

## **Mysterious Ambience in Museum and Its Effects to Visitor**

Aanisah Ayu Wulandari<sup>1</sup>, Muhammad Galieh Gunagama<sup>2</sup>

<sup>1,2</sup> Architecture Department, Islamic University of Indonesia

<sup>1</sup>E-mail: 17512081@students.uui.ac.id

**ABSTRACT:** *Each space has elements which usually determine the function of the space. In space there are also elements that are not visible but can be accepted by the senses, this is usually called ambience, atmosphere, experience, or feeling. When users enter a space, the first thing they feel is the perception of the space, which is basically influenced by the atmosphere of the space. These elements can influence user behavior and emotions. A museum is one of those places that requires the right ambience according to the type of museum and its collections. A museum that has a function as an instrument of knowledge needs to be able to foster a sense of curiosity for visitors. So that visitors have an interest in learning and are ready to receive new knowledge from the museum. This paper is intended to prove the hypothesis that museums should have a mysterious ambience considering how it affects visitor behavior.*

**Keywords:** ambience; mysterious atmosphere; human behavior; museum

### **INTRODUCTION**

When someone is in a room, what they feel comes from the ambience and atmosphere of the room. Lighting, interiors, room dimensions, smells, sounds, are factors that form the ambience of a room. The experience and feelings of the room user can be determined by the designer of the room, whether the designer intends to provide a comfortable, tense, curiosity, or cheerful feel, can be controlled through space design.

Architects and designers in designing a space can refer to the goals they want to achieve through that space. The space ambience and user's experience are the biggest factors in how space is designed. The psychological condition of users that can be formed through space design has become a matter of concern for designers. However, although designers agree that user experience is an important factor in spatial design, this has not been explored much in depth. How space interacts with humans and how humans accept these interactions that produce behavior in humans.

The museum basically functions as a place where important collections such as historical collections and art are stored, cared for, and exhibited to the public for either educational or publication purposes. Museums have a very important role because of their role of collecting, researching, conserving and exhibiting works of art, historical items, or the results of scientific research in other fields such as science. Therefore, museums have an important role for academics and cultural observers. Collections that are conserved and arranged in museums are a bridge of knowledge for the general public. Knowing what happened in the past through historical museums, expanding knowledge about science, and delivering messages through works of art, museums have an important role in the development of human existence.

The ambience in the museum creates a certain nuance for visitors who can further explore the collection not only through visuals but also through other senses. Elements in design and environment influence the museum atmosphere which can provide an

experience for users. Through visual design, it gives users a perception about the space in the museum.

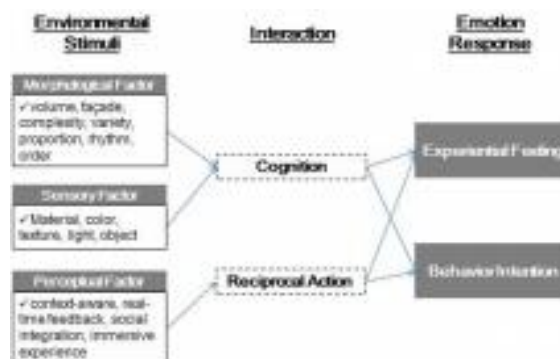
A sense of mystery gives off a secret impression, like something that's hidden and waiting to be discovered or discovered by someone. The puzzles that are given give a sense of curiosity and desire to solve problems or find something new. In the process of opening up the hidden things, people will feel many things, are afraid of what the things cannot be predicted, and are excited to find out what is hidden. It is exactly like a visitor entering a museum to gain new knowledge that they had never imagined before. That is why mysterious ambience plays an important role in the formation of space in the museum.

Every visitor who comes will expect to see and learn new things. Curiosity and curiosity will appear before they enter the museum. Therefore a mysterious atmosphere will be needed in a museum. An atmosphere that will sharpen the curiosity and curiosity of visitors who come.

