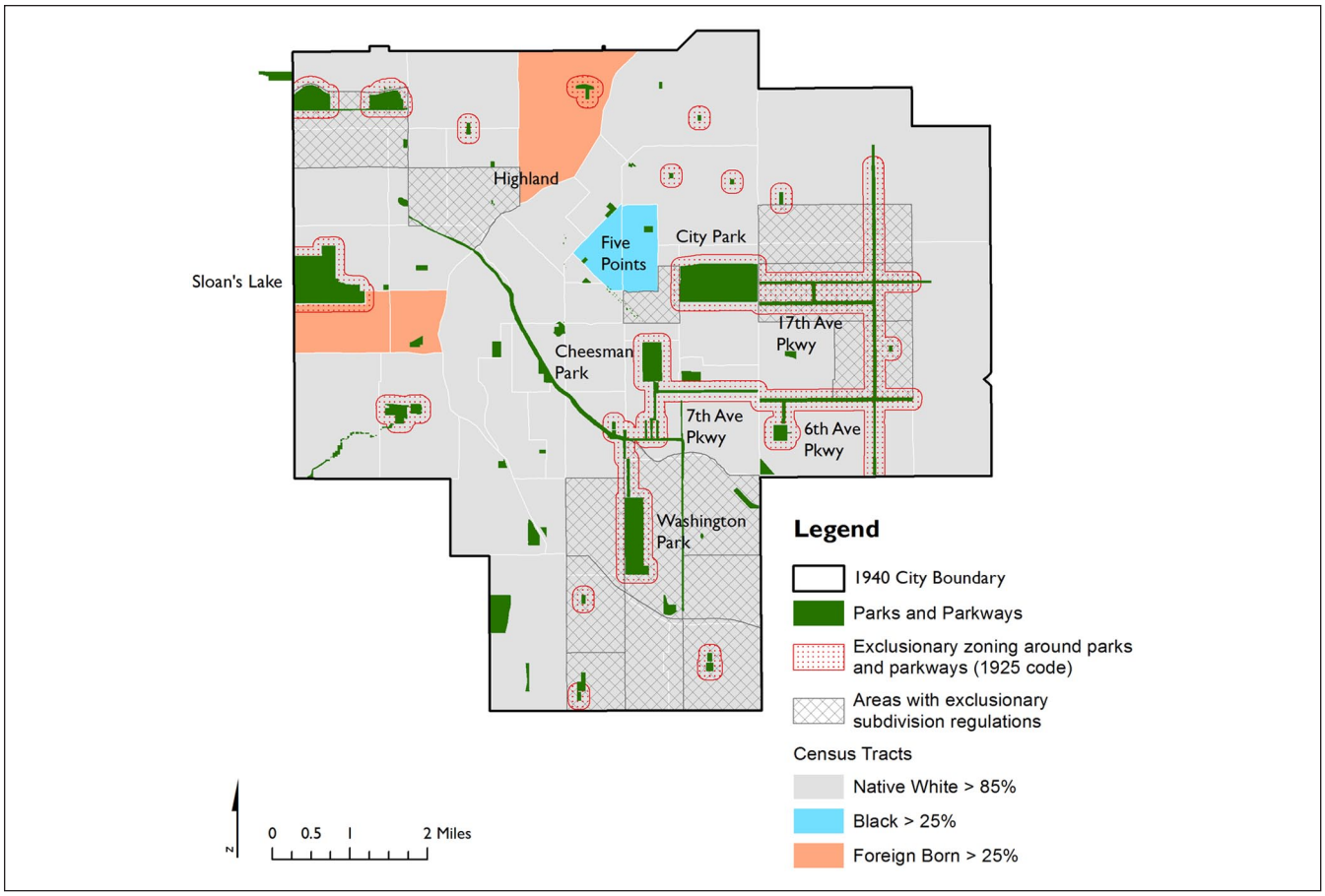

Figure 1. The distribution of parks in 1940.
Sources: Minnesota Population Center (2016), City and County of Denver (2016), and Denver Public Library's Western History Collection.

residents living within two miles of downtown increased by 33 percent (United States Census Bureau 2016a). The consequent gentrification of park-poor but culturally rich inner-city areas has forced people of color even further out of the urban core into less expensive but more park-rich neighborhoods on the southwest and far northeast urban fringes (compare Figure 2 to Figure 3 below).

City Beautiful and New Deal

During this first period, blacks and Latinx residents were segregated from white residents and forced to live in a few overcrowded neighborhoods. While the beautification efforts led by Mayors Speer and Stapleton also included pocket parks and playgrounds in immigrant-heavy neighborhoods, the majority of Denver's parks and parkways were sited in upscale white areas that paid higher property taxes (see Figure 1). The parks established up until 1945 totaled 1,528 acres, approximately 36 percent of today's 4,233 acres.

In terms of amenity distribution, park funding systems divided Denver into four districts and distributed more funding to the districts paying more property taxes, that is, where the city's wealthiest residents resided (see Figure 1). As a local historian explained, "East Denver, South Denver, and Montclair, during Mayor Speer's administration, were wealthy and raised a lot of tax money for park establishment and improvement" (historian, interview, March 9, 2015). According to a number of park planners, the general pattern of inequity between east and south Denver (more parks), and north and west Denver (fewer parks) is rooted in this early funding system (planners at Parks and Recreation, interviews, March 18, April 23, and May 15, 2015).

In addition, City Beautiful park plans were mostly intended to increase the city's prestige and therefore concentrated most of the new large parks and parkways in wealthy areas, an early example of urban marketing and growth machine politics (see Molotch 1976; McKendry 2018). Similarly, developers of upscale subdivisions donated land to the city to increase the marketability of their projects. As a park planner interviewee noted: "If you look at historical subdivisions of Denver, their plat map generally shows a mythical park. Developers put parks in the plat maps to attract potential buyers as a form of advertisement for their subdivision" (planner at Parks and Recreation, interview, March 18, 2015).

