Production, Use, and Barriers to Access in Public Space
A Comparative Case Study in Metro Atlanta, GA, USA

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Abstract

Public spaces play an integral role in urban life. Yet, the use of public space is diminishing (Carmona, 2010). Many areas are increasingly privatized and people are spending less time in communal places.

There are multiple bodies of research that explore public spaces—design-based literature and demographically based literature are the two largest contributors. However, little information exists on the intersection of those two factors. This paper aims to close this gap by examining the design of public spaces and demographics of the users in the space.

By using two case studies from metro Atlanta, Georgia, USA, this paper looks at the access and equity implications of public space design. The two case studies, Decatur, Georgia and Marietta, Georgia, present a detailed look at the design and layout of the two squares, their surroundings, the users and uses within the squares, and the way that demographics impact how safe and welcome users feel in each square. This paper uses extensive observation, survey data, and supplemental interviews to provide an in-depth exploration of each square.

This research found major differences between the types of users in each square. There is evidence that the accessibility of the public space impacts the demographics and, more specifically, socioeconomic standing, of space users. In addition, the perceptions of safety and feelings of welcomeness that users felt in the spaces varied significantly between the squares. These quantitative findings are the beginning of further exploration into the reasons that people do and do not use public space.

While it is difficult to extract a public space from its surroundings and pin conclusions solely on design, an in-depth look at the relationship between design, uses, and users is an important starting place for further research that can more qualitatively explore the meanings embedded in public space design.
1. Introduction

1.1 Context

Today’s public spaces are rooted in the Greek ‘agora,’ or marketplace (Mitchell, 1995). Agoras provided places for citizens to protest, speak publicly, spend time collectively, and participate in the market (ibid). In the 1800s, many public spaces in America began to develop around courthouses and other major civic buildings (Carr, 1992). In time, cities grew outward from these squares and the public spaces within them became the focal point and gathering place for the larger area.

As the meeting point and central area of most cities, public spaces received a great deal of scrutiny in the past. Beginning in the 1950s, researchers studied the design of public space and the way that users interact with and respond to space. This takes the form of planning criteria, post-occupancy evaluation as well as sociological and geographic studies of users.

Three bodies of thought define public space research: ethical, design-based and demographic research. Numerous authors write on the normative ideals of public space; democracy, openness and accessibility are all noted as necessities in the creation of public space (Habermas, 1989; Mitchell, 2003). While ethical imperatives are an important basis, a more practical approach that considers the true limitations of public space is also required. Out of that need stems two different approaches: design-based and demographic research. The design-based approach to public space is most notably emphasised by Whyte (1980), Gehl (1987), and Carr et al. (1992). All three researchers outline specific design elements and examine spaces post-construction. While this is key, another group of researchers examines access and use across a wide variety of factors including race, socioeconomics, gender and age (Loukaitou-Sideris, 2005; Byrne and Wolch, 1999; Cattell, 2001; Cohen et al., 2012). However, these three bodies of thought rarely converge to
create a comprehensive examination of public space. No current research considers the success of public space in reaching the normative ideals while examining both design-based factors and demographic.

Yet, as the world becomes increasingly urbanised, a new light is being cast on public spaces. Before we develop more public spaces, it is critical to examine the design and accessibility of public spaces and how that may be related to the users and use of those spaces.

1.2 The Research Problem
Public space plays a critical role in urban environments, but the key to creating an inclusive, diverse, and thriving public space remains elusive. Two different bodies of contemporary research aim to explain the use and users of public space. The first, which is design based, focuses on the factors of the physical built environment that can create a successful space (Gehl, 2010; Whyte, 2001). The second, in the demographic camp, focuses on the underlying societal barriers to equitable public space access and use (Lefebvre, 1996; Mitchell, 2003; Fainstein, 2010; Harvey, 2012). However, the current dialogue, both theoretical and practical, on public space fails to acknowledge the interaction of spatial, socioeconomic/cultural, and planning elements (Talen, 2011; Byrne and Wolch, 2009). This paper aims to fill this gap in the research by investigating both components in a single project. This may help to illuminate interacting factors that are not currently represented in the literature.

1.3 Aims of the Study
This research aims to conduct an in-depth field study of two public spaces in order to better understand the relationship between design, accessibility, and equity of use. Many studies exist that study the design of public space. In addition, there is a lot of background research on how demographics influence the use and accessibility of public space. However, there is little research that houses both of these topics in the
same place. This paper provides a first look at both of those aspects of public space and proposes ways they may interact with one another.

1.3.1 Research Questions

Based on the aims of the study, four research questions frame the exploration of the intersection of design, accessibility and equity.

(i) How are public spaces designed?

(ii) How do the physical designs of public spaces and the people using them interact with their surrounding areas?

(iii) What are the patterns of use and who are the users of public spaces?

(iv) How do the demographics of the users influence perceived levels of safety and welcomeness in public space?

(v) How does accessibility influence the use of public space?

1.4 Structure

The paper begins with a literature review that explores the existing themes in public space research. This includes design-based research, demographically rooted research, and an exploration into current arguments on equity in the literature. It next outlines the research methodology for the study including the epistemology and ontology. The various methods and their limitations are also explained. After the methodological section, the results of the research will be discussed. The final chapter will discuss the findings in the context of the literature, explore the limitations of the existing study, and present opportunities for further research on the topic.
2. Literature Review

This section will first outline the normative ideals of public space. It will next explore current design guidelines for public space and a number of methods used to analyse and evaluate the design of existing public spaces. Lastly, it will examine the socioeconomics of public space use and the barriers that may be embedded in identities and demographics. By focusing on these three major theoretical frameworks, the literature review seeks to establish the divergence and aims to make sense of the discourse while highlighting key work on public space.

2.1 Public Space Ideals

There are a number of ideals that public spaces are expected to uphold. For urban planners, the largest concern regarding public space is that it is fully valued by the community. However, for geographers and political scientists, the focus is different. The following study of space, which focuses largely on the design of squares, fits within the urban designer’s view of space. While the definition of “good” public space is widely disputed, Mehta’s summary, which asserts that “good public space is accessible and open, is meaningful in its design and the activities it supports, provides a sense of safety, physical and environmental comfort and convenience, a sense of control, sensory pleasure” succinctly covers the frequently mentioned features (Mehta, 2014: 57).

2.1.1 Democratic Spaces

The primary goal of public space, inherent in the term “public,” is the establishment of a place where everyone, across gender, race, and socioeconomic status, has the equal right to use and inhabit the space (Mitchell 2003; Staehli and Thompson 1997; Young 1990). Public space should be democratic—welcoming to everyone (Carr et al., 1992).
Habermas (1989) discusses the benefits of an inclusive public sphere. He defined the public sphere as:

“the sphere of private people come together as a public; they soon claimed the public sphere regulated from above against the public authorities themselves, to engage them in a debate over the general rules governing relations in the basically privatized but publicly relevant sphere of commodity exchange and social labor” (1989:27).

In this sphere, Habermas cites the importance of commonality and accessibility for all in the creation of a public sphere that is recognized for its contribution to freedom and democracy. However, his writing was severely handicapped by his era. His “inclusive” spaces were frequently narrowly limited to white, wealthy, men.

The Habermasian definition of a public sphere aligns with Carr et al., who argue that a democratic space “should protect the rights of its user groups” (1992: 19). However, that is not sufficient. Lefebvre normatively argues that the city and, in effect, the public space, should be an ouvre—a fully participatory entity (1996). Lefebvre argues for the universal “right to the city,” the right to participate in its creation and existence, and the right to inhabit the city. However, a city made by and for the people is increasingly rare (Mitchell, 2003). Through the privatization of public space and extreme measures of surveillance, public spaces are becoming restricted to a selected bourgeoisie population (ibid). These threats to democratic space have brought the promotion of social justice in the city back to the fore.

Mitchell critically argues that there is more to a just city than the creation of public spaces that are open to all (2003). He contends that public space must provide a place for representation—“a place in which groups and individuals can make themselves visible” (Mitchell, 2003: 33). Public space should also serve as a physical center for a functioning democracy (Mitchell, 1995). The public space should be a gathering place for
marginalised groups to protest and become involved in democracy (Mitchell, 1995; Staehli and Thompson, 2010). As a neutral territory with supposedly universal access, public space should provide a political forum (Varna and Tiesdell, 2010). This is especially paramount in societies centered around private land, where there are few places to congregate and organize (Mitchell, 2003). While there are many excluded groups in public spaces, the fight continues to create an ideal public that supports democracy for all.

2.1.2. *Spaces for Socialisation*

Beyond supporting democracy, public space should support the socialisation of all. Public space is synonymous with the public realm (Lofland, 1998). While that is a commonly accepted tenant now, multiple researchers contributed to the concept of the city, and specifically public space, as a “thoroughly social place” (Lofland, 1998: 2). Gregory Stone painted a sociological picture of the city by studying the interactions between shoppers and cashiers (1954). He found that despite the impersonal nature of these relations, primary relationships were being formed (Stone, 1954). Even in the “anonymous and impersonal world of the city, personalism had been espied” (Stone, 1954: 3). Following Stone, Jane Jacobs similarly explored the intricate relations of neighbours in New York City and found abounding social capital (1961). Erving Goffman similarly studied public interactions, but he specifically focused on public places. In his research, he found that the interchanges and relationships between strangers in public space may be as intimate as those between partners (1971). William Whyte aggregated these theories and issued a proclamation on the value of public space:
“The center is the place for news and gossip, for the creation of ideas, for marketing them and swiping them, for hatching deals, for starting parades...this human congress is the genius of the place, its reason for being, its great marginal edge” (Whyte, 1988: 341).

By creating an open and democratic space, public spaces can lead to personal growth and acceptance of others. While conflicts may arise, public spaces should “be planned to attract all...different populations, to enable them to look each other in the face, to listen, maybe to talk” (Berman 1986, p. 484). In order to integrate more completely, there must be a public space that welcomes collaboration across borders (Berman, 1986). By creating a public sphere where people from a variety of backgrounds interact, humans can develop tolerance and understanding (Lofland 1998). Similarly, Arendt wrote that the use of inclusive public spaces is crucial to democracy (1958). Public spaces that facilitate interaction ultimately have the ability, through chaos, to lead to acceptance and growth within a city (Sennett 2008). When the prior ideal of a just and open public space is achieved, this interaction between people becomes possible. Thus, creating a public space that is accessible to all and is equitably used, community members can begin to interact, develop tolerance, and build the social capital connections, that are important for the long-term sustainability of neighborhoods.

2.1.3 Equitable Public Spaces

However, creating an “accessible” public space is not synonymous with an equitable public space. Equity “refers to the fairness of justice of a situation or distribution” (Nicholls, 2001 from Smith, 1986). While subjective, questions of which populations benefit from public space provision and why are also crucial in understanding the provision of public space. While equity is a diverse topic, for the purpose of this paper, equity is defined in relation to equality. This can be operationalized in two ways (Nicholls, 2001). The first is the equal provision of services across all measures (ibid). The second is “output equality,” which requires
“equality of condition after receipt of service” (Lineberry and Welch, 1974: 709). Output equality is specifically concerned with benefits received. The two are rarely tied together (Nicholls, 2001).

Some neighbourhoods have higher levels of urban services than other (typically poor and minority) neighbourhoods (Smith, 1994). One such urban service is the provision of public spaces. The National Recreation and Park Association (NRPA) recommends 10 acres of open space per 1000 residents. However, this approach assumes that users are in a "container zone," and there is residents do not use public spaces in other areas (Nicholls, 2001). In addition, this land is frequently designated on the city-wide level, which may result in spatial inequities throughout the area. Research continually shows a spatially inequitable distribution of public spaces (Nicholls, 2001; Talen and Anselin, 1998). While more difficult to demonstrate, the failure to achieve output equality in public spaces is also thought to be problematic. More broadly, when public spaces are not created in impoverished areas, residents either lack access to open space or must travel further to use public areas. This may decrease the socioeconomic diversity of public spaces while furthering the inequity between neighbourhoods.

The equitable distribution of parks has been studied, almost exclusively, from the supply side. While there is literature on the equitable provision of public space, there is little on the actual use or goods received. Geographic Information System (GIS) analysis is a frequently used methodology in the study of park equity (Nicholls, 2001; Talen and Anselin, 1998). In these cases, researchers study the distance from disadvantaged residents to public spaces. Nicholls (2001) also studied the distance from public spaces according to a variety of demographic factors. Yet neither of these studies study the equitable use of parks in addition to the distribution of public spaces.

2.1.4 Accessible Public Spaces
To create a fully democratic and socialized space, a public space must be accessible to all (Neal, 2009; Carr et al., 1992). Accessibility “refers to the ease with which a site or service may be reached or obtained; it can thus be said to measure the relative opportunity for interaction or contact with a given phenomenon such as a park” (Nicholls, 2001: 202 from Gregory, 1986). An accessible public space is open to a variety of people and allows a variety of uses (Bertolini, 1999). Both physical and psychological access is required in public spaces (Pasaogullari and Dortali, 2004).

Physical accessibility is partially based on the distribution of public space. Both temporally and spatially, a public space should be located near users. It should be “easy to get to and get through; it is visible from a distance and up close” (Pasaogullari and Dortali, 2004 from Whyte, 2000). It should be accessible regardless of place residence, physical disability or socioeconomic status (Harnik, 2003). Thus, locating near a variety of modes of transportation increases the accessibility of public space (ibid). Public spaces should meet all legal requirements for disability access and accommodate users with a variety of needs (bicyclist, wheelchair bound, mothers with strollers) (ibid). When the physical accessibility of a space is increased, Pasaogullari and Dortali (2004) suggest that it will be better utilized. However, this is not always the case. In some cases, increasing the accessibility for some users is in direct conflict with the needs of other users (Zajac, 2013). For example, those with physical handicaps may feel intimidated by extensive bicycle access to public space.

To create a fully accessible space, users must feel social and psychological comfort (Carr et al., 1992). Lastly, public space must feel safe for people of all genders, races, ages and income classes (Carr et al., 1992). Yet, fear shapes cities due to the diversity of populations within them; “geographies of fear are based on social perceptions of threat” (Herbert and Brown, 2006: 202). The primary concern in creating safe spaces is typically for the protection of women (Valentine, 1990). Women are more likely to fear public space than men, and they are subsequently more
likely to limit their public activities out of fear (Loukaitou-Sideris, 2005). However, women are not the only subgroup deterred from public space use by fear. Many minority men fear entering a public space for fear of exclusion or discrimination (Byrne and Wolch, 2009) Thus, safety across races and genders is an important distinction to make.

There are a number of design-based interventions and space management techniques that can be used to ensure the safety of public space users (Carr et al., 1992). Design-based changes will be discussed in the next section.

2.1.5 Social Exclusion
Building on the ideal of accessible, open and democratic public spaces, social exclusion must, correspondingly, be minimised in a “good” public space. Social exclusion is based on “inclusion in civil society” (Pritchard et al., 2014: 443). The inability to participate in civil society and to access related amenities, such as public space, is multidimensional; it is not exclusively defined by poverty level, race, age or gender. However, it does have three broad dimensions: economic, social and political (Bhalla and Lapeyre, 1997).

Inequitable use of public space is problematic for a variety of reasons. Physical inactivity is the largest cause of mortality (16% of US deaths) (Blair, 2009). However, residents with low incomes and some ethnic minority groups and people with disabilities are the most likely to be “inactive” (USDHHA 1996, 2000). By further depriving these populations access to public space, disadvantaged ethnic groups will remain physically inactive. “The lack of community-level settings (such as parks, sidewalks, bike paths) conducive to physical activity can represent a significant barrier to an active lifestyle for residents” (Powell et al., 2004:137). Lack of open space is a particularly strong barrier and may be a reason for high levels of obesity in certain races and those with lower socioeconomic standings (ibid). While plazas and parks may encourage
sedentary activities, they are also a destination that frequently requires walking (MacDonald et al., 2010).

