Literature Review

FINAL

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URBP 298A
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I. INTRODUCTION

The purpose of this literature review is to research and identify what defines an urban public space as successful. More specifically, the two questions explored for this review are: what are the common qualities successful urban public spaces possess and what are the design elements and characteristics needed to help achieve these qualities? Furthermore, this review supports my thesis report, Visualizing Residual Spaces in a New Light: A Study for Creating and Designing an Urban Public Space Under a Downtown San Jose Freeway.

The literature review is divided into three sections. Section II discusses the main themes and debates related to the identified qualities successful spaces commonly possess, and describes the design features and characteristics that are needed in order to achieve these qualities. Section III summarizes the important findings that emerged within Section II, identifies any gaps in research and provides recommendations for where additional research would be of value. Finally, Section IV provides a list of the online data source consulted, and lists the keywords used to search for the literature.

II. MAIN THEMES

According to William H. Whyte, the father of social behavior studies in urban settings, the presence and number of people within a space are what define a space’s success. Whyte also believed the presence of people positively attracts others to enter a space as well. If the presence of people defines a space’s success, then what are the qualities a space needs to possess in order to attract people?

The following three themes emerged within the literature as the key qualities most commonly found amongst successful urban public spaces. These important qualities are identified as accessibility, comfort-ability, and sociability. For each theme, the literature review will discuss their significance to the success of urban public spaces, and will identify the design elements and characteristics that help in achieving these qualities.

a. ACCESSIBILITY

Accessibility is one of the key qualities that define the success of an urban public space. When a space is accessible, it means it is designed to be available to as many people as possible and does not
limit or exclude any individual. In determining a space’s level of accessibility, one must observe the design in its entirety and consider whether or not it meets the following criteria: accessible to all individuals, physically connects with the surrounding landscape, and has clear and defined entrances.

**Accessible to All Individuals**
Spaces that are accessible to all individuals are designed to accommodate children, the elderly, pregnant women, mothers with strollers, and the blind. Spaces that do not cater to a variety of users run the risk of experiencing little to no usage due to limited accessibility. In a study in Famagusta, Cyprus that focused upon the relationship between park usage and accessibility, Pasaogullari and Doratli’s findings found that poor accessibility was a main deterrent affecting the levels of everyday usage. Based upon the conclusions of their study, both also believed the lack of people within these spaces further discouraged others from entering or visiting for a significant length of time.

**Physically Connects with the Surrounding Landscape**
An urban public space is physically connected with the surrounding landscape if it is accessible by one or multiple modes of transportation. The greater the number of transportation options available, the greater the variety and level of usage a space will receive. When a space is physically connected with the landscape, it provides the freedom for individuals to choose how they would like to visit a site, and does not limit where they can or cannot go.

Walking is the most common accessible mode of transportation. Walking is the basis of human mobility and is the least expensive option for those with limited means or without possession of a car. According to Van Herzele and Wiedemann, an urban public space is accessible only if it is within a five or ten minute walking distance from nearby residential communities. However, according to the findings of four different studies on walkable communities, distance did not play a huge factor in the levels of pedestrian activity in and around urban public spaces. In 2005, Southworth found the most significant factor to influence whether a user would walk to a site was not the distance to a space, but rather how comfortable, safe and pleasing the experience to a space

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This also proved to be true in Foltête and Pimobini’s study that focused upon the relationship of pedestrian activity to the spatial environment. Their findings showed high levels of pedestrian activity were heavily influenced by the functionality and aesthetics of the linking pedestrian corridors. Finally, both Pasaogullari and Doratli’s study and Lund’s study found the presence of adequately sized and well-maintained sidewalks, way-finding signage, landscape and lighting greatly influenced high levels of pedestrian activity and provided strong connections between residential communities and public spaces.

According to the literature, spaces that are accessible by different forms of transportation are more likely to attract and receive a greater variety in users than those that do not. For example, in two similar transportation studies by Bertolini in 1999 and Bertolini and Djist in 2003, the authors identified spaces with access to diverse forms of transportation as “mobility nodes,” or main cross-traffic hubs, because of their ability to connect with and attract very diverse visiting populations. This idea was also true in a 2012 study that focused upon accessibility and usability of public green spaces in Santa Cruz, Bolivia. The authors found that the provision of public transportation significantly influenced lower-income families and young individuals to visit public spaces that were otherwise too far to walk to, thus increasing the level of usage and activities within these spaces.

