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Different Way of Seeing

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Abstract. Perception plays a huge part in human's life that is continue in a lot of different interior spaces so the term of architectural perception will be mentioned for all people. This architectural perception is actualizing with using human senses. And people, with use their own thought that are taken from the result of their perceptions, identify the architectural structure as beautiful or not. People have five common senses which are used in perceiving process however they do not use their senses equally because of the dominance the sense of eyesight. That's why they decide is interior space beautiful or not without use their another senses which are necessary as much as eyesight. The aim of the study is to question the importance of common senses in perceiving the space and explaining the dimensions of space which are not related with the vision. For test these aims, a created method was regulated and selected participant's usage rates of their senses were tested in selected area with in the two phase. In the first phase of method they could use their eyesight but in the second phase their eyes were closed. As a result of the method, the sense of eyesight is more dominant than hearing, touching and smelling and eyesight block usage of these senses. Also, hearing, touching and smelling can only work when eyesight is opened but for the true perception all senses should have used together and the environment is aesthetic or not decide after the true perception.

1. Introduction

Senses that capture primary data regarding to the perception, eyesight is in the lead. The true perception is an interpretation of all the common senses. There is a different specific perception way for all human senses and the sense of sight has the biggest role in the whole senses. While a space or spaces are evaluating, the first focus that is emerge on the mind is the space seems beautiful or not. Almost for everybody a building or interior space exists as beautiful as it is. It is possible to mention about beauty and aesthetic perception in the architecture without vision. The architecture is not an approach that only judges with sight [1]. If it was like that, wouldn't we feel good at any places in which we evaluate as beautiful by perceiving only with our eyesight? While people can spend many hours in some places, in contrast they want to move away from some another place. Actually, architecture has a power that is put in action people's common senses [1]. Spaces are also a part of human life; people spend their times in alive surroundings. They have more than we can see. Using only sight, makes lost architecture's identity which can only realize thanks to using all senses. People can see, hear, taste, smell, touch through our five senses and feel and comprehend the space with all data given from them. Experiencing a space is comprise smelling the space's odour, getting in touch with space's texture and feeling a space. However, because the dominancy of vision, all the other senses that people need the most, are made it unnecessary [2]. Even they are used, the importance of its stay behind the sight. The perception of beauty



and aesthetic which are belongs to architecture, start to base on the visuality. Every architect start imagines how the project will look with think little of sense and feelings. Basyazici [3] argues that “During the recent years with the help of advanced technology, modelling programs and visual presentation techniques architecture has become even more of a visual production and has its reality through the evolution of virtual image.” A space become subjective with private items such as seeing, touching, hearing and smelling. With using all these senses, space’s luminousness, shadows, textures of the surfaces, smell and taste of the ambience are felt so the meanings they have is perceived and thus people have a right perception of beauty.

The aim of the study is to question the importance of common senses in perceiving the space. I try to understand the relationship between the term of beauty and the visuality. And also, I try to think ahead that getting forward in terms of perceiving space more than visuality so explaining the dimensions of space, which are not related with the vision, is selected for the aim of study. In addition, while I follow the aim of the study, I try to get help from the method and analyses that are obtain from the method. The hypothesis is organized to suitable for aim and supported with the research questions.

Therefore, these research questions were developed as you can see below:

1. How many dimensions in terms of senses interior space have?
2. When people perceive the spaces which senses are used they have?
3. Is perceive the space without sight possible?
4. Do people decide only using the sense of sight a place is beautiful?

I believe that terms of beauty and aesthetic are not depends on only vision. Beauty and aesthetic are the values that can be perceived with using all human senses. Without touch a texture, smell the air, taste the ambience and hear the voice belongs to space experiencing an architectural space is not possible. Thanks to this, I hypothesis that beauty and aesthetic are the values that have more than what people can see so different dimensions are exist in the place that are waiting for to perceive from people besides visual quality. People have also four main senses which possess an initial role as much as eyesight such as touching, hearing, smelling and tasting. In result, I think that even a space designed good or bad, always gives the people more than it’s apparent. The thing that it’s give us depend to people’s perception that called feelings which gets from common senses I mentioned below.