In addition, social capital bonds are formed in public spaces. Thus, if certain populations are not present in public places, their potential for social capital connections is dramatically lower. Yet, social capital bonds increase well-being and contribute to the revitalisation of neighbourhoods (Cattell, 2001). Therefore, social capital can provide especially important resources in poorer neighbourhoods and to those living in poverty. Providing an outlet, such as a public space, to make these connections is key. Without equitable public space use, those in poverty are less likely to make social capital connections than those who use public spaces.

While all three dimensions of social exclusion are linked to the research in this paper, a specifically spatially based variable in social exclusion is the availability of transport options (Lucas, 2012). According to Pritchard et al., “poor transport options and alternatives can be a result of social exclusion and can also reinforce social exclusion (2014: 443). Thus, poor generalised facility accessibility, a lack of transportation options, and transport network barriers may socially exclude some users from public space (Pritchard et al., 2014).

2.2 The Design of Public Space
The qualities and ideals of public space have long been a topic of concern for urban designers and planners. Urban design is “primarily concerned with the quality of the public realm-both physical and sociocultural-and the making of places for people to enjoy and use” (Carmona et al., 2001:3). Since the 1960s, researchers have focused on both guidelines for the development of public space and post-occupancy evaluation of existing public spaces. In order to better design public plazas, planners must understand why good design matters, what elements “good” design includes, and a means of evaluating design after building. The socio-
spatial body of thought holds that “social problems (and solutions) can be found in spatial form” (Neal, 2010: 3). Research has long focussed on using a set of best practices and design guidelines in order to both design and evaluate public spaces that are well used by a diversity of people.

2.2.1 The Importance of “Good” Design

If a public space is well designed, it is more likely to be well used. Jan Gehl (1987) recognised that a “high quality physical environment” will attract more people. He devised a framework for understanding the relationship between the sociability of public spaces and their design (1987). By dividing activities into three categories—necessary, optional, and social—and researching their presence in different space, Gehl created rubric to evaluate what makes a space usable and desirable (1987). Necessary activities, such as walking to work or school, remain at the same level in low quality and high quality physical environments. However, high quality environments induce additional optional activities, which, in turn, invite social activities (Gehl, 1987). Thus, a “high quality physical environment” will help to deliver on the first ideal of public space: high use.
While Gehl (1987) concisely explains the importance of creating “life between buildings” through good design, it is also critical to note the different elements that compose a public space. In The Image of the City (1960), Lynch, a seminal thinker in the field of urban planning, assessed five elements of the city that shape the view of users. They are: paths, edges, districts, nodes, and landmarks (Lynch, 1960). While these five elements are important, Lynch’s assessment that different users experience the city differently and form disparate narratives on space is the larger takeaway from his work (ibid). To accommodate a variety of users, public space must be designed to cater to a diversity of needs and must accommodate a multiplicity of users.

The design elements of public space can be divided into two categories: macro-design (beyond-the-place) and micro-design (within-the-place) (Varna and Tiesdell 2010). Regarding macro-design, Gehl (1987) posits that the key feature of a public space is the presence of people, a characteristic that can be encouraged through physical planning. He
believes that by creating spaces in areas with low, closely spaced buildings and a high level of foot traffic, the “physical framework” for a public space can encourage the development of an “open-minded” place (Gehl 1987). This is further echoed by Whyte (1987), who established that the largest attractor of people was, in fact, other people. Micro-level design refers more to the individual elements of a public space that contribute to attracting users initially.

2.2.2 Macro-Design

With the importance of developing well-designed public spaces for a variety of users in mind, a number of researchers have worked extensively to explore what constitutes “good”, user-friendly design. The single largest design decision in the creation of a public space is the location. Urban plazas located near a diversity of land uses will attract the most users (Chidister 1986a). In addition, an urban plaza should be located in an area of need, a frequently overlooked prerequisite (Cooper-Marcus and Francis, 1998). Many city governments now require new office buildings to provide “public” space as a part of zoning permission (Whyte, 1987). The introduction of many public spaces with the same catchment area (approximately 900 feet) creates over-saturation, which leads to lower rates of use (Cooper-Marcus and Francis, 1998; Whyte, 1980). The presence of an existing pedestrian or transit system near the plaza also contributes to a well-used plaza; even passing foot traffic creates higher rates of use and safety (Cooper-Marcus and Francis, 1998). Thus, the location of a plaza and its surrounding uses plays a large role in the successful provision of public space.

Size is also an important element in planning public space. A space too large will exceed human-scale while a space too small may send the message of entering a private space. Lynch (1971) suggests that an ideal intimate public plaza should range from forty to eighty feet. Anything larger than 450 feet on the smaller side would render a square too large.
Similarly, Gehl (1980) recommends a space ranging from 230 to 330 feet, which is indicative of a reasonable distance for human eyesight.

2.2.3 Micro-Design

“Visual complexity,” meaning places with a variety of colours, textures, sittable spots, landscapes and other interesting elements, is an important attractor for public space users (Cooper-Marcus and Francis, 1998). In studying ratings and reactions to different plazas in Vancouver, Joardar and Neill (1978) found that users are drawn to places that offer a variety of elements and complexity. Similarly, “large spaces should be divided into subspaces to encourage their use” (Cooper-Marcus and Francis, 1998: 36). These boundaries should be clear and allow for a variety of uses and sub-segments within the larger public space (ibid).

There is a certain degree of disagreement regarding the ideal microclimate for urban plazas. Jan Gehl (1987) argues that, as seen in the squares of Sweden, a well-designed space will attract people no matter the climate. Whereas Whyte’s research team found that the presence of sun within a plaza attracts people during the cooler months; however, as the temperature becomes warmer an equal amount of shade is also needed (1980). In fact, many users consider sunlight to be the largest attractor to a public space (Liebermann 1984). In addition, wind, glare, and temperature (the ideal is 55 degrees Fahrenheit) all play into creating the overall level of comfort in a space (Cooper-Marcus and Francis, 1998).

Designing for circulation patterns and accessibility is considered a key component in urban plazas. Accessibility to the space by pedestrians and automobiles determines some elements of use and access (Varna and Tiesdell, 2010). Hillier finds that pedestrianised have higher rates of use than those that are only adjacent to traffic (1996). A plaza should plan for intended pedestrian routes and simplify the shortest path from point A to point B (Cooper-Marcus and Francis, 1998). Along that vein, entry, exit, and enclosures within urban plazas play a large role. Walls, gates, and
physical barriers, all of which are embedded in the design, may lead to the exclusion of certain people (Varna and Tiesdell, 2010). In addition, promoting full visibility in the space allows for more human intrigue and greater levels of safety (Hillier, 1996; Gehl, 1987). Disability ramps should be provided in conjunction with stair access points to ensure handicap accessibility (Cooper-Marcus and Francis, 1998).

Perhaps most important, according to Whyte (1980), is the provision of “sittable space.” Whyte recommends provide movable chairs, so that users can adapt and interact with the space according to their needs (1980). Yet, that is not the only seating that should be provided. A plaza should provide primary seating, such as benches and chairs, as well as secondary seating, such as mounds, steps and walls (Cooper-Marcus and Francis, 1998). Secondary seating should account for less than fifty percent of the total available “sittable space” (Project for Public Spaces, 1978). The variety of seating is partially to accommodate different preferences and partially to keep the plazas from appearing empty during low-use times (Cooper-Marcus and Francis, 1998).

A number of additional amenities and design elements also add to the user experience. Said simply, a variety of greenery and planting is an asset to public space (Joardar and Neill 1978). In addition, large plantings and trees should not block any view lines (Cooper-Marcus and Francis, 1998). Water features also attract a variety of users (Whyte, 1980). Lastly, public art that “create[s] a sense of joy, delight, and wonder at the life of the city” (Crowhurst-Lennard and Lennard, 1987).

Many urban designers subscribe to the belief that the “sense of enclosure,” or the proportion between height and width of an area, plays a role in the perceptions of public space users (Carmona et al, 2003; Jacobs, 1993). While small spaces with tall enclosures may be uncomfortably claustrophobic, large public spaces without any enclosure may not feel safe (ibid). Despite the expansive literature on height-width
ratios, there is no consensus on the appropriate level of enclosure; ratios range from 1:1 (Nelessen, 1993) to 1:6 (Duany and Plater-Zyberk, 1992). Thus, while there is acceptance that the sense of enclosure is important in creating user safety, it is difficult to extrapolate a single ideal from the research. Part of the divergence of opinions on this matter may be due to the variety of external factors that play a role designing a “good” public space—architecture, windows, and pedestrian traffic flow are all key variables in the design of space that may change the desired sense of enclosure.

Best practice literature emphasises the importance of creating active frontages on public spaces (Gehl et al, 2006). An active frontage is defined as: the frontage or edge of a building or space that has windows and doors as opposed to blank walls, fences and garages” (ODPM, 2004: 103). By creating active frontages on public spaces, areas become safer while adding “interest, life and vitality” (Llewelyn Davies Yeang and HCA, 2013; Sparks and Chapman, 1996). In addition, an empirical study by Heffernan et al. (2014) surveyed public spaces users to gauge their perception of spaces in relation to active frontages. The research found a relationship between positive perceptions of public space and the presence of active frontages (Heffernan et al., 2014).

Designing for a variety of uses is critical. Space is used for passing through, lingering, passive relaxation, active relaxation, dog walking, eating/drinking, and much more. The preferences for public space differs between generations and races, so a space should work to incorporate those needs and desires.

2.2.4 Post-Occupancy Evaluation

After public space is in use, a post-occupancy evaluation can be used to determine the efficacy of the plaza in reaching its ideals and goals. Cooper-Marcus and Francis (1998) introduced the most-widely accepted
post-occupancy evaluation form. They recommend the following steps in developing a post-occupancy evaluation:

“1. Location and name of place
   1a. Sketch site plan
2. Brief description of the place and its immediate surroundings
   2a. Map of location and context
3. Summary description of objective activity observations (who is doing what, where, with whom).
4. Subjective participant-observation appraisal of the place (how it felt as a user).
5. An overall assessment of how this setting seems to work as a place for people (this should constitute the major critical portion of the report).
6. Brief description of design and/or amenity changes recommended to improve this setting as a place for people to use and enjoy.
   6a. Sketch site plan of recommended changes” (Cooper-Marcus and Francis, 1998: 347).

This method would be helpful for redesigning a plaza to better accommodate the needs of users and the neighbourhood.

The Project for Public Spaces, a non-profit placemaking firm, devised a set of four criteria, and corresponding qualitative and quantitative research methods to evaluate existing public spaces (PPS, 2011). The four criteria, which are all intrinsically related to design are: sociability, access and linkages, uses and activities, and comfort and image (ibid). The image below shows the research methods related to each measure—the circle represents the qualitative measurements and the external square shows the quantitative measures.
More recently, Mehta (2014) proposed a public space index for measuring the quality of public space. Studying ten spaces through interviews, surveys, and semi-structured observations, Mehta evaluated spaces along the dimensions of inclusiveness, meaningful activities, comfort, safety, and pleasurability (2014). As opposed to Cooper-Marcus and Francis, Mehta quantifies all of the park data and creates a rating. While this paper provides a unique way to empirically evaluate public spaces, it fails to acknowledge the inherently qualitative aspects of urban design.

While design is an important component of park use, it is important to recognise that it does not operate in a vacuum. Demographic and geographic characteristics interact with urban design to change the use and equity within public spaces.
2.3 The Demographics of Public Space Use

Not all parks are well used (Jacobs, 1961). According to Jacobs, parks that are near heavy pedestrian traffic and offer multiple “demand” uses (basketball courts or concerts) will be the most successful (1961). Yet, there is still more than creating a desired amenity. Outside factors, such as socioeconomic status, race, or gender, may influence the degree of use in certain public spaces (Dai, 2001).

2.3.1 Gender

Despite extensive literature, there are two bodies of thought regarding women in public space. Some believe that public space allows more women freedom from male dominance (Wilson, 1995). Others believe women see public spaces through the lens of fear due to potential harassment and crime (Valentine, 1989). Women’s fear of public space, mostly due to the perception of danger or high levels of crime, can be deterrent to use (Skogan and Maxfield, 1981). While the fear of crime in public space also affects men, “studies have shown that women’s fear of public space limits their freedom and enjoyment of public life” (Yavuz and Welch, 2010). For men, other groups of men in public space are the most worrisome (Crime Concern, 2004). However, for women, single men and the fear of violent assault are the driving safety concerns in public space (ibid).

Despite higher levels of fear, research shows that women actually use public space at higher rates than men (Paravicini, 2002; Garcia-Ramon, Ortiz and Prats, 2002). Women are also more sensitive about the design of public spaces (PPS, 2013). Thus, it is important to consider both women and men as key user groups when designing public space. This includes planning for a variety of amenities and designing with safety in mind. The recommendations for designing for women include improving lighting, creating clear sight lines, adding clear signage, and reducing signs of neglect (Women’s Design Service, 2007).
2.3.2 Age
The needs of public space users vary greatly by age group. Like women, children are sensitive to the design of public spaces (PPS, 2013). Children are a large user group in public space; however, they are frequently disenfranchised during the planning process (Hart, 1978). Play and fitness are crucial for healthy children, so public spaces should accommodate those needs—both on playgrounds and in the regular public realm (CABE, 2011).

Despite these aspirations and normative desires for play space, children and teens often feel excluded from public spaces, particularly in highly commercialised areas (Heywood and Crane, 1998; Watson, 2006). While children and teens, particularly between 11 and 18, are frequently drawn to city centres, there is a perception that many public spaces are for white collar workers only (Woolley, 2003). While the design of public spaces may not be inherently exclusive, teenagers may feel unwelcome in certain areas due to fear, programming, or a set of amenities catering to a different group (ibid).

Similarly, the elderly also require special consideration in the design of public space. While the use of public space by the elderly adds extensive value to the population by promoting interaction, the elderly are the least likely population to use public space (Fini, 2010). Much like the disabled, poorly equipped public spaces lacking in accessibility are underused by older populations (ibid). Yet, by creating handicap accessible places, emphasising seating options, including shade, creating active and passive participation options, public space designers can encourage equity of use across age ranges (ibid).
2.3.3 Race

Yet, beyond poverty and income, there are other social barriers to equitable public space use (Neal, 2009; Ruddick, 1996). The impact of race on public space use and perception is a particularly well-documented phenomenon. Many “people of colour face socio-economic barriers that constrain when and how they visit and use parks” (Byrne and Wolch, 2009: p. 749).

As documented earlier in the literature review, there is significant inequity in green space accessibility for minorities, especially African Americans and the socioeconomically disadvantaged (Dai 2001). Many “people of colour face socio-economic barriers that constrain when and how they visit and use parks,” so public spaces that require car access present a high barrier to use (Byrne and Wolch, 2009: 749).

Even when public space is provided in an equitable manner, cross-racial encounters and perceived hostility may underlie the racialisation of public space, as blacks feel unwanted or uncomfortable in some places (Ruddick, 1996). In addition, histories of racism and cultural/ethno-racial ideologies may shape park design and architecture (Byrne and Wolch, 2009). In multicultural areas, the heritage of a public space may carry implicit meanings that can alienate or exclude community members (Low et al., 2005). Due to their cultural background, some blacks prefer areas with lower levels of law enforcement (Byrne and Wolch, 2009). This may translate to the lower rates of park use, particularly in well-patrolled areas, in African American communities (ibid). According to McCann, “contemporary public spaces are designed to keep the frequency of uncomfortable encounters to a minimum and to maintain a rigid power relation between Whites and people of colour” (1999, p. 179).

