

SUSTAINABLE DESIGN ELEMENTS FOR URBAN STREET MICROARCHITECTURE IN MALAYSIA

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ABSTRACT

Streets microarchitecture constructs are compact structures such as stalls, kiosks, phone booths, and toilets that one finds as one walks on the streets, alleys, walkways, pedestrian malls and such. Because of its smallness, they are usually seen to be unimportant in the development of townships and cities. In this paper a series of street investigation of human behaviour within the retail built environment projected a unique result on how formal and informal street space is cultured. Jacobs (1993) stated a great street should have characters; therefore, this event can bond a specific street identity within and would become a tourism product besides the daily retail activity. Microarchitecture, however, actually gives the first real impression of a town, city or country to visitors to a particular place or locale. Its impact is immediate and opinions are formed of the place and its people quite instantaneously. A lot of street microarchitecture are public amenities such as toilets and squares. Base on current phenomenology research studied, it gives a better justification on sustainable elements approach on street microarchitecture in Malaysia. Thus, in this research and practise base paper, it is imperative to study and understand its functions, aesthetics and design elements so that a sustainable architectural plan and street identity can be developed for the comfort of locals and visitors alike.

Keywords: Urban, Street Microarchitecture, Design Elements, Sustainable

1. INTRODUCTION

In her efforts towards becoming a first world nation, the Malaysian government has set aside huge investments in the construction sector. This sector plays a significant role in the country's economy. In the built environment, there exists an important subsector, i.e. microarchitecture. The existence of microarchitecture, especially in urbanized areas, affects the country's development in many important ways. Microarchitecture refers to small or mini buildings found along the roads and in urban areas such as corner shops, recreational parks, public squares, specific facilities including overhead bridges, car parks, kiosks, pedestrian walkways and others. The role and uniqueness of street architecture is not usually understood by local inhabitants. Microarchitecture undertaken in the country's building projects needs to be given serious consideration to ensure that the ideas of the country's environmental development is accepted by all levels of society. Jacobs (1993) stated a great street should have characters; therefore, this event can bond a specific street identity within and would become a tourism product besides the daily retail activity.

1.1 Streets, Paths and Microarchitecture

Mental images of microarchitecture could bring about a harmonic balance between dwellers and their surroundings (Lynch, 1960). The urban image is a mental map that is formed which includes two physical elements or activities of a place or city. Image clarity depends on the legibility of the city itself. The existence of mini architecture in the city could actually assist in the orientation of a person's movement. The five city elements classified by Lynch are *paths, districts, edges, landmarks* and *nodes*. As a result, clear images allow a person to move about easily.

“Every citizen has had long associations with some part of the city, and his image is soaked in memories and meanings.”

The locations of street microarchitecture could have a strong impact on society. Therefore, its placement and construction needs are always sensitive to current requirements. To develop a responsive surrounding, another approach is needed. Lynch introduced an approach related to the legibility of the city image. Bentley et al. (1985) in *‘Responsive Environment’*, on the other hand, emphasized that the physical design aspects have to be attractive. Bentley et al. put forth seven types of responsive environment. They are *permeability, variety, legibility, robustness, visual appropriateness, richness* and *personalization*.

An earlier research by Azimin et al. (2007) tries to ensure that a facility and the microarchitecture are responsive towards the surroundings as well as to meet the community’s requirements. The research finds that an effective street microarchitecture needs to include three important elements, namely, the cultural factor, event and authority (See Figure 1).

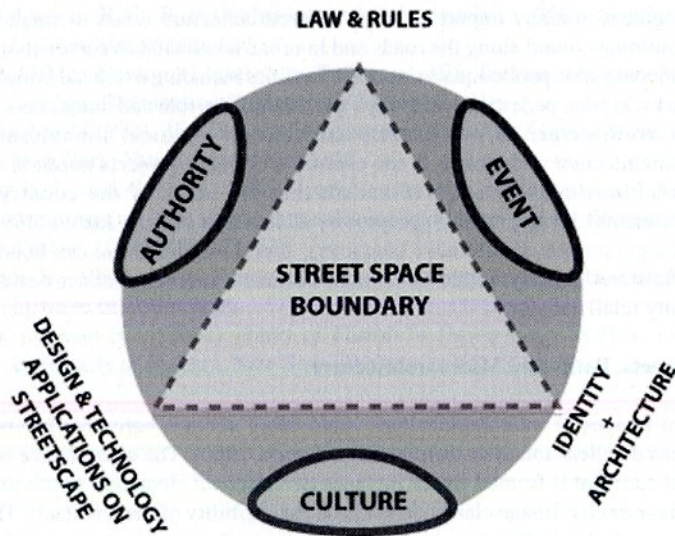


Figure 1: Elements of street microarchitecture theoretical framework. (Source: Azimin et al., 2005).

An example of a present-day street microarchitecture is the phenomenon of *mamak foodstalls*. These stalls operate along five-foot walkways of many buildings in Malaysia. Their operation hours are from five in the afternoon till the wee hours of the morning. The eating space initially is small but gradually increases in size when more customers start coming in. At peak hours, the operators will place more tables and chairs in areas that are prohibited by authorities such as on walkways and road edges.

Hence, it is clear that the ‘event’ causes the increase in eating space demand. The ‘event’ is created by the ‘culture’ of the locals who enjoy dining out in the open until late at night. Nevertheless, the ‘event’ is still tied to the limits of the ‘authorities’ as there exists proper zoning to the designated commercial areas although there are no specific boundary that demarcates the private and the public areas.

1.2 Streets: The Beginnings of Microarchitecture

Any classification of the street begins with the Vitruvius ideology that uses different background leagues in staging. There are three types of backgrounds: *tragic, comic* and *satiric*. Each background has a different specification from the other. According to Serlio (1982), the *tragic* background has specifications of classical architecture. It is strengthened by the usage of columns, pediments, statues, and other mini elements that are related to aristocracy and royalty. The *comic* background is influenced by Gothic architecture. It reflects the image of a town or a city or places that have balconies or windows that are arranged according to a pattern. Lastly, the *satiric* background has elements of a suburban landscape (See Figure 2). It is decorated with trees, caves, hills and other factors that enhance the landscape elements.

Until today, microarchitecture has not been viewed within the context of urbanization. Some architects and designers design microarchitecture only as a by-product and it is always tied to cost. In addition, local authorities such as the City Council tend to develop microarchitecture solely on function, whereas the architecture has the potential to manage social issues, local climate, and the look of the city as well as the identity of the surrounding areas. The same goes with microarchitecture found along the roads and in public areas around the city. To produce an effective microarchitecture, an in-depth understanding of the city’s image is vital. It will assist a person in appreciating the role of pathways and public areas better and give a better overall impression of the city (See Figure 3).

