

TRACK 09: PLANNING FOR INCLUSIVE, MULTICULTURAL AND JUST CITIES

PARK SEGREGATION AND PARK ACCESS: AN ENVIRONMENTAL JUSTICE INQUIRY OF URBAN PARKS IN MONTGOMERY, ALABAMA (1073)

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Abstract. The study connects the issues of park access from an environmental justice point of view in cities with a history of a segregated park system. The aim is to understand the tacit and contemporary connotations of park segregation as a by-product of historical practices. Using an environmental justice inquiry, the study conducts quantitative and qualitative assessments to scrutinize park access in sixty-two urban parks in Montgomery, Alabama. The studied parks are categorized into African American and white parks based on the demography of residents living within a half-mile area of the parks. The study finds that historical practices and policies of park segregation influence modern planning and contribute to contemporary disparities in park access. Park access is often conceptualized quantitatively only, while forms of quality-based inequalities are rather critical for environmental justice. The study also finds that cities tend to invest in larger community parks, while small neighbourhood parks are often in disrepair and need the most attention from a racial perspective. For environmental justice, the study emphasizes the value of a holistic assessment of park access that can inform both quantity and quality-based access needs for future park plans.

Keywords: Urban Parks; Park Access; Park Segregation; Environmental Justice; Montgomery, Alabama.

1. Introduction:

1.1 Park Segregation in Montgomery, Alabama

Segregation of urban parks by race has been a legacy of racial biases in urban planning in the South. As the birthplace of the American Civil Rights Movement, Montgomery,

Alabama, has experienced a long history of racial segregation of urban parks protected by city officials and white Southerners (Byrne & Wolch, 2009). Although with the commission of the Civil Rights Act in 1964, parks were eventually desegregated officially, park segregation remained informally and tacitly in the city (Rabkin, 1954; Byrne et al., 2007). This paper attempts to investigate such tacit and contemporary connotations of racial segregation in urban parks in the context of Montgomery. The aim is to connect the issues of park access from environmental justice (EJ) point of view in cities with the history of a segregated park system and its by-products.

Racial segregation of urban parks in Montgomery has been a key yet less discussed component of the civil rights movement. In the Jim Crow era, city officials and southern whites segregated access to urban parks with a fear of racial mixing. Even after the 1964 Civil Rights Act and several other laws against segregated public facilities, the government was reluctant to desegregate urban parks in Montgomery (Retzlaff, 2019). In the 1950s, there were only four parks that African Americans were allowed to use among fourteen city parks, although almost 44 percent of the city's population was African American in 1949 (Mahato et al., 2022). These parks were Washington Park, Mobile Heights, Trenholm Court, and King Hill Park, marked in blue in figure 1. The African American-only parks were not only a few but also were of inferior quality compared to their white counterparts (Byrne & Wolch, 2009; Meyer, 1942; McKay, 1954; Shearer, 1999) and placed on undevelopable lands (Baldwin, 1999; Foster, 1999; Shearer, 1999). Often the white-only parks were located in or near African American neighbourhoods, such as Oak Park (figure 1), but were strictly prohibited to them by law (Retzlaff, 2019). This limited access to any parks for African Americans who lived in those neighbourhoods, evoking not just issues of racial justice but also environmental justice.

Today, parks in Montgomery are no longer segregated by race. In 1959, a federal judge ordered the city to integrate the parks and recreational facilities. However, the city chose to close its facilities to all residents for fear of racial mixing until about 1965 (City of Montgomery, 2020). With the desegregation of urban parks, the city witnessed a white flight to the suburbs, leaving the integrated city parks in poor conditions for the African Americans who majorly occupied the city's core areas in the 1970s (Retzlaff, 2019). Even today, the city has lost around 25.3 percent of its white population between 2000 and 2010 and 19.9 between 2010 and 2020 (US Census Bureau, 2000; 2010; 2020). Moreover, planning efforts in the city intended to maintain segregation through other means, such as closing down prime parks, converting parks into recreational facilities, or letting private schools access public parks. The Parks and Recreation Department was renamed the Recreation Department in 1967 to steer funding toward recreational facilities that were easy to restrict access to.

The city, in general, lacked in planning, not to mention the dearth of focus on park

improvements. The plans in the city are outdated. The city's comprehensive plan was not updated since its adoption in 1965 until very recently, in 2020. In that six-decades long period, the initiatives for park development were limited to selective parks, recreational facilities, and neighbourhoods, such as the Montgomery Zoo in 1991 (Trevino & Pastorello, 2007), Montgomery Riverfront Plan in 1975, The Plan for Oak Park and Centennial Hill in 2008 and 2011, and several neighbourhoods plan, such as the Maxwell Boulevard Neighborhood Plan in 2011 and Cypress Creek Neighborhood Plan in 2012. The newly adopted comprehensive plan, *Envision Montgomery 2040*, identifies several such constraints of the city parks, including the lack of connectivity between parks through trails. As part of the plan development process, the city conducted a strategic analysis of its parks and recreation in 2019. The analysis focuses on an inventory of existing parks and recreation types, such as community parks, neighbourhood parks, and urban open spaces, their sizes, and recreational services, such as active and passive. However, the plan fails to conduct a need-based assessment of park quality and user profiles to prioritize park projects. The park plans proposed in the comprehensive plan focus on greenways, nature preserves, and neighbourhood development without proper analysis of the need, neither from quality assessment nor community inputs.

This research intends to fill the gap in a need-based assessment of park access through quantitative and qualitative perspectives in Montgomery, Alabama. The aim is to understand how the legacy of a segregated park system affects park access in the contemporary era. Does park segregation still exist in Montgomery? If yes, in what forms? From an environmental justice point of view, what are the consequences of such contemporary connotations of racial biases in park access? To address the research questions, the study first delves into environmental justice and park access literature to understand what parameters are crucial in evaluating park access. The study uses a proximity-based measure to identify potential users and classify parks as white and African American and conducts quantitative and qualitative surveys. The findings point to issues of inequalities of park quality more than proximity-based inequalities between white and African American parks in Montgomery. As cities tend to prioritize access improvements in parks, the research highlights that such access to parks is secondary when quality-based inequalities are evident and dire for environmental justice.

1.2 Environmental Justice and Park Access

The United States Environmental Protection Agency defines EJ as “the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income, concerning the development, implementation, and enforcement of environmental laws, regulations, and policies” (United States Environmental Protection

Agency, 2023). In the US, the EJ Movement started along with the Civil Rights Movement in the 1960s, led by individuals, primarily people of colour, to address inequalities regarding environmental protection in their communities. One of such pioneers of the EJ Movement in this country, Robert Bullard, noted as the father of EJ declares,

