

# **Designing Public Parks to Shape Communities**

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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## Introduction

Views found in monumental national parks like the Grand Canyon or Zion often make the list of the most beautiful sights people see in their lives. The grand structures, beautiful vistas, and well-preserved natural landscapes of these parks make for very memorable and desirable vacation destinations. But there are many barriers to entry for national parks. It can be expensive to visit a national park with travel and entry fees and they require time and resources many people do not have readily available. For the average citizen without uncomplicated access to national parks, other methods of getting into nature and experiencing the world are necessary.

One way for any person to access the outdoors on a consistent basis without stressing over finances and time is to use public parks. Public parks are usually much less grand and glorified, but they do very important work for communities. Most people in the United States of America will have some type of public park nearby where they can go to spend some time outside and get into nature without the same level of investment and effort as planning a trip to a national park. This is one of the reasons why it is so important to make sure that people have access to public parks that they feel safe and comfortable using: it is often the space where people will be the most connected to the outdoor environment and it allows cheap and easy access to a small amount of the wonder that you can feel in the natural world.

Most people don't put much thought into parks and don't consider them to contribute much beyond them being a physical location where you can go to play, work out, or just get outside. However, I believe that parks can play a significant role in developing social, physical, and intellectual capabilities. Both children and adults use this space to connect with other people and develop skills. But what makes a park good enough for people to use it as a positive space

for growth? And how do we design future parks to make sure that they meet the needs and desires of those that will use it so that everyone can get the full extent of the benefits a good public park can offer?

I believe a good park is one that is used by the community and meets the needs of those who use it. Common descriptions of parks that are desired are clean, well maintained, safe, and beautiful. Community members value accessibility from homes in the form of walkable trails. When these criteria are met, communities are more likely to use and support the park. Parks that are not well-liked face opposite descriptions. They are dirty, falling apart, dangerous, or just run down. These parks see less use by the target demographics. To design a park that will be considered good and used by those that it was designed for, a designer needs to take into account the opinions and desires of the community they are building for. If a community doesn't want what is being offered, it doesn't matter how well executed the plan is, it will not see use. The best way to make sure that a park is utilized and remains that way is to involve the community in the decision-making process.

I analyzed Google reviews on nine different parks across three different randomly selected Virginia cities to study how users justified giving parks high or low ratings. I identified common sentiments to understand what people liked and didn't like about existing parks. For a different perspective I also studied the minutes for a Board of Supervisors meeting in Albemarle County, Virginia where comments were open to the public regarding the construction of a new public park. Between the opinions of community members before and after the construction of parks, I found common sentiments about what makes a good, worthwhile park and decided that, in order to design better parks that will benefit future generations, we need to listen to feedback from the communities who will be using the parks at all stages of the design process to ensure

that we are designing to the needs and desires of those who will be using the final product instead of building something people won't actually use because it is the newest and "best" practice at the time.

## **Background and Context**

Public parks have been influential in societies for a long time. Because they are public lands that are designated for people to be in for play or other activities, they have also been the sites of the development of societies, from social movements down to the individual temperaments of citizens. They are a great example of a third space, which is a place other than home and work that people can spend time. Third spaces are becoming more difficult to find. Many, such as cafes and restaurants, are expensive, which creates a barrier to entry for some people. Additionally, if groups of people, especially teenagers, spend a lot of time standing outside of these establishments where they would need to pay, they might get in trouble for loitering or being disruptive. Parks are free and accessible third spaces. Most communities in the United States will have at least one public park where people can go to get outside and have space to play and exist without interrupting anything. Public parks are often decided on and created by the work of a local government body, so they are free to access and count as public places people are allowed to use. Public parks are very common and play some sort of role in many, many people's lives.