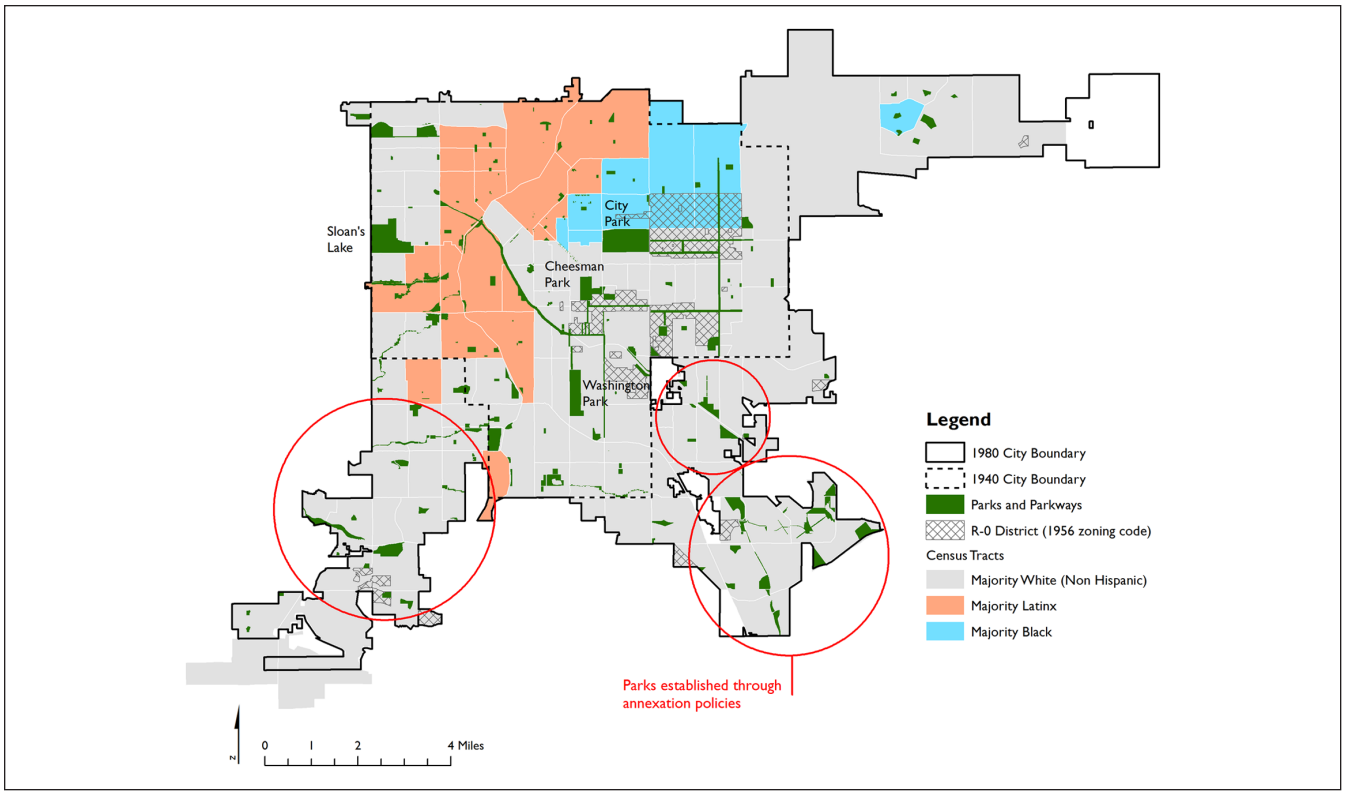

Figure 2. The distribution of parks in 1980.
Sources: Minnesota Population Center (2016), City and County of Denver (2016), and Denver Public Library's Western History Collection.