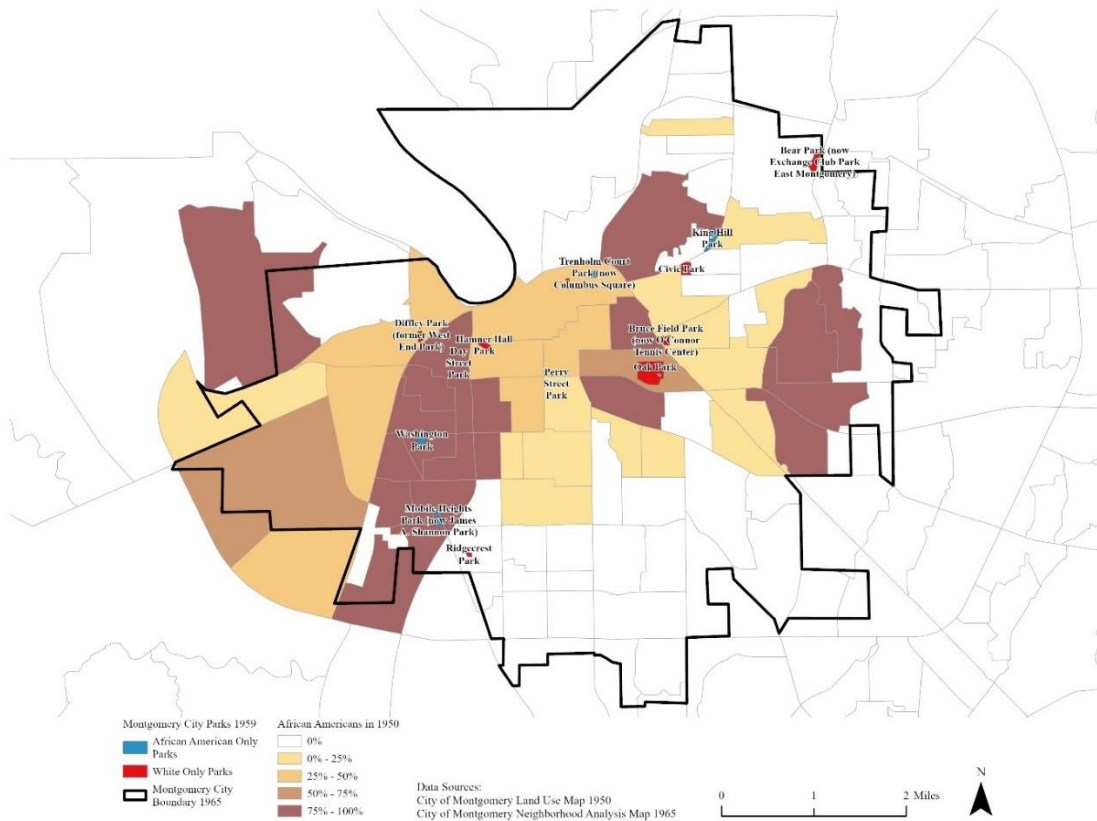


Figure 1. Park Segregation in Montgomery, AL, in 1950

“America is segregated and so is pollution. Race and class still matter and map closely with pollution, unequal protection, and vulnerability. Today, zip code is still the most potent predictor of an individual’s health and well-being. Individuals who physically live on the “wrong side of the tracks” are subjected to elevated environmental health threats and more than their fair share of preventable diseases. Still, too many people and communities have the “wrong complexion for protection.” Reducing environmental, health, economic and racial disparities is a major priority of the Environmental Justice Movement.” (Bullard, 1994)

The issue of race and other socio-economic denominators have been a crucial aspect of EJ, both nationally and globally. Since Bullard’s seminal work in 1983, several other

scholars have emerged, such as Bryant & Mohai (1992) and Wright (1992), who have advanced the EJ research influencing public policy (Cable et al., 2005). Their work and other grassroots initiatives gave rise to many national-level investigations, from the United Church of Christ's (UCC) Commission on Racial Justice in 1987 and the First National People of Color Environmental Leadership Summit in 1991 to Environmental Justice Interagency Working Group (EJ IWG) webinar series in 2016. Many journals have also emerged to house the growing literature on this agenda. Environmental Justice, Journal of Global Environmental Justice, and International Journal of Environmental Research and Public Health are some of such notable journals. Other disciplinary journals have included EJ focus and special issues to accommodate the scholarly work on EJ in their respective field of interest.

Ever since, the concepts, definitions, and milieu of EJ have evolved from focusing just on the environmental hazards, such as air pollution, water quality, and waste exposure, to including broader concerns of access and availability of public amenities pertinent to cities and the built environment in general, including green spaces and parks (Hughey et al., 2016). As the intertwining of social and environmental disparities becomes more evident, the spatial dimensions of the EJ concepts have become key indicators of inequalities related to environmental issues (Walker, 2012, p. 2). The authors of *The Routledge Handbook of Environmental Justice* point out that research on EJ has increasingly witnessed key contributions from “geographers, economists, legal scholars, political scientists, urban and regional planners, ecologists and others” looking at the “quantitative and spatial analysis of distributive EJ” (Holifield et al., 2018, p.3). In more recent times, we have seen contributions from other sociologists, political scientists, environmental historians, and many more, highlighting qualitative aspects of EJ, such as ethnography and cultural study methods (Čapek, 1993; Taylor, 2000). In urban and regional planning, environmental planning, and landscape architecture, parks have recently been the centrepiece of EJ concerns and research (Rigolon, 2016; Boone et al., 2009; Schlosberg, 2004; Wolch et al., 2014).

Parks are vital urban commodities and, perhaps, the most contested ones. The concept of publicly owned parks, pioneered by Frederick Law Olmstead, Jr., the father of American Landscape Architecture, was not prevalent before the 1890s. Before that, green spaces were privately owned, used, and maintained. The need for parks in an urban setting became important with the growing health and mental well-being concerns, especially due to the adversities of living in the polluted environment of cities, especially during the industrial revolution and the automobile eras. Forged by the American landscape architects, the American Urban Parks and Recreation Movement, along with the Playground Movement of the 19th century, instigated the nationwide reform of creating and allocating parks for public benefits (Stormann, 1991). Public parks soon became an important asset of city planning and development. However, access to

parks was limited to certain groups only, either by the law of racial segregation or through racial designs and practices (Mehta & Mahato, 2021). Historically, parks have observed more pronounced racial differences than in other public spaces” (McKay, 1954).

The importance of parks grew in EJ research due to the increased rate of urbanization. As most of the world’s population now resides in cities, access to urban parks has become vital for physical and mental well-being (Giles-Corti et al., 2005; Chiesura, 2004; Maller et al., 2006). Parks are considered environmental amenities owing to their social, economic, and environmental benefits to people (Boone et al., 2009). People who live closer to parks have more access to public space and community events, greater social ties, enhanced quality of life, and opportunities for social interaction, physical exercise, and leisure (Chiesura, 2004). Parks also provide several ecosystem services, such as accelerating carbon sequestration, purifying air, reducing the urban heat island effect, filtering rainwater, delaying stormwater runoff, supporting biodiversity, and many more (Daily, 1997; Bolund & Hunhammer, 1999; Savard et al., 2000; Gobster, 2001; Farber et al., 2002). From an economic perspective, parks have immense real estate value and potential for city tax revenues (More et al., 1988; Crompton, 2001). Due to the recent COVID-19 pandemic, the value of urban parks has been rediscovered for their benefits during lockdowns and social distancing regulations (Liu & Wang, 2021; Volenec et al., 2021; Heckert & Bristowe, 2021; Levinger et al., 2022; Geng et al., 2020). Such benefits render urban parks a competitive commodity that only a few privileged residents can enjoy.

Disparities in equal access to parks are key EJ concerns of cities. Studies on EJ issues in parks have focused on park access by measuring park proximity, acreage, and quality (Rigolon, 2016). Proximity measures the distance one travels to reach the closest park for different modes of travel (Talen, 2010). As the measure of park access, proximity analyses have shown mixed results. Studies have found that in some cases, low-socioeconomic status (SES) groups live closer to parks (Boone et al., 2009; Smoyer-Tomic et al., 2004; Nicholls, 2001; Wolch et al., 2005), while in other cases, mid and high-SES groups live closer to parks (Willemse, 2013; Dai, 2011; Rigolon & Flohr, 2014; Omer & Or, 2005; Cradock et al., 2005). In terms of race, some studies claim Latinos live closer to parks (Comer & Skraastad-Jurney, 2008; Wen et al., 2013; Johnson-Gaither, 2011), while other studies show whites (Rigolon & Flohr, 2014; Dai, 2011) and African Americans (Boone et al., 2009; Wolch et al., 2005; Wen et al., 2013) live closer to parks. Instead, park acreage and quality measures show much greater disparities in park access. Many studies have found that ethnic and racial minorities and low-SES groups have access to fewer parks or fewer acres of parks compared to whites or mid and high-SES groups (Boone et al., 2009; Wen et al., 2013; Wolch et al., 2005). Similarly, regarding park amenities, maintenance, and safety, park quality is significantly low in low-SES parks and ethnic minority neighbourhoods (Carlson et al., 2010; Cradock et al., 2005; Vaughn et al.,

2013). Hence, scrutinizing park access with both quantitative (proximity and acreage) and qualitative (quality) measures is important.