Parks often have playgrounds and other spaces that are specifically designated for allowing children to play. Play itself is an important part of children's development and can have significant impacts on their lives. According to Doris Bergen, who is a professor of Educational Philosophy at Miami University, "play is one of the main ways that children really consolidate

their learning. The way we really make our skills permanent and enriched and highly developed, is often through our play experiences (Mader, 2022).” Alongside learning concepts in school, playing is one of the major ways that children can put concepts to use. Going to the park is a practical, easy, and free way for parents to invest in their children’s development, which is incredibly important to any community. Some specific benefits of play in early development of children include healthy brain development, reduced obesity, management of stress and trauma, family bonding, and increased academic skills (Kamenetz, 2018). All of these factors can contribute to a more well-rounded and better supported child. For many children, parks are an exciting change in scenery and a chance to play with new objects and interact with others when they might not have access to these same opportunities at home.

The benefits of parks go beyond just the healthy development of children, they can be very beneficial for adults as well. Parks are a great place for socialization and connection between people who live in the same area. During periods of uncertainty, like the COVID-19 pandemic, many people found community in public parks where disease was less likely to be passed on and people could see others for the first time in a long time (Swapan et al., 2024). Parks are often the locations of meetups, parties, and fitness groups for adults. These community building exercises are important and can make a real difference in someone’s life.

While we know that public parks are beneficial for both adults and children, some demographics and areas are underserved when it comes to clean, safe, and accessible park space. Access to parks is not the same between races and income brackets. Poorer communities and communities of color often do not have access to the same level of park facilities that richer, whiter neighborhoods have access too. In underserved areas there are often no parks or parks that are so rundown and unsafe that children are told to avoid them. This inequality is seen on a wider

level with uneven access to all green spaces across cities (Parkscore, 2024). There have been efforts to address this inequality, but it remains an issue today.

Knowing how important parks can be for communities and the roles that parks can play in people's lives, it follows that limiting access to these spaces can have negative effects on the lives of those who are not given proper access. People truly benefit from having park spaces available to them in all stages of life, so it is important to make sure that parks are being designed in a way that makes sense for the communities that they are built for and allows play and connection to occur. It is also important that parks are designed in areas that are underserved due to past biases and lack of infrastructure because everyone deserves access to the benefits that parks can bring.

## **Methods & Theoretical Framework**

### **Data Collection**

To begin my research on public perception of parks I looked at the Google reviews for several parks in each of three randomly selected Virginia cities to see what common trends exist in the comments attached to high and low rated reviews. The comments attached to ratings of parks indicate the thoughts people have about parks that exist and operate already and can help understand what people want out of parks based on what they did and didn't enjoy about the ones they use. The three cities I considered were Charlottesville, Richmond, and Fairfax.

To collect the data, I used Google Maps and searched for parks in each of the three cities. I then chose a subset of three parks per city to focus on. There was not much variation in the overall ratings of the parks, and the lowest average ratings I found were around 4.3 stars out of 5. The majority of the parks are rated around 4.6 stars and the highest are around 4.8 stars. I chose

the lowest ranked park I could find, one of the highest rated ones, and an average rated park for each city I studied. I tried to make sure that the parks were comparable in what they offered because a lot of trails and state parks showed up, so I picked parks with similar amenities that I could compare. After narrowing the search, I had nine parks across three different cities in Virginia.

The nine parks I observed were Greenbriar Park, Clemyjontri Park, and Hidden Pond Nature Center around Fairfax, Virginia. Rives Park, McGuffey Park, and Azalea Park are the parks I analyzed in Charlottesville. Finally, from Richmond I picked Deep Run Park & Recreation Center, Dorey Park and Recreation Center, and Bryan Park. Each of these parks has hundreds of ratings and a mix of positive and negative comments about people's experiences using the parks.

After I selected all nine parks, I began to read through the reviews that had comments attached to them. I took note of sentiments that were repeated several times in the reviews and paid attention to what the recurring themes were in the writing. I did this for good reviews with high ratings and then moved on to negative reviews. I repeated the same process for all nine of the selected parks so that the trends could be compared, and a more generalized conclusion could be drawn from a wider data pool.