Some public spaces may be unintentionally designed to exclude certain populations as certain ethnic groups display different preferences for
leisure time activities (Byrne and Wolch, 2009). While blacks prefer formal, sport-oriented park spaces, whites prefer more individualised nature settings (ibid). Asians desire scenic beauty, and Latinos prefer spaces with access to usable amenities such as picnic tables (ibid). A successfully designed public space can use this set of consumer preferences to cater to diverse bases (Low et al. 2005).

2.3.4 Household Income

Poverty is not a one-dimensional issue. The role that poverty plays in public space use carries into racial inequities as poverty rates for blacks and Hispanics in the United States are nearly twice as high as those for non-Hispanic whites, the use of public space is further stratified by both race and income (Gradin, 2008). While most of the current quantitative research reflects the importance of public space access and use for those on the lower end of the socioeconomic scale, it is still important to integrate spaces across race, gender and ethnic groups as well (Loukaitou-Sideris, 2005).

One factor limiting the use of public space by certain groups may be poverty level. Merz and Rathjen (2009) suggest that the working poor have less leisure time at their discretion. They recognise the repercussions of this effect; people in poverty have less time to spend on leisure activities (a proxy for public space use) and, thus, have less capacity to develop social capital bonds (Merz and Rathjen, 2009). If Merz and Rathjen’s theory is correct, there are also racial implications for the use of public space.

Cohen et al. (2012) sampled 50 neighbourhood parks in Southern California to investigate the link between poverty and park use. Their research sampled parks with diverse populations and included a consideration for poverty level. Using the System for Observing Play and Recreation in Communities (SOPARC), the researchers observed each of the parks for 7 days, 4 times/day over the course of two years (Cohen et
SOPARC includes information on each individual, including race, age, gender, and physical activity. They also surveyed 75 park users in each location. The researchers found that there were more park users in higher poverty neighbourhoods than in lower poverty neighbourhoods, and the use of the parks is much denser in high poverty neighbourhoods. Similarly, users in high poverty areas report using the park more frequently than users in low poverty areas (Cohen et al., 2012). However, previous research has shown a lack of leisure time in poorer households. As compared to the residents living near the parks, park users were more likely to be Latino and young (Cohen et al., 2012). These broad findings on park use demographics provide a sound methodological basis for future park research and further explore the relationship between poverty and leisure time/park use.

In addition, low-income residents perceive higher levels of crime, numbers of unleashed dogs, and rates of disrepair in their neighbourhoods than their richer peers (Kamphuis et al. 2009; Cerin and Leslie, 2008; Wilson et al., 2004). According to Kamphuis et al., Each of these factors also decreases park use for those with low socioeconomic statuses (2009).

The commercialisation of public space may also serve as a deterrent to use as “comfort, safety, and profit” replace political activity (Mitchell, 1995: 119). This is particularly marked in low-income populations. Deliberately planned spaces, particularly near shopping places, may divide spaces along socioeconomic lines (ibid). The increasing privatisation, and increasing policing that comes with that, of public space may lead to exclusion of marginal populations (Ruddick, 1996; McCann, 1999).

The commercialisation and subsequent commodification of public space may create “closed” public space that excludes certain types and classes of people, particularly those of a low socioeconomic standing (Van Deusen
The transformation of space for profit may lead to the creation of exclusionary spaces that undermine the democratic aims of the public sphere (ibid). While likening urban design standards that prioritise profit as “class warfare” is extreme, Van Deusen’s argument that overly commercialised public spaces may lead to feelings of exclusion in certain socioeconomic/geographic groups is not unfounded.

2.4. Conclusion
While these three bodies of research are well-developed, little information currently exists on their overlap. However, it is important to examine public spaces in a holistic manner and to include multiple aspects in the same analysis. By providing in-depth design analysis of two public spaces, including patterns of use and circulation, and a socioeconomic analysis of those in the space, public space can be examined more thoroughly.

It is important to note the difficulties of identifying every conceivable barrier to public space, which further emphasises the need for cohesive research on the topic. Byrne and Wolch (2009) posit that “park use [is] reliant on, but more than just a function of an individual's socio-demographic characteristics,” and that park use and barriers are highly dependent upon individual perceptions of spaces as well as design features (p.750). Thus, the barriers or perceived barriers to equitable use are constantly shifting and must be examined in a comprehensive manner that merges these research topics and identifies their overlaps.
3. Methodology

The methodology chapter outlines the research design used to evaluate the following four research questions:

(iii) How are public spaces designed?

(iv) How do the physical designs of public spaces and the people using them interact with their surrounding areas?

(iii) What are the patterns of use and who are the users of public spaces?

(iv) How do the demographics of the users influence perceived levels of safety and welcomeness in public space?

(v) How does accessibility influence the use of public space?

The methodology section explains each component of the research design as well as their limitations. It concludes with a summary of the ethical considerations.

3.1 Research Strategy

The research methodology outlines the way in which research is carried out to reflect ontological and epistemological principles (Sarantakos, 2005). However, connections between the two are “best thought of as tendencies rather than as definitive connections” (Bryman, 2004: 428).

Thus, while constructionism primarily lends itself to qualitative research, a mixed-methods approach can be used to develop a more complete picture while still maintaining the conceptual framework. While research questions one and two lend themselves to qualitative approaches, question three lends itself to both quantitative and qualitative methods. Additionally, research question four is best quantified with numerical data. The approach will be inductive; it will use the data collected through a variety of methods to develop theories (Denscombe, 2007).
3.1.1 Conceptual Framework

This research utilises a conceptual framework that merges two different bodies of public space thought together, demographic research and design-based research. The diagram below shows the paper’s conceptual framework. By aiming to close the gap between the two bodies, this paper seeks to explore if there is a relationship between the demographics of the users of space and the physical design of public spaces.

**Figure 3. Conceptual Framework (Source: Author)**

Dialogues shape the design and layout of public spaces based on ever-changing preferences. Once developed, potential users and the space itself may be impacted by the larger context (Lefebvre, 1991). These interactions have the capacity to engender meanings, shape perspectives and conceptions, and, potentially, limit use for local residents.

Since the meanings users and non-users give to public space play prominently in both planning and use decisions, this research relies on constructionist ontology. By recognising that “social phenomena and their meanings are continually being accomplished by social actors...[and] categories are not only produced through social interaction but ...are in a constant state of revision,” constructionism focuses on explaining the development of attitudes, and thereby actions, through influences from the outside world (Bryman, 2004: 18; Burr, 2003).

Epistemologically, this research will take on an interpretivist orientation. It is interpretivist in that it is “interested in the subjective meaning,
namely the way in which people make sense of their world, and in which they assign meanings to it” (Sarantakos, 2005: p.40). As noted by Varna and Tiesdell (2010), the interpretations of policy makers, users, and non-users, and their rootedness in interactions and contexts, are critical to understanding and answering research questions about the role of socioeconomics, race, and culture in the use and design of public space.

3.1.2 Research Design

This research utilises a mixed-methods approach by including both qualitative and quantitative data. Using both methods of data collection rounds out the research by allowing for deeper exploration of the reasoning behind certain thoughts and decisions (Denscombe, 2007).

3.1.3 Triangulation

The case study approach is prime for the utilisation of multiple methods. This research project will use triangulation to further substantiate findings and to offer a more thorough look at the case studies. through triangulation. Triangulation is useful for providing a “fuller and more complete picture” while improving accuracy (Denscombe 2007, p.134). Triangulation also serves to complement the research so that “different aspects of an investigation can be dovetailed” (Bryman 2004, p. 455). Quantitative methods of structured observation and surveys will be undertaken. Qualitative methods of content analysis and interviews will be used to triangulate and complement the qualitative findings.
3.2. Comparative Case Study Approach

Case studies frequently utilise the inductive approach to expansively explore specific cases and to develop theory out of in-depth explanations (Yin, 1994). Yin (1994) describes the case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). The complex contexts surrounding the creation and use of public spaces, as well as the interpretivist approach, befit the case study approach for its recognition that the space itself does not exist in a vacuum. Case studies are particularly ripe for the use of multiple methods of data collection (May, 2011).

The case study approach can feature one in-depth study, or it may choose to focus on multiple cases for the sake of comparison (Yin 1994). If multiple cases are chosen, “every case should serve a specific purpose within the overall scope of inquiry” (Yin, 1994: 45). The research aims to “produce contrasting results for predictable reasons;” this may allow for future theoretical replications (Yin, 1994: 46).

In addition, in the method of Whyte and his predecessors (Francis, 2002)—most public space research is done with case studies.
3.2.1 Case Study Selection
For this research, Decatur Square and Marietta Square were chosen as contrasting case studies. For this project, it is important to see the variation in users, uses, and attitudes surrounding the space in relation to the process of spatial design and the presence of transportation. In order to elucidate the role that access may play, two cases, one that had public transportation and one that does not, are chosen. Other than that, much of the case studies are very similar. Both are the primary public spaces and house the respective district courts for counties in metro Atlanta. Additionally, both are counted as prime examples of small downtown districts. In that way, the contrast between an accessible place and a largely inaccessible place becomes even greater.

3.2.2 Limitations of the Case Study Approach
The primary weakness of this research is that undertaking two case studies was very time intensive and limited how in-depth each one could be (Bryman, 2004). In addition, there are questions about the generalisability of the case study approach (Stake, 1980). Thus, there is concern that extrapolations from each case study are difficult. However, given the in-depth and complex nature of public space research, the case study approach is still the best choice. In fact, other researchers argue in favour of the reliability and the potential extrapolation of case studies (Mitchell, 1985).

3.3 Quantitative Approach

3.3.1 Structured Observation
Structured observation, or “a technique in which the researcher employs explicitly formulated rules for the observation and recording of behaviour,” will be used to answer question three (Bryman 2004, p. 544). Observing behaviour allowed the researcher to eliminate survey bias and to record the spatial distribution of behaviour. Using an observation
schedule based on the use table outlined by Cooper Marcus and Francis (1998) and revised during a preliminary unstructured observation time, the researcher focused on behaviour and its location within the space at a variety of different times and days and at some programmatic events (Denscombe, 2007). The prior use of this strategy as a portion of an ethnographic research project the spatialisation of Costa Rican plazas confirms its usefulness of this type project (Low, 1996).

3.3.1.1 Structured Observation Analysis

The observations were coded. The coding scheme and the variety of times included limited bias (Denscombe, 2007). Since no population was known, behaviour time/place sampling was used to record the entire watched group at different intervals. This information was quantitatively coded and mapped onto a plan of the public spaces, which was divided into sub-areas for use in the survey section, to indicate where each use is occurring. The findings from the structured observation analysis were mapped and scaled using Adobe Illustrator.

In addition, the square, as it was structurally observed, was evaluated according to the 12 key quality criteria outlined by Jan Gehl (shown in the image below).
Figure 5. The 12 Key Quality Criteria (Source: Gehl, 2011).

THE 12 KEY QUALITY CRITERIA

PROTECTION
- Protection against traffic and accidents – feeling safe
  - Protection for pedestrians
  - Eliminates fear of traffic
- Protection against crime and violence – feeling secure
  - Lively public realm
  - Eyes on the street
  - Overlapping functions day and night
  - Good lighting
- Protection against unpleasant sensory experiences
  - Wind
  - Fumes
  - Cold/heat
  - Pollution
  - Dust, noise, glare

COMFORT
- Opportunities to walk
  - Room for walking
  - Interesting facades
  - No obstacles
  - Good surfaces
  - Accessibility for everyone
- Opportunities to stand/stay
  - Edge effect/attractive zones for standing/staying
  - Supports for standing
  - Facades with good details that invite staying
- Opportunities to sit
  - Zones for sitting
  - Utilizing advantages: view, sun, people
  - Good places to sit
  - Benches for resting
- Opportunities to see
  - Reasonable viewing distances
  - Unhindered views
  - Interesting views
  - Lighting (when dark)
- Opportunities to talk and listen
  - Low noise levels
  - Street furniture that provides ‘talkscapes’
- Opportunities for play and exercise
  - Physical activity, exercise
  - Play and street entertainment
  - By day and night
  - In summer and winter

ENJOYMENT
- Scale
  - Buildings and spaces designed to human scale
- Opportunities to enjoy the positive aspects of climate
  - Sun/shade
  - Heat/coldness
  - Shelter from wind/breeze
- Positive sensory experience
  - Good design and detailing
  - Good materials
  - Four views
  - Flowers, plants, water
3.3.1.2 Structured Observation Limitations

The primary concern with structured observation was the application of an inappropriate framework for observation (Bryman, 2004). An inappropriate framework frequently occurs as a result of observer bias, which yields problems with reliability and validity (ibid). Thus, the expansive literature on park use and an unstructured observation period took place initially. Secondly, the presence of an observer may have lead to an observer-effect (Bryman, 2004). Knowledge of an observer may have biased the actions of the observed (ibid). Lastly, structured observation was also extremely time intensive, which made it difficult to scale up in larger experiments.

3.3.2 Content Analysis

In order to fully understand the current plan, the development process and history surrounding the public squares, content analysis, “a searching-out of underlying themes in the materials being analysed,” was used (Bryman 2004: 392). This research reconstructed the design process and historical setting of the squares through the analysis of policy documents, records of meetings, local newspaper articles, and official plans. The documents were qualitatively analysed according to the grounded theory approach. Since a narrative was developed out of the data, it was important to utilise an iterative approach that allowed for simultaneous collection and analysis (Bryman, 2004). Content analysis, which has previously been used to contextualise projects on public space (Low, 1996; Mitchell, 1995), was used in answering the first two research questions.

3.3.2.1 Content Analysis Coding

While the data from the content analysis was be coded, no preconceived categories will be used. Instead, emerging themes will be coded if they seem relevant. This enabled management of the documents and allowed the "linking [of] codes to contexts, to consequences, to patterns of
interaction, and to causes” and the subsequent creation of a narrative (Bryman, 2004: 402).

3.3.2.2 Content Analysis Limitations
Content analysis is necessarily limited by the documents that the researcher can find. In this particular case, there were many more documents available for Decatur in comparison to Marietta Square. While this was a hindrance, semi-structured interviews were also used to fill in the knowledge gaps. In addition, as with the other qualitative research methods, researcher bias may have influenced the coding (Bryman, 2004).

3.3.3 Semi-Structured Interview
Semi-structured interviews were used to supplement the transportation narrative. By speaking to the city managers in each location, a more comprehensive view of the design process and the stakeholders emerged. A semi-structured interview was chosen because it allowed the researcher to address specific questions and expound on content analysis while allowing the interviewee freedom to expound on other concepts (Bryman 2004). Semi-structured interviews also allowed for cross-case comparison (ibid). The interviews allowed for further probing into “opinions, feelings, emotions and experiences” that reflect the constructionist ontology and should be explored in depth (Denscombe 2007, p.175).

The interview schedule reflected the semi-structured style by outlining key phrases and concepts previously identified in content analysis (Bryman 2004). The interviewees were purposively identified in the content analysis stage.

3.3.3.1 Semi-Structured Interview Analysis
Despite the large time commitment, interviews were fully recorded, transcribed, and coded to enable a more robust understanding of
development of the space, barriers, and reasons for use (Bryman 2004). The coding was done according to categories (e.g. perceived barriers and desires for the space).

3.3.3.2 Semi-Structured interview Limitations
The primary problem for semi-structured interviews was in locating the appropriate participants and in securing interviews as well as limiting bias and subjectivity in the questions (Bryman, 2004). In addition, taking interviews, transcribing them and coding them was extremely time consuming (ibid). This vastly limited the number of interviews the researcher was able to conduct for this paper. Lastly, bias may have also occurred in the coding stage.

