The Sensory Sensitivity of Blind People in Creating the Convenience Concept in their House Interior

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ABSTRACT

This study aims to examine how a blind person recognizes and presents the aspects of convenience inside the house. The limited ability to see does not make the blind people weak, but it becomes an advantage and an easy walk when carrying out daily activities at home. The experience of the body and senses of the occupied space opens the blind people's awareness to be able to create a "feeling of home" as part of ways of giving the meaning of life for their days. Through a sense of experience, blind people have the ability to organize spaces including scale, shape, material, and distance according to their body's convenience. The sensory sensitivity of blind people in creating a sense of convenience is one of the parts of the process of forming the orderliness of the space they inhabit.

1. Introduction.

The mushrooming of higher education institutions to consulting bureaus engaged in interior design in a number of big cities is such encouraging news. However, on the one hand, more attention is needed so that the students and the interior designers do not only create beautiful visualization of spatial designs, as perceived by public in general. Interior design is known by the general public as a science that has similar nuances to architecture. Whereas according to the opinion of (Ibrahim 2014) although there are functional and aesthetic aspects in interior design works, a designer must be able to offer a strong concept, which is actually born from cultural, social, and human themes.

The process of designing an interior cannot solely rely on visual references and the ability to master the tools (manual-digital tools). Both of them will make it easier to create the desired concept at a glance. The consideration of technical aspects is not sufficient to represent an interesting concept. According to (Ibrahim 2014) the process of ideation in design must be contextual. There are issues that make design feel more "contextual", for example the relationship between design and locality issues such as culture, nature, and humanity. Especially if the interior is in the realm of applied art as a local content skill, that has become the identity of the Asian style. But at the same time, design works are required to produce beautiful final results (Ibrahim 2014).

In the realm of applied arts, aesthetic nuances are not only understood as something beautiful to the eye. The perception of something beautiful is intertwined with the "taste" experienced by a person as a connoisseur or user of a work. For interior designers, "taste" becomes a key variable in creating the atmosphere of the room. According to (Simatupang 2013), all kinds of flavors that appear are human responses obtained through the senses of sight, touch, smell, taste, and listen. A quite challenging question, what if those who experience a "sense of space" are those who have visual impairment (blind), and how people with visual impairment create a sense of comfort in their home.

2. Method.
The method used in this research is the phenomenological method. According to (Simatupang 2013), phenomenology is a science of events, manifestations, and symptoms. This approach method is used to explore the experience of a blind person in an effort of creating a sense of comfort to the space he occupies.

In elaborating how blind people bring a sense of comfort to their home, the concept of a home from Gaston Bachelard is commonly discussed. Home is always related to the memory embedded in humans, which allows the memories to be brought back in a desire to get things that once made happy during childhood. Home is one of the main forces that can combine human thoughts, memories, and dreams (Leach 1997).

This study uses the concept of (Rapoport 1982) to support the analysis of space in the house, which divides the elements of space into three parts, namely:

a) Fixed features, the elements that have static properties or are fixed and cannot be removed, seen in architectural elements such as floors, walls, ceilings.

b) Semi-fixed features, the elements that have free character, space resulting from changes such as the presence of furniture, curtains, and other fixtures.

c) Non-fixed features, the elements which are independent in relation to their space displacement (proxemics), the position and posture of the users of the space (kinesics), body reactions and self-behavior towards the occupied space.

In investigating the experience of blind people in recognizing the quality of space is by borrowing design reasoning from Jaya Ibrahim. The configuration of spatial elements that is intentionally displayed by a designer must have strong reasoning. He believes that the spatial argument in the plural society case can be observed through the conceptual metaphor that is expressed. Oral language still becomes the strength of Asian culture in conveying beauty. In the interior realm, the aesthetics of spatial reasoning that is expressed is based on a person’s experience of ‘feeling’ through his body and senses (Ibrahim 2014).

3. Results and Discussion

A blind person who becomes the main informant in this research is Yono. He and his wife, who is also blind, live in a rental house. They struggle with spatial conditions that are far from ideal. The condition of the house that is not maintained well makes them have to take steps to create a sense of comfort. Their sensory sensitivity in bringing a sense of comfort to the interior of their residence is an interesting thing to study more deeply.

During the initial adaptation period of their staying, Yono and his wife had to do some cleaning of the house first to be able to create a feeling of "comfort" in the room. House cleaning activities should be considered very important for the residents. According to Jaya Ibrahim, what is often forgotten in designing housing other than the aesthetics is the maintenance aspect. This aspect includes hygiene which also brings comfort to a space. The body's experience to measure the level of comfort cannot be felt in a short period of stay. It takes residential processes as a basic human activity in living (Ibrahim 2014). Cleaning activities as a part of the ways of living carried out by blind people will be different from those who still have the ability to see.