While research with EJ perspectives on park access is plenty, the connection of park segregation history with contemporary issues of park access is less researched. Scholars such as Downey (2007), Mennis & Jordan (2005), Saha & Mohai (2005), and many more have identified the need for historical studies to understand the processes of environmental inequality formation (Boone et al., 2009). Studies have shown that historically marginalized groups, such as people of colour, ethnic minorities, and lower-income groups, are least likely to visit parks (Xiao et al., 2022). In some cases, even though minority groups live closer to parks, they have shown low visitation rates (Lee, 2020). These issues of inclusivity do not always directly relate to the distribution or accessibility of parks. Rather it is connected more to “the circumstances that created more or less equitable park distributions” (Miller, 2019, p. 85). Such circumstances are connected to the historical and modern practices of economic and residential segregation by race, ethnicity, and income that directly or indirectly affect equal access to parks for all (Lee, 2020).

Methods:

2.1 Identifying Potential Park Users

Since parks are not segregated in Montgomery anymore, park access by race in this study has been determined by identifying the potential users of the park. Parks surrounded by the majority of a racial group are assumed to cater to that group predominantly. The study uses American Community Survey 2021 5-year estimates to calculate the racial composition of the residents living within a half-mile walking distance from the park access points. The population of Montgomery is predominantly composed of African Americans and white residents (U.S. Census Bureau, 2020). Other cohorts were ignored for the calculations. To identify the potential park users, the study surveyed each park and identified access points (entrances) which were then used in ArcGIS Online network analysis to calculate the half-mile network buffers. Network buffers for the same parks were consolidated to determine each park’s catchment area. To calculate the demography of residents living in individual park catchment areas, the study used ESRI Business Analyst Online. Using a quantile classification, park buffers with more than 54 percent African American residents were considered African American parks, and the rest were white parks. Figure 2 shows the geographic location of the urban parks in Montgomery and their half-mile catchment areas. The parks marked in blue are the parks catering predominantly to African Americans, and the parks marked in red are the ones catering to whites. Of the 65 city parks, we studied 62 parks, of which 36 were identified as African American parks and 26 as white parks. The three parks the

study excluded are special-use parks, such as a boat ramp, a planetarium, and an amphitheatre.

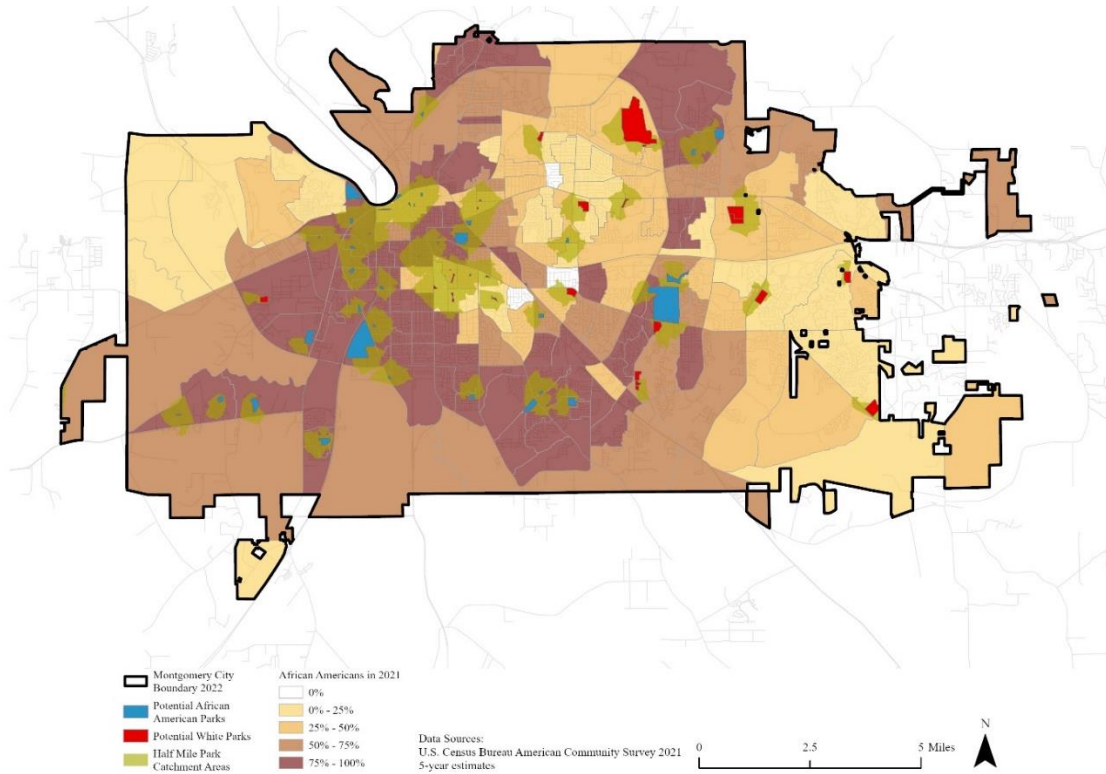


Figure 2. Half-mile Park Catchment Areas and Potential Park Users by Race

2.2 Evaluating Park Access

The study evaluates park access using both quantitative and qualitative methods. First, the study adapts from and adds to the five measures of park access by Gidlow et al. (2012) to survey quantitative measures of park access. The survey procedure uses five measures of park access to calculate an access score for each park. Building on the quantitative access scores, the study uses photo analysis to assess the qualitative access scores of the measured parameters.

2.2.1 Access Measures:

Accessibility:

Accessibility denotes users' ability to physically enter the parks without any hindrance. The study measured accessibility with five parameters – i) the number of entrances – how many entrances does the park have? More entrances ensure increased accessibility; ii) roads around – is the park surrounded by roads on all sides? More roads mean the

park can be accessed by more than just one road; iii) pedestrian crossing – are pedestrian crossings near the park entrances? iv) sidewalk – is there sidewalk access to the park? Pedestrian crossings and sidewalks encourage safe and walkable access to parks; v) the number of parking spaces – how many are there?

Recreation:

Parks are primarily used for recreational activities. The presence of recreational facilities and their qualities influence the usability of parks. Recreation was measured by the presence or absence of the following four parameters – i) play equipment; ii) grass pitches or hard courts; iii) skateboard or bike ramps; iv) open space for informal games, play, or walking.

Amenities:

In addition to recreation, parks are also used for passive and various other activities serving individuals and groups. The presence of basic amenities encourages wider use of parks. Park amenities were measured for the presence or absence of – i) seating areas or benches; ii) picnic tables; iii) litter bins; iv) signage; v) lighting; vi) restrooms. The availability of seating options and picnic tables increases park access to a wider variety of people. Litter bins help with cleanliness, lightings provide safety at night, signages are crucial for wayfinding, especially for the elderly and visitors, and restrooms provide convenience to park users.