### LITERATURE REVIEW

According to Lehtinen in her article, we make judgments about the environment based on our perceptions through sensory senses. This perception occurs very quickly; what we see is listed in 25 milliseconds, what we hear in 0.01 milliseconds, and what we touch in 5 milliseconds. It is also indicated that humans 'read' the environment in the same way as 'read' other people's facial expressions and body language.

The environment that humans 'read' will greatly affect how they feel when they are in that environment. This has an impact on our behavior and how others respond to that behavior.



**Fig 1** Conceptual Framework for Emotion in Architectural Space

Source : Cho (2017)

These aspects of space that influence human feelings and behavior are studied in architectural psychology and neuroscience. There is a lot of helpful research into how humans perceive space and how to measure it in neuroscience (Lehtinen, 2020).

According to Myung Eun Cho in her paper, The method he uses in measuring ambience is by making direct observations in the field. He studies human emotions which are the relationship of human psychology and physiology. Different domains focus on different emotional phenomena (Laurans et al. 2012). Myung Eun Cho is interested in the definition of emotion proposed by psychologists, in which emotion is considered as a process of changes in different components rather than a homogeneous state (Scherer, 2001). In general, emotions can be categorized from two perspectives based on how

humans conceptualize and how these emotional states are described: discrete and dimensional (Mauss and Robinson, 2009).

Each emotion is associated with a particular pattern of expression (Ekman, 1994; Mauss and Robinson, 2009). For example, anger is accompanied by a fixed stare, contracted eyebrows, compressed lips, brisk movements, and a raised voice (Desmet, 2004). Emotional states can be linked to action dispositions (Frijda, 1986).

When users experience a building or a space, they may respond to the architect's design intention emotionally. Architects try to express their message in the space while users can perceive the space and obtain their own experiences of it. Emotional expression can be driven by architects as a one-way conduit to users. There are two general approaches to users' perception of architectural space. One is to examine the visual composition of buildings—such as volume and façade—associated with people's response and experience (Lang, 1988). Morphological features reflect the idea of order and variables, such as complexity, proportion, and rhythm. (Nasar, 1997).

People respond emotionally to stimuli or situations in various ways, not just one fixed way; thus, there is no one standard method for the measurement of emotions. Three main components of emotional response can be categorized: experiential response, physiological response, and behavior response. This research deals primarily with two components, experiential response and behavior response, since they are more accessible and practical measurements that can be applied for user emotion and experience in architectural spaces (Cho, Kim, 2017).

## **METHODOLOGY**

In this study, a quantitative method in the form of a field survey will be applied. By conducting a survey to two different museums in Semarang, the researcher will conduct field observations. Questionnaires will be distributed to visitors with ages ranging from 14 to 29 years, to find out what they felt during their visit to the museums, and how it was affected. Questionnaire questions are in the form of questions by filling in the agree / disagree scores at 1-5 intervals based on how they feel.

The museums that will be the survey locations are the Lawang Sewu Museum and the Contemporary Art Museum. With two museums that have characters, building styles, years built, and different collections, it will provide more valid results to reach the answer whether mysterious ambience is the basic ambience in the museum.

By comparing the feelings felt by visitors when they are in the museum or in the museum environment, comparing the designs visually, and other elements such as lights, volume, proportion, context, and experience that affect the ambience of the two museums. Based on reference to literature theory, the survey results can provide conclusions on whether the museum has mysterious ambience.

## **RESULT AND DISCUSSION**

### **a. Museum Studies**

Lawang Sewu Museum is one of the oldest buildings in Semarang. Originally established to function as a train station in the Dutch colonial period, that's why the style of this building is thick with European nuances. The Lawang Sewu building in its construction used the Transitional Architectural Style (1890-1915), which is an architectural style