**Clear and Defined Entrances**

Designs that encourage and provide a sense of direction are the easiest to navigate to and through. Entrances are the most important feature that directs the movement of users into an urban open space. In a literature review focused upon the visual landscape, Nijhuis expressed the importance of entrances and their significance to the level of usage within a space. According to his findings, the spaces that did not have clear and defined entrances experienced very limited amounts of user activity within. He also found that people are only willing to enter or move through a site when clear directionality is given. In support of this statement, Van Nes’ study about space directionality found that human beings depended upon line of sight to orient themselves through the complex built

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environment. He noticed that the spaces or entrances that were not clearly visible more often than not went unnoticed and were predominantly vacant.\textsuperscript{15}

b. COMFORT-ABILITY

In truth, comfort-ability is not a true word within the English language. According to the Merriam-Webster dictionary, the word \textit{ability} is defined as the quality or state of being able.\textsuperscript{16} For this review, the combination of the words \textit{comfort} and \textit{ability} will be used in the context of describing how an urban public space can provide a sense of comfort to the users within.

Successful urban public spaces promote the feeling of comfort, or human safe zones, to users.\textsuperscript{17} A space’s level of comfort-ability varies between different users, but the sense of comfort is generally attributed to key influential factors identified as perception of comfort, and security and safety.

\textbf{Perception of Comfort}

How users perceive their surroundings greatly affects how they act or interact within the built environment. According to the literature, the feeling of comfort or discomfort within a space was one of the main factors that either encouraged or deterred people from entering an urban public space. Luymes and Tamminga’s study on safety and design identified women, elderly, minorities and the disabled as the types of users most affected by their perception of comfort within an urban public space. Their findings showed that these types of users shared a common fear of encountering negative attention in urban public spaces that received little to no usage and lacked diversity in the types of users.\textsuperscript{18}

Women, in particular, tended to be the pickiest of all in choosing spaces based on comfort. In the chapter, “Life of Plazas,” Whyte states that the most popular and comfortable public spaces he observed in New York always had the highest number of women.\textsuperscript{19} The same went for an observational study conducted within different public spaces in China. Zhang et al found that


\textsuperscript{19} Whyte, 352.
women in China were attracted to higher levels of ambiance security, design elements such as vegetation and lighting, over any other group observed in the study.\textsuperscript{20}

There were, however, two studies that identified a common perception of comfort amongst different types of users. In a 2011 study about the relationship between user activity and levels of visibility within public spaces, Weitkamp found that most people preferred designs that provided a balance of openness and enclosure.\textsuperscript{21} He argues that as human beings, it is our primitive nature to want to have the option to hide if needed, but still be able to see what is going on within our surroundings. This notion of the need for balance within a design was also true in Van Nes’ study that focused primarily upon user’s preference of visibility within urban public spaces. In his 2011 study, Van Nes found that people tended to attract to semi-secluded areas only if the degree of visibility, or line of sight, wasn’t blocked by the placement of trees or other freestanding design elements.\textsuperscript{22}

\textbf{Security and Safety}

According to the literature, the feeling of security and safety is the main factor that influences a space’s level of comfort-ability. In a study conducted by Abu-Gazzeh in 1996, 70\% of people said that they chose to visit urban public spaces on the basis of physical and social safety factors.\textsuperscript{23} Some of the physical factors that Van Melik, Van Aalst and Van Weesep’s 2007 study identified as positive influences to comfort-ability were the presence of adequate crosswalks, lighting, well-maintained sidewalks and pathways, and manicured vegetation.\textsuperscript{24}

Well-maintained vegetation emerged quite frequently within the literature as affective ways to influence high levels of comfort-ability. In Behnaz and Afshar’s 2004 study, findings showed that people preferred vegetation to be planted in uniform rows that did not block viewing corridors or provide hiding places for people to lurk behind.\textsuperscript{25} Ironically, Kaparais et al’s study on shared spaces with cars and pedestrians also found that people preferred the presence of maintained vegetation along streets experiencing high levels of vehicular traffic. The well-manicured vegetation not only secured safety for pedestrians from cars, but also allowed for people to be visually aware of their

\begin{thebibliography}{99}
\bibitem{VanNes174} Van Nes, 174.
\end{thebibliography}
surroundings at all times.\textsuperscript{26} One study that contradicted the previously two studies findings was Kuo, Bacaicoa and Sullivan’s 1998 study. They found that the majority of residents within an inner-city neighborhood preferred the look of natural vegetation that was dense in nature because it gave them a sense of comfort and safety.\textsuperscript{27} This difference in preference of vegetation may be attributed to the fact that the inner-city neighborhood observed in Kuo, Bacaicoa and Sullivans’s study lacked any existing vegetation in their courtyard and thus gravitated towards the idea of planting dense and wild vegetation.