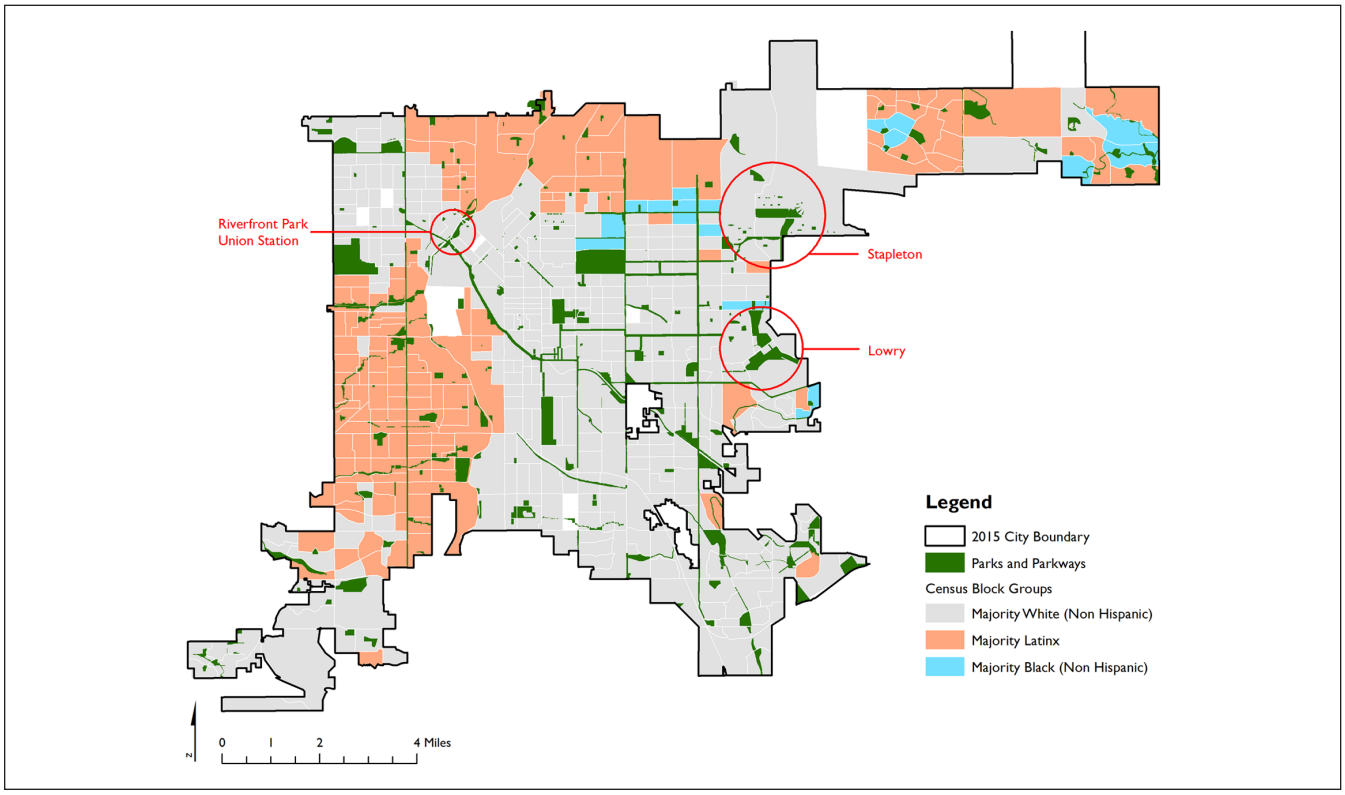

Figure 3. The distribution of parks in 2015.
Sources: United States Census Bureau (2016a) and City and County of Denver (2016).

In terms of residential geographies, the city's first zoning ordinance in 1925 also made sure that no low-income people could afford to live near such green spaces. The most restrictive district ("Residence A"), which prohibited anything but single-family homes on large lots, was used as an exclusionary zoning tool in the blocks adjacent to the city's flagship parks such as City Park, Cheesman Park, and Washington Park (see Figure 1). Zoning became less restrictive as one moved away from the parks, suggesting that city planners aimed to maximize proximity between expensive homes and prestigious parks. In a similar fashion, developers of upscale subdivisions in park-rich neighborhoods such as Park Hill, City Park West, and Berkeley introduced regulations that often required the purchase of two lots and prescribed sizeable square footage and construction cost minimums (Leonard and Noel 1990). Single-family zoning requirements around Denver's flagship parks and parkways have remained relatively unchanged to this date (see Denver Community Planning and Development 2018).

Racial discrimination in housing policy also resulted in the segregation of nearly all of the city's black residents into a downtown-adjacent neighborhood called Five Points, an area once named the "Harlem of the West" and historically characterized by very high population densities and a dearth of public services (see Figure 1). In this same period, parts of the Highland neighborhood in northwest Denver, a disinvested inner-city area, saw a major influx of Latinx residents. Since the residential geographies of high-income, majority-white areas in east- and south-central Denver have not changed much since this period (see subsequent sections), the large parks and parkways established in these areas during the City Beautiful and New Deal eras—when the city had significant resources to create parks—are still predominantly serving the city's most affluent groups.

Post–World War II Era

In the decades following World War II, low-income people of color were still excluded from the areas around Denver's most prestigious parks and parkways. Coupled with this era's "white flight" to the suburbs, attempts to combat these inequities by establishing new parks in areas where people of color could live became even more difficult. In addition, a powerful amendment to the Colorado Constitution that prohibited Denver from annexing land from nearby counties halted any parkland acquisition that normally occurs with such urban expansion.

In terms of park planning, funding for parks diminished precipitously during this period because of declines in property tax revenues linked to mostly white middle- and upper-class families leaving Denver for its growing suburbs, a common story in post–World War II US cities (Leonard and Noel 1990). Also, the 1956 split of the formerly joined-up Department of Public Works and Department of Parks and Recreation resulted in a less powerful park agency. According to one park planner: "Parks and Recreation started competing for the budget, resulting in less money available for parks. Parks were seen as the soft, less necessary, part of the city. Public works and planning became predominant" (planner at Parks and Recreation, interview, March 18, 2015).

Another major factor that limited Denver's capacity to establish parks rebalance inequities was the approval of the Poundstone Amendment to the Colorado Constitution in 1974 through a statewide vote. Until this time, annexation was Denver's favored and most effective way to acquire land for parks since land acquisition required developers of new subdivisions to dedicate a certain acreage of land to parks (planners at Community Planning and Development, interview, March 10 and April 22, 2015). The amendment allowed annexations by the City of Denver if and only if the majority of residents in the county from which land was annexed voted in favor, not just the owners of the unincorporated land in question (Leonard and Noel 1990). This new rule was in fact motivated by major social opposition to racial integration in schools, as white residents of Denver's suburbs feared that their children would be forced to attend schools with children and teenagers of color (Romero 2004). Thus, a racist amendment intended to prohibit integration in schools also had major negative impacts on Denver's capacity to establish large parks beyond those that already existed in its most affluent neighborhoods.

In terms of residential geographies, the city's 1956 zoning code reinforced some of the exclusionary mechanisms of the 1925 version. Of particular note is the R-0 district, a restrictive zone found in Denver's most upscale neighborhoods with the highest-quality parks and parkways that prescribed single-family homes on large lots and prohibited unrelated people from "living-in-sin" together (see Figure 2; Cole 2014). As one historian explained: "The R-0 district shows that some neighborhoods used zoning to keep away communities of color who didn't have the same housing practices, like sharing homes with unrelated people and with the extended family" (historian, interview, March 25, 2015). Additional social and institutional mechanisms used to perpetuate residential segregation in these years included racial steering, which persisted at least until the Fair Housing Act, and gerrymandered school attendance boundaries, which successfully kept schools and residential neighborhoods segregated (Romero 2004; Leonard and Noel 1990).