3.1 Quantitative Approach

3.4.1 Face-to-Face Survey Design
Quantitative surveys were used to evaluate the demographics of the users and to evaluate the feelings of safety and welcomeness of the users. For questions three and four, a survey was useful because it was “a rapid and relatively inexpensive way of discovering the characteristics and beliefs of a population at large” (May, 2011: 94). The surveys collected both nominal and ordinal data. The survey addressed questions such as race, income range, age, gender, distance from place of residence to park, and feelings of welcomeness and safety using a Likert scale. Using surveys facilitated testing of the dependency of variables and enabled statistical analysis of the results.

The answers were categorically coded. The demographic data was compared to the Census data available for the city at large. The surveys were used to run a chi-square test for association in SPSS. A similar method of users was used successfully by Gobster (1995) to discover user demographics and preferences in greenways.
3.4.1.1 Sampling Strategy

The data frame was all park users, and the researcher used non-probability sampling (May, 2011). The researcher utilised face-to-face interaction in both Decatur and Marietta Square. The researcher aimed to collect 250 surveys in each location. However, after some surveys were eliminated due to a variety of errors, 239 were collected in Decatur and 224 were collected in Marietta. Given time constraints, this is considered a large enough sample to use for the data analysis portion. Given that the selection was random and the number of respondents was high, the sample should be representative of all public space users (Denscombe, 2007).

To maximise reliability, the survey was collected over the course of three weeks. Care was taken, in both settings, to ensure that surveys were collected across weekdays and weekends as well as throughout the entire day (7 AM- 10 PM). No quotas were pre-set as a portion of the research was discovering the true demographics of the users.

The researcher initially considered a door-to-door survey of the neighbourhood in order to capture some of the non-users and their opinions. However, after consideration, the time constraints and safety liabilities of that approach were deemed too great. Given that the survey was conducted in a well-populated public space, the risk of danger was very low.

3.4.1.2 Chi-Square Analysis

After collection, the data was coded into excel. Next, the researcher used the ‘Statistical Package for the Social Sciences’ (SPSS) to analyse the data. Chi square analysis was selected for analysis as it can reliably study the relationship between two categorical variables and incorporate the Likert scale (Field, 2009).
A chi-squared test is used with categorical variables to determine if distributions differ—are the observed proportions different from the hypothesised proportions? In this context, chi-squared was used to test the relationship between demographic data and feelings of safety and welcomeness. For each chi-squared test, there are two hypotheses. The test statistic for each chi-squared is:

\[ \chi^2 = \sum \frac{(O - E)^2}{E} \]

Each test was done to the 95% confidence level.

3.4.1.3 ArcGIS Mapping
One of the variables collected during the survey stage was data on the zip codes of the users. This data was coded and then mapped using geospatial analysis in ArcGIS. This enabled the researcher to gain a complete understanding of the home locations of the users through geographic displays.

3.4.1.4 Face-to-Face Survey Limitations
Lastly, the statistical analysis of the survey research was limited due to non-random sampling (Sapsford, 2007). Additionally, as with any survey, data may be skewed for perceived acceptability (Bryman, 2004). In addition, as with any quantitative data, a survey is largely unable to capture the underlying feelings and reasons that are measurable in qualitative research. In addition, since the surveys were taken outside, the time of year may have had an impact on the users. Nonetheless, due to time limitations and concern about low usage during the winter months, the surveys were collected during August.

(The survey used is available in Appendix A).

3.5 Ethical Limitations
Strong ethics are the basis for all research and a critical component of design and methodology. Accordingly, ethical conduct must be considered in terms of this research project. Since interviews and focus groups involve direct contact and the collection of personal information, a written release was signed by each participant recognising the use of recording equipment and the purpose of the research (Denscombe, 2007). This should not negatively impact the research. All survey data was anonymous. While covert observation may pose an ethical problem in some scenarios, using it in an open, public space should negate that concern. No ethical issues arose from content analysis, but anonymity was maintained.

(The ethics form for this study is in the front of the research project).
4. Data and Analysis

The research ultimately found that while the uses of the squares are similar, the users vary greatly (across household income and race). In addition, in both parks, the relationships between feelings of safety and welcomeness and some demographic factors were statistically significant. However, the demographics that reflected those findings varied between the two public spaces. This section will first discuss the shared accessibility history of metro Atlanta, then outline the findings for each location separately, and compare results in the end.

4.1 The Development of Transit Accessibility

The accessibility of the two public spaces is largely shaped by their access to public transportation. The primary form of public transportation in the Atlanta Metropolitan Area is the Metro Atlanta Rapid Transit Authority. During its initial development in 1971, it was planned to connect five counties in the metro area: Clayton, DeKalb, Fulton and Gwinnett. In order to authorize the system, which was to be composed of heavy rail and bus routes, a referendum had to pass in each of the counties. While Clayton, DeKalb (the home of Decatur Square), Fulton, and Gwinnett passed the referendum, Cobb County (the home of Marietta Square) did not. The decision to keep transit from connecting Cobb County played a major role in limiting the future accessibility of Marietta, while the MARTA connection to Decatur Square fostered economic development and diversity.
Figure 6. MARTA System Map with Counties (Source: MARTA, 1971)
Figure 7. Current MARTA System Map (Source: MARTA, 2014)
4.2 Decatur Square

4.2.1 Design Process

Decatur Square is the heart of Decatur, GA, a 4.2 square mile (10.88 km²) city six miles from downtown Atlanta. Decatur Square sits atop a rapid transit stop and borders the county courthouse. Despite decline in the 1960s, the square has recently enjoyed a major resurgence (PPS, 2013). The Census County Division (CCD) for Decatur is the Decatur CCD, DeKalb County, Georgia. The total population of Decatur is 362,593 (Census, 2010).

Decatur Square is developed around the DeKalb courthouse. The first courthouse in that location was built in 1823 (DeKalb History Centre, 2012). While the courthouse has been reconstructed numerous times (1829, 1847, 1918, and 1976), it has always remained the centre of Decatur (ibid). The courthouse, which flanks the square, is now listed in the National Register of Historic Places (ibid). In 1976, the area around the courthouse underwent extreme renovations as Atlanta’s rapid transit system added a stop on the other side of the square (ibid). During that process, two streets (Atlanta Avenue and Sycamore Street) were closed, creating a square (ibid).

In 1982, Decatur produced a Town Centre Plan calling for walkable streets in the downtown commercial district. To implement this plan, the City Commission created the first Downtown Development Authority (DDA). In 1993, the Georgia Department of Transportation granted Decatur funds to create a streetscape plan to build the first phase (Decatur Next, 2014). The plan was the first of its time in Georgia (Arts Atl, 2014). The plan called for the square to be a “kernel” to facilitate the development of a traditional downtown around the area (Decatur Town Centre Plan, 1982). Instead of dictating a certain style, the plan prioritised pedestrian access and encouraged a variety of architectural designs (ibid). Since the development of the 1982 plan, Decatur has received
numerous other development grants and over $5 million in federal funding to expand the downtown streetscape (ibid).

In 1999, the square was redeveloped once again. It brought the floor of the plaza to grade with the stores. Since then, it has become “the heart of Decatur” (Arts Atl, 2014). In 2010, Decatur once again revised their plan. Using an online planning portal, it engaged over 2,000 residents in the development of a community plan.

MARTA is a major component of Decatur Square. A heavy rail stop sits directly under the square and has two exits—one on either side of the square. The Western exit, while on street level, is below Decatur Square. The Eastern exit, which also serves four bus routes, is at the same grade as Decatur Square. In 2010 study, there were 4,466 daily entries into the Decatur MARTA station. By providing direct MARTA access, Decatur Square becomes an accessible location to people throughout Atlanta without requiring a car.

An interview with the City Manager of Decatur, highlighted the important role that MARTA played in the development of both Decatur Square and the city as a whole. Mr. Jackson emphasised that Decatur Square, which suffered from population drain and subsequent blight in the late 1950s and early 1960s, experienced a resurgence once MARTA connected to the town centre. By providing a high level of transit accessibility, Decatur Square became a highly sought-after location. According to Mr. Jackson,

“We are pedestrian-oriented. We want people to walk. Our transportation plan is focused on getting people out of their cars. Use something other than a car to get around—use a bike, walk, use transit. I’d say I would think Decatur would be very accessible to all sort of people, to any demographic you could have in metro Atlanta. As long as you have access to transit, you can get to Decatur. That gives you a pretty wide range of access.”
While MARTA is not particularly well-integrated into the Atlanta area, Decatur is one of the metropolitan area’s prime examples of transit oriented development. Decatur Square and its retail and housing flourished once MARTA connected to the neighbourhood. Acknowledging that and paying heed to the high rents that MARTA caused in the area, Mr. Jackson also spoke to the accessibility that MARTA affords the area. While it is a relatively high-income area, by virtue of its location on the MARTA line, Decatur is a location accessible to all—a value that the City of Decatur takes quite seriously.

4.2.2 Physical Design
The area of the square is approximately 5000 m² or 1.23 acres. As seen in the diagram, when taken in isolation, the public square, most notably, includes a large pavilion, a grassy area with a number of picnic tables, and a paved area with a public art fountain, picnic tables and benches. There is also a large mural on one of the walls facing the square.
Figure 8. Decatur Square Amenities (Source: Author)
The multiple ground textures within the public space are particularly interesting here. In the east part of the square, which is the most recently redeveloped portion, the ground is concrete. This eastern portion lacks tree cover. In the west part of the square, the ground cover is grass. While there are some paved sidewalks running through the area, it is mostly landscaped. Significant tree cover also exists in this area. These design elements likely influence the use of each, as seen in question three.

4.2.2.1 Protection
Decatur Square is well-designed to protect pedestrians from traffic accidents. It is fully pedestrianized, and the centre of the square is a significant distance from vehicle traffic. In protecting against crime and violence, the space contains a lively public realm, significant lighting, and overlapping functions throughout the day and night. Lastly, in protection against unpleasant sensory experiences, Decatur Square is lacking. The use of pavement in the East portion of the square becomes very hot during the summer. This makes that portion of the square largely unusable. Fortunately, to protect from the rain, there are a number of tables with umbrellas. As it is an open space, there is no protection from the wind or pollution. In addition, the square, despite being pedestrianised is not very quiet as a bus depot is located on the far west side of the area.
4.2.2.2 Comfort

Gehl identified the importance of creating places to walk, places to stand, and opportunities to sit. These are all met in the space. Since it is pedestrianised, walking is very safe. In addition, there are a number of places to sit and stand—tables, benches, stairs, and walls of varying heights all facilitate this activity. It is also recommended that public spaces have opportunities to see, do and play. The space offers an unrestricted view throughout, allowing for eye contact. In addition, there are a number of storefronts and restaurants directly abutting the square. These amenities also facilitate opportunities to see. The street furniture, particularly the round picnic tables, facilitates places to talk. While the square is not quiet, it is never too loud to carry on a reasonable conversation. Lastly, the square, due to its size and lack of exercise equipment, does not offer anything beyond the ability to run or walk through it in terms of exercise. However, it does allow ample
opportunities for play. The centrally located water feature is endlessly entertaining for children, while street musicians frequently provide entertainment for adults.

Figure 10. Comfort in Decatur Square (Source: Author)

4.2.2.3 Enjoyment
Lastly, Gehl outlines the importance of creating places that facilitate enjoyment. He recommends that a place be on the human scale. By keeping heights limited and restricting car access, Decatur Square remains in the human scale. In addition, the opportunities for sun/shade (under both trees and umbrellas) allows users to enjoy the climate. Lastly, the use of varied materials, landscaping, and good design enables a positive sensory experience.
4.2.3 The Interaction Between the Physical Design and Surrounding Areas

4.2.3.1 Transportation
As mentioned previously, Decatur Square is well-connected by heavy rail and by bus service. The west side of the square is directly atop a MARTA station. The east side of the station is bordered by a major bus stop and additional MARTA exit. This is conducive to a large level of transit connectivity.

There is also extensive parking around the square. There are small paid surface lots abutting the square on the north and south side. There is also on-street parking in the area.
Decatur Square has seven bike racks on the property. In addition, Decatur is a very walkable location; it ranks 92 out of 100 on WalkScore, a national walkability index that ranks locations based on their accessibility on foot (WalkScore, 2014).

**Figure 13. Mode Split in Decatur Square (Source: Author)**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>30.5%</td>
</tr>
<tr>
<td>Driving</td>
<td>51.5%</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>13.7%</td>
</tr>
<tr>
<td>Biking</td>
<td>3.0%</td>
</tr>
<tr>
<td>Other</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

All of these transportation options are reflected in the way that many of the users travelled to the square (seen in the table below). While 51.5% of the users in Decatur Square accessed the area by car, walking and public transportation also both comprised a significant amount of the mode share (30.5% and 13.7% respectively). The others shown in the table were a scooter rider and a unicyclist.

4.2.3.2 Land Use

Decatur’s Town Centre Plan emphasises the importance of design recommendations for the surrounding land use. Hoping to build on their small town character, Decatur created zoning rules that maintain the small scale of the area by limiting heights. They also worked to keep the storefronts active and engaging, even when vacant. What resulted from this main streets approach were a variety of engaging facades running immediately alongside the square on the northern side. Each building there is no higher than three storeys, and they each have active windows and different building materials. This keeps the street scene engaging. The southern side of the plaza opens into the courthouse (3 storeys), a surface lot and another set of independent stores and restaurants. The western side is the MARTA station while the eastern side is the bus depot.
Both squares serve as a focal point for the cities and as large commercial hubs. In Decatur, twenty-one different stores and restaurants front the square. Of those commercial establishments, twelve of them (57%) are food establishments serving prepared food. Four of the businesses are upscale retail. Two of the businesses are convenience stores, and one is a dance facility. It is also helpful to delineate the types of restaurants by price point in order to identify the type of clientele each square caters to. To do this, yelp, a crowd sourced review site, was used to identify the price of the restaurant based on the dollar sign rating. While Decatur has two regionally recognized upscale restaurants, the median ranking in the area is two-dollar signs, which is a mid-price range restaurant. Out of all twelve dining establishments, only one received a one-dollar sign ranking. Thus, the restaurants on the square primarily serve a upscale clientele, which may influence who chooses to visit the area.

4.2.4 Patterns of Use and Mobility
As seen in the diagrams below, users cluster in different locations in the square at different times of day. In the early morning, as shown in the Wednesday 8 AM diagram, the space is used evenly. People are typically sitting in the gazebo, around the picnic tables and are using the benches on the concrete portion. However, as the day warms, as shown in the Saturday 12 PM diagram, users are clustered on the east end of the square. Children and pets play on the grass while people eat and chat under umbrellas or on the grassy surface. During this portion of the day, the concrete surface is extremely warm. As the sky darkens and the day cools, as shown in the Friday 9 PM diagram, use clusters in the centre of the square. Groups linger as they wait for restaurant seating and children run around the sculpture. There are a few people near the grass, but the tables near the courtyard, the darker area, are empty. Thus, in Decatur, the time of day plays a large role in predicting where patterns of use are in the square.
Figure 14. Patterns of Use in Decatur Square- 8 AM (Source: Author)

Figure 15. Patterns of Use in Decatur Square- 12 PM (Source: Author)
The design of a public space also influences movement and mobility patterns within space. The diagram below demonstrates major movement pathways through Decatur Square.

