# "Nature in Space" as Interior Concept for Resort Hotel in West Bandung

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# Abstract

West Bandung has the potential and high appeal for the field of nature tourism. Beautiful scenery, fresh air, an arena of adventure, and cultural richness are the potentials of West Bandung Regency in developing tourism as a leading sector. As an area close to various tourist attractions, West Bandung can be an alternative location for tourists to stay and do recreational activities. From this phenomenon, temporary lodging facilities, such as resort hotels, are needed as a place to enjoy free time from hectic daily activities that target family tourists. The highest motive category for tourists coming to West Bandung is Physical/ Psychological Motivation, physical and mental motivation related to health, comfort, and relaxation. The result of literature studies shows that including natural elements, either directly or indirectly, in the immediate environment will be very influential in reducing blood pressure, lowering heart rate, increase productivity, and self-comfort. Based on the biophilic theory, improving relations with nature is important for healthy human development, including humans who use a space. To meet the motivational needs of its users, interaction with nature is a solution to be applied. The interior of the Resort Hotel in West Bandung applies the concept of "Nature in Space." The concept applied is one of the important principles of biophilic design by applying natural materials, colors, and lighting. This study aimed to determine the type of interior space required to improve the user's physical and psychological health. The qualitative method was used in this study by collecting literature and questionnaires to 66 respondents from various backgrounds. This study's results are expected to provide knowledge related to the application concept of nature in the interior resort hotel as a place to stay and a means of relaxation to support its users' health and comfort.

Keywords: Interior; Nature; Relaxation; Resort Hotel.

## Introduction

West Bandung is one region in Indonesia that has been focused on cultural development and tourism activities. In West Bandung Regency Regulation No. 12 of 2012 concerning the spatial planning and area of West Bandung Regency 2009-2024 in Chapter 1 Article 1 provision No. 54, West Bandung Regency tourism area is a large area that was built or provided to meet tourism needs, including guesthouses, restaurants, cafes, resorts, tourist markets, and other similar activities. As an area close to many tourist places nearby, West Bandung has great potential to be an alternative for tourists as a place to stay and do recreational activities.

Referring to the survey results on the spatial variation categories of West Bandung tourists in the 2017 UI (University of Indonesia) research journal, the highest motive category for tourists coming to West Bandung is Physical/ Psychological Motivation, which is physical and mental motivation related to health, comfort and relaxation (Hasanah et al., 2017). From this phenomenon, temporary accommodation facilities in the form of resort hotels are needed as a place to enjoy free time from hectic daily activities. Resort Hotel is a hotel that is designed to accommodate guests who have recreational purposes. The location

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of the Resort Hotel is relatively close to tourism places and attractions, away from the city crowd, heavy traffic, and noise (Baud-Bovy & Lawson, 1977).

To meet the relaxation needs of users, then interaction with nature is a solution that will be applied. The result of literature studies shows that including natural elements either directly or indirectly will be very influential in reducing blood pressure and lowering heart rate in the immediate environment.

In addition, it can increase productivity and self-comfort. Therefore, this 4-star Resort Hotel in West Bandung applies an interior concept of "Nature in space" that integrates with the surrounding nature. This concept is an important part of biophilic design. The application of this concept to the interior of resort hotels can be utilized to create an atmosphere that supports the health and comfort of its users. The application of this concept uses materials, colors, and natural lighting elements that aim to make users relaxed. The following will be discussed further about the results and discussion of this research.

# **Literatur Review**

Biophilic design is a design that provides opportunities for humans to live and work in a healthy place, minimize stress levels, and provide a prosperous life by integrating design with nature. Improving the physical quality of humans through the application of biophilic design is inseparable from the natural elements used in this approach. Nature in Space is a basic attribute used to create an environment that supports human relations with nature (Browning, 2014). The seven components which form the Nature in Space are as follows:

# **Visual Connection with Nature**

This is about openings to nature, showing the natural life processes of living things. Visual connections with natural patterns have evolved from research on visual preferences, and responses to the view to nature show several benefits such as reduced stress, the emotional function becomes more positive, and increased concentration and recovery rates. In their research, Orians and Heerwagen (1992) stated, that a pleasurable sight is looking at a slope that includes plants, shady trees, animals, people's environment, and rapids' running processes.

# Non Visual Connection with Nature

This is about a connection with nature by stimulation provided through the four human senses (other than vision), namely hearing, smell, touch, and taste, where the sound, aroma, and texture felt will give the sensation of being in the real nature. Previous research has shown that sounds from nature can accelerate physical and psychic recovery until 37% faster since experiencing stress than urban or office noise (Alvarsson et al., 2010). Additionally, nature sounds can reduce mental fatigue and help increase motivation (Jahncke et al., 2011).