As a result of changes in residential location patterns mentioned earlier, namely, the dispersion of white residents into suburban areas and the vacating of neighborhoods on the western and northeastern urban edges of the city, people of color began to move out of historically black and Latinx neighborhoods into areas with better park acreage per capita (see Table 1 and compare Figure 1 to Figure 2). Between 1940 and 1980, for example, blockbusting practices and the fear of racially mixed schools helped foster an exodus of white residents out of these more park-rich neighborhoods

(see Figure 2; Cole 2014; Romero 2004). In turn, black residents were able to move from Five Points into adjacent northeastern neighborhoods such as Whittier, Cole, and North Park Hill (Leonard and Noel 1990). Boone et al. (2009) report similar trends in Baltimore, where black residents have over time enjoyed increasingly better access to "hand-me-down" parks left over by white former residents (783). But the demographic composition of neighborhoods near Denver's most iconic large parks and parkways remained relatively unchanged, as affluent white residents continued to be the most prevalent groups living around City Park, Washington Park, Cheesman Park, and the adjacent parkways (see Figure 2). Thus, Denver's most prestigious parks anchored wealthy white residents around them during a period of widespread white flight, whereas its smaller parks built in later years near the city limits did not.

Urban Renaissance

The third period is characterized by Denver's renewed interest in its urban core, which has led to more investment in its public amenities in the heart of the city. These investments in parks and other infrastructure are more based on economic growth priorities than on equity goals, and new amenities have served to maintain socioeconomic and ethnic disparities in access to parks, although these disparities have diminished over the years. The lack of parkland dedication requirements and park fees for infill developments has limited the city's capacity to acquire or improve parks in underserved neighborhoods where private investment has lagged. And while several large parks have been established in some of the city's flagship infill developments, weak affordable housing policies have made these developments inaccessible for low-income people (see Figure 3). Finally, neighborhoods containing the city's largest and most prestigious parks and parkways did not see significant demographic change, as skyrocketing property values and historic designations, among other factors, have contributed to "setting in stone" these exclusive centrally located neighborhoods.

In terms of park funding and planning, unlike most major cities such as Los Angeles, San Diego, and Chicago, Denver does not require infill developers to pay impact fees for parks or to dedicate land for park space (Harnik and Yaffe 2005). To overcome this issue, in June 2018, one Denver councilmember proposed the introduction of a sales tax to pay for park construction and maintenance, but this tax does not yet have the endorsement of other elected officials, nor it would prioritize low-income, park-poor areas (Murray 2018). Although out of the control of park planners per se, the lack of impact fees or land dedication policies is a potential missed opportunity for the city as it could represent a major source of funding for new parkland, particularly at a time of significant population growth when available land is becoming even scarcer. As a park planner laments,

> The lack of an impact fee or of a land [dedication] requirement for infill developments has an impact on existing parks. . . . At Parks and Rec, we strongly advocate for an impact fee. We make the case for it every time we can. Decisions about impact fees are made at a much higher level. The Mayor needs to be on board. (planner at Parks and Recreation, interview, May 4, 2015)

The distribution of capital improvement funds for parks further exacerbates existing park inequities. According to one planner, park budgets are politically driven, and negotiations between city council members that aim to "split the cake" to keep constituents happy can trump priorities set by the Department of Parks and Recreation related to more rigorous park needs assessments. And due to open public meetings, each district's most vocal blocs of constituents have the power to influence how scarce money for public investments is spent, including yearly capital improvement funds and bond dollars:

> Recently the district with Cheesman Park [District 10, a wealthy part of Denver] spent a lot of money to recreate the historic trails within the park. It is probable that the decision to spend the money in this park came from public meetings in which the voice of historic preservation people was very strong. Who speaks the loudest has the last word. (planner at Community Planning and Development, interview, March 10, 2015)

Similar power imbalance problems have emerged for bond issues, which recently have been one of the major mechanisms to fund parks in Denver. Passing bond issues requires substantial lobbying and funding, as well as gaining "support from well-connected Denver residents," as one interviewee suggested (planner at Parks and Recreation, interview, May 15, 2015). In addition, our interviewees noted that bond issues tend to prioritize regional parks, which are unique in that they are all 75 acres or larger, nearly universally contain the widest variety of amenities, and receive the highest share of the department's maintenance budget (Denver Parks and Recreation 2007). As one park planner stated, "Historically, Denver's residents have recognized the importance of regional parks. In the past, most of the bond money was focused on regional parks, which were the most used parks" (planner at Parks and Recreation, interview, March 27, 2015). Recent research shows that Denver's regional parks are mostly located in the city's affluent white neighborhoods (Rigolon 2017); therefore, bonds supporting capital improvement projects in regional parks are another publicly funded gift to mostly wealthy white residents.

In addition, most of the recent public investments in large parks have been concentrated in flagship infill developments such as Stapleton, Lowry, Union Station, and Riverfront Park (see Figure 3). New green spaces located in these neighborhoods have been used as urban marketing tools to attract new residents and boost property tax revenues for the city. So

Table 3. Parks Larger Than 20 Acres Built in Denver between 1990 and 2015.

Park Name	Year	Acreage	Percent Non-Hispanic white	Median Household Income
Parkfield Park	1992	88.3	27.6	$56,954
City of Cuernavaca Park	1993	24.8	62.7	$69,480
Commons/Confluence Park	1995	21.3	83.9	$92,396
Lowry Sports Complex	2000	51.5	78.3	$76,650
Greenway Park	2005	40.5	71.3	$124,297
Central Park	2008	76.1	71.7	$137,012
Great Lawn Park	2010	43.5	78.3	$76,650
Lowry Open Space and Dog Park	2013	56.6	78.3	$76,650
Town Center Park	2015	25.5	24.9	$85,568
Northfield Athletic Complex	2015	20.9	71.7	$137,012
Citywide values			53	$53,637