### 4.2.5 Uses

The format used for the survey question was “select all that apply.” Thus, the answers do not aggregate to 100%. Nonetheless, eating in the square was the most popular response selected. Sitting and relaxing and then socialising closely followed it. See the table below for full percentages and totals.
The uses observed by the researcher largely align with the information provided. The researcher also observed users participating in martial arts, engaging in a bible study, unicycling, sleeping and tanning. The researcher also noted that many of the “eating” users appeared during a scheduled food truck popsicle stand located in the middle of the square. This appeared to be a large draw. In addition, many of the people “socialising” were high school students hanging out in the square after school. The area became extremely busy during the 3 PM hour.

Lastly, there were a number of unscheduled performances in the square. The researcher experienced a preacher speaking about the bible as well as multiple street musicians over the course of her time in the space.

It is also important to note that a couple of the respondents during the early morning survey sessions were using the space for multiple purposes as it is a gathering spot for a small homeless population overnight. The homeless population mostly leaves the square during the day, but they are there in the early morning before the stores and restaurants open.
4.2.6 Users

4.2.6.1 Gender

In Decatur, as compared to the overall population, the square’s users are more frequently female than male. While the overall population in Decatur is slightly skewed toward females (52.8%), Decatur Square’s users are 58.2% female.

**Figure 19. Gender Split in Decatur Square (Source: Author)**

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>41.8%</td>
<td>58.2%</td>
</tr>
<tr>
<td>Census</td>
<td>47.2%</td>
<td>52.8%</td>
</tr>
</tbody>
</table>

4.2.6.2 Age

In both locations, it is logical that the surveyed population is lower for those under 17. Due to the ethics requirements on surveying children, those under 16 were not surveyed for the purpose of this paper. However, they were observed in the earlier quantitative section. For the 18-24 age group, Decatur Square was quite popular (15.9% of users versus 10.6% of the population). The 25-34, 35-44, and 45-54 population was over represented. Seventy-five and up was underrepresented in both areas.

**Figure 20. Age Split in Decatur Square (Source: Author)**

<table>
<thead>
<tr>
<th></th>
<th>Survey</th>
<th>Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>U17</td>
<td>9.6%</td>
<td>23.3%</td>
</tr>
<tr>
<td>18-24</td>
<td>15.9%</td>
<td>10.6%</td>
</tr>
<tr>
<td>25-34</td>
<td>29.7%</td>
<td>16.3%</td>
</tr>
<tr>
<td>35-44</td>
<td>37.4%</td>
<td>15.1%</td>
</tr>
<tr>
<td>45-54</td>
<td>12.1%</td>
<td>14.0%</td>
</tr>
<tr>
<td>55-64</td>
<td>5.8%</td>
<td>11.4%</td>
</tr>
<tr>
<td>65-74</td>
<td>.08%</td>
<td>7.5%</td>
</tr>
<tr>
<td>75+</td>
<td>1.2%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>
4.2.6.3 Race

African-Americans compose the majority of Decatur (63.4%). Decatur has very few Hispanics (4.3%). While other minorities are present, Caucasian, African-American and Hispanic are the most common races. In Decatur Square, despite the diversity present in the surrounding areas, the Caucasian population is hugely overrepresented (by more than 30%). In Decatur, the Hispanic sample is approximately equal to the census population. However, in the sample, the African American population is underrepresented by approximately 40%. Consequently, racial diversity in Decatur Square is lacking.

Figure 21. Race Split in Decatur Square (Source: Author)

<table>
<thead>
<tr>
<th></th>
<th>Survey</th>
<th>Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>61.1%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4.2%</td>
<td>4.3%</td>
</tr>
<tr>
<td>African American</td>
<td>24.7%</td>
<td>63.4%</td>
</tr>
<tr>
<td>Native American</td>
<td>0.04%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>0.04%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Caucasian and African American</td>
<td>0.04%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Caucasian and Native American</td>
<td>0.04%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Caucasian and Asian</td>
<td>0%</td>
<td>0.3%</td>
</tr>
<tr>
<td>African American and Indian</td>
<td>0%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

4.2.6.4 Household Income

In Decatur, the household income level of the survey respondents very closely mirrors that of the survey data. At all four of the income levels, the survey and census data is within one percentage point. Thus, according to the survey, the use of Decatur Square is equitable across household income levels. Due to the presence of the MARTA station, there is also more finely grained data available on demographics in the Decatur area. According to data collected by MARTA and the Atlanta Regional Commission, the median household income within a half-mile of the station is $40,783. While a median cannot be inferred from the survey
data due to the ranges, the income within a half-mile of the station appears to be lower than the income of those surveyed.

**Figure 22. Household Income Split in Decatur Square**

<table>
<thead>
<tr>
<th></th>
<th>$0-24,999</th>
<th>$25,000-49,999</th>
<th>$50,000-99,999</th>
<th>$100,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>20.8%</td>
<td>22.9%</td>
<td>29.7%</td>
<td>26.5%</td>
</tr>
<tr>
<td>Census</td>
<td>20.6%</td>
<td>23.6%</td>
<td>30.5%</td>
<td>25.3%</td>
</tr>
</tbody>
</table>

4.2.7 Zip Code Mapping

For Decatur, the first map is shown on the scale of the entire United States. While you can see that most users come from the metro Atlanta area, 4% of the respondents came from outside the region. In addition, while not shown on the map, one respondent reporting being from Japan and one from the UK. Decatur Square appears to be a destination. In conversations with many respondents, the researcher repeatedly heard that residents from the greater Atlanta metro area frequently brought visitors to Decatur Square. Thus, Decatur Square is a destination for many.

On the more micro level, shown below, the map demonstrates that the most significant percentage of visitors came from Decatur. The same zip code as the park yielded the most responses (27%). In addition, the zip codes outlined in blue designate Decatur, GA. However, that does not tell the entire story. In aggregate, more visitors travelled from their homes far outside the Decatur city limits. The number of dots outside the Decatur area indicates that Decatur Square is not just a neighbourhood attraction. In fact, many of the people drawn to the square live far away.
Figure 23. Decatur Square Use by Zip Code on US Level (Source: Author)

Figure 24. Decatur Square Use by Zip Code on Metro Level (Source: Author)
4.2.8 Perceived Levels of Safety and Welcomeness By Demographic

4.2.8.1 Gender

4.2.8.1.1 Safety

\( H_0 \) (null) = There is no significant difference in the perceived safety of the area between genders.
\( H_1 = H_0 \) is false.

In this test, the chi-squared significance value is .404. Thus, there is no statistically significant difference in the perceived levels of safety felt between males and females.

4.2.8.1.2 Welcomeness

\( H_0 \) (null) = There is no significant difference in the perceived welcomeness of the area between genders.
\( H_1 = H_0 \) is false.

In this test, the chi-squared significance value is .587. Thus, there is no statistically significant difference in the perceived levels of welcomeness felt between males and females.

4.2.8.2 Age

4.2.8.2.1 Safety

\( H_0 \) (null) = There is no significant difference in the perceived safety of the area between each age group.
\( H_1 = H_0 \) is false.

In this test, the chi-squared significance value is .000. Thus, there is a relationship between the variable of age and the degree of safety that users felt. As shown in the bar chart, the 25-34 year old age group felt the safest in Decatur Square.
4.2.8.2.2 Welcomeness

H₀ (null) = There is no significant difference in the perceived welcomeness of the area between each age group.

H₁ = H₀ is false

In this test, the chi-squared significance value is .000. Thus, there is a relationship between the variable of age and the degree of welcomeness that users felt. As seen in the bar chart below, those in the 35-44 age group felt the most welcome in Decatur Square.

4.2.8.3 Race
4.2.8.3.1 Safety

H₀ (null) = There is no significant difference in the perceived safety of the area between each race.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .991. Thus, there is no relationship between the variable of race and the degree of safety that users felt.

4.2.8.3.2 Welcomeness

H₀ (null) = There is no significant difference in the perceived welcomeness of the area between each race.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .490. Thus, there is no relationship between the variable of race and the degree of welcomeness that users felt.
4.2.8.4 Household Income

4.2.8.4.1 Safety

H₀ (null) = There is no significant difference in the perceived safety of the area between each income group.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .766. Thus, there is no relationship between the variable of household income and the degree of welcomeness that users felt.

4.2.8.4.2 Welcomeness

H₀ (null) = There is no significant difference in the perceived welcomeness of the area between each income group.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .543. Thus, there is no relationship between the variable of household income and the degree of welcomeness that users felt.

4.3 Marietta Square

4.3.1 Design Process

Marietta Square is the centre of Marietta, GA, a 22.01 square mile (57 km²) city 15 miles northwest of Atlanta. The Census County Division (CCD) for Marietta is the Marietta CCD, Cobb County, Georgia. The total population of Marietta is 118,046 (Census, 2010).

Marietta Square, otherwise known as Glover Park, is the site of the old Cobb County Courthouse, which burned down in 1848. However, the square predates the courthouse; it stood in the same place prior to the Civil War. The courthouse was eventually relocated to a location across
from the southeast corner of the park, but Marietta Square remains the focal point of the City of Marietta (Roadside Georgia, 2004).

Marietta initially grew out of the square, and its current design and appearance is virtually identical to that of the civil war days. Whilst the stores around the square may have changed and cars replaced horse-drawn carriages, the character of Marietta Square remained intact. Marietta Square, like many other areas, suffered from some disinvestment in the late 1970s-early 1980s. In the late 1980s, a private donor invested in the square. Intensive placemaking and landscaping improvements took place. The square, and the stores around it, began to redevelop. While the space is physically designed in the same manner as it was in the 1800s, these enhancements led to the well-programmed and intensively used square anchoring the Marietta community.

Unlike Decatur, the square has no access to rail transportation. Consequently, the square grew around the automobile. According to the Marietta City Manager, the evolution of the square and its surrounding shops was largely to do with cars. He said:

“Then, with the advent of the car and folks getting a little more suburban, you saw a westward and northern progression from Atlanta as development was occurring; you ended up getting new development up 41. That pulled a lot of the normal area out of the square and to where they were building new houses. And it went to big boxes. You’d have the home improvement stores and the walmarts and big, mega grocery stores. With all that occurring, then you ended up, having to see a change in the type of stores on the square. We’ve seen them become more specialized and trying to be different than a wholesale store.”

Beyond the local stores and restaurants, the square is enclosed, on all four sides, by two lanes of one-way traffic. This, as opposed to the accessibility of mass transit, has far-reaching effects on the accessibility of the area.
The story in Marietta Square is quite different as the referendum to expand transit to Cobb County failed, leaving the area without any meaningful transportation alternatives. Since 1989, Cobb Community Transit (CCT), a bus system, has served Cobb County, including Marietta Square. CCT connects to MARTA in downtown Atlanta, and it has multiple routes through Marietta Square. While there is no route or stop specific data available, the daily ridership for the entire CCT was approximately 10,400 during the last estimate (Cobb Community Transit, 2014). As a regional bus system, ridership is much lower than on a metro-wide system such as MARTA. In addition, the buses run only a few times per day and do not run on Sundays or holidays. In addition, the commute to Marietta Square from downtown Atlanta takes significantly longer than the one to Decatur Square, which may impact the types of visitors.
Figure 25. Cobb Community Transit System Map (Source: Cobb Community Transit, 2014)
4.3.2 Physical Design
Marietta Square is approximately 6100 m\(^2\) or 1.51 acres. The ground is covered in grass; however, wide brick paths split the area into four quadrants. The centre of the quadrant contains a fountain. There is also a small children’s playground, a round pavilion and an elevated stage. The only available seating throughout the park is benches. A low fence of approximately three feet in height surrounds the entire park. There are gaps in the fence for entrances onto the brick paths. Most of the park has significant tree cover.

Figure 26. Marietta Square Amenities (Source: Author)

4.2.2.1 Protection
While Marietta Square itself is designed to protect pedestrians, it is fully surrounded by one-way traffic on each side. This makes entering and leaving the square unsafe. There will be more on that aspect in Question 21. In protecting against crime and violence, the space contains a lively public realm, significant lighting, and overlapping functions throughout the day and night. Lastly, in protection against unpleasant sensory
experiences, Marietta Square is fairly strong. Due to the expansive tree
cover, a covered pavilion, and a covered stage, there are a number of
places to seek respite from bad weather or sun. The square also maintains
a reasonable temperature throughout. The trees also provide protection
from wind. As it is an open space, there is no protection from pollution.
While the cars on the surrounding streets are going quickly, the volume of
traffic is not very high. This yields a fairly quiet space; the complete tree
cover also lowers the volume.

**Figure 27. Protection in Marietta Square (Source: Author)**

4.2.2.2 Comfort

Gehl identified the importance of creating places to walk, places to stand,
and opportunities to sit. While you can walk within the space, as
mentioned previously, it is difficult to travel between the space and the
surrounding area due to car traffic. The variety of options for sitting and
standing is relatively limited. There is only one type of official seating
(benches). While people sit around the fountain, there is no space that
facilitates conversation. There are, of course, places for people to stand
throughout. It is also recommended that public spaces have opportunities
to see, do and play. It is difficult to maintain a line of vision throughout the park. In addition, the heavy tree cover makes it difficult to see into and out of the park. This creates a sense of privacy but may also limit the feelings of safety in the space. The street furniture, as previously mentioned, fail to facilitate conversation. While the square is not quiet, it is never too loud to carry on a reasonable conversation. Lastly, the square, due to its size and lack of exercise equipment, does not offer anything beyond the ability to run or walk through it in terms of exercise (even that is limited due to the surroundings). However, it does allow ample opportunities for play. The centrally located water feature is very popular, as is the playground geared toward small children.
4.2.2.3 Enjoyment

Lastly, Gehl outlines the importance of creating places that facilitate enjoyment. He recommends that a place be on the human scale. While the limited heights of the surrounding buildings on three of the sides and the amenities of the park are human scale, the multiple lanes of traffic and the larger building are not people places. However, there are other enjoyable aspects of the park. The use of varied textures and the provision of both sun and shade make the public space an enjoyable place.
4.2.3 The Interaction Between the Physical Design and Surrounding Areas

4.2.3.1 Transportation
Marietta is a very different case. Lacking public transportation outside of a limited bus service, the city is hugely reliant on cars. This is even indicative on the micro-level of the square as multiple lanes of one-way traffic surround the square on each side. There is extensive free parking around the square.

There are no bike racks on the property of Marietta Square. In addition, Marietta Square ranks an 82 out of 100 on WalkScore (WalkScore, 2014). While WalkScore can be an important metric, it is important to note that it does not present an entire picture. Rather, it yields useful information for those living directly in the locations featured. It does not give a broader understanding of the accessibility of the neighbourhood or the ability to reach the squares themselves.
Similar to Decatur, Marietta's largest form of transportation was the car (92.4%). However, in Marietta, walking and public transportation were a much smaller share of the mode count (8% combined).

**Figure 30. Mode Split in Marietta Square (Source: Author)**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Walking</th>
<th>Driving</th>
<th>Public Transportation</th>
<th>Biking</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.60%</td>
<td>92.4%</td>
<td>0.01%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

4.2.3.2 Surrounding Land Use

The stores and restaurants immediately surrounding Marietta Square on three sides are in rows of buildings made of brick and stucco. They range from two to three storeys. Each façade is different. They each have windows facing the streets. On the fourth side sits the courthouse, which is out of human scale at six storeys tall. There is no-street front interaction with the large county courthouse. All of these buildings are separated from the square by two or three lanes (depending on the place) of one-way lane traffic.