Yono and his wife (visually impaired) use sticks to detect interior – exterior conditions of the house, such as identifying the type of garbage to measuring the height and thickness of grass around the house. The function of the stick also lies in the ability to produce sound when it is hit against a variety of materials. The couple will hear sound waves more subtle than the objects they tapped. On the other hand, the use of sticks for the blind people is to avoid accidents. The stick is also considered as an early detection tool before touching objects through the senses of touch and smell. A number of phrases appear as expressions for them to recognize space. *Kresek gegrek* wall depicts space-forming elements that are not solid (fragile). The phrase *basah pating gramang*, which refers to the rotten smell spreading in the house, while *berab lunyub* describes the floor of the house which is dirty and slippery because of residual liquid pooling on it. The expression of *sigar aunnan* is perceived as glass or ceramic pieces (miling) scattered randomly in the house. Yono’s narrative goes along with his facial expressions that match the character and material of the properties he reveals. Self-experience of the blind people with their stick is an alternative way to find out the condition, quality and character of the space they occupy.
“I heard the wall was *kresek gegrek..* the floor was *hasah pating gramyang.. bercuh lnyu.. sigar awuran* inside the house.” (Yono, 2015).

**Fig. 1.** The analysis chart of sensory experience by Yono (a man with visual impairment) in revealing the problems of space.

The space narrative by Yono describes the space condition of his house which has poor and irregular quality. A number of organic and inorganic waste are scattered around. Through his sensory system the perception of a "dirty" house is awakened. The perception of a "dirty" house is expressed by the phrases *pating gramyang* and *sigar awuran*. The two phrases represent a scattered, unstructured state that takes time to organize. This can be felt from the absence of orderliness in terms of space and clear mapping materials. The initial condition of the house, as expressed by Yono, is far from being 'comfortable'. Through cleaning activities, the interior of the house was rearranged so that Yono could formulate the concept of "comfortable" as perceived by the body with the help of his stick.

The existence of a stick for the blind people becomes their "tool for extending their hands" in order to recognize the quality of space. The existing condition of the house is read quite well through the stick used. The stick becomes a human sensory mediator along with the space they occupy. This proves how far humans have been bodied with tools that help them live their lives. The performance of the body and organs supports each other and amplifies the potential of the remaining senses. Ibrahim (2014) states that the connectivity of the body and tools in everyday life is an adaptive way human does to always create a space for their psychological well-being.

“Stick becomes my guide in recognizing space now... it becomes an alternative way to live my life in imperfect world.” (Yono, 2015)

**Fig. 2.** The Analysis Chart of Sensing Experience by Yono (A Blind Man) in Terms of Body And Space Adaptations.

Yono’s knowledge of the architectural quality of his house was obtained through his walking cane. In order to create a comfortable atmosphere, Yono rearranged the furniture and added some temporal interior elements. Yono’s initiative is based on his experience when cleaning the house. The condition of the house, which has been detected by means of his stick, provides sufficient information about the interior elements that should be presented in the house. This phenomenon gives an understanding that a designer must understand the sense of place of the case he is designing. According to (Ibrahim 2014), the way a designer creates a spatial ambience is by testing his emotional awareness of the existing specific site. The proportional beauty of a space can be presented by building a "dialogue" between the human...
being and the environment that surrounds him. This is in line with (Simatupang 2013) that the empath experience is really needed by a person to build 'taste' values and reinterpret the 'taste' of the aesthetic symptoms he experiences.

“I’m listening to this house through my cane.” (Yono, 2015)

Fig. 3. Yono’s House in Godean Yogyakarta.

The sensitivity of the senses makes Yono think about the concept of a house that suits his needs. It was interesting when Yono listened to the sound of bamboo trees scraping on the south side of his house. The blowing wind on the leaves made the rustling sound and creaking of bamboo friction. Yono’s daily activities became easier with the presence of this sound. He felt the ease especially in perceiving the orientation of space inside the house.