Natural Features:

Natural features enhance parks' aesthetics and help attract users. Natural features provide access to green spaces and fresh air amidst polluted urban neighbourhoods. Natural features have been measured by the presence or absence of – i) grasses; ii) trees and shrubs; iii) flower beds; iv) water features in the studied parks and the quality of their maintenance.

Incivilities:

Signs of incivility negatively impact park access. Physical evidence of uncivil or antisocial activities in parks makes them unattractive to users, such as women, children, seniors, and families. Uncivil activities raise safety concerns and reflect the presence of crime in the surrounding area. Incivility is measured by– i) litter or dog mess; ii) evidence of alcohol or drug use; iii) graffiti, broken glasses, or vandalism; iv) noise.

Table 7. Park Access Quantitative Scoring System

Measures	Parameters					
Accessibility Score (5)	1 for no. parking > 0 0 for no. parking = 0	1 for no. of entrances > 1 0 for no. of entrances = 1	1 for roads around value "Y" 0 for roads around value "N"	1 for pedestrian crossings value "Y" 0 for pedestrian crossings value "N"	1 for pathways value "Y" 0 for pathways value "N"	
Recreation Score (4)	1 for play equipment value "Y" 0 for play equipment value "N"	1 for grass pitches/hard courts value "Y" 0 for grass pitches/hard courts value "N"	1 for skateboards/bike ramps value "Y" 0 for skateboards/bike ramps value "N"	1 for open space for informal games/play/walking value "Y" 0 for open space for informal games/play/walking value "N"		
Amenities Score (6)	1 for restroom value "Y" 0 for restroom value "N"	1 for seating/benches value "Y" 0 for seating/benches value "N"	1 for picnic tables value "Y" 0 for picnic tables value "N"	1 for litter bins value "Y" 0 for litter bins value "N"	1 for signage value "Y" 0 for signage value "N"	1 for lighting value "Y" 0 for lighting value "N"
Natural Features Score (4)	1 for grass value "Y" 0 for grass value "N"	1 for trees/shrubs value "Y" 0 for trees/shrubs value "N"	1 for flower beds value "Y" 0 for flower beds value "N"	1 for water features value "Y" 0 for water features value "N"		

Incivilities Score (4)	1 for litter/dog mess value "Y"	1 for evidence of alcohol/drug use value "Y"	1 for graffiti/broken glass/vandalism value "Y"	1 for noise value "Y"		
	0 for litter/dog mess value "N"	0 for evidence of alcohol/drug use value "N"	0 for graffiti/broken glass/vandalism value "N"	0 for noise value "N"		

Since accessibility, recreation, amenities, and natural features affect access positively, and incivilities affect it negatively, the following equation has been used to calculate each park's access score.

$$\text{Total Access Score (19)} = \text{Accessibility Score (5)} + \text{Recreation Score (4)} + \text{Amenities Score (6)} + \text{Natural Features Score (4)} - \text{Incivilities Score (4)}$$

2.2.4 Photo Analysis:

The park access scores, calculated using the survey data, only measure the parameters quantitatively. The data need to present the quality of the parameters, such as the sidewalks' condition or the landscaping elements' maintenance. To complement the quantitative data, the site visits included photo documentation of each park's observed parameters and conditions. The process involves a systematic cataloguing technique that lists photos by each parameter and analyses their quality on a three-scale rating – good, mediocre, and bad. The ratings are based on a set of criteria that guide the judgment. For example, the study uses four criteria for good quality play equipment. Table 2 lists the good, mediocre, and bad criteria for the measured parameters. Furthermore, the study uses a sample photo template to guide the photo analysis (figure 4).

Table 2. Park Access Qualitative Scoring System

	parking	entrance	access roads	pedestrian crossing	pathways	
Accessibility	Good: i) has parking ii) more than 10	Good: i) entrance is easily accessible	Good: i) vehicular access road is present	Good: i) pedestrian crossing is	Good: i) walking pathways present	

	iii) no potholes or litter	ii) easy to find iii) has proper entrance signs	ii) good condition iii) has sidewalks	present ii) well-paved/demarcated iii) has pedestrian signal	inside parks ii) paved and well maintained	
	Mediocre: i) has parking ii) less than 10 iii) has potholes	Mediocre: i) entrance is not easily accessible ii) entrance is hard to find iii) entrance sign is not legible	Mediocre: i) vehicular access road is present but is in poor condition ii) no sidewalks	Mediocre: i) pedestrian crossing is present ii) not well-paved or demarcated iii) no pedestrian signal	Mediocre: i) walking pathways present ii) not paved or well maintained	
	Bad: i) no parking	Bad: i) entrance is closed or not accessible	Bad: i) no vehicular access road	Bad: i) no pedestrian crossing	Bad: i) no walking pathways	
	play equipment	grass pitches/hard courts	skateboards/bike ramps	open space for informal games/play/walking		
	Good: i) play equipment is present ii) ample number iii) good quality and safe iv) well maintained	Good: i) grass pitches or hard courts are present ii) well maintained or no overgrown	Good: i) skateboard or bike ramps are present ii) well maintained	Good: i) open spaces for informal games, play, or gathering is present ii) well maintained		
Recreation	Mediocre: i) play equipment is present ii) fewer number iii) not of	Mediocre: i) grass pitches or hard courts are present ii) not well maintained,	Mediocre: i) skateboard or bike ramps are present ii) not well maintained	Mediocre: i) open spaces for informal games, play, or gathering is		

	good quality or safe iv) not well maintained	grasses are overgrown		present ii) not well maintained, overgrown		
	Bad: i) no play equipment present	Bad: i) no grass pitches or hard courts	Bad: i) no skateboard or bike ramps	Bad: i) no open spaces for informal games, play, or gathering is present or inaccessible		
	Restrooms	seating/ benches	picnic tables	litter bins	signage	lighting
	Good: i) restrooms are present ii) easily accessible iii) in good working condition	Good: i) seating areas or benches are present ii) good quality and well maintained iii) multiple in number	Good: i) picnic tables are present ii) multiple in number iii) well-maintained and good quality	Good: i) litter bins are present ii) present in multiple locations iii) well maintained	Good: i) both park information and wayfinding signages are present ii) legible texts and signs	Good: i) lighting present in different parts of the park ii) working properly
	Mediocre:i) restrooms are presentii) inaccessibleiii) out of order	Mediocre:i) seating areas or benches are presentii) poor quality and not well maintainediii) single number	Mediocre:i) picnic tables are presentii) single numberiii) not well maintained or good quality	Mediocre:i) litter bins are presentii) present in only one locationiii) not well maintained	Mediocre:i) either park information or wayfinding signages are presentii) texts or signs are not legible	Mediocre:i) lighting present in some partsii) poorly working (blinking or low light)
Amenities	Bad: i) no restrooms	Bad: i) no seating areas or benches	Bad: i) no picnic tables	Bad: i) no litter bins are present	Bad: i) neither park information nor wayfinding signages	Bad: i) no lighting present

					are present	
Natural Features	grass	trees/ shrubs	flower beds	water features		
	Good: i) grass areas are present ii) well maintained iii) not overgrown	Good: i) trees and shrubs are present ii) well maintained iii) ample in numbers	Good: i) flower beds are present ii) well maintained iii) ample in numbers	Good: i) water features are present ii) well maintained		
	Mediocre: i) grass areas are present ii) not well maintained iii) overgrown	Mediocre: i) trees and shrubs are present ii) not well maintained iii) few in numbers	Mediocre: i) flower beds are present ii) not well maintained iii) very few in numbers	Mediocre: i) water features are present ii) not well maintained		
	Bad: i) no grass areas	Bad: i) no trees or shrubs	Bad: i) no flower beds	Bad: i) no water features		
Incivilities	litter/ dog mess	evidence of alcohol/ drug use	graffiti/ broken glass/ vandalism	noise		
	Bad: i) litter or dog mess is present ii) at many places	Bad: i) evidence of alcohol or drug use is present ii) present at many places	Bad: i) signs of graffiti, broken glass, or vandalism are present ii) present at multiple locations	Bad: i) continuous noise pollution from highways, industrial areas, or construction		
	Mediocre: i) litter or dog mess is present ii) at fewer places	Mediocre: i) evidence of alcohol or drug use is present ii) at fewer places	Mediocre: i) signs of graffiti, broken glass, or vandalism are present ii) present at fewer locations	Mediocre: i) frequent noise pollution from highways, industrial		

				areas, or construction		
	Good: i) no litter or dog mess	Good: i) no evidence of alcohol or drug use	Good: i) no signs of graffiti, broken glass, or vandalism	Good: i) no noise pollution		