Marietta Square has twenty-six commercial spaces. Here, only nine (34.6%) of the spaces are restaurants. As opposed to Decatur, the majority of spaces (53.8%) are retail. Other uses in the area are a theatre, a pottery-painting studio and a dance studio. In determining the price point of the restaurants for Marietta, the same technique was used. As with Decatur, the median price point was two-dollar signs. In this area, there are no regionally recognized restaurants and no three dollar sign establishments. Likewise, it also lacks any one-dollar sign establishments. Along those lines, the area also fails to offer any convenience shopping stores. As with Decatur, this area's surrounding land use attracts a more affluent clientele.
4.2.4 Patterns of Use

The patterns of use varied significantly less in Marietta Square. There, spaces were used equally throughout the day. The benches, particularly on the west side, were used extensively. The playground was usually full of small children and the fountain was a major attraction throughout the day. Nonetheless, a diagram is presented from each of the time slots on each day for the sake of comparison. The continuity of behaviour throughout the day may be because the space feels more contiguous. There are no differences in materiality or cover throughout the space, so users move throughout more freely.

Figure 31. Pattern of Use in Marietta Square- 8 AM (Source: Author)
Figure 31. Pattern of Use in Marietta Square- 12 PM (Source: Author)
The figure below displays movement patterns within Marietta Square.
4.2.5 Uses

The format used for the survey question was “select all that apply.” Thus, the answers do not aggregate to 100%. Nonetheless, eating in the square was the most popular response selected. Sitting and relaxing and then socialising closely followed it. See the table below for full percentages and totals.
### Figure 32. Uses in Marietta Square (Source: Author)

<table>
<thead>
<tr>
<th>Use</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passing Through</td>
<td>30.20%</td>
<td>68</td>
</tr>
<tr>
<td>Shopping</td>
<td>43.10%</td>
<td>97</td>
</tr>
<tr>
<td>Eating</td>
<td>72.40%</td>
<td>163</td>
</tr>
<tr>
<td>Sitting and Relaxing</td>
<td>59.10%</td>
<td>133</td>
</tr>
<tr>
<td>Attending Events</td>
<td>49.30%</td>
<td>111</td>
</tr>
<tr>
<td>Socializing</td>
<td>50.10%</td>
<td>114</td>
</tr>
<tr>
<td>Walking Dog</td>
<td>6.20%</td>
<td>14</td>
</tr>
<tr>
<td>Playing with Children</td>
<td>11.11%</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>0.01%</td>
<td>1</td>
</tr>
</tbody>
</table>

4.2.6 Users

4.2.6.1 Gender

In Marietta, the gender divide is slightly more apparent. While the population is nearly evenly split, 63.6% of the square’s users are female.

### Figure 36. Gender Split in Marietta Square (Source: Author)

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>36.4%</td>
<td>63.6%</td>
</tr>
<tr>
<td>Census</td>
<td>50.4%</td>
<td>49.6%</td>
</tr>
</tbody>
</table>

4.2.6.2 Age

In Marietta Square, the 18-24 age group was underrepresented. The 25-34, 35-44, and 45-54 population was over represented as it was in Decatur. The 55-64 and the 65-74 population, while underrepresented in Decatur, was overrepresented in Marietta.
4.2.6.3 Race

The majority of Marietta is Caucasian. Yet, the area has a sizable African-American population (27.2%) and a notable Hispanic population (17.5%). Like in Decatur, Caucasians, African-Americans and Hispanics compose the majority of the population. In Marietta, like Decatur, the dominant population in the survey was Caucasian. In Marietta, while slightly smaller, the Caucasian surveyed population outpaces the census population by 13.6%. Similarly, in Marietta, the Hispanic population is underrepresented by 14.2%, and the African American population is underrepresented by 15.5%.

Figure 37. Age Split in Marietta Square (Source: Author)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Survey</th>
<th>Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>U17</td>
<td>3.6%</td>
<td>21.7%</td>
</tr>
<tr>
<td>18-24</td>
<td>8.0%</td>
<td>11.6%</td>
</tr>
<tr>
<td>25-34</td>
<td>20.5%</td>
<td>18.7%</td>
</tr>
<tr>
<td>35-44</td>
<td>17.3%</td>
<td>15.8%</td>
</tr>
<tr>
<td>45-54</td>
<td>20.9%</td>
<td>12.9%</td>
</tr>
<tr>
<td>55-64</td>
<td>14.7%</td>
<td>9.2%</td>
</tr>
<tr>
<td>65-74</td>
<td>10.2%</td>
<td>5.2%</td>
</tr>
<tr>
<td>75+</td>
<td>0.08%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Figure 38. Race Split in Marietta Square (Source: Author)

<table>
<thead>
<tr>
<th>Race</th>
<th>Survey</th>
<th>Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>71.0%</td>
<td>57.4%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3.3%</td>
<td>17.5%</td>
</tr>
<tr>
<td>African American</td>
<td>11.7%</td>
<td>27.2%</td>
</tr>
<tr>
<td>Native American</td>
<td>0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>2.5%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Caucasian and African American</td>
<td>2.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Caucasian and Native American</td>
<td>0.04%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Caucasian and Asian</td>
<td>0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>African American and Indian</td>
<td>0%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>
4.2.6.4 Household Income

However, in Marietta Square, the results are quite different. In Marietta, the users of the square are heavily skewed toward higher levels of income. While the $0-24,999 and $25,000-49,999 are significantly underrepresented (by approximately 7 percentage points for each), $50,000-999,000 and $100,000 and up are overrepresented by 24.3 and 15.1 percentage points respectively.
Figure 39. Household Income Split in Marietta Square (Source: Author)

<table>
<thead>
<tr>
<th></th>
<th>$0-24,999</th>
<th>$25,000-49,999</th>
<th>$50,000-99,999</th>
<th>$100,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>18.1%</td>
<td>18.1%</td>
<td>51.5%</td>
<td>35.6%</td>
</tr>
<tr>
<td>Census</td>
<td>25.2%</td>
<td>26.7%</td>
<td>27.7%</td>
<td>20.5%</td>
</tr>
</tbody>
</table>

4.2.7 Zip Code Mapping
Marietta Square also had a few out of state visitors (2%). During the survey stage, the researcher did not hear mention of the Square as a particular tourist destination. This may be because it is a long distance outside of the centre of Atlanta and is largely inaccessible without a car.

Looking more specifically at the metro Atlanta data, unlike with Decatur’s significant clustering of users from the nearest zip code, Marietta had four significant clusters of visitors from surrounding communities. Only 3.5% of the respondents surveyed in Marietta Square came from the same zip code as the square. The blue outline designates Marietta, GA. Compared to the extreme density of the visitors to Decatur, Marietta received visitors from a significantly larger geographic area. The local community does not use Marietta Square as much as residents of outlying areas use it. This is different from Decatur Square, which is most commonly frequented by users from within the region.
Figure 40. Marietta Use by Zip Code on US Level (Source: Author)

Figure 41. Marietta Use by Zip Code on Metro Level (Source: Author)
4.2.8 Perceived Levels of Safety and Welcomeness By Demographic

4.2.8.1 Gender

4.2.8.1.1 Safety

H₀ (null) = There is no significant difference in the perceived safety of the area between genders.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .028. Thus, there is a statistically significant difference in the perceived levels of safety felt between males and females. Males felt significantly safer in Marietta Square than females did.

4.2.8.1.2 Welcomeness

H₀ (null) = There is no significant difference in the perceived welcomeness of the area between genders.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .720. Thus, there is no statistically significant difference in the perceived levels of welcomeness felt between males and females.

4.2.8.2 Age

4.2.8.2.1 Safety

H₀ (null) = There is no significant difference in the perceived safety of the area between each age group.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .273. Thus, there is no relationship between the variable of age and the degree of safety that users felt.
4.2.8.2.2 Welcomeness

H₀ (null) = There is no significant difference in the perceived welcomeness of the area between each age group.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .274. Thus, there is no relationship between the variable of age and the degree of welcomeness that users felt.

4.2.8.3 Race

4.2.8.3.1 Safety

H₀ (null) = There is no significant difference in the perceived safety of the area between each race.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .001. Thus, there is a relationship between the variable of race and the degree of safety that users felt. Caucasians felt overwhelmingly safer than other races in Marietta Square.

4.2.8.3.2 Welcomeness

H₀ (null) = There is no significant difference in the perceived welcomeness of the area between each race.

H₁ = H₀ is false.

In this test, the chi-squared significance value is .000. Thus, there is a relationship between the variable of race and the degree of welcomeness that users felt. Caucasians overwhelmingly felt more welcome in Marietta Square than other races.

4.2.8.4 Household Income

4.2.8.4.1 Safety
$H_0$ (null) = There is no significant difference in the perceived safety of the area between each income group.

$H_1$ = $H_0$ is false.

In this test, the chi-squared significance value is .589. Thus, there is no relationship between the variable of household income and the degree of welcomeness that users felt.

4.2.8.4.2 Welcomeness

$H_0$ (null) = There is no significant difference in the perceived welcomeness of the area between each income group.

$H_1$ = $H_0$ is false.

In this test, the chi-squared significance value is .164. Thus, there is no relationship between the variable of household income and the degree of welcomeness that users felt.
5. Conclusions and Recommendations

Now that the data is presented and analysed, larger conclusions can be drawn about the relationship between design, socioeconomic, and equity. While this research does not go into the reasoning behind the feelings of the users, it does establish that different demographics use each park and that demographics effect how they feel in the public space. There are important things to learn for future research on the topic.

5.1 Conclusions

5.3.1 How are public spaces designed?
This research specifically aimed to outline and compare the urban design process of two different squares in Metro Atlanta, GA. While Marietta Square’s design remains a replica of its antebellum self, Decatur Square experienced a major resurgence after the introduction of mass transit. This left a major impact on the exterior design and incorporated accessibility of the square as the new plan prioritised transit, walking, and biking in a human-scale environment. While Marietta’s square and its retail outlets grew to support the automobile, Decatur’s ultimately came to be defined by a major rail hub and transit oriented development. In addition, Decatur Square was designed through a major public participation process whereas Marietta’s lack of redesign in the last 200 years made public participation obsolete.

5.3.2 How do the physical designs of public spaces and the people using them interact with their surrounding areas?
This research specifically aimed to outline and compare the urban design of two different squares in Metro Atlanta, GA. The study found that both squares shared similar interior urban designs. Both are surrounded by upscale stores and restaurants on three sides and have a county courthouse on the fourth side. Both have greenery, benches, a public art/fountain focal point and a gazebo. In terms of amenities, the only
major difference between the two is the presence of a playground in Marietta Square.

5.3.2.1 Land Use
With regards to the types of surrounding uses, it is difficult to measure levels of commercialisation. However, it is clear from the surrounding land use analysis that both of the squares are highly commercialised. In comparing the two, Decatur has two convenience stores, which may appeal to day-to-day needs and serve a lower class clientele. However, in both cases, it is important to consider the potential problems that accompany public spaces that are enclosed by commercial property. As the literature argues, commercialised spaces may lend an aura of privatisation and may exclude, either implicitly or explicitly, some groups of people (Van Deusen Jr., 2003; Mitchell, 2001).

5.3.2.2 Active Frontages
Each square has the active frontages outlined by Gehl et al. (2006). However, in Marietta these active frontages are separated from the square by two to three lanes of traffic. In Decatur, the frontages are immediately on the square. Despite this disparity, the streetscapes and stores add intrigue to the area and bring users into the space, creating the vitality and safety that the literature suggests comes from active frontages (Llewelyn Davies Yeang and HCA, 2013; Sparks and Chapman, 1996).

5.3.2.3 Transportation
However, larger than the previous two design elements is the accessibility to transportation alternatives. While Decatur is transit connected, walkable and bikeable, Marietta is located in a car-dependent area. This has a major implications for the users of the space and the way that people interact with the squares. According to the literature, the disparities in transportation access may imply different use rates between the squares. Jane Jacobs (1961) highlights the importance of pedestrians and foot traffic in creating a well-used square. Seeing as
Decatur is significantly more pedestrian oriented, the literature would predict higher rates of use.

In addition, a lack of transit access/mobility, as seen in Marietta Square, is thought to have implications on the types of users in the square. Limited transit access may disadvantage those without a car, such as the handicapped, the elderly and people in poverty (Pritchard et al., 2014). Thus, the mode counts seen in each location may impact the social exclusion of the squares.

5.3.2 What are the patterns of use and who are the users of public spaces?

5.3.2.1 Use
Given the designs of the public spaces and their relationship to transportation, it is important to see why people are in the squares and how the interact with the surrounding areas. In both squares, people were primarily there for passive activities (usually eating or sitting and relaxing). Their use of the space changed over the course of the day — both spatially and by use. While Marietta Square saw similar clustering throughout the day and into the night, the use of Decatur Square shifted significantly based on the sun. The lack of shade and heat intensive pavers impact the use of the square. In addition, there is a small play structure in Marietta Square. This kept the square busy at all hours and engaged many more small children. This is commensurate with the research, which finds that patterns of activity have long been linked to design aspects (Whyte, 1980; Golicnik, 2011). While a certain amount of the activity clustering occurring in both spaces is related to where people choose to sit, that is not the only factor (Whyte, 1980; Carmona, 2010). As White (1980) outlines, much of the decision for activity clustering is also due to the provision of shade and sun. The albedo, or reflection coefficient, of the ground is also a predictor of activity clustering — the highly reflective ground in part of Decatur Square drew significantly less people during the heat of the day.
While some public spaces have specific uses, others are more ambiguous (Canter, 1977). Both Marietta and Decatur deliver a variety of uses; however, eating is the primary use in both of them. Eating, along with all of the other leading uses of the square, is classified as a passive activity (Carmona, 2010). As Whyte predicts, in both of these spaces, passive engagement, which includes sitting and relaxing, is clustered around walkways, benches, playgrounds, fountains and public art (1980). In both squares, it is true—“what attracts people is other people” (Whyte, 1980: 13). While active engagement is more common in Marietta Square because of the playground, both areas are primarily designed for passive recreation.

5.3.2.2 Users
Demographically, the findings were categorised by: gender, age, race and household income.

5.3.2.2.1 Gender
In both squares, women were the primary users of the squares; however, that split was even more significant in Marietta. The high proportion of women found in these public spaces is supported by numerous academic theories. Women frequently spend more time in public spaces due to their “close relationship with their immediate urban environment” due to tasks related to children and domestic work (Garcia-Ramon et al., 2004: 216). Ultimately, the measurement of female and male users can shed some light onto the comfort and safety level in public spaces. In particular, according to the Project for Public Spaces, “women in particular are good judges on comfort and image, because they tend to be more discriminating about the public spaces they use” (2012).

Acknowledging that, it is important to explore why women are so much more likely to use the square in Marietta than in Decatur. It is slightly counterintuitive since the research finds that women tend to feel more comfortable in open, pedestrianized spaces with long lines of sight
However, that is not the case here; the more open space has less women. One possible explanation is the presence of the small playground. Since the majority of families have women as the primary caregivers, women are more likely to frequent amenities that cater to children (New American Foundation, 2004).

The second possible explanation, the perception of safety, is also counter to the findings in the survey. Women are more aware of safety concerns in public spaces, thus the perception of safety may influence the users (Valentine, 1989). However, in the Chi-Square analysis of the survey, the relationship between safety and gender was only statistically significant in Marietta. Thus, the literature does not account for this disparity in use.

However, it is important to note that the fear that the women in Marietta have may be justifiable. In Decatur, the crime rate is 200.4/100,000 people (City-data.com). In Marietta, the crime rate is higher at 366.8/100,000 (City-data.com). While this data is macro-level for the entire CCD and cannot be extrapolated to assess the safety of the squares, it is still interesting to note that the perception of safety in the squares aligns with the actual safety of the areas. Thus, it is difficult to derive whether or not the safety concerns are related to the design of the space or to the surrounding area.

