Cultural Functions and Perceptions of Waller Creek Among the University of Texas at Austin Community

Maria Coronado
Graduate Student
School of Architecture
mc.coronadoc@utexas.edu

Lauren Tuttle
Graduate Student
Community and Regional Planning
School of Architecture
letuttle@gmail.com

Weijun Zhang
Graduate Student
Community and Regional Planning
School of Architecture
wjzhang@utexas.edu

Introduction

Waller Creek is a seven-mile urban creek that flows from north Austin, TX, southward through the University of Texas at Austin (UT) campus and the eastern edge of downtown Austin to Lady Bird Lake. Through the increasing urbanization of the Waller Creek watershed, the portion of Waller Creek which runs through the UT campus and downtown has become characterized by flooding, erosion, the presence of exotic invasive species, and litter. As a result, Waller Creek has become a degraded, stressed, thin, urban riparian ecosystem. Today this portion of Waller Creek, for the most part, is largely hidden by channelization and is surrounded by development which has not integrated the Creek into building and landscape design.

Three projects/plans currently exist which, when completed, are expected to revitalize Waller Creek’s ecological and physical integrity, presence, and value throughout the UT campus and downtown Austin. These projects/plans are the Waller Creek tunnel, the Waller Creek Conservancy sponsored Waller Creek design competition, and the UT Campus Master Plan. The re-design of Waller Creek is expected to reflect environmental and cultural aspects of the city of Austin, as well as ecological and cultural functions of green infrastructure. Although the re-design of Waller Creek is expected to increase engagement of downtown Austin and the UT campus with the creek, current popular perceptions about the cultural functions of Waller Creek are unknown. Therefore, the objective of this study is to identify the perceptions among members of the UT community about the cultural functions of Waller Creek. Data will be compiled from the answers to two questions:

1. What are the perceptions of Waller Creek among members of the UT community?
2. What are the spatial perceptions of Waller Creek among members of the
UT community, and what specific landscape or physical elements are identified as important for cultural uses of the creek?

This research was developed and conducted as part of the UT School of Architecture’s Spring 2013 course “Urban Ecological Infrastructure”, which was composed of architecture, community and regional planning, landscape architecture, and sustainable design graduate students; and aimed at exploring the different issues related to green infrastructure.

Cultural Functions and Social Benefits of Green Infrastructure:

Ahern’s abiotic, biotic and cultural (ABC) resource model, a widely accepted model for landscape planning, was first applied to articulate the key ecological and cultural functions of green urban infrastructure and how they contribute to sustainability.1 Cultural functions of green urban infrastructure, as defined by Ahern, include the direct experience of natural ecosystems, physical recreation, experience and interpretation of cultural history, a place for solitude and inspiration, opportunities for healthy social interactions, stimulus of artistic/abstract expression(s), and environmental education.2

Theories linking complex systems of people and nature (i.e., social-ecological systems) are well developed in resiliency research. Biological and social diversity are important and effective strategies in supporting urban resiliency. Cities with higher levels of economic and social diversity have a more complex response diversity, by which they are better positioned to adapt to change and socio-economic disturbance.3 By providing cultural services open to everyone, green infrastructure may promote social diversity, and therefore urban resiliency.

In high density urban areas, public space is essential for social interaction and community satisfaction. However, this public space must be of good quality (i.e., good accessibility, cleanliness, aesthetically pleasing and the presence of wildlife) to ensure that it does not become a haven for antisocial behavior.4 How individuals use a space may be affected by “the complex process of interpretation that people undertake when reviewing a space” or perceptions.5 Perceptions of a space need to be positive in order for the space to be functional and well used.6

The benefits of green infrastructure have been identified in several studies. Beck identified some social benefits of green spaces including: physical and mental health benefits from exercise and access to nature, saving money due to a free public service, educational services, adult personal development, and an improvement in general well-being, happiness and quality of life.7 Similarly, some other benefits like providing recreational opportunities, rendering aesthetic enjoyments, enhancing social ties and playing a role in developing a community identity have been attributed to green spaces.8 Additionally, in some cases, buildings located closer to greener areas have reported lower levels of crime despite the fact that the opposite association is most commonly thought of.9 It has also been demonstrated that social benefits of green spaces in dense urban areas go as far as helping people cope with poverty and life difficulties.10

Data Collection

To identify the perceptions among the UT community about the cultural functions Waller Creek provides, field and digital surveys were administered to UT students and staff. These surveys were used to identify 1) perceptions about the cultural functions of the creek, 2) activities people engage in related to the creek, and 3) the frequency of these
activities.

Field surveys were conducted with twelve students at four on-campus locations. In these surveys, students were also asked to complete one out of two mapping exercises. One was used to identify spatially where they perform activities along the creek (Figure 2), and the other to document their spatial perceptions of the creek (Figure 1).

Digital surveys were administered to students and staff who were specifically on the UT School of Architecture's soa-grad@utlists.utexas.edu e-mail list-serve; 35 responses were received to this survey. Digital survey respondents were not asked to complete a mapping exercise.

Findings

The surveys and mapping exercises allowed us to identify how Waller Creek is perceived among members of the UT community. Through the definition of a set of themes from the surveys and mapping exercises, our findings talk about the perceptions of the current state of the creek, as well as how it is seen by the respondents.

1. Positive and Negative Perceptions

We found that Waller Creek is perceived as having a dual character. From our surveys, we found that the recognition of the creek’s value among members of the UT community isn’t immediate, but is present. Respondents did not mention positive aspects when asked general questions about the creek at the beginning of the survey, but did mention them as the survey continued. For example, when respondents were asked how they would describe the creek to others, one quarter of the respondents in both surveys used adjectives such as beautiful, charming and inspirational to refer to the creek. These adjectives could convey the idea that the UT community does value the creek, and sees it as an asset for the university.
However, it was also evident that there is a perception that Waller Creek suffers from multiple problems. Negative responses were more frequent than positive responses. Neglect, underuse, lack of accessibility, pollution, and flooding were identified as problematic. All of these problems are interconnected and refer to both creek management and community lack of awareness.