Figure 4. Sample Photo Analysis Template

3. Results

3.1 Quantitative Park Access:

An evaluation of park access scores for each measure shows that, in general, a higher percentage of white parks (37%) have high scores considering all access measures

compared to African American parks (28%) (table 3). Individual measures, however, show that white parks score high in amenities (70%), while African American parks score high in recreation (33%), natural features (19%), and accessibility (39%) (table 3). Although, for white and African American parks, the low and high scores for accessibility, recreation, amenities, and natural features are similar. The biggest difference can be seen in the incivilities score. The score for incivilities is significantly low (100%) in white parks, indicating that those parks have little signs of incivilities. African American parks showed more signs of incivilities, with almost 17 percent scoring high scores.

The total park access scores show that, in the case of white parks, 4 percent of the parks score 0 to 3, 22 percent score 4 to 7, 37 percent score 8 to 11, another 37 percent score 12 to 15, and 0 percent score 16 to 19. In the case of African American parks, 0 percent of the parks score 0 to 3, 22 percent score 4 to 7, 50 percent score 8 to 11, 25 percent score 12 to 15, and 3 percent score 16 to 19. Cumulatively, 37 percent of white parks have high scores (12 to 19) than African American parks (28%). However, 26 percent of white parks have scored low (1 to 7) compared to 22 percent of African American parks. African American parks (50%) also have more mid-range scores (8 to 11) than white parks (37%). It is also notable that accounting for the major disparities in incivilities scores, the total park scores signify that more white parks (37%) have higher access scores than African American parks (28%). In general, most African American parks show low access scores, 63 percent and 72 percent, suggesting that the parks in Montgomery have poor access in terms of accessibility, recreation, amenities, natural features, and incivilities.

Table 3. Park Access Scores for White and African American Parks (darker shades show high scores, lighter shades show low scores)

Accessibility Score	0	1	2	3	4	5		low	high
White Parks	4%	30%	30%	15%	15%	7%		63%	37%
African American Parks	8%	22%	31%	19%	17%	3%		61%	39%
Recreation Score	0	1	2	3	4			low	high
White Parks	4%	41%	30%	26%	0%			74%	26%
African American Parks	3%	19%	44%	33%	0%			67%	33%
Amenities Score	0	1	2	3	4	5	6	low	high
White Parks	7%	7%	7%	7%	26%	4%	41%	30%	70%

African American Parks	0%	6%	3%	28%	31%	17%	17%	36%	64%
Natural Features Score	0	1	2	3	4			low	high
White Parks	0%	11%	74%	11%	4%			85%	15%
African American Parks	0%	3%	78%	14%	6%			81%	19%
Incivilities Score	0	1	2	3	4			low	high
White Parks	81%	19%	0%	0%	0%			100%	0%
African American Parks	58%	25%	11%	6%	0%			83%	17%
Total Access Scores	0-3	4-7	8-11	12-15	16-19			low	high
White Parks	4%	22%	37%	37%	0%			63%	37%
African American Parks	0%	22%	50%	25%	3%			72%	28%

3.2 Qualitative Park Access:

While the quantitative park access scores tell the absence or presence of the five measurable indicators of park access, they do not tell the quality of these measures. The photo analysis complements the park scores by evaluating the conditions of the park access indicators in each park. Figures 5 and 6 show the qualitative analysis of parks catering to white and African American populations. The colours red, yellow, and green represent the park access measures' poor, mediocre, and good quality. The analysis shows that a majority of the parks catering to the African American population have poor quality (30 out of 36 parks), while only three parks have mediocre, and another three parks have good quality. For parks catering to whites, 13 out of 26 parks have poor quality, eight are mediocre quality, and five are good quality. Moreover, although the quantitative analysis shows that African American parks have better accessibility, recreation, and natural features scores, quality-wise, they score poor and mediocre compared to white parks. White parks have superior amenities and fewer natural features and recreational facilities, but their qualities are better than African American parks. Both analyses point out that African American parks have severe signs of incivility, and white parks show almost no signs of incivility. Overall, most African American and white parks show signs of poor qualities.

Facility Name	parking	entrance	roads around	pedestrian crossing	pathways	Accessibility Score (of 15)	play equipment	grass pitches/hard courts	skateboards/bike ramps	informal open space	Recreation Score (of 12)	restroom	seating/benches	picnic tables	litter bins	signage	lighting	Amenities Score (of 18)	grass	trees/shrubs	flower beds	water features	Natural Features Score (of 12)	litter (dog mess)	evidence of alcohol/drug use	graffiti/broken glass/vandalism	noise	Incidivilities Score (of 12)	Total Score (of 69)
Country Club Drive Park	1	1	1	1	1	5	1	1	1	2	5	1	1	1	1	1	6	2	1	1	1	5	3	3	3	3	12	33	
Milo Howard Park	1	1	2	1	1	6	1	1	1	1	4	1	1	1	1	2	1	7	2	2	1	2	7	3	3	3	3	12	36
Vickers Park	1	1	2	1	2	7	1	1	1	2	5	1	2	1	2	1	1	8	2	2	1	1	6	3	3	3	3	12	38
Myrtlewood Drive Park	1	1	3	1	1	7	1	1	1	3	6	1	1	1	1	1	1	6	3	2	1	1	7	3	3	3	3	12	38
Brewbaker Park & Community Center	1	2	2	1	2	8	1	2	1	2	6	1	2	2	2	1	2	10	2	2	1	1	6	2	2	2	2	8	38
Fitzgerald Park	1	1	2	1	1	6	1	1	1	2	5	1	2	1	2	1	1	8	2	2	1	3	8	3	3	3	3	12	39
Louis Armstrong Memorial Park	1	2	2	1	2	8	2	1	1	2	6	1	2	2	2	2	1	10	2	2	1	1	6	2	2	3	3	10	40
Pecan Grove Park	1	2	2	1	2	8	2	1	1	2	6	1	2	2	2	2	1	10	2	2	1	1	6	3	3	3	1	10	40
Audubon Park	1	1	2	1	1	6	1	1	1	3	6	1	2	1	3	2	1	10	3	2	1	1	7	3	3	3	3	12	41
LeGrande Park	1	1	3	1	1	7	1	1	1	3	6	1	1	1	2	1	1	7	3	3	1	3	10	3	3	3	3	12	42
Clowerdale Park (Church)	1	1	2	1	1	6	1	1	1	3	6	1	3	1	3	2	2	12	3	3	1	1	8	3	3	3	3	12	44
Dean Fain Park	3	2	2	1	2	10	1	2	1	1	5	3	3	3	2	2	2	15	2	2	1	1	6	2	2	2	2	8	44
Hayneville Road Park	3	2	1	1	2	9	2	2	1	2	7	2	2	2	2	1	2	11	3	2	1	1	7	3	3	3	3	12	46
Bark Park	1	2	2	1	2	8	1	1	1	3	6	1	3	3	3	2	2	14	2	3	1	1	7	3	3	3	3	12	47
Clowerdale Road Park	1	1	2	1	1	6	3	1	1	3	8	1	3	1	3	3	3	14	3	3	1	1	8	3	3	3	3	12	48
College Street Park	1	1	3	1	2	8	1	1	1	3	6	1	3	1	2	3	1	11	3	3	3	3	12	3	3	3	3	12	49
Exchange Club Park East Montgomery	1	2	3	1	2	9	1	3	1	3	8	3	3	3	3	3	2	17	2	1	1	1	5	1	3	3	3	10	49
Fox Hollow Park	1	2	3	1	3	10	3	1	1	3	8	1	3	3	3	3	1	14	2	2	1	1	6	3	3	3	3	12	50
Goodwyn Park (Ball Fields)	3	2	2	1	2	10	3	3	1	2	9	3	3	2	2	2	3	15	3	3	1	1	8	2	3	3	3	11	53
Emory Folmar Soccer Complex	3	2	3	3	2	13	1	3	1	1	6	3	3	3	2	2	3	16	3	1	1	1	6	3	3	3	3	12	53
AUM/Ron Nunn Complex	3	2	3	1	2	11	2	3	1	2	8	3	2	2	2	2	3	14	3	3	1	1	8	3	3	3	3	12	53
Forrest B. "Buddy" Watson Park	3	2	2	1	3	11	3	3	1	1	8	2	3	3	2	2	3	15	3	3	1	1	8	3	3	3	3	12	54
Ida Belle Young Park	3	3	3	1	3	13	3	3	1	2	9	3	2	3	2	2	2	14	3	3	1	1	8	2	3	3	3	11	55
Thompson Park	3	2	3	1	2	11	3	3	1	3	10	3	3	3	2	2	3	16	3	3	1	1	8	3	3	3	3	12	57
Lagoon Park	3	2	3	3	3	14	3	3	1	3	10	3	3	3	3	3	3	18	2	3	1	1	7	3	3	3	1	10	59
Vaughn Road Park	3	3	3	1	3	13	3	3	1	3	10	3	3	3	3	3	3	18	3	3	1	1	8	3	3	3	3	12	61