### 5.3.2.2.2 Age

Both places have similar median ages; 34.9 in Decatur and 34 in Marietta. Since both spaces are used for lunch breaks, it is possible that the working age population (18-64) uses the public squares more. In addition, Marietta Square was sampled during an event while Decatur was not. The event, a concert on the square, may have catered to an older crowd, explaining the high rates of use for 65-74 year olds. While a low turnout for those over 75 is not unusual, it lends itself to further questions about the handicap accessibility of public spaces. This can be addressed through design principles.
However, it should be noted that in actuality the presence of those under 17 in Marietta Square is likely much higher. Young children were observed playing on the play equipment throughout the day. Yet, due to the ethics restrictions of the study, that population could not be surveyed and included in the proportions. This skews the data significantly.

Explaining these discrepancies is difficult. The research highlights that adolescents may feel less comfortable in public spaces (Woolley, 2003). However, due to the ethics requirement, it is difficult to establish whether or not this is the case in these squares. However, it is clear that high school students use the public space after school ends. This may be due to location or it may be due to the amenities provided on site (Watson, 2006).

It is also clear that the elderly, particularly in the 65-74 age range, use Marietta Square in high proportions that they use Decatur Square. The lack of stairs and/or ramps leading to the park and the large amount of shade provide possible explanations for this given the more limited handicap accessibility of Decatur Square (Fini, 2010).

5.3.2.2.3 Race
Regarding race, both squares are woefully unrepresentative of their large populations. In Decatur, the African American population was hugely underrepresented while the Hispanic population was underrepresented in Marietta. Lastly, the squares diverged along the lines of household income. The sample in Decatur was extremely representative of the income split in the city at large. However, in Marietta, those with higher incomes were hugely overrepresented for the area. The primary explanation for this is the lack of accessibility of Marietta Square, which produces inequity of use. Both Marietta Square and Decatur Square are lacking in diversity. The research suggests that African-Americans prefer public spaces that are sports-oriented (Byrne and Wolch, 2009). As
mentioned previously, both squares cater more towards passive recreation. Thus, some black use may be deterred because the park does not cater to their desires in public open space.

Secondly, there is a suggestion that people of colour, by linking it to poverty, may face transportation barriers in public space access (Byrne and Wolch, 2009). This is a possible explanation for Marietta Square as the area is car-dependent; however, this concept cannot be stretched to explain the lack of diversity in Decatur.

In addition, some public spaces are racialised in design. Minority populations may feel unwelcome or uncomfortable in certain public spaces depending on the design and demographics of the area (Ruddick, 1996). The perception of danger and hostility can be a significant deterrent in the use of the public space (ibid). This may also apply to undocumented Hispanics who avoid public spaces in fear of the law (ibid).

5.3.2.2.4 Household Income
A possible explanation for the household income inequity in square use is access. To access Marietta Square, a car is a necessity. It is located in an area with a dominant car culture and no public transportation. Thus, the lack of transportation alternatives may lead to social exclusion in Marietta Square (Pritchard et al., 2014). On the other hand, Decatur Square is located on a rail line. This allows access to a much wider subset of people and enables those across household income levels to use the square without an automobile.

Much of the information on public space use across poverty levels indicates that those on the lower end of the socioeconomic spectrum have less leisure time and use public space less (Merz and Rathjen, 2009; Kamphuis et al., 2009). However, the data collected in this work does not support this finding. If Merz and Rathjen’s (2009) findings could be
extrapolated to Marietta and Decatur, both would experience low levels of use for those earning lower incomes. However, that finding is not corroborated. Rather, in Marietta Square, use is significantly curtailed by income, but that is not the case in Decatur Square.

It is particularly interesting that the income distribution in Decatur Square is representative of the census data, yet the racial makeup is so divergent from the surrounding population.

5.3.2.3 Location
Geographically, most users in both squares came from the surrounding areas. However, in Decatur, most users were densely concentrated in a smaller and closer area than in Marietta. In Marietta, the users, while still primarily from Metro Atlanta, were more geographically diverse. In Marietta, cars were almost exclusively the mode of transportation to the square. Again, this is related to the lack of transportation alternatives and walkable environment. In Decatur, while driving was still dominant, walking and public transit were also major contributors to the mode share.

5.3.3 How do the demographics of the users influence perceived levels of safety and welcomeness in public space?
5.3.2.1 Gender
There was a lack of significant difference between the genders in perception of safety and welcomeness in Decatur Square. Given the literature, which finds that women are more likely to feel threatened and unsafe in public spaces, the lack of significant difference between men and women may identify Decatur Square as a safe environment (Yavuz and Welch, 2010).

However, in Marietta Square, there was a significant difference between the genders in perception of safety in Marietta Square as Yavuz and Wlech (2012) predict in unsafe environments. The reasons for this discrepancy
may be embedded in design elements of the space or in the larger safety levels of the neighbourhood.

5.3.2.2 Age
There is no significant difference in the perceived safety and welcomeness of Marietta Square between age groups. Thus, the space is providing a range of amenities and resources needed across the groups. This finding is particularly interesting when compared with Decatur, which reflects a significantly significant difference that favours the middle age groups. There is little research to substantiate this finding.

5.3.2.3 Race
The finding that there is no statistically significant difference in the perception of safety and the feeling of welcomeness between the races in Decatur Square evokes an entirely new set of questions. Significant research shows that some races are less inclined to frequent public space out of fear feelings of unwelcomeness (Byrne and Wolch, 2009; Ruddick, 1996). However, this is not the case in Decatur. Acknowledging that there are no significant differences in the perceptions of safety and welcomeness between races can help to focus on other variables that may predict why Decatur Square’s users are not as diverse as the larger neighbourhood. These variables may include lack of desired amenities, lack of access, or other design-based elements beyond the scope of this project.

On the other hand, there was a statistically significant difference in the perceived safety and welcomeness between races in Marietta Square. This is consistent with prior research showing that some races are less inclined to frequent public space out of fear feelings of unwelcomeness (Byrne and Wolch, 2009; Ruddick, 1996). It is interesting that this finding does not carry over to Decatur despite the fact that most of the uses and amenities are similar. Thus, this finding leads the researcher believe that there is something further embedded in the square or its surroundings
that is limiting the use of the square by minorities and making minorities feel unsafe and unwelcome. Suggestions include a racialised design of the space or the overall attitude of the surrounding area (Ruddick, 1996).

5.3.2.4 Household Income
The lack of statistically significant difference in the perceived safety and welcomeness of Decatur Square between household income groups is inconsistent with the literature. The current literature identifies a lack of people with lower income levels in public space due to limited leisure time and lack of transportation (Merz and Rathjen, 2009). This inequity is best represented by a percentage, not by the chi square analysis. However, literature on commercialisation of public space (Mitchell, 2011) implies that those with lower incomes may feel unwelcome in highly commercialised spaces. Yet this is not identified as an issue in Decatur Square.

Despite the significant underrepresentation of low-income users in Marietta Square, the users do not report feeling unsafe or unwelcome. This may help to isolate some of the other reasons for the lack of low-income users in the area. As the literature (Merz and Rathjen, 2009; Kamphuis et al., 2009) suggests, the lack of low-income users is likely due to a lack of leisure time, or, more specifically given the context of the area, a lack of access to the space.

5.3.5 How does accessibility influence the use of public space?
The findings from the first four research questions dovetail to deliver a more comprehensive overview of the impact that accessibility and public transportation has on public space. Most notably, transportation accessibility, a key macro and micro decision in the design of public space, may seriously impact those who use the square. As seen when contrasting Decatur and Marietta’s demographic users, those of lower socioeconomic standing are much less likely to use Marietta Square than Decatur Square.
despite similar neighbourhood demographics. This is likely attributable to the lack of transportation options in Marietta Square.

In addition, the knowledge that those of a lower socioeconomic standing continue to feel both safe and welcome in Marietta Square further emphasises the importance of transit in space use. While those surveyed felt safe and welcome, their use rates were still low.

There are, of course, other variables at play in dictating who uses space and determining why they perceive spaces to be safe and welcoming. However, the accessibility narrative throughout the research, the mode counts, the demographic use data, and the information on the perception of safety and welcome further highlight the importance of transportation options in creating accessible and equitable public spaces.
5.1 Limitations

The primary limitation in this research is the lack of access to those who are not using the public space. As with previous pieces that investigate the reasons underlying park use and access, it is difficult to uncover the narratives of those who choose not to use the squares. This curtails the depth of the research and may bias the findings.

Second of all, the study area is flawed. Due to the availability of census data, CCDs were used to collect basic neighbourhood information. However, the CCD is not a perfect study area for this project. Since the squares are not the physical centres of the areas and because the geographic coverage of the CCDs is so large, it is not appropriate to consider the entire population of the area as “potential users.” Thus, the basis of comparison is not entirely accurate. If further work is to be done in this arena, it would be appropriate to use more finely grained census data and to weigh each area based on distance from the public spaces. This would allow for more detailed analysis and more accurate findings.

Due to time and length limitations, this dissertation primarily used survey data and short, structured interviews. However, given the complexity of the subject, focus groups could provide deeper insight into the reasons that the spaces are not being equitably used. In addition, while the questions on the survey included quantitative measures of feelings of welcomeness and safety, it failed to include more qualitative questions that could provide further insight into why users answered in a specific way. It would be helpful, in the future, to evaluate why users felt diminished safety or feelings of welcomeness. This information could help to elucidate specific design elements that impact the perceptions of users.

Lastly, as the survey data shows, Hispanics are a very prevalent group in Marietta. However, they are not represented heavily in the sample. While this may reflect a low level of use for that demographic, the researcher
also faced a language barrier with multiple users of Marietta Square. Without the ability to speak Spanish, it was impossible to fully sample Hispanic users of the square. The researcher did not encounter any Spanish speakers in Decatur Square.

5.2 Recommendations for Further Research
In the future, this research could be expanded to include the role that public participation plays in the equitable use of space. While Decatur Square had a large-scale public participation effort, Marietta Square failed to engage the local citizens. It is unknown, at this point, how that does or does not influence the users of the public space. However, knowing the inequity that currently exists, it would be interesting to explore which populations were included in decision-making and if that changes the demographic breakdown of those using the public spaces.
Appendix A - Sample Survey
Production, Use, and Barriers to Access in Public Space

This survey is being used to gather data for a dissertation in the completion of a MSc in Sustainability, Planning, and Environmental Policy at Cardiff University. You are not obligated to take this survey. All responses will be kept confidential.

1. What is your gender?
   Male    Female    Other

2. What is your age?
   ☐ 17 and under  ☐ 35 to 44  ☐ 65 to 74
   ☐ 18 to 24      ☐ 45 to 54  ☐ 75 and older
   ☐ 25 to 34      ☐ 55 to 64  ☐ Prefer not to answer

3. What is your race? Select all that apply
   ☐ Caucasian/White  ☐ Hispanic  ☐ African
   American/Black    ☐ Asian/Pacific Islander  ☐ Native American
   ☐ Prefer not to answer

4. What is your approximate average household income?
   ☐ $0-$24,999  ☐ $25,000-$49,999  ☐ $50,000-$99,999
   ☐ $100,000 and up  ☐ Prefer not to answer

5. What is your zip code?

6. In the past 12 months, how often did you use this square?
   ☐ Daily  ☐ Weekly  ☐ Monthly
   ☐ Occasionally  ☐ Rarely

7. When you use the square, what do you do here? Select all that apply
   ☐ Passing through  ☐ Shopping  ☐ Eating
   ☐ Riding MARTA  ☐ Sitting and Relaxing  ☐ Attending Events
   ☐ Socializing  ☐ Walking your dog  ☐ Other:

8. What was your primary mode of travel to the square today?
   ☐ Walking  ☐ Driving  ☐ Public Transportation
   ☐ Biking  ☐ Other:

9. Overall, how welcome do you feel in the square?
   ☐ Extremely welcome  ☐ Quite welcome  ☐ Moderately welcome
   ☐ Slightly welcome  ☐ Not at all welcome
10. Overall, how safe do you feel in the square?
☐ Extremely safe       ☐ Quite safe       ☐ Moderately safe
☐ Slightly safe       ☐ Not at all safe
Decatur Square

1. What is your gender?

2. What is your age?
3. What is your race?

4. What is your approximate household income?
5. What is your zip code?

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6. In the past 12 months, how often did you use this square?

7. When you use the square, what do you do here?
8. What was your primary mode of travel to the square today?

- Walking: 20%
- Driving: 50%
- Public Transportation: 10%
- Biking: 5%
- Other: 5%

9. Overall, how welcome do you feel in the square?

- Extremely Welcome: 40%
- Quite Welcome: 30%
- Moderately Welcome: 20%
- Slightly Welcome: 5%
- Not at all Welcome: 5%
10. Overall, how safe do you feel in the square?

![Percentage Chart]

- Extremely Safe: [50%]
- Quite Safe: [30%]
- Moderately Safe: [10%]
- Slightly Safe: [5%]
- Not at all Safe: [5%]
Marietta Square

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4. What is your approximate household income?
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6. **In the past 12 months, how often did you use this square?**
7. **When you use the square, what do you do here?**

8. **What was your primary mode of travel to the square today?**
9. Overall, how welcome do you feel in the square?

10. Overall, how safe do you feel in the square?
Appendix C- Transcription of Interviews
City Manager, City of Decatur

Date: April 8, 2014  
Time: 2 PM  
Approximate Duration: 1 hour

Preliminaries:
- Receive prior consent
- Arrange interview in convenient time and place for interviewee
- Receive permission to record and to report name and title of subject in dissertation
- Remind participant they can refrain from answering any questions
- Inform participant of the basis of the study and the use of the data

Interview Transcript:
City Manager: You know clearly, we have transit, so we made a big commitment to transit you know, 40 years ago or so. I think that probably has a big impact on the demographics to some degree. Clearly you’ve got access to downtown Decatur without a car. That probably has an impact on it. I don’t know how you would assess the demographics without just looking at it. I just don’t know how to compare Decatur with Marietta.

I imagine it’s fairly popular. I’m a big fan of downtowns. Lived in cities all my life—I’m from Atlanta; lived here my entire life. One of the things we have tried to do in Decatur—we think of ourselves as a small city, not a small town. There are a lot of appealing things the appealing things about Decatur is, similar to what you would have in a small town. But our density is such and our kind of vision is urban. You know, so, we think of ourselves as a small city. And we try to, through our planning and development concepts to be urban.

We are pedestrian-oriented. We want people to walk. Our transportation plan is focused on getting people out of their cars. Use something other than a car to get around—use a bike, walk, use transit. I’d say I would think Decatur would be very accessible to all sort of people, to any demographic you could have in metro Atlanta. As long as you have access to transit, you can get to Decatur. That gives you a pretty wide range of access.

Researcher: I’ll give you a little bit more background. I’ve collected approximately 250 surveys in each location to ask questions of safety and comfort and to look at awareness around public participation process. Looking at how safe and comfortable people feel based on demographics, age, gender, etc.

City Manager: So you have answers.

Researcher: I certainly don’t have answers.

City Manager: You have data.
Researcher: I’m trying to get a feeling from you—what sort of goals did you have in mind when you redeveloped that area. Could you describe the redevelopment of that area?

City Manager: We were just named a great American neighbourhood. There’s an article in Arts Atlanta. This is pretty much what we had in mind. There was a lot of ...I’d be curious to hear what you have found...I don’t know if you have it tabulated, but we would be very curious. We, Decatur, was a small, fairly isolated community. It was always the urban centre of DeKalb county; it’s the county seat. Until the early 20s, maybe before that, DeKalb County was fairly rural. I mean, like, dairy farms. Kind of weird to think about it, but that’s what it was. I have a hard time believing and I’ve been through this whole transition. Like most downtowns, in the 60s, the tremendous suburbanization, this is not unique, took place in the late 50s, 60s, 70s. You had tremendous competition develop for the retail markets and malls—regional malls, strip malls. Everything was related to the automobile.

