

UNIVERSITY OF TEXAS AT SAN ANTONIO

Exploring San Antonio: Urban Design and Green Spaces

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The way that people interact with and perceive their environment is an important part of the development of individuals and societies. Throughout the history of human civilization, there has been a struggle between two seemingly opposite entities: pristine wilderness and human civilization (Cronon, 1996). People tend to view these as completely separate, but they are undeniably intertwined (Cronon, 1996). Therefore, living around a large amount of development and a limited amount of natural, undeveloped land can affect people in different ways. San Antonio is a large urban center. With its rapid growth rate and collection of profitable resources, San Antonio is now the second largest city in Texas and the seventh largest in the country (Caine, & Foote, 2017). When first introduced to this kind of environment, it can be overwhelming. The unavoidable traffic can be an annoyance, and the expansive development can be confusing. But the convenience of compacted, urban life can also be beneficial. San Antonio may be large and urban, but it also houses hills, grazing lands, and bodies of water that provide local resources. People can thrive in this kind of environment, as long as they are provided with certain outlets.

There have been many studies that support the fact that exposure to natural elements is critical to human health, both physical and psychological (Bratman, Hamilton, & Daily, 2012). Specifically when living in an urban area or high-rise residential complex, access to nature on a daily basis was found to be an important factor in the health and well-being of children and adults (Maller, Henderson-Wilson, & Townsend, 2009). People seem to crave “nature experiences”, or interactive experiences within an environment featuring plant and/or animal life ranging from parks to “pristine wilderness” (Bratman, Hamilton, & Daily, 2012). These experiences relax us, reducing inevitable stress the hustle and bustle of modern, urbanized

society creates. Although it is natural to want our own space and place to be outdoors and in nature, there are also ways to experience nature through public spaces in a more sustainable way than traditional suburban areas (Wates, 2013). This essay explores whether or not San Antonio, an expansive urban center with a powerhouse of natural resources, promotes the health of its ever-growing population and the surrounding environment.

For this paper, I researched the ways that the city of San Antonio is designed in terms of residential, transportation and natural/undeveloped areas. San Antonio is currently doing well with their use of the natural environment through their green spaces. After explaining a brief history and highlighting current spaces in San Antonio, I will suggest what future growth could benefit the city.

Brief History of San Antonio Development

Like most large cities, San Antonio has an intricate history of settlement, development, and resource use and exploitation. Human settlement is historically based on water resources, the ability to obtain fresh water for drinking, raising livestock, and food cultivation. This necessity attracted the early inhabitants of San Antonio to the Blue Hole. Fed by the underground source of the Edwards Aquifer, the Blue Hole used to be a gushing spring, the largest of San Antonio's springs, and is the head of the San Antonio River (Noonan Guerra, 1987). The area was used as a hunting and camping ground by "early Americans in prehistoric times" (Noonan Guerra, 1987). This abundant resource, as well as other nearby watersheds, continued to attract and inspire a population keen on development. As people took advantage of the surrounding environment, the city began to grow around the historic downtown center. Throughout the nineteenth and twentieth centuries, San Antonio increased in population and development as local technology advanced. Transportation methods traditionally limited urban growth and confined it to the

historic downtown area, but the inventions of the streetcar and then the automobile allowed for an increasing amount of sprawl through the construction of new highways, loops 1604 and I-410, and suburban residential areas (Caine, & Foote, 2017). The booming economy and creation of economic hotspots attracted a large and diverse population to the growing city. This growth of industrial and residential areas tends to take over the natural environment as it spreads. Although the Riverwalk and historic downtown area are still economic hotspots, permanent residential occupation in those areas is now lacking due to the amount of tourism and suburban development. San Antonio has a much lower population density than some cities similar in area (Hartsell, 2014). This lacking population density is the result of rapid outward expansion of the city through creation of jobs in areas that were miles from downtown, such as the Medical Center, UTSA campus, and USAA (Caine, & Foote, 2017). This “leapfrog” development increases sprawl, which cause rising suburban areas throughout the city, increasing transportation needs and related emissions, and a separating of residents from local resources such as the San Antonio River (Caine, & Foote, 2017).