Ten participants (5 design student, 5 in another department) are chosen from Izmir University of Economics, 4th year students. The study is about aware about human’s common senses and usage of them. In addition to participants, there is a studio which is called K 102 in faculty of communication where the participants can use their senses in. There is an important reason why this place was chosen is different lay-outs. There are some different lay-outs in the studio such as sitting area, studying area, presenting area and transition area. The study consists of two main chapter. In the first phase, participants are taken into the chosen place one by one. After they perceive the space, the questions are asked which are prepared before. The aim of the questions is learning which senses people have use while they are perceiving the space. After all participants answer the questions the second phase of the study starts and their eyes are closed deeply so they cannot see anything. They are become like a blind person. Before starting, artificial odour was sprayed and the music was opened in the selected studio. They are taken into a same interior space again one by one but this time from the another different door. When they are perceiving and analysis the space, the same questions are asked to them. According to the answer, the usage rates of senses are specified which are used from when they in different conditions. The first phase is made with eyesight; the second phase is made with other senses that people notice when the eyesight is not possible.

The first part of the article’s structure is started with introduction part. The general sentences are placed for create the first ideas about the article. After that, the aim of the article is mentioned. Then, the aim part is developed with the research questions which are belong to article. The fifth part is the hypothesis that are supported during all the article. Thereafter, the methodology of the article is placed. The last part of the introduction is mentioned about structure of the article.

2.Literature Review

2.1. The Terms of Beauty in Architecture

The most interesting approach to this issue has been proposed by Becerik [4] is that architecture always is embraced separate from the other art branches and evaluated differently. This attitude is welded from the nature of the architecture and the place that in our lives. Most of the time, evaluation in the field of architecture has been doing more in terms of aesthetic than functionality. There is judgment which give qualities to any architectural structure, generally called aesthetic and beauty in the society. The beauty of the building is that satisfying a certain need on the one hand is pleasing and satisfying to liking of the person with external forms, inner boundaries, gaps, colour schemes, texture materials, lighting systems and atmosphere.

Moreover, Becerik [4] argues that architecture, organizes and controls the relationship between people and environment. At the same time, it acts a part in creating interior spaces that sufficient to human actions. When people create their physical environment, would like to beautify it. Aesthetic fact which is the desire belong to people to beautify the interior and elements, has a huge effect in evaluation and formed architectural structure. A structure is loaded with aesthetic values. Depend on time changing, although structure does not change, it's aesthetic judgements can change. Aesthetic understanding changes in time, it can differentiate from society to another but we always mention about aesthetic understanding that dominating in a specific time period and specific zone [4].

When we look at the history of architecture, architects and designers suggest whichever understanding and wording way, they always look for beautiful one. Shapes, materials and technology changes, the aim is always same for every perspective; accessing to the beautiful one [4].

Architecture relates not only with form but also with senses, emotions, environment, perception and relationships between them. How much do people care about the texture, smell, sound and taste of the architectural structures, while they evaluate the term of beauty of the interior space or architectural structure? The qualities of the interior space people should be taken into consideration with people's physical and mental performance. This is what might be considered an invisible aesthetic and together with the visual impact these make up a total aesthetic. The space is perceived by the mutual influence between the common senses and the space. Howes [5] suggest that "architecture is an extension of nature into the person- made realm and provides the ground for perception, a basis from which people can learn to understand and enjoy the world. " The interaction between humans and buildings is more powerful than we imagine [5].

Architecture has a huge role in our lives that can influence our feelings, experiences, decisions and our memories. To exploring the connection between architecture and the human perception was the intention for my thesis. Everything done by humans such as architecture has an influences on their environment whether positive or negative. Some peoples use their perceptions more aware than the other users so they have more impression however, at least everybody use their perception and give any idea although they are unconscious. Thanks to these perceptions and impressions which gave from architectural environment, we make judgments and as a result of these judgments decide that it is beautiful and aesthetic or not. There is a connection between our level of perception of the interior space we are in and the time we have spent there. Nobody experiences interiors as aware of invisible dimensions of space, surroundings, a single beam of light, odour and the sound but these are the powers that giving life to the space [6].

In our days, although architectural structures are designed appeal to most of the sense of eyesight, it is a fact that set going all human senses [7].

2.2. Architectural Perception

The human being has to recognize the environment in order to be able to benefit from it, to adapt to it, or to adapt it to him or herself. When these pieces are taken from the space and evaluated, the perception is reached.