Data sources: United States Census Bureau (2016a) for demographic data; City and County of Denver (2016) for park data.
Note: Demographic values depict census tracts containing each park. The list of parks includes developed green spaces and excludes undeveloped open spaces. Parks larger than 20 acres are categorized as "community" or "regional" parks in Denver.

while in the 1980s the Department of Parks and Recreation was planning a large regional park to serve historically park-poor Latinx neighborhoods northwest of downtown, developer pressures and the city's growth machine politics prevailed. According to a park planner, "What happened [instead] is that the new parks along the Platte, like Commons Park [a subarea of Riverfront Park], just created a front yard for a bunch of expensive condos" (planner at Parks and Recreation, interview, April 24, 2015). Similarly, developers and HOAs have established privately owned parks in some of the city's New Urbanist communities, including Stapleton and Lowry (Rigolon and Németh 2018a). A number of interviewees suggested that these private parks, although relatively small, have higher standards in terms of maintenance and amenities compared to publicly owned green space (planners at Parks and Recreation, interviews, April 23 and May 15, 2015).

Low-income people of color have limited opportunities to live in these new flagship developments and to enjoy these public and private parks. Several interviewees reported that Denver has had a very limited budget for affordable housing, and that the city's inclusionary housing ordinance has failed to create new housing that is truly affordable for its poorest residents, particularly in Denver's flagship infill developments (HUD planner, interview, March 23, 2015; planner at Park and Recreation, April 23, 2015). Therefore, as part of concerted efforts to attract well-off folks back to the city, nearly all construction in these new developments has been market rate or above. As a result, nearly all of the large parks built between 1990 and 2015 are located in neighborhoods that are now affluent and majority-white (see Table 3).

Park planners and policymakers have moved beyond overtly discriminatory policies to a formally "neutral" approach to park provision. As one interviewee suggested, "park planners are pretty class and race blind. They want to put parks in the parts of the city that do not have enough parks regardless of who lives there" (planner at Community Planning and Development, interview, March 10, 2015). Indeed, the city's most recent planning frameworks for parks—Game Plan (2003) and Denver Play Area Master Plan (2008)—seek to provide parks in all neighborhoods, prioritizing equal distribution over equitable provision (City and County of Denver 2003, 2008). In other words, due to the politics of "splitting the cake" for park resources and to the city's focus on economic growth, the Department of Parks and Recreation seeks to provide new parks equally across all neighborhoods, instead of prioritizing park investments into historically marginalized neighborhoods with higher shares of park-dependent residents.

At the same time, Denver's elected officials and development community have used well-financed community and regional parks to boost real estate values in these flagship developments, so low-income people of color have consequently benefited very little from the only public investments in large parks the city has enjoyed over the past several decades. A former manager of Denver's Parks and Recreation explained the use of large parks as revenue generators that promote the exchange value of land over its use value (Fischer and Whitney 2012): "By investing a few million dollars into those parks and transforming them from industrial areas . . . into some of the greatest parks within the city, we've seen more than a 10 billion dollar investment throughout the South Platte corridor." The Greenway Foundation, a nonprofit that has played a key role in the revitalization of the South Platte River, echoed this approach by using the slogan "green equals green" (Fischer and Whitney 2012). Similar strategies have been employed by a number of cities in the United States, United Kingdom, Canada, and other Global North countries (McKendry 2018).

In sum, recent gains in access to parks for Denver's people of color are less due to deliberate equity-oriented initiatives by park planners or policymakers and are instead better explained by residential location dynamics. Specifically, the movement of white residents around the region has freed up

more park-rich areas on Denver's urban edge where previously constrained black and Latinx residents have more recently been able to move (compare Figure 2 to Figure 3).

Conclusion

In this paper, we conducted an in-depth case study of park planning in Denver from 1902 to the present and found that discriminatory policies and social mechanisms that shape residential geographies have had major impacts on access to parks as urban amenities. In Denver, the legacy of social and institutional mechanisms that affected residential geographies and the placement of parks during the City Beautiful and New Deal eras continues today. Although some strides have been made, the City of Denver has never been able, and some would argue *willing*, to completely reverse the park inequities created during these formative periods. Whether Denver has *intentionally* sought to keep marginalized groups underserved by parks is unclear, but its failure to levy developer impact fees and the more recent concentration of new large parks in flagship developments with insufficient affordable housing provision suggest that, at the very least, addressing park inequities is not a top priority.

Many of the historical and contemporary inequities we identify were sparked by exclusionary land use regulations at both the local and state levels as well as the reverberations of racist housing and lending policies that initially segregated low-income people of color into overcrowded and park-poor neighborhoods. In addition, Denver's largest and most exclusive parks and parkways were all originally sited in wealthy white neighborhoods, and these spaces contributed to increasing the prestige—and property values—of these areas. While these green spaces have shaped their neighborhood, influential local residents have also shaped their parks by advocating for generous funding, thus establishing a strong interdependence between park quality and neighborhood control. In addition, discriminatory housing and land use mechanisms have made these park-rich neighborhoods less accessible and affordable for low-income people of color. That wealthy white residents continue to cluster around Denver's most prestigious parks is not just a historical legacy of racist policies from Denver's early history, but it has also been constantly reinforced by subsequent land use and housing policies that mostly fall outside of park planners' purview. Indeed, many of these policies have strengthened housing affordability barriers that have de facto excluded people of color from Denver's greenest neighborhoods.

These findings are not unique to Denver: racist housing policies and disinvestment in central cities have had long-lasting impacts on the provision of environmental benefits and burdens—from schools to jobs to parks to playgrounds—in cities around the country (see Boone et al. 2009; McClintock 2011). And these inequities live on today, limiting social mobility and wealth accumulation for the least well off (see Chetty and Hendren 2015). In our case, historic and public acts of discrimination have helped shape current conditions in Denver where contemporary policies that purport to be "race-neutral" still have powerful racially stratified impacts (Hayward and Swanstrom 2011). Patterns of white flight and more recent national migration back to the urban core, both of which have been supported by robust sets of policies and plans at the federal, state, and local level, continue to shape uneven access to parks in not only Denver but in cities across the United States.