To collect a wider breadth of information about perception of parks I also studied the meeting minutes for a Board of Supervisors Meeting in Albemarle County, Virginia. This meeting occurred on December 12 of 2018, and the comprehensive plan for the development of Biscuit Run Park was discussed. Charlottesville, Virginia is within Albemarle County, so the residents who spoke at this meeting could come from the same communities that left reviews of parks in Charlottesville. This allows an understanding of people's perspectives before and after

the construction of parks because both data sets are about the same geographical location. At this stage in the planning, the public was invited to speak before the board to tell them whether or not they supported the plan and why. The comments community members made about the plans to develop a new park reflect what people think about parks and what they want out of them in a more abstract sense. With the Google reviews, people already had an existing park, and all the information was relative to an existing structure. With this proposed plan people could talk more abstractly about what they would want in a park without the confines of existing structures. The data from this meeting covers an earlier, more conceptual perspective of what people want from parks.

Once I identified common concepts in both data sets, I sorted ideas into different categories and identified the sentiments that were shared in negative perspectives and those that were shared in positive perspectives. I also compared the comments that were made before and after the parks were built to better understand the shift in perception. Between two different moments in the planning process and a wide range of opinions a collection of information about public perception of parks was gathered.

### **Infrastructure Theory and the Social Construction of Technology**

Infrastructure theory is a theory developed by Susan Leigh Star and Geoffrey C. Bowker to understand what infrastructure is and what role it plays in society. According to this theory, infrastructure is embedded into our lives, has wide reach, embodies societal standards, is built upon an installed base, and becomes visible to users when it breaks down (Bowker, 1999). In their study of infrastructure, it is posited that we need to use technology for it to be considered infrastructure. Something is not infrastructure if it is not utilized.



Roads are an example of infrastructure that most people use very often. In the US, roads are incredibly common, and we do not think much before we use them. They are included in media, news, and entertainment but we do not think about them much on their own. They are a piece of infrastructure that is embedded into our lives. Roads have very wide reach, with most people using them several times a day to get where they need to go. Roads are also a reflection of our societal standards. Cars and personal vehicles being the most common method of transportation is a reflection of a cultural value. Some other countries have much better public transportation systems instead of cars which represents a different system of infrastructure and different cultural standards. Roads are built upon an installed base. Some are still cobbled like they were before we began to pave them with asphalt. We build upon roads with newer roads and extend the network constantly. Finally, we notice when they fall apart. If the road that you usually take to work is under construction and you need to take a new route, you will suddenly understand what role this infrastructure has been playing in your life. You may never think about how easy your commute is until you have to change it because the infrastructure facilitating it broke down. Infrastructural technology often blends into the background and isn't often thought about, but you notice it when it goes wrong.

Public parks can be considered infrastructure. They can be easy to take for granted, but they play an important role in communities. We can use Star and Bowker's theory about infrastructure to understand what roles parks can play in our lives and how we can treat parks as infrastructure that is embedded into our lives but needs to avoid breakdown so that it can continue to serve the needs of the community.

The Social Construction of Technology (SCOT) is a theory proposed by Trevor J. Pinch and Wiebe E. Bijker in 1984 that discusses how societies shape technology. SCOT theorizes that

we cannot understand a technology without understanding the cultural context in which it was developed because the design process is dictated by social factors in many ways. The design that is chosen depends on the values of the society it is being designed within. This theory can explain how designs that are considered the best in some cases can be wrong for other situations and it can explain the importance of communicating with the intended users of the technology because their values could greatly impact the results. In combination with Star and Bowker's theory about infrastructure, SCOT can help understand the relative nature of technology and how important the community should be in the development of their own infrastructure. Using this theory, we can see that it is important to understand the community that influences technology to understand the technology itself. In the case of public parks, we can look at reviews of existing parks and comments about proposed parks to understand the society that parks are being built within, which will help to develop a better understanding of the technology itself and how it could undergo positive change.