According to people, there are certain basic needs belongs to the spaces. These basic needs and the human experiences behind these needs, are so valuable that architects cannot be thrown into the background. Because space is a reflection of human experience with all its dimensions. But when we look at the contents of differentiated spaces for everyone, we realize that certain basic features are the same and we can find the possibility to combine these features into a common ground. However, the difference is that architects define the content of the space and change their orientation towards individual needs. User's perception since the process of participate to space, take the action intentionally or involuntary [8]. Gezer (2007, p.14) "Because the space is based on perceptions and can be solved in the direction of experiences. The more we can establish a relationship with a place, the more we have belonging feelings of that place."

Things that appeal to sensory organs, such as the sound or smell of a place, can make us feel very different feelings in the place we are in, and can lead to many images in our minds. The interior space offers us something from that memory in our memories, and there is a kind of shopping between the person and the place during the experience of the place. The users move according to the formation of the space, and the formation of the space is reshaped according to the reactions of the users. This interaction can be diversified by being supported by the cultural, physical and perceptual variables obtained by the individual. A space we have experienced for the first time can offer us something in the direction of our memories and transfers of our sense organs. We enter the space with the memory we brought up to that time and we create other accumulations when we percept other things on that space. With these accumulations, our viewpoint of the place develops and changes [9].

Every interior space has a soul that create a perception in users' mind. When people enter a space, they start to perceive the space but they do not aware of them. Using common senses while perceiving is an ability that happen out of the human control. Due to these common senses we reach some impressions about the space. In the process of thinking and perception, the sense of vision always dominates other senses that's way eyesight makes dulled the use of other common senses. Whereas, senses except eyesight have more essential role than the vision because using only eyesight can bely our perceptions and impressions belongs to the interior space or architectural structure. Only using eyesight prevent us from perception of variety dimension of our soul. If we rise our perception ability of the interior and architecture, we need to check all of the points that impact our senses such as light, sound, colour, form, textures, taste and ambience. Being able to use these senses consciously, increases our awareness in all matters. For complete the right process of perceiving architectural structure and interior space, should get rid of the dominance of visuality and do it with using more effectively common senses such as taste, touch, smell, hearing [7].

Perception is used in the evaluation and description of the environment. The same concept can be used to understand people, learn the environment, use mental maps, and store them in memory [9].

2.3. Multi-Sensorial Design

Sensation and perception of architectural structure are summarized as the taking of the physiological stimuli by the relevant sensory organs, the transmission of signals to the brain, and the interpretation by the brain. The architecture must be experienced with the whole body in order to be understood, the visual evaluation is insufficient to perceive the structural integrity [10]. The concepts known as sight, hearing, taste, smell and touch are the five basic senses known for a long time [11].

It is wrong to think that the perception of the spatial environment is visually predominant. Contrary to popular belief, visual stimuli are not more dominant than others. All sensory motors such as sight, touch, hearing, smell, tasting and kinaesthetic sensation must interact with the environment for perceiving accurately the architecture. Research shows that stimuli from the outside world are taken using all sensory systems. The believe that the senses work as separate mechanisms from each other and that visual perception is superior to other senses is comes from the eyesight is directly related to mind [12].

Today, there is an eye-centered tendency perception in the understanding of architecture. This term, which is updated by the work of May, 1994, is defined as the idea that the sense of sight is superior to

all other senses and can be associated with a unique knowledge production. This form of thinking, which gives a superior position to eyesight, also influences architectural achievement and spatial quality perception [13].

Vision and hearing often use the senses in the daily life of the person, and these senses are called primary senses or high senses [14]. The sense of sight encompasses more than 80 percent of the information received in the perception of spatial stimuli and is considered one of the senses that play the most important role in perceiving the space.

Spatial stimulation elements such as colour, texture, form are the basis of visual perception. The sense of touch is indispensable for the human body. Touch is the first developing sensation and it is known that all the senses come into being with the differentiation of touch. Human beings are aware of the fact that by touching they are both integrated with the beings outside of their own selves and different from them. It is a sense of touch that combines architecture and human body together. Touching the space is to get into an active relationship with the space and to integrate with it. Also, touching is conveying feelings, sensations, even thoughts to the space. When a door is opened, the heat of the door arm increases with body heat. Coming down using stairs with holding handrails is trustworthy. Doing a hand-drawn pattern on the window has steam surface is the mark left on the window. Footprints left on the floor of the walkway are the remains of the body. Step by step sounds, words or a humming melody strikes the walls and ceiling of the place. The fragrance of the body fills the space, evidence of human presence there [12].