The fear of crime and other unwanted attention or activities in urban public spaces proved to be the major social factor affecting people’s comfort-ability levels. Roberts 2009 study on nighttime crime and safety in public spaces, found that the addition of lighting in some urban public spaces not only reduced levels of crime but positively influenced comfort-ability at night in these spaces as well.\textsuperscript{28} In a similar study that focused upon crime in London public spaces, Painter found the installation of new lights not only decreased the fear of crime for 90\% of the people living nearby, but also seemed to have boosted women’s sense of confidence when they walked within and around these spaces.\textsuperscript{29}

c. **SOCIABILITY**

The third theme is the quality sociability. Unlike the other two qualities previously discussed, sociability develops only after a space has been established for some time because it is dependent upon how accessible and comfortable a space is perceived by users. Levels of sociability within a space are characterized by how well the design fosters social interactions, community cohesion and social integration.\textsuperscript{30}

**Social Interactions**

An urban public space can encourage different levels of social interaction simply by how the space is designed. Designs that cater to accommodate a multitude of activities provide an opportunity for different types of users to socialize with one another within a shared space. Cattell et al believed the greater the amount of activities a space provides, the greater the chance for social interactions to

\begin{itemize}
\item \textsuperscript{26} Ioannis Kaparias et al., “Analyzing the Perceptions of Pedestrians and Drivers to Shared Space,” \textit{Transportation Research Part F: Traffic Psychology and Behaviour} 15, no. 3 (2012): 306.
\item \textsuperscript{28} Marion Roberts, “Planning, Urban Design and the Night-Time City: Still at the Margins?” \textit{Criminology and Criminal Justice} 9, no. 4 (2009): 495.
\item \textsuperscript{30} Vicky Cattell et al., “Mingling, Observing, and Lingering: Everyday Public Spaces and their Implications for Well-Being and Social Relations,” \textit{Health and Places} 14, no. 3 (2008): 544-561.
\end{itemize}
occur casually amongst people with different interests.\textsuperscript{31} In support of this belief, Demerath and Levinger found that chaotic spaces, or places that have a lot of activities occurring simultaneously, attract the most people because they attract a variety of people and offer freedom of movement from one activity to the next.\textsuperscript{32}

Urban public spaces designed with a single purpose encourage users with similar interests to gather and socialize within a common ground.\textsuperscript{33} In Corcoran, Gray and Peillon’s 2009 study upon children’s relationship to the surrounding landscape, findings showed that playgrounds not only provided opportunities for children to meet, socialize and form friendships with other children outside of school, but also spurred opportunities for their parents to develop and strengthen friendships as well.\textsuperscript{34} In another study that focused on the social benefits of community gardens, Firth, Maye and Pearson found that their presence within a community significantly encouraged daily social interactions amongst the participating residents.\textsuperscript{35}

Designs that are open for interpretation by the users also provide opportunities for social interaction to occur. In Groth and Corijn’s observation of three different urban public space transformations, the most influential space for fostering social interaction were ones where the designs were left undefined. In these spaces, users were allowed the freedom to create their sense of place through the use of interactive art, moveable chairs, and other various seating elements, and share their designs with others.\textsuperscript{36} Corcoran, Gray and Peillon also found that children were very attracted to spaces with undefined designs because it allowed them to share their personalities and imaginations with others.\textsuperscript{37}