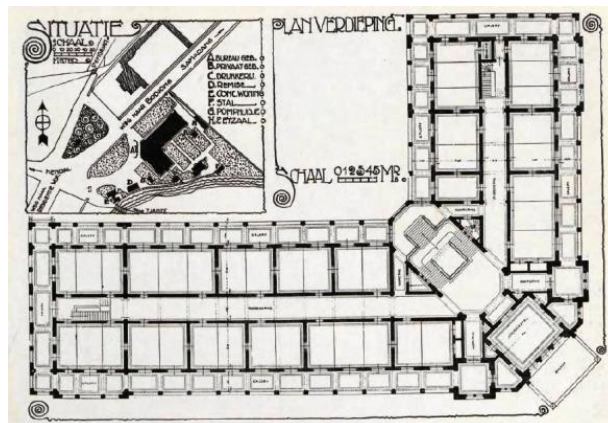
that developed in the Dutch East Indies which lasted briefly from the end of the 19th century to the beginning of the 20th century. The main materials used were brick and wood, concrete and wood, used for structures, as well as glass for windows.



**Fig 2** Lawang Sewu Outdoor Hallway

Source : [www.seva.id](http://www.seva.id)

Lawang Sewu is actually a complex consisting of several buildings. The spaces in each building are lined up in a linear double bank, and are connected by a long hallway in the middle that divides the building into two symmetrically.



**Fig 3** Lawang Sewu Main Building Floor Plan

Source : [jejakkolonial.blogspot.com](http://jejakkolonial.blogspot.com)



**Fig 4** Lawang Sewu Exhibition Hall

Source : Author

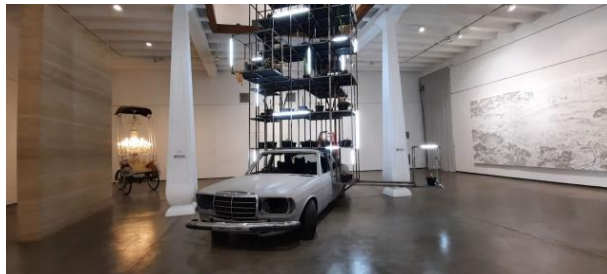
In 2011 Lawang Sewu was functioned as a museum, with a collection of items used during Lawang Sewu as a station during the Dutch colonial period.



**Fig 5** Lawang Sewu Exhibition Hall

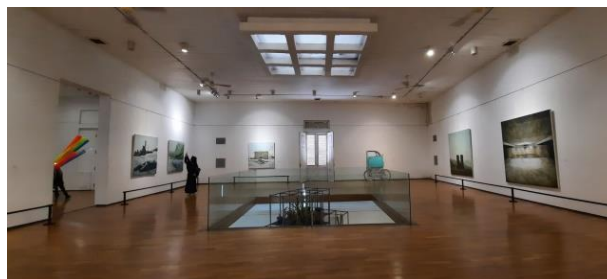
Source : [thetravelearn.com](http://thetravelearn.com)

We could say the Semarang Art Contemporary Gallery is the only modern art museum in Semarang. As the name suggests, this museum collects a wide variety of contemporary artworks, from paintings to installations. Located in the old town area, this building is one of the old buildings that has been reused with the adaptive reuse concept. Initially built, this building has a Spanish colonial style, then reprocessed with a modern architectural approach. Basically, this museum applies the concept of open plan layout. There is a void in the middle of the room connecting the first and second floors. On the 1st floor using exposed cement as ground cover, and on the second floor using parquet. These two different things provide contrasting nuances between the two floors.



**Fig 6** Semarang Contemporary Art Museum  
Exhibition Hall 1st Floor

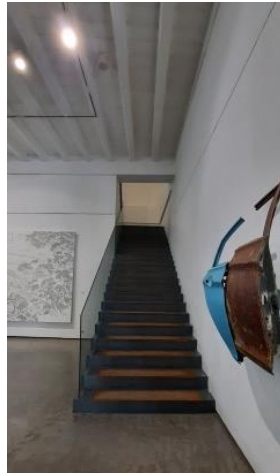
Source : Author



**Fig 7** Semarang Contemporary Art Museum  
Exhibition Hall 2nd Floor

Source : Author

The vertical connection in this building is a ladder. The design of this staircase itself gives the impression that it leads to an 'unknown' place so that it gives visitors curiosity.



