Experiencing Space Through Circulation

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Introduction

A bridge functions normally as a linkage or connecting structure from one point to the other. The success of a bridge structure can be evaluated from its structural stability, aesthetic quality and function as connecting structure. An additional aspect that may be considered in evaluating the success of a bridge is the experience that the bridge may offer for its users. The journey between the two points that the bridge offers can become a memorable and exciting moment depending on the circulation design of the bridge.

Background

It is quite common to connect two separated points in a space by using a bridge especially when two points are separated with obstacles such as unsafe and uneven condition of the ground, heavy traffics or just to provide direct and safer travelling mode. It is a type of horizontal circulation provided to ease the journey between the two points. An added value can be injected to the travelling experience using this type of circulation mode. Rather than just providing a linkage or circulation, a new concept of bridge design that provides additional experience while travelling using a bridge needs to be developed. According to Ching (2009), circulation is a movement in space for a person to experience the space, structure, building and the environment. It is how the user approaches, moves and explores spaces inside a building or structure. A good circulation allows the users to experience the building and spaces better.

A circulation for a bridge may look simple as it provides a very straightforward connection between two points. It is the designer s task to make it more memorable. According to Okazaki (1979), there is a specific pattern of pedestrian travelling in an architectural space in which pedestrian will be sidetracked by an attraction instead of trying to achieve the goal which is their final destination. Referring to this, providing an attraction along the journey on a bridge may create better experience. In designing a bridge, the idea may come from various aspects. As stated by Kido (1997), the design of a bridge in Japan can be categorized as landscape-oriented, structure-oriented, preservation-oriented, thematic, and symbolic concept. These concept and ideas can be applied by the students in designing the circulation path in the Foot Bridge project.

Project brief

Several locations in University Putra Malaysia (UPM) campus have been identified as main connecting points from one side to the other. A footbridge is needed to improve the connection between the two points by providing a safer circulation or crossway between the points. Instead of just providing a linkage between the two points, the students need to inject an exciting experience while moving along the bridge. The students are required to consider the transition to and from the ground to the bridge, its structure and aesthetic quality. The project is intended to combine the technical with the artistic aspects in a structure not only in its appearance but also in the travelling experiences.

The selected projects show various design solutions and approaches to a common problem.

Volumetric Footway

(Ahmad Amirul bin Abu Bakar)

A footway designed by Amirul connects

the area of students' residences of College 10 and 11 of UPM to the Engineering Faculty. A quicker transition is one of the criteria that needs to be incorporated in the design by Amirul and therefore a straightforward circulation is a solution to expedite the transition. To bring an attraction to the journey, Amirul introduced various volumetric spaces with changing heights of roof structure along the footway. The tilting of walls and roofs at various angles against the straight and flat pathway provides the feeling of being in an active and dynamic environment. These design applications also allow the introduction of lights at various points along the journey which creates a beautiful play of shadows and light. It is constantly changing during the day which brings additional mode of dynamism in the experience. The movement, even though simple, is full of exciting experiences through the introduction of various volumetric spaces and plays of lights. To experience this one has to move along the circulation as noted by Ching (2009) in his book. (Figure 1)

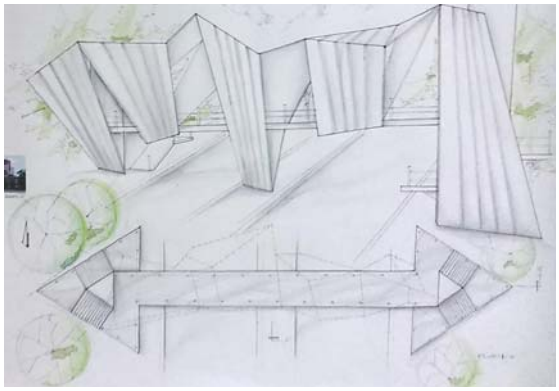


Figure 1 : Volumetric Footway

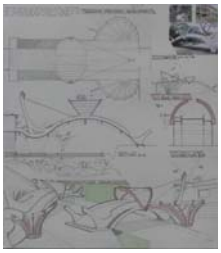
Activated Footway

(Mohd Khilmie bin Abdul Hakim)

In designing the footway, Khilmie felt that a straight flight can be mundane. A regular usage of the footway by the student may not excite the student as no attraction occurred along the journey. In finding the solution to the problem, he decided to "zig-zag"ging the pathway to create various focal points at each of the turns. A huge pillar is placed at each turn of the "zig-zag" and this pillar is intended to be used as an advertisement board, display panels of artworks or information kiosk in order to create interesting activities along the way. A small stage is also provided for live performances by students. The circulation designed exudes various experiences at different turns along the pathway. The approach to Khilmie s design solution is more focused on the social needs and student s lifestyles of a which is another way of resolving a design problem. In the design, he had successfully created spaces that can become attractions as suggested by Okazaki (1979). (Figure 2)

Figure 2 : Activated Footway

Structurally Majestic.
(Muhammad Firdaus bin Mustaffa)
Located at the entrance of UPM, Firdaus envisioned the footway that he was going to design, to be a landmark to welcome students and visitors besides providing a linkage between the Faculty of Modern Language and Academic Center. In developing the design, he used the environment-oriented approach by taking the characters of the surrounding to derive his ideas from. The majestic matured trees along the main road elegantly provide shades to the area which creates a pleasant ambiance. Extending the ideas of shading by providing big structures was thought to be suitable as it would enhance the pleasantness of the area and yet provide a structure that can become a landmark to welcome people to UPM. The experience and the process of approaching and passing through the footway can be memorable especially to the new students and visitors. (Figure 3)



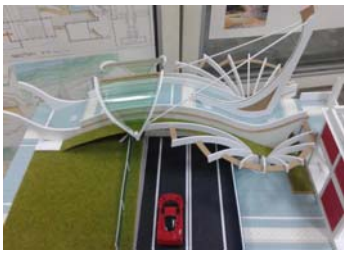


Figure 3 : Structurally Majestic

Conclusion
Circulation is designed to enhance the experience of moving through spaces besides connecting between one space to the other. The project selected exhibits with a variation of approaches and applications in adding the experience along the circulation. The projects are successful as they had considered the site influences and managed to provide attraction along the journey as pointed out by Okazaki (1979); circulation that can enhance the travelling experiences.

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