"The rustling of bamboo at the south of the house makes me easier in doing my activities at home.” (Yono, 2015)

In addition, natural orchestration ignited Yono's imagination to create the Cidrakala concept for his dream house. The word cidra means gap, while kala is time. For Yono, the rustling of leaves from a bamboo grove, which is received by the sense of listening, parses the picture of Cidrakala or gap in time. The idea of cidrakala reminded him of the house where he was born. When he was a child, when his eyesight was still normal, Yono had an opportunity to play with friends at his age exploring the neighborhood. A number of local experiments have been carried out since childhood (before experiencing blindness), such as building a pigeon house from bamboo, helping her mother weave pottery, and helping her father burn pottery made of clay. The limited vision he is experiencing now does not necessarily make him abandon his physical experience with village materials. This memory is strengthened by the village environment which is cool and beautiful with the presence of bamboo forests that surround the boundaries of the rice fields. An interesting routine he explored more when Yono was young is his experience in observing the phenomenon of flocks of birds flying across the evening sky over rice fields as a sign of changing time to night. Subtle experiences are also felt when the sound of turtledoves always wakes him up in the time span to dawn.

"The sounds of birds chirping as a sign of dusk shifting to night time, when dawn is coming the turtledove behind the house tansah muni” (Yono, 2015)

Listening to Yono’s memory records when he was still able to see and at the same time gave rise to a sense of curiosity about his experience after he became blind. Yono understands that his current condition is different from his past. The feeling of disappointment that can be seen from his facial expression is something understandable as he experienced the inability to enjoy beauty as in the past when he still can see. Yono stated that the adaptation process took a long time for him to recognize space and time to survive with his physical limitations.

“Village and town, there will be time for their own. Slowly listening to my place now, to be able to light up (stay exist).” (Yono, 2015).
Now, he needs sensory adaptation to achieve what is needed so that the body's connectivity in recognizing time and space is well preserved. The experience routines of visual sense, for example, make Yono have to adapt to all the physical limitations and the environment he lives in at this time. According to (Simatupang 2013), human experience in the past has a significant influence on their adaptation behavior. Various things including the spatial phenomena that have attached physically to someone at the moment someone experienced will carry over to the reality they face today. This allows a 'media transfer' of the conditions from the past, the present, and even the future.

The position of Yono's house, which is now in the city, has a different soundscape characteristic from his house in the village. The flock of birds that he had seen in the afternoon has now been replaced by the sound of traffic. The sound of vehicles describes the activity of humans passing towards the house after a long day of work. Yono listened to the rhythm of the sound of the vehicles at dusk getting slower and tighter. Occasionally he only hears the sound of vehicles without a regular rhythm. The phenomenon of the sound that is perceived by Yono is a sign of the pause in the shift of time from day to night.

"The exhausts are getting noisy at dusk. They most of the time have unclear rhythm." (Yono, 2015).

The noise experienced by Yono in the city had made him go into chaos. The rhythm of city life demands speed and acceleration. Those are the two things that cannot be easily accepted by his body. He added, the noisy atmosphere is influenced by the level of closeness and density between space and humans in the city environment. The noise of vehicles outside the house, for example, often breaks Yono's concentration when he is doing his activities inside the house. He responded to this problem by keeping two birds in his house, the *puter* bird (Eurasian collared doves) and the *turtledove* bird. These two birds are intentionally placed in different areas; a) *puter* bird at the south terrace adjacent to the guest area (public area), b) the *turtledove* is at the west terrace adjacent to the bedroom (private area). These two birds have a function of spatial orientation and daily productivity functions. Through the chirping of the bird, Yono feels helped in knowing what types of spaces are in the southern zone, while the chirping of turtledoves helps him in knowing a number of spaces in the western zone. This also becomes sensory control whether the steps are too north, too south, too east, or too west. In other functions, the presence of birdsong can help in terms of work productivity.

"The sound of the *puter* helps me adjust the rhythm of pressure when massaging customers. But if the vehicle is very noisy, the massage rhythm goes irregular." (Yono, 2015)

### 4. Conclusion

This study aims to examine the life of the blind people in their homes, a research effort on the residing place of the blind people (in this case Yono and his wife). It can be seen how the body and senses think (comfortably) on a space, and the sensitivity of the system of elements organization of the occupied spaces. Several findings presented in this study are the results of a critical observation and interview of what is experienced by blind people in creating a comfortable concept in their home.

The sensory sensitivity of the blind people has a unique way of thinking in dealing with spatial realities which are often unfriendly to their today's conditions. This study proves that through the dialogue among the body, senses, and space, the blind people are able to create a "feeling of home" as a part of the process of creating an orderliness in a room. The aspects of sound, the variety of smells, and the sensitivity of touch are important aspects in the process of art creation and design. The activation of the sensitivity of each sense in the process of "feeling of home" becomes something essential. The space inhabited by humans is not only the result of physical engineering activities, the shape composition of elements and furniture, but it is also necessary to manage an arrangement to achieve comfort based on sensory sensitivity in meeting the needs of special inhabitants. That way, a multisensory design approach is needed so that it can actualize what is needed in the context of inclusion design.

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