

A Research Approach for Urban Places: Exploring the Behavioral Aspects of a City Plaza

Aliaa Elabd, Alfaisal University, Riyadh, Saudi Arabia
George Hallowell, North Carolina State University, USA

Abstract: This paper develops and explores a methodological approach for the empirical assessment of small complex urban spaces. The overall objective is to contribute to a growing body of evidence about successful elements of urban plaza design. Our approach includes multiple techniques to quantify the patterns of behavior in a recently developed urban square in Raleigh, NC. The research methods include: behavior mapping, path tracing, time-lapse videography, documentation and photography, open-ended interviews, and an online survey. The primary goals are to understand the behavioral aspects of the new plaza and assess the results of the design choices; to explore how the formal and spatial characteristics of the plaza might accommodate a large crowd and a wide range of uses and events; and to assess the capability of this research approach to capture small scale ephemeral aspects of the behavioral patterns in the plaza. Many of our findings corresponded well with Whyte's study—including the differing patterns of behavior between men and women, and the need for additional seating and retail/food offerings. We also found unintended behavior patterns resulting from certain temporary design elements. Our research approach allowed the assessment of long-term ephemeral behavior, such as the impact on pedestrian flow due to a major street subdividing the plaza.

Keywords: City Plaza, Behavioral Mapping, Physical Affordance, Perception

Introduction

With the seminal works of Whyte (1980), Appleyard (1981), and Cooper Marcus (1990, 18-62), a growing body of evidence has developed concerning the successful elements of urban plaza design, as well as various efficacious methodologies to examine and measure these spatial and physical features. The principal goal of this study was to add to this body of knowledge by developing and testing an overlapping toolkit of methodologies capable of investigating a small, complex plaza in downtown Raleigh, NC. Previous researchers have employed interviews or questionnaires to investigate user perceptions, and then used physical mapping to compare perceptions with actual behavior patterns. However, earlier studies have often been asynchronous and non-repeatable. Our selected case study plaza required the fine detail necessary for synchronous mapping of individual actors in stationary positions as well as broad-scale movement patterns throughout the plaza and adjoining streets—all within the same time period. Indeed, this study was focused on understanding the delicate dance between the physical and spatial aspects of the plaza and the attitudes and behaviors of its users. Our methodological 'toolkit' had to be capable of a rigorous and reliable assessment of both actions and opinions of a wide-variety of users during the course of a day, as well as over the length of a year or longer. Our goal was also to develop a triangulated methodological approach, such that data from one methodology could be measured and compared synchronically with data from other techniques. A further objective of this study was to establish a baseline for future research within the selected case study plaza, as well as a wide array of other public open spaces. City Plaza in downtown Raleigh was selected as a single case study (Yin 2009, 46) partially in response to its unique character as a new, small public place bisected by the original 'main street' of the capital city of North Carolina.

City Plaza has existed in its present form since October 2009. The plaza sits astride the Fayetteville Street, between Cabarrus Street and Davie Street. It is important for an understanding of the plaza, that it is considered in the context of the adjoining blocks of Fayetteville, since this street was, and remains, Raleigh's main street and premier address. It began as the most important shopping and ceremonial street in the city – it was truly a 'Main