# Non-rhytmic sensory stimuli

Random connections with nature are being analyzed statistically, where these connections last for a while and sometimes are not realized by the individual who experiences them. This system aims to show an activity that indirectly affects natural sensory stimuli to attract attention, such as a pleasant activity related to nature and humans. This pattern is intended as recovery from mental fatigue and physiological stress.

# Thermal and airflow variability

Patterns of interior changes are associated with the air system and humidity in the space that represents the natural environment. In his research, Heerwagen (2006) showed that people are attracted to a variety of stimuli, changing conditions in the medium level that occur around them, including sound conditions, light exposure, and conditions or changes and states that the environment without a stimulus and changing circumstances can create boredom.

#### Presence of water

A condition where a person can feel the essence in space, which causes interaction through sight and hearing with the presence of the water elements. The presence of water encourages a greater increase in self-esteem and mood than activities carried out in a green environment without the presence of water (Barton & Pretty, 2010).

# Dynamic and diffuse lighting

In his research, Kandel et al. (2013) stated that this pattern's response could affect physically, namely related to body temperature, heart rate, and circadian function. Natural lighting obtained from the morning to evening sun can produce serotonin while lighting at night can produce melatonin so that the balance of serotonin and melatonin can affect mood, rest or sleep quality, depression, and other health influences. It can be applied with window openings and ventilation in space.

#### Connection with natural system

It is about sensitivity to the ever-changing and seasonal natural changes in living things and the characteristics of a healthy ecosystem's temporal changes. Kellert et al. (2008) in Biophilic Design suggest that these are natural patterns and processes that occur where this will affect the perception of what the five human senses have been seen and felt.

# Methodology

The study used a qualitative method by analyzing the literature obtained about the potential of West Bandung as a tourist area and place to stay, and the effect of biophilic design on comfort in a space associated with Nature in Space in a resort hotel. The results were then compared with user experience in the field obtained through a questionnaire, so it can be concluded that the interior concept that integrates with the surrounding environment is a solution as a place of relaxation for families. The first step taken was to capture the phenomenon related to tourism in West Bandung, tourists' main attraction to visit, what interests tourists stay at the resort's resort area, and then examine the interior atmosphere as what tourists expect in enjoying leisure time. The result is a natural atmosphere as an interior concept that is part of biophilic design can be applied as a solution to make users relax while enjoying leisure time.

# **Result and Discussions**

The questionnaire was given to 66 respondents from various backgrounds with the following criteria: their occupation, age, and experience in West Bandung. Based on the respondents' experience, as much as 87.9% of them have been to West Bandung, and 97% of them have interests in nature tourism.

Figure 1. Diagram of Respondents Experience to West Bandung





From the literature, it is known that West Bandung has the potential and high attractiveness towards the field of tourism. The diversity and uniqueness of natural resources that promise beautiful scenery, fresh air, and adventure arenas, as well as a very diverse cultural richness, is the potential of West Bandung Regency in developing tourism as a leading sector. As an area close to various tourist attractions, West Bandung has great potential to be an alternative location for tourists as a place to stay and do recreational activities.

Figure 2. Diagram of Respondents Experience Stay Overnight in West Bandung Hotel Resort Source: Private documentation



Based on the data obtained, 72.7% of respondents use resort hotel facilities as a place to stay. Therefore, the presence of a resort hotel is needed as a comfortable stay for health and relaxation. If related to the literature, tourists visiting resort hotels tend to look for accommodations with architecture or interior and a special atmosphere that is different from other types of hotels. Besides, 93.9% of respondents said that they would love to have a natural atmosphere in the room, so they

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chose a closely related room to nature to relax in enjoying leisure time.

In this study, the rooms chosen as the appropriate examples were the lobby and the cottage type bedroom. The lobby provides the greatest impact for guests, either through intimate or expansive designs or through formal or casual designs that can bring the tone of a hotel or resort (Rutes, 1985). The lobby area is the initial and final area that guests will pass through, which gives a strong impression to the guests who come, so the design in this area requires more attention. Cottage type rooms are rooms in the resort with beautiful views and facilities similar to small apartments. This type has a size larger than a standard room because it has its own living room. This room type is intended for families who want a vacation in peace and relaxation. Based on the questionnaire data, as many as 57.6% of respondents were tourists vacationing with family, so this cottage room needed special attention to creating relaxation aspects for families.

## Identification of Nature in Space Application on the Interior of a 4-Star Resort Hotel in West Bandung

#### Visual Connection with Nature

The application of this pattern to the interior of resort hotels can be made by maximizing openings in areas that can potentially be places of activity. As mentioned earlier, One study shows that a pleasurable sight is looking at a slope that includes plants, shady trees, animals, human habitation, and running processes of clean water. Therefore, through the presence of natural elements visually it is expected to provide comfort for the guests. (Figure 3)

Through the presence of openings, visually it can provide comfort and a calmer atmosphere for the user and lower blood pressure and heart rate. Figure 3. Openings Application in the Lobby Area Source: Private documentation



Non-visual Connection with Nature

Applying this pattern to the resort hotel interior can be made by processing materials and colors that can indirectly affect the user's health and comfort. Connection with nature through the presence of stimulation provided through human senses of hearing, smell, touch, and taste, where the sound, aroma, and texture felt are reminiscent of real nature.