It is a recurrent knowledge; the human has five senses: seeing, hearing, smelling, tasting and touching. Architectural design has been "eye-centered" for a long time and has been criticized for this reason. People see the buildings, sometimes touch, rarely smell, and taste is a rather extreme point. Hearing comes from behind the eyesight. Although it is a millionth of a second between the coming of a voice one ear to the another, our nervous system does not understand how it reaches our brain and from which direction the voice comes from we know easily. It shows how sensitive we are to the sound. Smelling, tasting and touching are often neglected, although they provide more intensive information. The smell is like the most neglected sensation. Unlike galleries exhibiting paints, there is not much to see in an art gallery exhibiting their smells. But smell is the most effective and basic feeling. On the outbreak of fire, you can see the flames, maybe you can hear it, but first you will get the smell. Unfortunately, in architecture, the sense of smell is hardly taken into consideration [14].

3.Methodology

3.1. The Case Study: K 102 Cinema & Digital Media Studio

The studio was selected for using in study which is called K 102 placed in the faculty of Cinema and Digital Media in Izmir University of Economics, Balçova. This studio is using from the media students. The studio has a high ceiling and windows from top to bottom. Also, there is a narrow mezzanine with the staircase is placed in the right side of the studio. Besides these there is an important reason why this place was chosen is different lay-outs. There are some different lay-outs in the studio such as sitting area, studying area, presenting area and transition area. The second important reason is that there are two different entrance of the studio. One of them from front facade, another is from the mezzanine.



Figure 1. Cinema & Digital Media Studio
(Taken By Author)

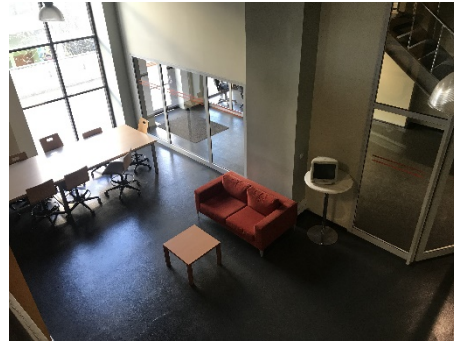


Figure 2. Cinema & Digital Media Studio
(Taken By Author)



Figure 3. Cinema & Digital Media Studio
(Taken By Author)

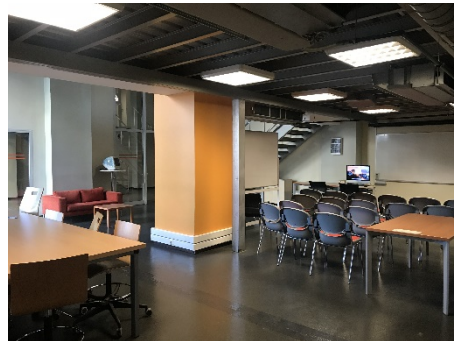


Figure 4. Cinema & Digital Media Studio
(Taken By Author)

3.2. Participants

Ten participants were chosen consist from three male and seven females. Five of them from interior architecture 4th year student, five of them from different departments 4th year students in Izmir University of Economics. The reason why half of the participants were selected from different departments for a certain aim that is evaluating study in design field's effects on the architectural perceiving.

3.3. Design of The Study

The functions of the method are evaluating people's usage of common senses in different conditions and determining which sense people have is dominating. For evaluating these, the study place was selected as Media Studio called K 102 Cinema & Digital. Before starting, artificial odour was sprayed and the music was opened in the selected studio. The study comprises of two main phases. In the first phase, the participants were taken into the selected studio one by one. Then they analyzed the interior according to four questions which had been asked to each participant. These were respectively "What is the first perceived thing in this interior according to you?", "What is the finest thing in this interior?", "What is the ugliest thing in the interior?" and "What is the last perceived thing in this interior according to you?" The answers that were taken from each participant were noted. Then, the participant was taken outside and her/his eyes was closed. From the specified route the participant was passed and taken from different entrance in same Cinema & Digital Media Studio again. However, the participant did not notice he/she was brought in the same place with the previous one. By this way, the second phase of the study was started. The same four question were asked again to the participant. Of course, they still did not see anything and try to perceive the space by using their senses except their eyesight. This study was practiced on all participants in the same way.