## **Findings & Analysis**

### **Existing**

I read through the ratings that had comments attached to them to find patterns in what was mentioned in good and bad reviews. There were many common themes in the ratings across all nine parks. The most common sentiments in the reviews were about cleanliness and upkeep of the parks. Five-star reviews often mentioned that they were clean and well maintained in some way or another. One-star reviews commonly described the parks as run down, in need of repair, and littered with trash or bad smells. Bathrooms were also commonly mentioned, either because the park needed one but didn't have the facilities or because there were clean, well-maintained

restrooms that reviewers appreciated. Greenbriar Park in Fairfax is a good example according to commenters, who mentioned “The restrooms are actually quite lovely and very clean.” Almost every five star review of the park listed the clean, available restrooms, the cleanliness of the park itself, or both. Parking areas were also mentioned a lot, in bad reviews it was usually in the context of parks not having enough parking. Good reviews praised abundant free parking. Also mentioned a few times was distance from play structures to the road. Several comments mentioned that playgrounds closer to the road meant that parents needed to be more alert and watch their children closely the whole time they were playing because they didn’t trust them not to run into the road and get hurt, so users preferred when there was more of a barrier between play areas and streets.

Every park that I studied had at least one comment attached to a low rating that mentioned that their issue with the park was related to the lack of proper maintenance and upkeep. Run down equipment and trash or smells were common complaints that point to a larger issue of parks and public places being neglected to the point of losing value to the users. To combat this issue and make sure that parks are used to their fullest extent, there should be extra focus put on making sure that there is a plan for maintenance and upkeep of the park before it is built. This plan needs to be long-term and make monetary and management decisions about what will need to happen to keep the area in good shape. Several comments on Bryan Park in Richmond mentioned that it was once a good park, but it is now run down, and they don’t go there anymore. One reviewer wrote, “This was once a beautiful park but that was many years ago.” Many similar complaints mention trash, closed restrooms, rundown equipment, and loud noises. The same reviewer goes on to say, “I went the other day and the park seems worse than ever. It's very sad because the azalea gardens and lakes used to be a gem and now they are trashy

and unkempt.” People really love parks like this for their access to nature and locations for playing and exercise, but there are limits to what people are willing to put up with in order to use them. To keep this from happening in new parks there will need to be people who regularly go to the park to clean the premises and repair anything that might have been broken. This takes money and effort and therefore needs to be considered as part of the cost and effort of planning and building the park. The cost is part of what can be considered necessary to build a public park that people will consistently use for years to come.

Many more negative comments mentioned various ways that reviewers felt unsafe in the parks, often in their parking lots. This came both in the form of “suspicious” people lingering in the area or watching others from their cars and from reports of crimes that occurred on the property. The crimes reported were most often of people breaking into cars to steal from them. These concerns are especially common in darker areas and areas that have fewer people. A reviewer of Rives Park in Charlottesville says there is “Always someone close by that just seems to be lurking.” Similar sentiments are common on Google reviews of parks.

There were hundreds of different opinions stemming from the nine parks within this study group, but these common threads were seen multiple times, indicating that they were shared perspectives that would be useful for understanding what people want and don’t want from parks.

## **Proposed**

In addition to analyzing the comments in Google reviews to see what people care about in parks, I found meeting minutes from an open public hearing held by the Board of Supervisors in Albemarle County, Virginia from December 12, 2018, where they discussed the

comprehensive plan for the development of Biscuit Run Park. The community was welcomed before the board to share their thoughts on the proposed construction of a new park. These comments included many people saying they supported the effort but wanted to prioritize connectivity to the community with walking and bike paths so people could access the new park without driving. Some went as far as to say that they did not want the park to be built if it was not properly connected with paths because it would just become another park they didn't go to because it was too hard to access. Several community members also mentioned supporting the park, especially with plans for more sporting fields of various types for people to play on. There were no comments from this meeting before the park was built about the maintenance and cleanliness plans for the park, despite that being the most common complaint about existing parks. Instead, issues with the park that were brought up in this meeting were focused mainly on accessibility, which highlights an important issue to be addressed in the design of a new park or issues with the source of the funding.