Future research along these lines could expand our study into different sociopolitical contexts and examine the range of strategies that community activists, planners, and progressive elected officials are using to secure a larger share of environmental amenities for low-income ethnic minority neighborhoods, as well as to address potential environmental gentrification dynamics related to the establishment of new parks (see Anguelovski 2013, 2015; Rigolon and Németh 2018b). Such work might analyze how park planners are responding to changing urban populations, including addressing the recreation needs of increasingly ethnically diverse residents, aging baby boomers, and Millennials. Planners will have to negotiate conflicts between entrenched interests in urban sports that are experiencing a decline in users but still take up significant amounts of parkland (e.g., golf, tennis) and emerging sports and recreation activities that are popular among Millennials and ethnic minority youth (e.g., soccer, skateboarding, dog parks; Woods 2017; Urbanik and Morgan 2013; Thorpe 2016). These conflicts raise important questions about which "publics" a park is intended to serve (Langegger 2013; Németh 2009).

As our analysis shows, agency, intention, and blame are difficult concepts to pin down when confronting what Hayward and Swanstrom (2011) call *thick injustice*, or "unjust power relations that are deep and densely concentrated, as well as opaque and relatively intractable" (4). What makes injustice thick, they argue, is the institutional and decision-making structure of metropolitan governance in US cities, and, perhaps most powerfully, the fixedness of these power relations in material spaces and places. Just as this deep-rootedness of urban injustice obscures privilege and disadvantage, it also makes it difficult to ascribe blame or responsibility to certain parties.

Park planners work within a complex set of interrelated institutions that constantly shape their decision space. Even when well-meaning planners strive to dismantle injustices, their ability to effect positive change is limited by the siloing of parks and land use planning departments and by political systems prioritizing economic growth above social equity. Yet, in the absence of explicitly racist or classist policies today, park planners have some agency—although limited—to rectify these thick injustices in their everyday work.

First, they should make equity an explicit aim in all their decisions, and expose the often racist outcomes of current "colorblind" policies and initiatives (Campbell, Tait, and Watkins 2014; Young 2004).

Second, planners should strive to overturn the historical disenfranchisement of marginalized groups by making efforts to meaningfully engage them in contemporary planning processes (Miller and Lubitow 2015).

Third, park planners can develop cross-sector collaborations with city departments working on land use planning, transportation, public works, and housing (National Recreation and Park Association 2016; McKendry 2018; Rigolon and Németh 2018b). By partnering with these departments, park planners can access funding for transportation and stormwater management and acquire more agency in the way of policies and initiatives that shape residential location, including working to limit the negative impacts of environmental gentrification.

Fourth, park planners should engage the nonprofit sector in mobilizing communities to ask elected officials to prioritize park equity over developers' interests (Anguelovski 2015; Rigolon and Németh 2018b). For example, The City Project—an environmental justice nonprofit—successfully used civil rights laws to build the thirty-two-acre Los Angeles State Historic Park in a low-income neighborhood of Los Angeles in lieu of developer-proposed industrial warehouses (García and White 2006).

Finally, park planners can develop creative strategies to increase access to parks for marginalized people, such as creating linear parks along waterways and utility corridors (e.g., Los Angeles River revitalization; García and White 2006), improving transit and trail access to regional parks following recent calls for Safe Routes to Parks (National Recreation and Park Association 2015), repurposing underutilized green space such as public golf courses (The Trust for Public Land 2018), and using tactical urbanism strategies to build pocket parks by closing intersections and reducing the width of oversized right of ways (Lydon and Garcia 2015).

In this article, we identify the mechanisms that have helped shape park inequities in Denver, and show that where people live—which is as much a function of where they have historically been *allowed* to live—matters just as much as (if not more than) where we locate environmental amenities. And where people live has always been determined by race and class, with segregation in cities no less intense now than it was in the Jim Crow era (see Fry and Taylor 2012). Put another way, although state-sponsored segregation and racial discrimination are no longer authorized by law or policy, "land use policies remain an important way—perhaps the most important way—that we racially distribute opportunities and burdens in the United States" (Powell 2009, 29). As such, park planners can use some of the above strategies to reposition themselves at the center of the discourse around environmental equity and expose the impact that deeply embedded institutions and structures such as housing and education policy have on their own piece of the puzzle.

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References

Agyeman, Julian, David Schlosberg, Luke Craven, and Caitlin Matthews. 2016. "Trends and Directions in Environmental Justice: From Inequity to Everyday Life, Community, and Just Sustainabilities." *Annual Review of Environment and Resources* 41:321–40.

Anguelovski, Isabelle. 2013. "New Directions in Urban Environmental Justice: Rebuilding Community, Addressing Trauma, and Remaking Place." *Journal of Planning Education and Research* 33 (2): 160–75.

Anguelovski, Isabelle. 2015. "Tactical Developments for Achieving Just and Sustainable Neighborhoods: The Role of Community-Based Coalitions and Bottom-to-Bottom Networks in Street, Technical, and Funder Activism." *Environment and Planning C: Government and Policy* 33 (4): 703–25.

Anguelovski, Isabelle. 2016. "From Toxic Sites to Parks as (Green) LULUs? New Challenges of Inequity, Privilege, Gentrification, and Exclusion for Urban Environmental Justice." *Journal of Planning Literature* 31 (1): 23–36.

Boone, Christopher G., Geoffrey L. Buckley, J. Morgan Grove, and Chona Sister. 2009. "Parks and People: An Environmental Justice Inquiry in Baltimore, Maryland." *Annals of the Association of American Geographers* 99 (4): 767–87.

Brulle, Robert J., and David N. Pellow. 2006. "Environmental Justice: Human Health and Environmental Inequalities." *Annual Review of Public Health* 27 (102): 103–24.

