The effects of the museum environment on visitors’ experience

Introduction

- Scarcely importance has been given to the effect that the museum’s environment has on visitor behavior.
- Studies done at most museums (commercial environments) show that a combination of different environmental factors such as colors, lighting, et al. influence attitudes and responses of buyers. These ideas were applied by Regan Forrest (2014) to culture centers.
- Forrest’s methodological proposal was to directly evaluate the environment of five halls of a university Science Museum in Mexico.

Study aims

- This study explores the way visitors perceive the different environments of UniverSUM, the Science Museum of the National University of Mexico.
- The study considers that the visitor’s experience has affective, cognitive and cultural components.

A pilot study

- A pilot study was first applied using a semantic differential instrument.
- It was carried out using 22 environment descriptions that were grouped in three main environmental dimensions: Vibrancy, Spatiality and Order (as proposed by Forrest).
- The outcome of this exercise was the definition of 15 semantic differentials that describe Vibrancy and Spatiality as shown in table 1 (following Forrest’s guidelines, the Order dimension was eliminated).

Application of the methodology

- The final instance of this study was applied by two previously trained university students to 150 visitors along two months.
- The following procedures were carried out:
- The evaluation instrument was applied to 150 visitors of each of the selected museum halls. At the end, a total of 150 interviews were obtained.
- The first part of the instrument has a qualitative approach focused on the demographic data of the surveyed visitors.
- The second section of the instrument is a semantic differential with 15 different descriptions for the two above-mentioned dimensions: Vibrancy and Spatiality.
- The semantic-differential scale is composed of a series of descriptive characteristics with their corresponding opposite, ranging from 1 to 7, where 1 stands for the positive qualification, 4 is for the neutral, and 7 for the negative one. Of these descriptions, 10 refer to Vibrancy and 5 to Spatiality, for each of the museum halls studied.

Results

- Databases were created for each of the five halls.
- With the systematized data, Vibrancy and Spatiality spatially were evaluated and measured for each hall.
- The average values of the descriptions were also obtained for each hall and located in the quadrants provided by Forrest.
- The meaning of each quadrant resulting from the analytics for Vibrancy and Spatiality is of paramount importance to interpret the results obtained.
- When the descriptors of the hall are located in the upper left quadrant, there is a perception of High Vibrancy and High Spatiality, which shows that the visitor is cognitively and emotionally involved with the exhibition.

Conclusions

1. Visitors are able to describe the atmosphere in the exhibition environment according to the variables proposed by Forrest.
2. The perceived atmosphere in the studied museum halls is very different, described by two dimensions: Vibrancy and Spatiality.
3. Vibrancy is described by variables that detail the upper end of the spectrum and characterize the design of the exhibition space, whereas Spatiality comments on the perception of the exhibition space, including the perception of the gallery size and the height of the ceiling.
4. According to Forrest, these two dimensions are very useful to characterize the exhibition environment and to relate specific aspects of the perceived atmosphere with the visitor’s experience.
5. It should be mentioned that according to Forrest’s work in particular the Spatiality measure offered the best correlation with the space perception, such as the gallery size and the height of the ceiling.
6. It is clear that the instrument can be used to characterize the museum environment in a novel and simple way by allowing different environments to be compared according to how visitors perceive them.

Whereas in the upper left quadrant, the visitor experiences high vibrancy and low Spatiality, and as a result, perceives tension in his visit. In the lower right quadrant, the visitor perceives a high quality with a moderate to low Vibrancy, which is possibly perceived as a restorative space. In the lower left quadrant, with low Vibrancy and low Spatiality, the environment generates a disconnection with the visitor or produces boredom.

According to the placing of the halls in each of the quadrants, is possible to detect if the hall’s environment generates cognitive or affective gains according to a previous study applied by Forrest.