This separation also lessens the likelihood that residents will be aware of the existence and state of resources that provide ecosystem services. Along with socioeconomic factors, driving distance was one of the main contributing factors to the awareness of and environmental concern for Salado Creek and Leon Creek, two watersheds in Bexar County (Brody, Highfield, & Alston, 2004). Therefore, distancing residents from natural areas and local resources can decrease available knowledge about said resources. Citizen’s environmental concern is critical to the sustainable use and protection of resources. San Antonio has a history of exploiting its environment. There is accumulated pollution in the form of litter and transportation emissions in many areas. There are also three federally designated Superfund sites in Bexar County as well as

the three current and three former contamination sites designated by the Texas Commission on Environmental Quality (TCEQ) as cleanup priorities. As the economy grew and industrial manufacturing flooded the area, pollutants also inundated certain areas. The sprawl of residential areas makes it easier for citizens to be ignorant of environmental issues that may not seem to have a direct impact on them or their families.

Urban Green Spaces

Although the physiological or psychological mechanisms are not fully agreed on by scholars, most theories “assert that contact with nature should induce positive affect, either through the replenishment of directed attention (and the relief and relaxation that this brings) or through the benefits of reduced stress” (Bratman, Hamilton, & Daily, 2012, p. 122). Therefore, proximity to urban greenspaces can help improve health in city residents. In accordance with this, “cities should ensure human communities have adequate access to nature” (Maller, Henderson-Wilson, & Townsend, 2009, p. 553). San Antonio boasts a variety of public greenspaces, including parks, nature trails, sanctuaries, and water features where citizens can enjoy nature experiences. One of them has become a major source of tourism and revenue, the San Antonio Riverwalk. It includes many restaurants and retail centers, attracting tourists and locals alike. The Riverwalk is also linked to other urban spaces that promote social and environmental awareness. That is, while researching the Pearl Brewery, I learned that the Riverwalk extends throughout more of the city than I had expected and features signs with historical information about the river’s use over the past few centuries. Along with access to the Riverwalk, the Pearl features retail shops, restaurants, learning centers, and outdoor public spaces including a plaza, park, and amphitheater. The Pearl, once a functioning brewery, promotes sustainable development in San Antonio as a repurposed, multiuse urban center. San

Antonio residents of all ages visit the Pearl, especially families and children who take advantage of the outdoor spaces for relaxation and play. This area provides a safe and healthy environment that can really benefit the development of children who live in the urban area in apartments or townhouses (Maller, Henderson-Wilson, & Townsend, 2009). The access to the San Antonio River also allows children to view and engage with natural elements in a controlled environment. Although adults must control and guide their experiences for safety reasons, “ecological theory suggests contact with nature is important for children’s mental, emotional, and social health because it encourages imagination and creativity, cognitive and intellectual development, and enhances social relationships” (Maller, Henderson-Wilson, & Townsend, 2009, p. 554).

The other end of the San Antonio River, contrastingly, features the Blue Hole and the Headwaters nature sanctuary. Set aside in 2008 for preservation and conservation, the Headwaters sanctuary is a historic area near the heart of San Antonio. Although it is surrounded by development and has most of the historical land sold to the university or the city, this area also supports reserving spaces through which San Antonio residents may access nature. During my visit to Headwaters at Incarnate Word, I learned much about its historic and spiritual significance to the community, but I also realized its underutilization. Although it is open to the public and features trails, picnic tables and religious artwork, the land is restricted for sanctuary uses and doesn’t seem to be popular or well-known among city residents despite being well-tended and supervised. If it were better utilized, Headwaters could be a significant source of “nature experiences” for students living in dorms and apartments in the area. The sanctuary also presents the opportunity for students and other San Antonio residents to learn about local resources and the natural form of the San Antonio River. Knowledge about local resources, as well as their proximity, has been found to increase environmental concern for certain watersheds

in San Antonio (Brody, Highfield, & Alston, 2004). Therefore, education should be an important focus for all public green spaces, and that is provided at Headwaters by the volunteers.