Many community members objected to the construction of the park at this stage due to concerns about funding. The park was to be funded with money from Dominion Energy, which several community members mentioned they opposed because of environmental concerns attached to the company. Community members from neighboring Buckingham County mentioned that Dominion was preparing the area to add a new compressor station, and that acceptance of the money for this park from Dominion comes at the expense of quality of life for those affected by that new installation.

It is important to understand what the community actually wants from a park if the intention is to make a public space that people will use. The meeting minutes from the Albemarle County Board of Supervisors about the comprehensive plan for Biscuit Run Park show that

people need to be able to speak their minds, and that they might bring up ideas that were not previously considered but should have been. Community members spoke about how they didn't need another park if it wasn't connected to the community through walking and biking paths. If it didn't have those it would become just another park they needed to drive to and they didn't think that was worth the money and effort. Google reviews can shine light on problems that occur in existing parks to guide us on what to avoid, but it is easiest just to design the park with the correct specifications in the first place. This can come from speaking to the people that will be using it and ensuring that they will be getting a product that they actually want.

### **Parks as Infrastructure**

The intention of a park upon its construction is for it to become part of the infrastructure of a community. Public parks are amenities that are free for the public to use because the local government decided to find and allocate funds for their design and construction. They become part of daily routines for exercise or outdoor play and are built into the city's existing infrastructure and layout. Star and Bowker's (1999) theory of infrastructure posits that a technology, in this case a park, cannot be considered infrastructure unless it is used.

To make sure that a park fulfills its intention and becomes embedded infrastructure, the designers of a park need to make sure that it is used. To ensure that parks are utilized and that they can meet these intentions, it would help to make sure that the designs meet a different component of this definition of infrastructure: embodying standards. If it is important to designers that people use the park they are building, they must make sure that the design reflects the standards and cultural values of the community it is built for. This is supported by the Social Construction of Technology, understanding the context of a technology will help us understand the technology itself. Members of the community that went to speak before the Albemarle Board

of Supervisors gave their perspectives before the park was past the planning stage. Many common themes in the reviews of the nine study parks indicate that people share feelings about what needs to be done to reflect cultural values of cleanliness and safety if they are going to use the park for its intended purpose. Both sources give a glimpse of the public perception of parks throughout their lifespans and can be used to design a park that will be utilized because it successfully meets the needs of its users.

To design better parks that will become part of the infrastructure of a community, the users need to be consulted early in the process. Infrastructure needs to be used, which means it needs to meet the needs of the specific community it lies within. Before a park is built, even before a comprehensive plan is presented, designers should ask the community what they would want from the construction. Some requests might be impossible or impractical to fulfill but asking can help make sure that designing this new space is not going against any community standards that would leave the park in disuse. Understanding that people will not use the park if there are no bike paths to connect it to the community will help to make the right decisions in building the park. The board could decide that it is worth investing in connecting the park and housing developments and therefore make sure that the new park is used and better the community. Alternatively, they could decide that this park would not be used within its possible scope and choose to allocate those funds to other initiatives that could use it. Similarly, the comments about money coming from Dominion at the expense of citizens of a neighboring community might require reconsideration if they find that this source of funding is not acceptable based on Albermarle County's cultural standards. Either way, the community is better off when the designers of their infrastructure and technology are asking what they actually need from it

and making changes accordingly instead of automatically going with the design that looks the best through the eyes of an engineer who does not live within that community.