Bullard, Robert D. 2000. *Dumping in Dixie: Race, Class, and Environmental Quality*, 3rd ed. Boulder, CO: Westview.

Campbell, Heather, Malcolm Tait, and Craig Watkins. 2014. "Is There Space for Better Planning in a Neoliberal World? Implications for Planning Practice and Theory." *Journal of Planning Education and Research* 34 (1): 187–213.

Chetty, Raj, and Nathaniel Hendren. 2015. "The Impacts of Neighborhoods on Intergenerational Mobility: Childhood Exposure Effects and County-Level Estimates." Working Paper, Harvard University and NBER. http://scholar.harvard.edu/files/hendren/files/nbhds_paper.pdf.

City and County of Denver. 2003. "Game Plan: Creating a Strategy for Our Future." Denver, CO. http://www.denvergov.org/parksandrecreation/DenverParksandRecreation/Planning/MasterPlans/tabid/443687/Default.aspx.

City and County of Denver. 2008. "Denver Play Area Master Plan: A Citywide System of Play." Denver, CO. https://www.denvergov.org/content/dam/denvergov/Portals/747/documents/planning/master_plans/Denver_playgroundsfinal.pdf.

City and County of Denver. 2016. "Denver Open Data Catalog." *City and County of Denver*. http://data.denvergov.org/.

Cohen, Deborah A., Terry Marsh, Stephanie Williamson, Bing Han, Kathryn Pitkin Derose, Daniella Golinelli, and Thomas L. McKenzie. 2014. "The Potential for Pocket Parks to Increase Physical Activity." *American Journal of Health Promotion* 28 (3 Suppl): S19–S26.

Cole, B. Erin. 2014. "R-0: Race, Sexuality and Single-Family Zoning in Denver's Park Hill and Capitol Hill Neighborhoods, 1956-1989." University of New Mexico.

Denver Community Planning and Development. 2018. "Denver Zoning Code." https://www.denvergov.org/content/denvergov/en/community-planning-and-development/zoning/denver-zoning-code.html.

Denver Parks and Recreation. 2007. "Denver Parks and Recreation Maintenance Standards." Denver, CO. https://www.denvergov.org/Portals/747/documents/planning/master_plans/MaintentanceStandardsforParks.pdf.

Fischer, Alex, and Timothy Whitney. 2012. *Denver—Red Fields to Green Fields*. Denver: Red Fields to Green Fields. http://vimeo.com/25095433.

Fry, Richard, and Paul Taylor. 2012. *The Rise of Residential Segregation by Income*. Washington, DC: Pew Research Center. http://www.pewsocialtrends.org/2012/08/01/the-rise-of-residential-segregation-by-income/.

García, Robert, and Aubrey White. 2006. *Healthy Parks, Schools, and Communities: Mapping Green Access and Equity for the Los Angeles Region*. Los Angeles, CA: The City Project. https://www.cityprojectca.org/ourwork/mappinggreenaccess/documents/Healthy_Parks_Schools_Communities_textonly.pdf It's a policy report.

Goetz, Andrew. 2013. "Suburban Sprawl or Urban Centres: Tensions and Contradictions of Smart Growth Approaches in Denver, Colorado." *Urban Studies* 50 (11): 2178–95.

Harnik, Peter, and Laura Yaffe. 2005. *Who's Going to Pay for This Park? The Role of Developer Exactions in the Creation of New City Parks*. Washington, DC: The Trust for Public Land. http://www.tpl.org/research/parks/ccpe.html.

Hayward, Clarissa R., and Todd Swanstrom, eds. 2011. *Justice and the American Metropolis*. Minneapolis, MN: University of Minnesota Press.

Heynen, Nik, Harold A. Perkins, and Parama Roy. 2006. "The Political Ecology of Uneven Urban Green Space: The Impact of Political Economy on Race and Ethnicity in Producing Environmental Inequality in Milwaukee." *Urban Affairs Review* 42 (1): 3–25.

Langegger, Sig. 2013. "Viva La Raza! A Park, a Riot and Neighbourhood Change in North Denver." *Urban Studies* 50 (16): 3360–77.

Larson, Lincoln R., Viniece Jennings, and Scott A. Cloutier. 2016. "Public Parks and Wellbeing in Urban Areas of the United States." *PLoS One* 11 (4): 1–19.

Leech, Nancy L., and Anthony J. Onwuegbuzie. 2007. "An Array of Qualitative Data Analysis Tools: A Call for Data Analysis Triangulation." *School Psychology Quarterly* 22 (4): 557–84.

Leonard, Stephen, and Thomas J. Noel. 1990. *Denver: Mining Camp to Metropolis*. Niwot, CO: University Press of Colorado.

Low, Setha, Dana Taplin, and Suzanne Scheld. 2005. *Rethinking Urban Parks: Public Space and Cultural Diversity*. Austin: University of Texas Press.

Lydon, Mike, and Anthony Garcia. 2015. *Tactical Urbanism: Short-Term Action for Long-Term Change*. Washington, DC: Island Press.

Manchanda, Rishi. 2013. *The Upstream Doctors: Medical Innovators Track Sickness to Its Source*. New York: TED Press.

McClintock, Nathan. 2011. "From Industrial Garden to Food Desert: Demarcated Devaluation in the Flatlands of Oakland, California." In *Cultivating Food Justice: Race, Class, and Sustainability*, edited by Alison H. Alkon and Julian Agyeman, 89–120. Cambridge, MA: MIT Press.

McCormack, Gavin R., Melanie Rock, Ann M. Toohey, and Danica Hignell. 2010. "Characteristics of Urban Parks Associated with Park Use and Physical Activity: A Review of Qualitative Research." *Health & Place* 16 (4): 712–26.

McKendry, Corina. 2018. *Greening Post-industrial Cities: Growth, Equity, and Environmental Governance*. New York: Routledge.