**Fig 8** Semarang Contemporary  
 Art Museum Stairs  
 Source : Author

**b. Environmental Stimuli**

Based on literature review, human feelings can be influenced by architectural aspects of a building. At this stage, visitors were asked seven questions about how much impact the architectural aspects of a museum would have on their curiosity and interest.

**Table 1** Result of Environmental Stimuli

Design Features	Lawang Sewu (Mean)	Semarang Contemporary Art (Mean)
Space Volume	3,9	4,3
Lighting	3,9	4
Color	4,3	4,4
Material	4,3	3,3
Style	4,6	4,5
History	4,4	3,3
Object	4,1	4,1

Source : Cho (2017)

The average figure in the table shows that both museums with classic and modern architectural styles give visitors a sense of curiosity. But still, different designs provide different measures of impact on the emotions felt by users. In this case the Lawang Sewu Museum creates a greater sense of curiosity than the Semarang Contemporary Art Museum.

The aspect that most influences the curiosity of visitors in the two museums is the style of the building, with a value of 4.6 for the Lawang Sewu Museum and 4.5 for the Semarang Contemporary Art Museum. It can be seen from the data that Lawang Sewu

with its classic design and its history has a more mysterious atmosphere than the Semarang Contemporary Art Gallery.

**c. Experiential Feeling**

At this stage, visitors are asked to answer questions by giving a score of 1-5 based on what they feel as a response to the space in the museum.

**Table 2** Result of Experiential Feeling

Measurement	Lawang Sewu (Mean)	Semarang Contemporary Art (Mean)
I had expectations when I visited this museum	3,9	4,3
I was attracted to the atmosphere of the room in the museum	3,9	4
Each room has a different character so that it has its own charm	4,3	4,4
While in the room, I was curious about the next room	4,3	3,3
The hallway / connection between rooms affects my curiosity about the next room	4,6	4,5

Source : Cho (2017)

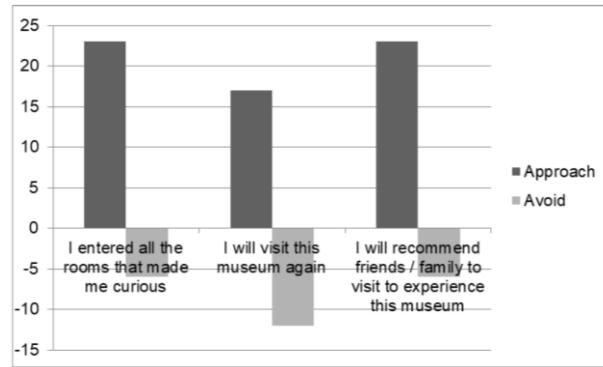
It can be seen from the data in the table that the hallway and connecting spaces increase the visitor's curiosity about the next room which has the highest value among other responses. This proves how important the design of a hallway or connecting space is given the great impact on the feelings of visitors.

It can be seen from the data, at the point 'while in the room, I was curious about the next room' Lawang Sewu which has a linear plan with a hallway and a room in the form of banks which has a higher mysterious ambience than the Semarang Contemporary Art Gallery which has a spatial arrangement in the form of an open plan. It appears that the mysterious aspect of ambience influences visitor behavior by creating curiosity and attracting them to find out more.

**d. Behavioral Intention**

In this case, to assess the behavioral intention of visitors, they were given a statement and asked to give a score for 'approaching' or 'avoiding'. The approach avoidance items of Russell and Mehrabian (Russell and Mehrabian, 1978) were used in order to identify the participants' behavioral responses.





**Fig 9** Result of Behavioral Intention

Source : Cho (2017)

From the data, it can be seen that the ambience of a room can influence user behavior. In the point 'I enter all rooms that made me curious' it can be seen that 23 out of 29 respondents chose 'approach'. This proves how important the mysterious ambience is to attract the curiosity of museum visitors and enjoy learning more about the museum collection.