This step of communication with the intended user should be done as early as possible in the design process. Allocating funds for maintenance and upkeep, which were shown to be important to people who go to parks, would be easier if designers knew from the start that that was something that needed to be prioritized. Some things, like physical placement of play structures further from the road, are hard to change once they have been installed, so understanding what that means to the community before construction is important. Creating infrastructure to benefit a community requires understanding of their needs, desires, and standards, which necessitates open communication with community members throughout the design process and beyond. It is easier to build new technologies without consulting these stakeholders, but the final design then has a much higher likelihood of being abandoned because it did not actually solve the right problem.

## **Conclusion**

Public parks are often spaces where a community is built and upheld. They are important to individual growth and community building. A park is good enough for people to use it consistently and gain its benefits when it is designed intentionally with the desires and needs of the users in mind. If we want to consider parks as infrastructure that we use and rely on, we need to make sure that they reflect the values of those who will be using them, so communication with the user is essential to the process as early as possible. To design better parks only one change is truly necessary. We need to get better at working with communities instead of working around them. Careful and intentional design that embodies the values of the community it resides within



leads to a product that is useful and exciting. This is what will make parks better for future generations.

Shifting policies and standards mean that designing to reflect the community might look different over time. People do not always think the same over long periods of time. What is important in response to that is to continue to listen to the user base and try to accommodate shifting ideals when possible. It is easiest to change design choices early in the process, but if a change can be made to make the circumstance better for the community, even if it doesn't fix everything completely, it is best to listen and make adjustments where possible so that the community will continue to use the design and feel heard. Future research in this area could study the impact of involving community members in the design process on how heavily a park is used. Following a park from conception to construction and utilization could help to understand what parts of the process community members want input on and how that input might change their usage of the park when it is constructed.

Both Google reviews and the commenters at the Board of Supervisors meeting are self-selecting groups which represent members of the community with strong enough opinions about parks to go out of their way to discuss them. Most people who go to a park will have an opinion about it but will not leave a review. Only a small selection of people who live in Albemarle County and could make use of the proposed Biscuit Run Park went out of their way to attend the meeting and address the board. Future research about what people believe makes a good park could come from speaking to people who do not feel strongly enough to go out of their way to discuss it. This could give a more nuanced understanding of the breadth of opinions.

As more and more entertainment and activities move online for younger generations, in part due to the disappearance and rising cost of third spaces alongside the ease of communication

online, parks and outdoor spaces have become even more essential. It is important for children to spend time with others in person and to experience the outdoors. These are both things that are facilitated for free in a relatively safe environment when a community has a good public park. Going to a restaurant, cafe, arcade, or other similar activities will cost money. Often enough money to keep some people from being able to join the gathering. Potential third spaces that don't cost money, like libraries and public streets, often limit noise and activity because it might bother others. Public parks circumvent both issues by being free and built with the intention of noise and activity. Having a park that feels exciting and meets the standards of parents is increasingly important for getting children outside to learn and grow in new environments and to ensure that they have a third space they can feel welcome to be themselves in. As less and less time is spent outdoors it becomes even more important to design for the community and make a plan for upkeep and maintenance because the condition and design of a park might make a difference to the amount of time a child will spend out in the world.

Public parks are places for people to go to meet with other people and for children to get developmentally appropriate socialization with other children. They can have profound impacts on people and because of their status as one of the few public places that are free to attend and do not require anything for entry. They can have a big impact for marginalized communities that might find it difficult to have access to other places to meet and organize or socialize. In these ways and others, parks both shape communities and are shaped by their communities. They are truly valuable spaces and should be designed to be the best they can.

It will always be difficult and sometimes impossible to meet the needs and desires of every person who is asked for input. There are too many different perspectives for perfection to be an achievable goal. It is still important to listen. There will often be several requests that

multiple people will mention. There may be something you already planned to involve in the design that people really want to see. Either way, being heard and having a chance to sit at the table and be part of the discussion will increase the chances that the park will be used by the community and understood as an improvement to the area.

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