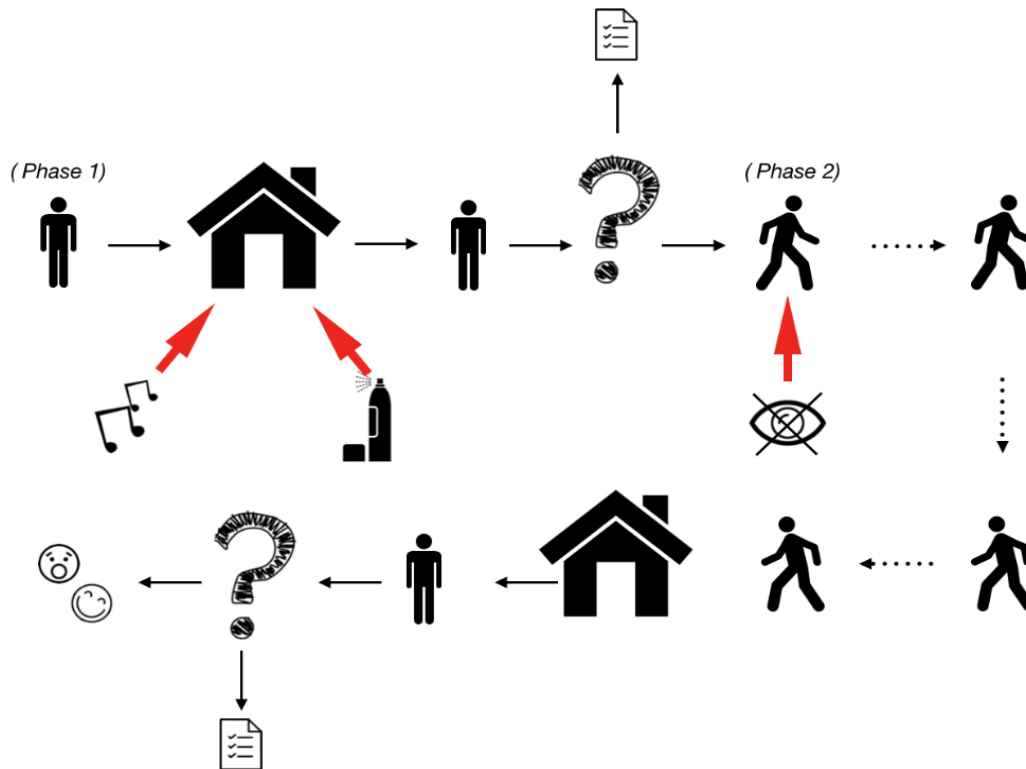


Figure 5. Schematic Diagram of Study (Prepared by Author)

Table 1. Analysis while the eyes are opened (Prepared by Author)

Participant Numbers	SENSORY INFORMATION			VISUAL INFORMATION				MEMORY
	Auditory	Tactile	Alfactory	Color	Light	Spatial Facts	Furniture	
1						•• ••	••	
2			••				•• ••	
3	••			••		••	•• ••	
4				•• ••			•• ••	
5				•• ••		•• ••		
6						•• ••	•• ••	
7					••	•• ••	••	
8			••	••	••	•• ••		
9					••		•• ••	
10	••		••	•• ••	••	•• ••		

Design Students Students from Different Departments

Table 2. Analysis while the eyes are closed (Prepared by Author)

Participant Numbers	SENSORY INFORMATION			VISUAL INFORMATION				MEMORY
	Auditory	Tactile	Alfactory	Color	Light	Spatial Facts	Furniture	
1	••	••	••					
2		• ••	••					
3	• ••							• ••
4	•• ••							• ••
5	•• ••	• ••						
6	••	•• ••	••					
7	• ••	• ••						
8	••	••						• ••
9	••	•• ••	••					
10	• ••		• ••					• ••

Design Students
 Students From Different Departments

4. Findings & Discussions

Finding 1. When participants were perceiving the interior, mostly they used visual senses. Comparing to usage of visual sense; usage of auditory, tactile and olfactory senses was very low. Due to its dominance, sense of eyesight holds down the usage of other senses. Hardly, when we close the sense of eyesight, other ones become part of the perceiving process of an interior space. As we see in the table 2, all the dots are in sensory information, while no dot is observed in visual information. That’s why, when people decide if any architectural structure beautiful or not, generally they use only their eyesight and decide according to what they see.