Figure 4. Framework of Thinking Source: Private documentation



Based on the above framework, the material applied is familiar with nature, such as natural stone and plant materials that can cause interaction with users in the sense of touch stimulation, sound stimulation with water elements that can stimulate the sense of hearing. In addition, plants can also help relieve stress (Dwiwanto, 2020). The colors applied are colors from nature, such as green, that bring a refreshing impression because they are identical with nature and plants that provide a sense of security, balance, and harmony. Green is very suitable for a restroom because it brings a feeling of peace and tranquility (Wolfard, 2020). Then plants, rocks, and woods give a warm impression as a form of mood recovery in relaxation.

#### Non-rhytmic sensory stimuli

Non-rhythmic sensory stimuli pattern in the interior of a resort hotel in West Bandung is applied through zoning areas with the potential to do many activities, such as waiting areas in the lobby overlooking open spaces and can be accessed towards the outside of the building where the park shows the pleasant activities. Inviting sounds like animals, giving rise to unintentional connections between humans and nature.

Figure 5. The application of Non-Rhythmic Sensory Stimuli in the Lobby Source: Private documentation



This phenomenon generates stimuli from nature that accidentally occurs due to the use of openings in buildings. Therefore, it can affect the human response to the movement of objects from the outside being seen, exposure to sounds heard, and natural scents that are felt is proven to be a physiological recovery in the aspect of relaxation.

#### Thermal and airflow variability

Thermal and airflow variability patterns at resort hotels in West Bandung are applied by using materials that can affect thermal comfort and air conditioning through openings in the lobby area. The material applied in the lobby coffee bar area is concrete. Concrete could inhibit heat transfer into the building (Susanto et al., 2012). Besides, the use of plants in the room can improve air quality.

Based on this, this room positively provides comfort for its users by reducing stress levels in the aspect of relaxation.

Figure 6. Application of Thermal and Airflow Variability in the Coffee Bar Lobby





Figure 7. Application of Thermal and Airflow Variability in the Coffee Bar Lobby Source: Private documentation





#### Presence of Water

This pattern's application to the resort hotel interior is carried out by the presence of a waterfall in the lobby area. In this area, the water element is presented directly by looking directly at the water's texture, and the sound caused by the splashing water can reduce stress, increase calm feelings, and lower heart and blood pressure, so the users feel relaxed.

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Figure 8. Application of Presence of Water in the Lobby Source : Private Documentation



**Dynamic & Diffuse Lighting** 

The pattern of dynamic & diffuse lighting in the interior of a resort hotel in West Bandung is applied by giving many openings and transparency to the room, for example, in a cottage room. This is done to make more natural light access to enter the building so that the atmosphere will feel more natural. Besides, the partition application in the cottage room does not make the light intensity in the area is too strong because the entry of light is minimized through the partition gap. Lighting with dynamic and diffusion systems can provide visual comfort, body temperature, and have a good impact on the human circadian system so that it supports the relaxation process.

Figure 9. Application of Dynamic & Diffuse Lighting in the Cottage-Type Room Source: Private documentation



# Connection with Natural System

The application of this pattern to the interior of resort hotels in West Bandung can be made by presenting living and developing natural elements such as living plants in the lobby area that display natural processes to improve

#### health regarding mood.

Figure 10. Application of Connection with Natural System in the Lobby Area

Source: Private documentation

Indoor Plant



In addition, the application of this pattern can also be through openings facing the natural surroundings, so that the processes that occur outside can be related to the interior, such as in a cottage room that has an open connection to the balcony, the natural processes that occur outside can give the impression of being familiar with the surrounding nature where it can help the relaxation process of its users.

Figure 11. Application of Connection with Natural System in the Cottage-Type Room Source: Private documentation



# Conclusion

Based on the discussion above, it can be concluded that the concept of Nature in Space on the interior of the West Bandung Resort Hotel influences the health and comfort of its users both directly and indirectly to relieve stress and to improve mood quality. The influence is obtained through the application of material from nature that can stimulate the senses of hearing, smell, touch, and feel that reminds the impression of being in the real nature. The colors from nature can help restore mood, and natural lighting can provide visual comfort, body temperature, and a good impact on the human circadian system so that it supports the relaxation process. With this concept, it is a solution to meet users' needs, especially family tourists, to enjoy time from busy urban activities.

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