\textbf{Social Cohesion}

Social cohesion is created when there is a strong sense of community present within a neighborhood. Francis et al believes that urban public spaces possess the ability to enhance a sense of community for neighborhoods because they can provide opportunities for people to become familiar with their

\begin{itemize}
  \item \textsuperscript{31} Ibid.
  \item \textsuperscript{32} Loren Demerath and David Levinger, “The Social Qualities of Being on Foot: A Theoretical Analysis of Pedestrian Activity, Community, and Culture,” \textit{City & Community} 2, no. 3 (2003): 220.
  \item \textsuperscript{33} Aleksandra Ka’zmierczak, “The Contribution of Local Parks to Neighborhood Social Ties,” \textit{Landscape and Urban Planning} 109 (2013): 31-44.
  \item \textsuperscript{35} Chris Firth, Damian Maye and David Pearson “Developing “Community” in Community Gardens,” \textit{Local Environment} 16, no. 6 (2011): 565.
  \item \textsuperscript{37} Corcoran, Gray and Peillon, 46.
\end{itemize}
neighbors in safe and inviting settings.\textsuperscript{38} This statement proved to be true in Voicu and Been’s 2008 study on community gardens and their benefits towards communities. In their study, they found that the presence of community gardens greatly increased levels of trust amongst residents and enhanced the sense of community as well.\textsuperscript{39} Social cohesion proved to be strongly evident within different skate parks Shannon and Werner observed in Canada. According to their findings, Shannon and Werner found that the presence of skate parks provided opportunities for different children to not only social interact with each other in a safe setting but also encouraged skateboarders to work together to teach and learning from each other.\textsuperscript{40}

\textit{Social Integration}

Urban public spaces also provide opportunities for social integration between residents of different ages, genders and backgrounds. In two different studies on community gardens, social integration proved to be very evident within gardens that were located within culturally diverse communities. Voicu and Been found community gardens provided opportunities for immigrants to teach and educate their children and neighbors on how to plant and grow food from their native country.\textsuperscript{41} Firth, May and Pearson also found that community gardens in the UK, attracted entire families to participate and encouraged residents to share their knowledge, and growing tips with neighbors.\textsuperscript{42} Even though these two studies proved social integration can occur within specific urban public spaces, their findings may be skewed because their observations were conducted within very multi-ethnic communities. The truth is, urban public spaces merely provide opportunities for social integration to occur, but can never fully force people to integrate with others if the desire and need isn’t there.

\section*{III. CONCLUSION}

The literature identified accessibility, comfort-ability and sociability, as the three common qualities successful urban public spaces possess. There is also a general agreement that the possession of these qualities proved to be highly influential in attracting a variety of users throughout the day and night. However, the literature did provide evidence of gaps in research and thus only provided limited answers to the questions explored within this review.

\begin{thebibliography}{99}
\bibitem{41} Voicu and Been, 270.
\bibitem{42} Firth, Maye, and Pearson, 565.
\end{thebibliography}
First, there were a limited amount of sources available regarding the relationship between a space’s level of accessibility and minorities. The literature only dove into how the accessibility of a space can influence specific groups of individuals, such as children, the elderly, pregnant women, mothers with strollers, and the blind. More research is needed in this area in order to adequately understand the definition of accessibility, and “design for all.”

Second, there were very few sources found in regards to the designing of urban public spaces, where the authors performed their own research in assessing how different design tactics or elements influenced social behavior. William H. Whyte’s 1980 study on social behavior within public spaces proved to be the most common source within the majority of the literature. Perhaps the parameters of this review’s topic should have been increased to better the chances of finding more non-literature review studies. With the addition of more research and personal observations of existing transformed residual spaces, this literature review will serve as inspiration for the conceptual design of a freeway underpass in San Jose. It is my hope that the findings found within this research will help provide a concrete understanding on the qualities and design characteristics the final design should possess.
## IV. ANNOTATED BIBLIOGRAPHY

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V. APPENDIX

a. List of On-Line Databases, Catalogs, and Keywords Searched

**Academic Search Premier:**
I searched various combinations of the following keywords: “design, urban regeneration, inner cities, public spaces, urban renewal, urban health, green infrastructure, safety, public art, and urban design elements, community.”

**eScholarship:**
I searched various combinations of the following keywords: “urban design, public space, urban design elements, safety, sense of community and public art.”

**Google Scholar:**
I searched various combinations of the following keywords: “sense of community, reclaiming city space, design transformations, meditation elements, parks and usage, aesthetics and urban greenways.”

**Sage Journals:**
I searched various combinations of the following keywords: “greenways, urban design, urban spaces, safety, parks and usage, and social behavior.”

**ScienceDirect.com:**
I searched various combinations of the following keywords: “social behavior, urban environment, health and nature, urban design elements, and urban parks.”
b. Summary Table of Literature Reviewed

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