Figure 5. Qualitative Park Access Scores of White Parks

Facility Name	parking	entrance	roads around	pedestrian crossing	pathways	Accessibility Score (of 15)	play equipment	grass pitches/ hard courts	skateboards/bike ramps	informal open space	Recreation Score (of 12)	restroom	seating/ benches	picnic tables	litter bins	signage	lighting	Amenities Score (of 18)	grass	trees/ shrubs	flower beds	water features	Natural Features Score (of 12)	litter (dog mess)	evidence of alcohol/ drug use	graffiti/ broken glass/ vandalism	noise	Incidivilities Score (of 12)	Total Score (of 69)
Powder Magazine Boat Launch and Park	1	2	1	1	1	6	1	1	1	2	5	1	2	2	2	1	1	9	2	2	1	2	7	1	1	2	2	6	33
Fairview Environmental Park	3	1	2	1	3	10	1	1	1	1	4	1	2	1	1	3	2	10	2	2	1	1	6	1	1	2	1	5	35
Ridgecrest Park	1	1	1	1	1	5	2	2	1	2	7	2	2	2	2	1	1	10	2	2	1	1	6	2	1	1	3	7	35
Leu Hammonds Park (Southlawn)	1	1	1	1	1	5	1	2	1	1	5	1	1	1	1	2	2	8	2	1	2	1	6	3	3	3	3	12	36
Rotary Dog Park	1	2	2	2	2	9	1	1	1	2	5	1	2	1	2	2	2	10	2	2	1	2	7	2	1	1	1	5	36
Homeview Park	1	2	2	1	1	7	2	2	1	2	7	2	1	1	1	1	1	7	2	2	1	1	6	3	3	3	1	10	37
Smiley Court Community Center & Park	2	2	1	1	1	7	2	2	1	2	7	2	2	2	1	1	1	9	2	2	1	1	6	2	2	2	3	9	38
Jackson Ferry Road Park	1	2	2	1	2	8	2	1	1	2	6	1	2	2	2	1	1	9	2	2	1	1	6	2	2	2	3	9	38
Day Street Park	1	2	2	1	2	8	2	2	1	1	6	1	1	1	1	2	1	7	2	2	1	1	6	3	3	3	3	12	39
Seth Johnson Park	3	2	1	1	1	8	1	2	1	2	6	2	2	2	2	2	2	12	2	2	1	1	6	1	3	1	3	8	40
Virginia Estates Park	1	2	1	1	2	7	2	1	1	2	6	1	2	2	2	1	2	10	2	2	1	1	6	2	3	3	3	11	40
Dr. Robert B. Adams Park	1	1	1	1	1	5	2	2	1	2	7	1	2	1	3	1	1	9	3	3	1	1	8	3	3	3	3	12	41
Difley Park	1	2	2	1	1	7	2	2	1	2	7	1	2	1	2	2	1	9	2	2	1	1	6	3	3	3	3	12	41
Darrington/Ritchie Park (Dorchester)	1	2	2	1	2	8	2	1	1	2	6	1	2	2	2	1	1	9	2	2	1	1	6	3	3	3	3	12	41
Rosa L. Parks Park	1	2	2	1	2	8	2	1	1	2	6	1	2	2	2	2	1	10	2	2	1	1	6	3	3	3	2	11	41
Brenda Bonner Park (Forest Hills)	1	2	1	1	2	7	2	1	1	2	6	1	2	1	2	2	2	10	2	2	1	1	6	3	3	3	3	12	41
Wares Ferry Park	1	2	1	1	2	7	1	1	1	2	5	1	2	2	2	1	1	9	3	3	1	1	8	3	3	3	3	12	41
Washington Park	3	2	1	1	2	9	2	1	1	2	6	2	2	2	2	1	1	10	2	2	1	1	6	2	3	3	3	11	42
Tuscaloosa Park	1	2	2	1	1	7	2	1	1	2	6	1	2	2	2	2	2	11	2	2	1	1	6	3	3	3	3	12	42
Dannelly Park	1	2	2	2	2	9	2	2	1	2	7	1	2	2	2	2	2	11	2	1	1	1	5	2	3	3	3	11	43
Blount Cultural Park	1	3	1	1	3	9	1	1	1	3	6	1	1	1	1	1	3	8	3	3	1	1	8	3	3	3	3	12	43
James A. Shannon Park (Mobile Heights)	3	2	1	1	2	9	2	2	1	2	7	2	1	1	2	2	2	10	3	2	1	1	7	3	3	3	3	12	45
Western Hills Park	3	2	2	1	2	10	2	2	1	2	7	2	2	1	2	2	1	10	2	2	1	1	6	3	3	3	3	12	45
Peter Crump Park	1	2	2	2	2	9	1	2	1	2	6	2	2	2	2	2	2	12	2	2	1	1	6	3	3	3	3	12	45
Hyde Park (Burbank)	1	2	2	1	2	8	3	1	1	3	8	1	2	2	2	1	1	9	3	3	1	1	8	3	3	3	3	12	45
Lister Hill Plaza	1	2	3	3	3	12	1	1	1	2	5	1	2	1	2	1	3	10	2	2	2	2	8	2	3	3	3	11	46
Wright Brothers Park	1	2	2	1	2	8	2	1	1	2	6	2	2	2	2	2	2	12	3	3	1	2	9	2	3	3	3	11	46
Thomas Calhoun Jr. Park (Twin Gates)	3	1	1	1	2	8	2	3	1	3	9	1	2	3	1	2	2	11	2	3	1	1	7	3	3	3	3	12	47
Kiwanis Park	3	3	2	2	2	12	2	1	1	2	6	1	2	1	2	2	3	11	2	2	1	1	6	3	3	3	3	12	47
O'Connor Tennis Center	3	2	1	1	3	10	1	3	1	1	6	2	2	2	2	2	2	12	3	2	1	1	7	3	3	3	3	12	47
Woodmere Park	1	3	3	1	3	11	1	1	1	3	6	3	3	1	2	2	1	12	3	2	1	2	8	3	3	3	3	12	49
Riverfront Park	1	2	2	2	2	9	2	1	1	2	6	2	2	2	3	3	3	15	2	2	1	3	8	3	3	3	3	12	50
Bellinger Hill Park	3	2	3	1	3	12	3	1	1	3	8	1	3	3	3	1	1	12	3	3	1	1	8	3	3	3	3	12	52
Woodcrest Park	3	3	3	1	3	13	3	3	1	3	10	3	3	3	3	1	2	15	3	3	1	1	8	3	3	3	3	12	58
Oak Park	3	3	3	3	3	15	3	1	1	3	8	3	3	3	3	3	1	16	3	3	1	1	8	3	3	3	2	11	58
Gateway Park	3	3	3	1	3	13	3	3	1	3	10	3	3	3	3	3	3	18	3	3	3	3	12	3	3	3	3	12	65