Miller, Thaddeus R., and Amy Lubitow. 2015. "The Politics of Sustainability: Contested Urban Bikeway Development in Portland, Oregon." In *Incomplete Streets: Processes, Practices, and Possibilities*, edited by Stephen Zavestoski and Julian Agyeman, 266–89. Abingdon, England: Routledge.

Minnesota Population Center. 2016. *National Historical Geographic Information System: Version 11.0 [Database]*. Minneapolis, MN: University of Minnesota.

Molotch, Harvey. 1976. "The City as a Growth Machine: Toward a Political Economy of Place." *American Journal of Sociology* 82 (2): 309–32.

Murray, Jon. 2018. "Denver Sales Tax Hike Would Pay for More Parks under City Councilman's Proposal." *The Denver Post*, June 11. https://www.denverpost.com/2018/06/11/denver-parks-expansion-sales-tax/.

National Recreation and Park Association. 2015. "Safe Routes to Parks: Improving Access to Parks through Walkability." Ashburn, VA. http://www.nrpa.org/uploadedFiles/nrpa.org/Publications_and_Research/Research/Papers/Park-Access-Report.pdf.

National Recreation and Park Association. 2016. "Great Urban Parks Campaign: Green Infrastructure in Underserved Communities." Atlanta, GA. https://www.nrpa.org/contentassets/0e196db99af544bbba4f63f480c1316b/great-urban-parks-campaign-initial-convening-report.pdf.

Németh, Jeremy. 2009. "Defining a Public: The Management of Privately Owned Public Space." *Urban Studies* 46 (2008): 2463–90.

Noel, Thomas J., and Barbara Norgren. 1987. *Denver: The City Beautiful and Its Architects*. Denver, CO: Historic Denver, Inc.

Onwuegbuzie, Anthony J., and R. Burke Johnson. 2006. "The Validity Issue in Mixed Research." *Research in the Schools* 13 (1): 48–63.

Pellow, David N. 2000. "Environmental Inequality Formation: Toward a Theory of Environmental Injustice." *American Behavioral Scientist* 43 (4): 581–601.

Popper, Frank J. 1981. "Siting LULUs." *Planning* 47 (4): 12–15.

Powell, John A. 2009. "Reinterpreting Metropolitan Space as a Strategy for Social Justice." In *Breakthrough Communities: Sustainability and Justice in the next American Metropolis*, edited by Paloma Pavel, 23–32. Cambridge, MA: MIT Press.

Pulido, Laura. 2000. "Rethinking Environmental Racism: White Privilege and Urban Development in Southern California." *Annals of the Association of American Geographers* 90 (1): 12–40.

Rigolon, Alessandro. 2016. "A Complex Landscape of Inequity in Access to Urban Parks: A Literature Review." *Landscape and Urban Planning* 153:160–69.

Rigolon, Alessandro. 2017. "Parks and Young People: An Environmental Justice Study of Park Proximity, Acreage, and Quality in Denver, Colorado." *Landscape and Urban Planning* 165:73–83.

Rigolon, Alessandro, and Jeremy Németh. 2018a. "Privately Owned Parks in New Urbanist Communities: A Study of Environmental Privilege, Equity, and Inclusion." *Journal of Urban Affairs* 40 (4): 543–59.

Rigolon, Alessandro, and Jeremy Németh. 2018b. "'We're Not in the Business of Housing': Environmental Gentrification and the Nonprofitization of Green Infrastructure Projects." *Cities*. doi:10.1016/j.cities.2018.03.016.

Romero, Tom I. 2004. "Our Selma Is Here: The Political and Legal Struggle for Education Equality in Denver, Colorado, and Multiracial Conundrums in American Jurisprudence." *Seattle Journal for Social Justice* 3 (1): 73–143.

Schlosberg, David. 2004. "Reconceiving Environmental Justice: Global Movements and Political Theories." *Environmental Politics* 13 (3): 517–40.

Schweitzer, Lisa A., and Max Stephenson. 2007. "Right Answers, Wrong Questions: Environmental Justice as Urban Research." *Urban Studies* 44 (2): 319–37.

The Trust for Public Land. 2017. "ParkScore 2017." http://parks-core.tpl.org/.

The Trust for Public Land.. 2018. "Golf Course to Public Parks Conversions: An Update." *Parkology*. https://www.parkology.org/ParkKnowledgeBaseArticleDetail?article=a1946000001OrWHAA0.

Thorpe, Holly. 2016. "Action Sports for Youth Development: Critical Insights for the SDP Community." *International Journal of Sport Policy* 8 (1): 91–116.

United States Census Bureau. 2016a. "American Community Survey." http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml.

United States Census Bureau. 2016b. "Quick Facts: Denver County, Colorado." http://www.census.gov/quickfacts/table/RHI105210/08031/accessible.

Urbanik, Julie, and Mary Morgan. 2013. "A Tale of Tails: The Place of Dog Parks in the Urban Imaginary." *Geoforum* 44:292–302.

Walker, Gordon. 2009. "Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice." *Antipode* 41 (4): 614–36.

Wolch, Jennifer R., Jason Byrne, and Joshua P. Newell. 2014. "Urban Green Space, Public Health, and Environmental Justice: The Challenge of Making Cities 'Just Green Enough.'" *Landscape and Urban Planning* 125:234–44.

Wolch, Jennifer R., John P. Wilson, and Jed Fehrenbach. 2005. "Parks and Park Funding in Los Angeles: An Equity-Mapping Analysis." *Urban Geography* 26 (1): 4–35.

Woods, Rose A. 2017. *Sports and Exercise*. Washington, DC: US Bureau of Labor Statistics. https://www.bls.gov/spotlight/2017/sports-and-exercise/pdf/sports-and-exercise.pdf.

Young, Iris M. 1990. *Justice and the Politics of Difference*. Princeton, NJ: Princeton University Press.

Young, Iris M. 2004. "Responsibility and Global Labor Justice." *Journal of Political Philosophy* 12 (4): 365–88.

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