2. Future of the Creek

The future of Waller Creek as part of the infrastructure of the city was highly recognized by the students in the School of Architecture and staff, but hardly mentioned by the students from other schools. This shows that there is a lack of awareness of this issue outside the School of Architecture. Also, it is surprising to find that the redevelopment of the creek in general, the downtown redevelopment project, and the tunnel project were frequently mentioned, but there was almost no mention of the UT Campus Master Plan. A different approach elicited discussions of the future of Waller Creek in terms of its potential and the opportunity it represents. These responses show that there is a certain attachment to the creek, and recognition of its value.

3. Natural features

The natural features of Waller Creek were highly valued among students. However, these features of the Creek weren’t mentioned often when describing it or referring to it. The students recognized that having nature on campus not only was something positive in itself, but also added value to the campus. Vegetation, wildlife, biodiversity and natural habitat were the primary features of Waller Creek noted by respondents.

4. Cultural Functions

Waller Creek is currently performing limited cultural functions for the UT community. The results show that Waller Creek’s cultural functions are neither highly identified, nor highly valued. They produced the lowest percentages of responses in most questions. The cultural functions that were mentioned are: the Creek in relation to activity and recreation; the creek used for educational purposes; the creek in terms of its history or in personal memories; and the creek and the homeless. We decided to place the latter as a cultural function since from the perspective of some respondents the creek is providing a service for this population. This issue is not currently present in the UT Campus area, but its recognition by the UT community points to its importance.

5. Location

When asked "What do you know about the creek?" and "How would you describe the creek?" many respondents described Waller Creek’s location, indicating that it may act as a landmark on the UT campus. Its location was highly identified in both field and digital surveys and mapping exercises. Despite the fact that the students in the field survey did not recognize the creek by name at first, they were aware of the creek as part of the campus, and later elaborated on the activities they performed by it.

However, Waller Creek does not appear to be perceived as a destination for students based on the fact that a majority of students stated that they mostly walk or bike by Waller Creek. Therefore, this may suggest that the creek mostly serves as a pathway between two destinations for students (Figure 2).
6. Sensory perceptions

A majority of respondents reported something sensory-related when asked about what they value about the creek. All sensory-related responses were positive. This may indicate that students perceive the creek as an aesthetically-pleasing and serene feature on campus.

7. No strong impression and limitations

We found a significant gap in the knowledge of Waller Creek between the respondents in digital and field surveys. In the digital survey, respondents were more knowledgeable about Waller Creek, while in the field survey, 100% of the respondents said they heard “nothing” or “not much” about the Waller Creek. Similarly, in when respondents were asked about their strongest impression of the creek, more respondents in the field survey said they had no strong impression of the creek compared to the digital survey respondents.

One explanation of this response difference between field and digital respondents is the way in which each group of respondents were selected to participate in this study. While respondents of the field survey were selected randomly on campus, respondents of the digital survey were mostly from the School of Architecture. Due to their coursework and the Waller Creek design competition, these respondents may personally have a greater knowledge and interest in Waller Creek. Additionally, the sample size of each survey was small and unequal. Therefore, due to these limitations, the results of the survey cannot be generalized for the entire UT student population.
Conclusions and Recommendations

From our findings it was possible to establish that Waller Creek is perceived as having a dual character. The creek is valued and perceived as positive, though not without problems. Perceptions of a space need to be positive in order for the space to be functional and well used. The answers of our respondents show the critical points to attack in order to break this dual perception. On the negative side, issues of pollution, accessibility, neglect, underuse, danger and crime were pointed out. On the positive side, aesthetic aspects, unique features of the creek and its value were mentioned. We believe that by raising awareness of the creek, some of the negative perceptions can be mitigated, as this could improve the protective capacity of Waller Creek. Protective capacity has been defined as the “level of resistance of a green space to disappear as a node in the ecological network, either by being replaced by built constructions or through complete ecological degradation.” This capacity is composed of civic, public and technical processes that are associated with particular green areas. Therefore, in order for Waller Creek to persist, the creek really has to become part of the campus life. However, as we proved with the study, currently there is no awareness of the Campus Master Plan among the student community.

One of the most important findings of our study was that the creek currently acts like a path inside the campus, and it is not performing many other cultural functions apart from this. However, it was recognized by a few respondents that the creek serves as an educational facility, as a cultural amenity, and as part of both their personal history and the history of the city. We believe that by turning the creek into a destination, and not just a path, the creek’s image could be improved inside the campus. This would help develop the potential of the creek, and generate a set of cultural functions that align to the campus activities. For example, just by increasing the accessibility to the creek, spaces of study and contemplation in and of nature could be created. One of the descriptions of the creek that was found repeatedly was that the creek acted as an urban oasis: a space providing tranquility inside a stressful environment. Also, the creek provides opportunities for educational activities. Currently, it is been used by some classes to take samples or as design setting in a sort of informal way, but it could become a more official setting to these types of activities.

Natural elements of the creek were what respondents valued the most about the creek. These elements produced attachment to the creek and were part of most positive perceptions of it. We believe that any redevelopment or changes to the creek will have to preserve these natural features. In fact, they could be the key to increase the positive perceptions of Waller Creek. For that reason, it is important that the University makes an effort to manage the creek to control the pollution issues that are degrading it, and engages the UT community in its preservation.

Reference

2. Ibid.
6. Ibid.
13. Ibid.