Another large, public space provided in San Antonio is the Leon Creek Trails. Spanning over 13 miles through San Antonio, the trails offer a safe environment for hiking, biking, and experiencing nature. Although it is not as much of an educational tool as the areas discussed above, the trails allow citizens to enjoy nature, witness natural processes, and become familiar with their local environment. Being able to engage in and witness natural processes is beneficial during development and adulthood, especially in urbanized areas where residents have limited opportunities for this (Maller, Henderson-Wilson, & Townsend, 2009). Although the area has many single-family housing units, the trails are a good outlet for students and other citizens living in apartments. It also provides a space for “apartment-dwelling pet owners” to take their animal companions out to walk and interact, “facilitating social capital” or the networks of relationships among people who live and work in a particular society, enabling that society to function effectively (Maller, Henderson-Wilson, & Townsend, 2009, p. 555). The trails have a wide range of entrances and trailheads. The portion I explored recently was accessible through entrances leading from nearby student housing apartments as well as a trailhead with a parking lot near UTSA. The accessibility and span of the trails make it a wide-reaching green space that is available for many San Antonio residents. It also is a feature that could attract future construction and occupation of multi-family complexes instead of single-family units in this area. This will support a higher population density, which is favored for sustainable development, while providing access to natural elements that are beneficial for health and well-being (Hartsell, 2014; Maller, Henderson-Wilson, & Townsend, 2009).

Future Growth and Conclusion

While the pressure to decrease sprawl and infill more sustainable development is timely and understandable, public greenspaces provide a way for people to access natural elements without having to live in single-family dwellings with individual yards (Hartsell, 2014; Wates, 2013). This kind of development can involve a variety of alternatives to traditional housing units, such as rooftop gardens, community lawns in a courtyard style within complexes, multiuse urban centers (like the Pearl) (Wates, 2013).

A future plan that keeps with this trend should consider developing a few more public green spaces in areas with limited access so that residents from all over the city are able to enjoy the benefits they provide (Hartsell, 2014). Although the spaces described above are successful in providing the beneficial elements of nature for San Antonio residents, there are areas that could use more access to green space. Compared to Istanbul, San Antonio was found to have less green space accessibility per quarter mile (Hartsell, 2014). Although, Istanbul has eleven times the population density per square mile that San Antonio does (Hartsell, 2014, p. 9). But, if they want to continue to offer a healthy and sustainable environment for citizens, San Antonio's developers and leaders will need to consider the growing population when planning housing, public spaces, and new businesses.

As far as suburban development is concerned, many San Antonio developers continue to leapfrog construction to acquire cheap, unused land (Caine & Foote, 2017). This is not considered sustainable when accounting for future growth. Although there has not been much of a proven or documented decline in ecosystem service values in Bexar County, there have been shifts in land use that will degrade natural resources over time (Kreuter, Harris, Matlock, & Lacey, 2001). But a focus on large urban infill projects like "The Pearl" can attract more residential structures to the historic downtown area and inspire more environmentally beneficial

development (Caine & Foote, 2017). Also, keeping residential areas close to local resources or even areas of environmental degradation can help promote awareness and environmental concern in citizens (Brody, Highfield, & Alston, 2004).

Although it does house many suburban areas and is predicted to increase in population over the next few years-decades (Caine & Foote, 2017), San Antonio seems to be promoting the health of its citizens and environment through access to public green spaces. If development continues in the form of repurposing of unused urban areas, limiting outward expansion, and developing green spaces with educational focuses, the city can thrive in a sustainable way.

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