Finding 2. On the other hand, twenty-five percent of the participants can use both sense of eyesight and other senses together. These participants, when their eyes were closed in the second phase of the study, understood the place was same with the first one which they had analyzed although they could not use their sense of eyesight. Because of this awareness, they did not continue to use their sense of auditory, tactile and olfactory so they perceived the space and answered the questions with only using their memories. In addition to this, the participants who used their memories did not feel the need of use the sense of touch.

Finding 3. To against the finding 2, the participants who did not understand that they were in the same place with the phase 1, needed to use their sense of touch in the perceiving process when their eyes were closed (second phase). Also they obtained the data about the space. However, the participant number one despite using his/her sense of touch, he/she did not obtain any data about the space.

Finding 4. As a researcher, I observed that when the participant number two could not use sense of eyesight, also couldn’t use the sense of hearing. When we examine the participants number five and seven again when they could not use eyesight, they also could not use their sense of smell. As another analysis, the participant number ten could use his/her both auditory and olfactory senses beside the sense of eyesight.

Finding 5. For analysing whether being a design student has any effect on the process of perceiving the space in comparison to students who study in different departments; half of the participants were chosen from design department and the other half were chosen from other departments. As a result, when we examine the table, studying in design department does not rise the perception of the architecture.

5. Conclusions

There are seven main research questions:

- How many dimensions in terms of senses interior space have?
- When people perceive the spaces which senses are used they have?
- Is perceive the space without sight possible?
- Do people decide only using the sense of sight a place is beautiful and aesthetic?

It was found that in terms of senses, spaces have five main dimensions. In the process of perceiving interior spaces, the senses of touching, hearing, smelling, tasting and eyesight are available for true perception. Firstly, there is a visual dimension in the interior spaces which is perceived with using sense of eyesight which is the most dominant sense in comparison with another senses. Olfactory dimension can be happened with using the sense of smelling. Every interior space has their own air which is very important for identity of the space. Dimension of tactile can be perceived with sense of touch. Also, tactile information is the most used one after the visual dimension. There is no chance to mentioned about tasting the interior space however there is a different perspective of perceiving that is if we experience any space with using our whole senses, we already taste the ambiance of the space. (R.Q. 1)

It was tested that people are created with five common senses and when they perceive any space they use their common senses automatically. These common senses are eyesight, hearing, smelling, tasting and touching. However, the alignment of usage these common senses can be differ from one person to another. Besides, it cannot be said that the working mechanisms of the senses of the human beings are the same. However, there is a specific fact that people prefer use their eyesight firstly when they experience the any interior spaces. After that, according to my method, the sense of hearing is started to using by the people in the perceiving process. On the one hand, tactile information is very essential for user the space because when people touch the texture besides perceiving the space they feel more comfortable. Smelling the space is last mentioned one of the common senses. However, true perception of the space is obtained with only using the whole senses together. (R.Q. 2)

It was found that thanks to the sense of eyesight, people give some information about the interior spaces however it has more than what people see. If it is like that there are not a lot of points that can be taken with using another common senses such as touching, hearing, smelling and tasting. If people do not go forward from what they see, they miss so many vital and valuable information about the space. So, perceiving the space without eyesight is possible thanks to another senses. People can give information and perceive while their eyes are closed. They can hear the voice of interior, smell the air of ambiance and touch the surfaces of borders, structures and furniture. That's why user can obtain more information and more powerful perception from what he or she saw. (R.Q. 3)

According to my research and method because of the dominance sense of eyesight people use automatically and involuntarily use their visual information in the perceiving process of interior spaces. That's why the perception of beauty and aesthetic is taken a part in our minds with data, which are taken by only the senses of eyesight. However, beauty and aesthetic are terms that more powerful and equipped from appearance of the interior space. (R.Q. 4)

As a researcher, I would like to give some design suggestions. I complete my literature review with three main part such as the terms of beauty in architecture, architectural perception and multi-sensorial design. In addition to these, experiential design can be added in literature review. Moreover, method part can be developed with more participant. If I have not time limitation, I deleted different space that participants of method's do not know for getting more general consequences.

Humans can perceive automatically or unawares their environment. Interior spaces are the one of the most important thing that are waiting perceived from users and they have equipment which can evoke human's common senses such as eyesight, hearing, touching, smelling and tasting. These kind of multi-sensory designs also a chance to rise our awareness to use senses. Architectural perception is a fact that provide users decisions which is an interior space beautiful or not with using senses. Human senses are not work equally because of the dominance one eyesight, whereas the true perception can only come true with using all of them.

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