Decatur had a significant depression. A lot of the businesses here left and went to the mall. There’s a bunch of them around Decatur right now. Nothing unique about it, but that’s what happened here. There was also a significant change in the racial makeup of the town. There was a lot of urban renewal going on in Atlanta. The big migration of African Americans from Atlanta out to Decatur. That seemed to make people, uh, rethink. I mean, there was a loss of population. And clearly the community did not want to embrace a highway. There was a highway to be built—the stone mountain free was going to be built between downtown Atlanta, through the Virginia Highlands neighbourhood, Inman Park and come out through that part of town and connect to where it stubs out at North DeKalb Mall. It was an extremely hard fought battle between all the intown neighbourhoods. That highway, 485, that seemed clear. The Carter Centre was going to be an interchange, a freeway, between 1-20 and 1-85 to the North, right through Virginia Highlands. The Stone Mountain part goes through downtown and out to Druid Hills and that was going to extend beyond that and through Decatur. Big fight. Big political fight. Jimmy Carter was the governor. He killed the highway. Decatur was in the middle of that. It was going to take the top off Decatur. The town leaders, who were very capable people, such as Roy Blunt, the chair of Decatur Federal Savings and Loan and the chair of MARTA and of the school board. His son’s a humourist. His dad was very progressive, who happened to be chairman of MARTA when MARTA was getting organized.

The town leaders were looking for ways to revitalize Decatur without a highway. All the suburbanization is taking place, and they thought back then, in the late 60s, that we could get transit and we could use it as a real generator of economic development and help it to revitalize the community. In fact, we have 3 stations—East Lake, Avondale and Decatur station. They thought let’s put the Decatur station right in the middle of town and use it for economic development. A lot of planning took place about what kind of impact the MARTA station would have, what kind of development it would attract, what kind of was desirable, what kind wasn’t desirable. This was in the early 70s. So that happened.
MARTA station was built, we had access to transit. It was to make Decatur accessible to other parts of Atlanta and to let people from Decatur commute to other parts of Atlanta. It didn’t generate the growth people thought because MARTA’s been stuck in two counties. It had these complete morons in charge of transportation. A very short-sighted, people who determine transportation policy in metro Atlanta are very short-sighted. We’re a great cities. What do great cities have? Great transit systems. There are not many things that are world class in Georgia. The airport in Atlanta is world-class. People come from all over the world and expect to get on a transit system. That’s how you do it in other parts of the world. That didn’t really happen. But there’s still been a tremendous benefit to Decatur.

When I first came to work here. I came here as an intern in 1974—40 years ago. They were about to start building MARTA. I wanted to look at zoning techniques to guide growth. A group of us has this vision of how Decatur could benefit from MARTA. The most amazing part of that vision is how consistent it’s been over decades—from leaders before MARTA through to today. How to make Decatur attractive for people. At that time, the suburbs were still king. Trying to figure out how we can attract investors. There’s a whole lot of things we can do; marketing, festivals. We’re trying to introduce people to Decatur. We have a lot festivals—beer, books, arts. We’ve got a great school system. Lots of decisions being made about what kind of community we are. Our school system is a huge asset. The concept was always to have a pedestrian-oriented downtown that was urban.

The overnight success that took 30 years. We ha dour minor successes until about the Olympics and then, all of a sudden, everyone said ‘hey, cool.’ The planning trends caught up with us. It just seemed like everything came together. There’d been a lot of planning, a lot of effort, to make it work. Somehow, around the time of the Olympics, it all came together. People discovered Decatur and thought ‘cool.’ What really makes a downtown work is housing.

That’s where I think Atlanta has failed though. To make it go day to day, you need people living there. We got people finally realizing there was a big gap in the development community. We were able to attract, working with developers, housing. We tweaked our zoning to make our density easier to achieve. To make sure there was ground floor retail. It’s not rocket science. You just look around; that’s what it looks like. We did a lot of infrastructure. Our pedestrian infrastructure only works with land use. If you have a nice sidewalk with trees, it will be boring unless you pass something fun to look at and go in. We want people to build to the street line. We want to create space. We have a height limit to keep it at civic/pedestrian scale.

You know, again, I don’t know if MARTA is that big a generator, but it certainly doesn’t hurt. I don’t know that it would have happened without MARTA. MARTA really makes it sing. That’s the essential difference from Marietta to me. It’s not cheap. If you’re looking at equity or affordability. it’s not cheap. That’s probably been our biggest challenge. We do have a public housing complex. It’s right here. We’ve got a number of apartments for the elderly. If you’re looking for a single-
family home in Decatur, it’s pretty expensive. I think that’s the school system. It’s clearly accessible.

Researcher: How have you seen the types of retail on the square change since this process started?

City Manager: Well, it’s pretty oriented towards restaurants. I’m not saying that’s a bad thing, but we would like more variety. Clearly the restaurant community has discovered Decatur. It’s gotten more upscale.

Researcher: Is that something you were seeking?

City Manager: No. I don’t think we were trying to control it. But we like local retailers that are not chains. We try to support local retail. We would like more variety. We would like, and I think this will happen when the housing, we have 3 big mid-rise apartment buildings, that I think will bring day-to-day retail. Not specialty retail; just day-to-day stuff will be attracted to here.

Researcher: When you were outlining the redevelopment of the square, did you have any goals in mind? Did you talk about equity? Did you talk about affordability?

City Manager: I think we like diversity. It's a big challenge. I'd say we have not been successful. Housing affordability is still a challenge. We are, as it turns out, the big gap in our housing stock is rental housing. So that's being sort of taken care of. We knew that MARTA was going to be accessible for all people, for a diverse community. We had a significant African American population. Still do. It's less but still significant. That was part of the fabric that we were trying to build community around. It turns out when you are successful in creating community, when you have good schools and good services, prices rise. Then you lose some of that economic diversity. It isn't so much racial diversity, but it is income diversity. But it has racial implications. But you can buy a big house with less money in the suburbs. Here you are trading off the size of your house for accessibility, for good transportation. It's almost a cliché. All the things that you do to make a community successful tend to make it less diverse and less affordable.

Researcher: Just based on the diversity that is here now, and it is pretty significant compared to other areas. And looking at the micro level, just at the square -- do you think it offers opportunity for everyone?

City Manager: Yes. You can certainly enjoy it. You don’t have to buy an expensive lunch. All the activities we program for the square are open and completely free. We want to attract people from all over town and metro Atlanta. A lot of them are free—the festivals, the concerts, they're free. And you can get here. If you're on MARTA, you can get here. We like to have everybody to participate. Being the county seat, we have the big courthouse. We have people in the court system or working for the county. Whether they like to be here or not, they are here.
Researcher: What would you identify as other major recreational spaces within a half mile?

City Manager: We have some parks. Oakhurst Village, maybe not rec, but it’s certainly an entertainment area. The library. Agnes Scott. The Decatur cemetery.

Researcher: Thanks so much. You were extremely helpful.

City Manager: My pleasure.
City Manager, City of Marietta

Date: April 17, 2014
Time: 4 PM
Approximate Duration: 1 hour

Preliminaries:
- Receive prior consent
- Arrange interview in convenient time and place for interviewee
- Receive permission to record and to report name and title of subject in dissertation
- Remind participant they can refrain from answering any questions
- Inform participant of the basis of the study and the use of the data

Interview Transcript:
Researcher: It’s hard to find a lot of background information online. Could you describe a little of the development of the square?

City Manager: Well we are obviously a very traditional area. When the city was established, it was around the square in 1834, when the city started. Businesses popped up. The square itself was dirt. We had animals. Many of that laws at that time dealt with livestock running wild in the square. They had to figure out how to deal with this. And some of the times they put wooden sidewalks coming out of businesses to raise people out of the mud. When you look at movies of western towns, that’s probably the best example, it’s very similar. The way they describe it. Then the city was going through this transition, the whole reason it was formed and people started coming here, was for a vacation spot. They were trying to find a location to go where it was cooler during the summer. This was about as far as they could go—it was difficult to go farther. They considered it a nice place to go for the summer. We ended up having a lot of hotels, boarding houses that sprang up near or on the square. It’s interesting, when you look back; the square had a lot of hotels. Now we don’t have any.

As it kept development, the city always had the same basic structure as it is now. I’ve seen diagrams and pictures from around the civil war time and it still has that same feel with the buildings going around it in the same fashion it does now. The square area itself, the park, went through a lot of transformation. It started as an open space. It was dirt for a period of time.

During the war, right at the end, when the northern troops took over, it was used as a muster point. One of the generals died and they laid him on the square. There were various speeches given in the square before and during the war. It served as this communal point for everyone to be able to interact. And I think it still serves as the front porch of the community. You may live in a certain area—a subdivisions, gated community, apartment building—but it’s the one place everyone feels is theirs. They can share and interact. It used to not have as many events, but, over time, it’s really expanded more and more. When you go back, in the 80s, the square was totally redone. Before that, it didn’t look like it does now.
It's a lot more manicured and laid out and designed than it was before that. We had, actually, a private donor that stepped in and donate a lot of money to make that happen and the city matched it. He gave ¼ million dollars to kick the project off.

Now, it's really turned into being so successful that we have regulate it because too many people want to use it. We have to keep a really tight schedule. It is the place in Cobb County that if someone wants to do a charity events—we had to put a restriction to a certain amount of runs/walks a month. They'll book them a ear in advance. The farmer's market. It started off right off the square, and it started succeeding and we said put it on the square. We do it now every weekend on Saturday and Sunday. It was just the summer; now it's expanded to spring, fall and winter. Almost every Saturday, you can come here and have the farmers market, runs and walks, weddings in the afternoons, and then, at night, it transitions—something like the concerts. During the weekdays you may have some stray musicians that are playing. A lot of times here lately you'll see that we have young adults—14-22 that will actually take a boombox out there or their ipod or phone and plug it into some speakers and they'll just. We got spontaneity—folks who want to chat or read or pull together some friends and have some music or do something. And then the big events. It's a space that is heavily heavily used and it sets us apart from a lot of folks. If you don't have a square like this, you probably try to create one. Sometimes, people try and it takes off. Sometimes it fails. With us, it was there from the beginning and everyone views it as theirs. It sells itself.

Researcher: How have you seen the different stores and uses fronting the square change since the redevelopment in the 80s?

City Manager: When you look at the restaurants, it's a vast different. We have a real variety now—Asian, Turkish, Columbian, Korean, Italian, French, BBQ, sandwiches, paninis. You've got new southern fare. Vegetables and ingredients locally sourced. So we've got that also. That's very different. We wouldn't have that many restaurants or the variety.

The shops have changed too. We used to be predominately antique shops. WE still have some of that, but we also have a lot more of unique type stores that sell either clothing or gift items. We have a Christmas store, lizards and lollipops—a lot more unique items that would not have been for sale on the square previously.

Researcher: Marietta is seeing a demographic change like the rest of the nation. Do you think that impacts the users of the square? Do you program to those needs?

City Manager: Definitely impacts. You get people who want and are used to different things. The merchants change to match up with the market. People, in general, are different than they were 20-30 years ago. So the shops have changed. We were doing some research on stores at the turn of the 20th century.
We found a lot of information on stores owned by African American gentleman. We are trying to bring that out and show that history.

If you look in the late 1880s through the early 1900s, it was very basic. People would go for their clothes or to get their hair cut or for their groceries. Anything they needed was on the square. Then, with the advent of the car and folks getting a little more suburban, you saw a westward and northern progression from Atlanta as development was occurring; you ended up getting new development up 41. That pulled a lot of the normal area out of the square and to where they were building new houses. And it went to big boxes. You’d have the home improvement stores and the Wal-Mart’s and big, mega grocery stores. With all that occurring, then you ended up, having to see a change in the type of stores on the square. We’ve seen them become more specialized and trying to be different than a wholesale store.

The last little change over the last 5 years is more of a buy local, source local approach. We’ve had two restaurants convert over that way. We’ve got a store called ‘the local exchange.’ Their purpose is to have stuff from around here. The farmers market, I think, is driving some of that. All these people really like it. The restaurants source from the farmer’s market folks now.

Researcher: Moving forward, what type of goals do you have for that area?

City Manager: You always want to keep tweaking things and make sure that you aren’t falling behind. That you are keeping up with what the community needs and wants. We had a parks bond passed recently. We are about to start a huge phase of the work. We’re about to do three facilities—one big indoor, one small indoor and an outdoor water spray ground for kids. Where are we, where do we need to be? And so we laid out plans for all the parks. People felt pretty good about Glover Park. There were some discussions about things we could do that would enhance what we are already doing. There were discussions about artificial turf or grass. The community said nope. We want to keep the natural grass. There was discussion about shade structures. That kind of went back and forth. But it make take away from the historic nature of the park. Right now we have TSPLOST discussions whenever the existing SPLOST is going to run out. In this particular, the currently SPLOST is going to run out. We put a list together of the items. One of the items was a certain amount of money for Glover Park. They haven’t decided what they would do with it, but they’ve got it in there for kind of a makeover. So we’ll see where that would go. If the county goes forward and the voters approve it, there will be a discussion among the council of what will change.

Researcher: Have you ever had any safety concerns in the park?

City Manager: We really haven’t, we’ve been lucky on that. In my 14 years here, we’ve had one time when we had a couple of robberies when they were bashing windows and stuff. Every now and then you’ll here about someone’s car, but happens when they left their doors open. One reason we don’t have that is
because we have so many eyes on the street. With so many activities and buildings, it really is not conducive to the criminal element.

Researcher: Do you think that the lack of transportation options in the area has negatively impacted the square?

City Manager: I don't know. We're different obviously than something like Decatur with retail transit right there. I think what it's done is, if you have the rail right there, it encourages a lot more apartment or condo development around that hub. Because of that, you may get different usage near the transit location. We don't have it, but we do have a lot of bus service. There's a stop half a block from the square. But we haven't had that condo or apartment development that would be coming up around the square. We still have the other elements, as far as the shopping and eating and public activities. But we just don't have that housing component. But, I will say, lately, we've had more interest in the housing component. We have a big development coming in on the other side of the courthouse right there. We'll have a commercial component on the front end of it—it will be an expansion of the square. The real constraint we've had over time is that we started so many years ago that the downtown square area is probably a lot smaller than it should be. How big should the downtown core be for that amount of people? It should be a lot bigger, but we have all the existing environs that constrain it. The city has been working for a while to extend the downtown down Roswell Street.

Researcher: Have you given any thought to pedestrianizing those four lanes around the square?

City Manager: You'll be in a discussion with somebody every other month and they'll ask you about that. I don't think the community, at this point, wants to do that. There seems to be a fairly good balance between the pedestrian and the car at this point. I was in a meeting about expanding sidewalks. We are actually finishing a project today. It's an expansion of sidewalks for pedestrian use. Church Street going north.

We've also got a trail system coming in. We need to allow people the opportunity to choose how they are going to travel. But, because we were a traditional town, we didn't get to plan it up front. Now we are trying to retrofit the city to include that.

Researcher: Well thank you, I think that's it.

City Manager: No problem. The people here don't feel like they live in suburbia, they feel like they live in a town. They feel connected to the area.

Researcher: Definitely. I'm getting that feeling. The importance of the third place.
Appendix D- Chi-Square Test
## Decatur

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Van Deusen Jr., R. Public Space Design as Class Warfare: Urban Design, the ‘Right to the City’ and the Production of Clinton Square, Syracuse, NY. *GeoJournal* 58: 149-158.