The experience of visitors also influences their behavior in recommending the museum or place they visit. It can be seen in the point 'I will recommend friends / family to visit to experience this museum' 23 out of 29 respondents chose 'approach'. Here it is evident that architects need to pay attention to the ambience of a room that will provide a certain experience for visitors and provide a separate memory when visitors are in the museum.

## CONCLUSION

A museum which has a role as a means of education should be loved by many people, especially young people, but the message to be conveyed to visitors is often not achieved so that visitors do not feel the experience expected from a museum. This influences the visitor's attitude towards their impression of the museum. The museum's mysterious ambience has a big role in the experience visitors will receive. With the mysterious ambience of a room, visitors will feel curious and interested in what they will find in the next room, so that their travel experience while inside the museum becomes more memorable. Through this research, it can be concluded that having a mysterious atmosphere from a room in the museum is important for architects to pay attention to.

## REFERENCES

### Article Journal

- Cho, M.U. . Kim, M.J, (2017). Measurement of User Emotion and Experience in Interaction With Space . *Journal of Asian Architecture and Building Engineering*, 16:1, 99-106, DOI: 10.3130/jaabe.16.99
- Desmet, P., Ed. (2004). *Measuring emotion: development and application of an instrument to measure emotional responses to products*. Funology. Norwell, MA, USA, Kluwer Academic Publishers.



- Ekman, P., Ed. (1994). *All Emotions are Basic. The Nature of emotion: Fundamental questions*. New York, Oxford University Press.
- Frijda, N. H. (1986). *The emotions*. Cambridge, UK, Cambridge University Press.
- Johnstone, T. and Scherer, K. R., Eds. (2001). *Vocal communication of emotion. Handbook of Emotions* New York, The Guilford Press.
- Lang, J., Ed. (1988). *Symbolic aesthetics in architecture: Toward a research agenda. Environmental aesthetics: Theory, research, and applications*. Cambridge, UK, Cambridge University Press.
- Laurans, G., Desmet, P. M. A. and Hekkert, P. (2012). Assessing emotion in human-product interaction: an overview of available methods and a new approach. *Journal of Product Development* 16(3), pp.225-242.
- Mauss, I. B. and Robinson, M. D. (2009). Measures of emotion: A review. *Journal of Cognition and Emotion* 23(2), pp.209-237.
- Nasar, J., Ed. (1997). *New developments in aesthetics for urban design. Advances in environment, behavior, and design: Vol.4: Toward the integration of theory, methods, research, and utilization* New York, Plenum.
- Pallasmaa, J. (2014). *Space, Place, Atmosphere. Emotion and Peripheral perception in architectural experience*, DOI: 10.13130/2240-9599/4202
- Radywyl, N. (2010). "A little bit more mysterious...": *Ambience and Art in the Dark*. *M/C Journal*, 13(2). <https://doi.org/10.5204/mcj.225>
- Russell, J. A. and Mehrabian, A. (1978). Approach-avoidance and affiliation as functions of the emotion-eliciting quality of an environment. *Environment and behavior* 10(3), pp.355-387.

### **Website**

- Idris, R. (2019, March 22). *Selais Cerita Mistis, Ini Fakta Unik Lawang Sewu Yang Menarik Diketahui*. <https://www.seva.id/blog/selain-cerita-mistis-ini-fakta-unik-lawang-sewu-yang-menarik-diketahui/>
- Ginaris, L. S. (2017, April 07). *Lawang Sewu, Sebuah Adikarya Arsitektur Kolonial*. <https://jejakkolonial.blogspot.com/2017/04/lawangsewu-adikarya-arsitektur-kolonial.html>
- Lehtinen, H. (2020, April 12). *The Impact of Space: Atmosphere Affects How We Feel and Perceive*. <https://medium.com/ravenandwood/the-impact-of-space-27da6963c900>
- Nugroho, M. T. (2015, February 03). *Bertamu ke Lawang Sewu, Semarang*. <https://thetravelearn.com/2015/02/03/bertamu-ke-lawang-sewu-semarang/>