Figure 6. Qualitative Park Access Scores of African American Parks

Discussion

4.1 Quality-based Inequalities:

Park access is often misleading in understanding EJ issues if only viewed quantitatively. Inequalities in park access lie in the factors contributing to disparities in services provided to different racial groups. Especially for cities with a history of segregated park systems, provisions for park facilities are only secondary. It is the quality-based assessment of park facilities that reveals racial biases. The measures of park access, such as accessibility, recreation, amenities, natural features, and incivilities, are predominantly used quantitatively in studies. The quantitative measures in this study pointed out that African American parks have better provisions for accessibility, recreation, and natural features. However, their qualities, such as the condition of the parking spaces, entrances, pedestrian crossings, play equipment, or playgrounds, are worse than white parks, which may have fewer facilities.

The maintenance of existing facilities appears to be the key issue in creating disparities in park access, and a subpar facility discourages park usage and lowers park visitation rates. As said in the broken windows theory by Kelling & Wilson (1982), the disorder in neighbourhood amenities invites uncivil activities, evident in parks catering to African Americans. Evidence of dog mess, alcohol or drug use, and signs of vandalism, broken glasses, or graffiti were more prevalent in the African American parks which had deteriorated park facilities. The quality of the studied parks was also connected to the surrounding neighbourhoods' overall quality and living conditions. The issue of noise coming from highways and industrial areas is evident in African American parks, as many of the poorer neighbourhoods are situated by highways and near industrial areas as a by-product of urban renewal. The few good quality African American parks, such the Woodcrest Park, Oak Park, and Gateway Parks, are amidst some of the well-to-do neighbourhoods of the city and witness a high number of users.

This study finds that racial segregation still exists in Montgomery as disparities in park quality. Forms of quality-based inequalities between park facilities and access are the contemporary denominators of park segregation (Hughey et al., 2016). While studies support the association between park quality and the demography of residents living around the park (Suminski et al., 2013), very few empirically investigate park features, amenities, or incivilities in detail to understand the subtle forms of quality-based inequalities (Macintyre, 2007; Boslaugh et al., 2004; Crawford et al., 2008). Therefore, this study provides insights into empirical methods of analysing park access qualitatively. Cities like Montgomery prioritize access-related initiatives, such as developing trails and greenways, which are secondary, as residents prefer cleaner and good-quality parks for worse-off parks (Smiley et al., 2016). A need-based evaluation of prioritizing park projects is hence more essential from an EJ perspective.

4.2 Legacy of Segregated Planning Practices:

The poor quality of African American parks can also be connected to the remnants of the park and residential segregation policies and the racial biases of planning that existed in the past. Like many other cities in the US, African American neighbourhoods suffered from urban renewal plans in the 1960s. As a result, many parks in such areas are disconnected by highways and have severe noise pollution issues. The 1965 Neighborhood Analysis Plan marked many African American neighbourhoods as blighted, predominantly the home of middle-class, educated African American voters (Mahato et al., 2022), and housed good quality historic African American parks. Many of those African American parks were later demolished for neighbourhood redevelopment purposes. A few of them were reconstructed but with altered access to the public. Trenholm Court Park is now a part of the Columbus Square apartments and a community centre, and King Hill Park is a community centre and is only available through reservations. Hamner Hall Park was rebuilt into softball fields, a pavilion, and a fire station by the Montgomery Parks and Recreation Department. Perry Street Park was demolished to build I-65 but never rebuilt.

The historic African American parks saved from the urban renewal plans have poor accessibility scores (table 4), such as James A. Shannon Park (Mobile Heights) and Washington Park. Both parks are of poor quality (figure 5), lack landscaping elements like flower beds or water features, and have no hard courts or grass pitches for play. Although the parks do not show severe signs of incivilities, the conditions of the amenities and surrounding neighbourhoods have been in disrepair. Two of the five white parks of the 1950s, predominantly used by African Americans today, have slightly better quantitative park access scores (table 4). Only Oak Park is good in quality, while O'Connor Tennis Center but have degraded in quality for constant negligence and poor maintenance (figure 6). Being one of the iconic and notable city parks, Oak Park is well-kept, renovated, and used by diverse users, not just African Americans. On the contrary, although it had good infrastructure, O'Connor Tennis Center is now experiencing a deteriorated quality of its amenities. It is evident that as the residents around parks transform, the quality of parks also changes. As park segregation was uplifted officially and the city experienced white flight, good quality white parks experience degradation as their targeted population changed from white residents to African Americans.

Many historic African American parks lacked recreational facilities and necessary park amenities. When parks were desegregated in the city, white flight (along with their tax money), instigated by the fear of racial mixing, left the city parks, including many white parks, to the African American residents in neglect and poor condition. As the Parks and Recreation Department was renamed Recreation Department in 1967, only parks with

recreational facilities benefitted, largely ignoring the historic African American parks. The legacy of such racial biases in planning is continued even today. Initiatives with parks are very few. Current city plans encompassing a park component are either in white neighbourhoods, such as the Capitol Heights Neighborhood Plan, creek restorations project, such as Cypress Creek Neighborhood Plan and Genetta Park Stream Restoration Project, or located near downtown (figure 7). Only a few plans focusing on African American neighbourhoods, such as the South Montgomery Community Plan and Bellingrath Cloverland Neighbourhood Plan, are neighbourhood redevelopment plans with a limited focus on parks (figure 7). Nevertheless, the focus is on larger parks with recreational facilities, largely ignoring African American neighbourhoods to the west and north of the city with high poverty rates and low vehicle ownership (City of Montgomery, 2020, p. 160). Historical practices and segregation policies remain in the system as the building block of creating environmental inequalities. They create gaps in the system that continually patronize the privileged, ignoring the needs of the deprived.

Table 84. Transformations of Historic African American and White Parks

African American Only in 1959	African American Today	White Only in 1959	African American Today	Accessibility Score (5)	Recreation Score (4)	Amenities Score (6)	Natural Features	Inciilities Score (4)	Total Scores (19)
James A. Shannon Park (Mobile Heights)				2	3	4	2	2	9
Washington Park				2	2	4	2	1	9
	Ridgecrest Park			0	3	4	2	2	7
	Day Street Park			2	2	1	2	0	7
	Diffley Park			1	3	3	2	0	9
	Oak Park			4	2	5	2	1	12
	O'Connor Tennis Center			1	1	6	2	0	10

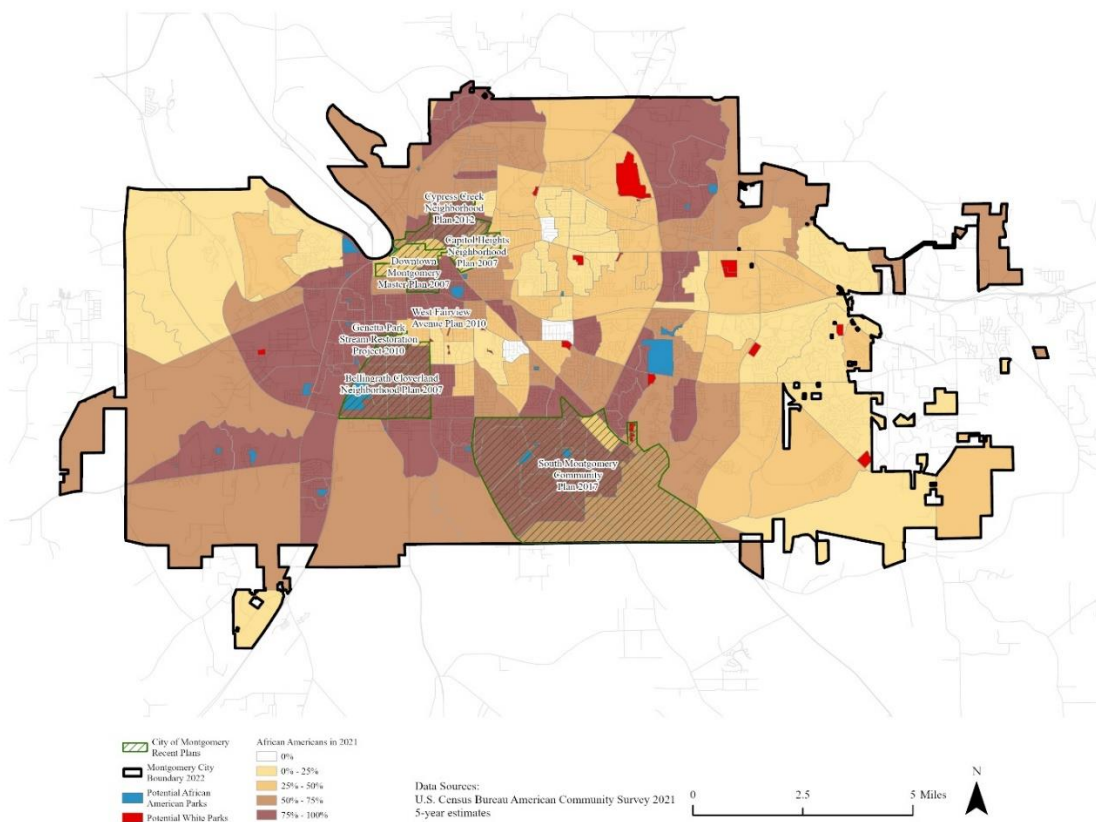


Figure 7. City of Montgomery Recent Plans (2000 onwards)

4.3 Neighbourhood Parks versus Community Parks:

The City of Montgomery’s Recreation Department classifies its parks into three categories – community parks, neighbourhood parks, and urban open space parks (City of Montgomery, 2019). Community parks serve multiple neighbourhoods and the city at large. They have a combination of passive, active, and special uses, and their sizes range from 2 to 300 acres. Excluding the special use parks, of the twenty-one community parks, ten serve African Americans, and eleven serve whites. Neighbourhood parks are smaller (30 acres maximum) and serve individual neighbourhoods or small residential areas. Most neighbourhood parks are designed for passive use, while a few have some active recreation. Of the 36 neighbourhood parks, 24 serve African Americans, and 12 serve whites. The urban open spaces are small-scale passive parks with landscaping. Of five such open spaces, four parks serve white residents, and one serves African Americans.

The qualitative analysis reveals that in the case of both African American and white parks, the small neighbourhood parks are in most disrepair, while the good quality parks are typically large community parks. For example, of the three good-quality African American parks, two are community parks, Oak Park and Gateway Park, that cater to the wider community. Oak Park is around 40 acres in area and is notably one of the famous parks in the city. Gateway Park is around 190 acres with both active and passive activities. Of the 24 African American neighbourhood parks, 21 are in poor condition. These small parks mostly have passive facilities; some are associated with schools. For white parks, the good and mediocre-quality parks are large community parks, predominantly with recreational facilities, while small neighbourhood parks are in poor condition.

From an EJ perspective, neighbourhood parks are meant to provide daily social, environmental, and health benefits to their immediate residents and, therefore, are crucial for equal access. While community parks are important, their catchment areas are larger with more specialized and occasional usage. However, cities tend to invest more in community parks as they are more visible to the public and visitors. Today, 61.6 percent of the city's population comprises African Americans (US Census Bureau, 2020), and they use most of the small neighbourhood parks. The community parks are distributed equally among the African American and white residents, but the parks in the white neighbourhoods are of better quality. It is paramount to shift the focus of park development from large community parks to small neighbourhoods for better disbursement of parks' benefits to their residents.

5. Conclusions

This study connected the issues of park access from an EJ point of view with the history of park segregation, taking the City of Montgomery, Alabama, as a case study. Montgomery remains one of many highly segregated cities in the south and the country (Othering & Belonging Institute, 2021). The history of park segregation has its legacy in contemporary disparities of park access, signifying severe quality-based inequalities. The segregated practices and policies remain in the planning system and continue to impact equal access to parks for all racial groups. Parks serving local residents are paramount in terms of providing equal access to all from an EJ perspective. However, the study highlights that cities tend to invest in larger community parks than small neighbourhood parks, which are often in dire need. The study also emphasizes the efficacy of creating a robust quantitative and qualitative assessment of park access that provides a holistic overview of park conditions.

As the study advocates for improving park conditions for African Americans, inferring from the voices of minorities and low socio-economic groups were beyond the scope. A

future research scope would be to interview residents to understand their needs and wants from the parks, especially in the case of neighbourhood parks. With the growing rate of urbanization, parks are one of the most valuable assets for city dwellers. Access to parks has tremendous social, environmental, and economic benefits and is one of the quintessential ingredients for EJ. However, because of the “tragedy of the commons” (Kohn, 2004; Carmona et al., 2010), they are the most contested ones too. Conflicts over park use are more severe in cities that carry the legacy of racial segregation. Historical practices of racial biases remain in park planning and affect the equal distribution of parks’ benefits to all its residents. Therefore, a holistic assessment of park access is crucial that can inform both quantity and quality-based needs for future park plans.

The *Envision Montgomery 2040* comprehensive plan recognizes several scopes with urban parks in the city, including rebranding and re-engaging city parks, expanding parks and recreation services and facilities into under-served areas, improving maintenance and prioritizing upgrades for parks and recreation facilities through a facilities condition index, increasing diversity of park programming, and expanding park coverage through rehabbing tax-delinquent parcels (City of Montgomery, 2020, pp. 240). While these initiatives are being conceptualized, this study seeks to provide insights into the nuances of park access that can steer the decision-making process.

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