

Aspects of Visual Aspects in Considerations of Design of Eating Facilities at Jatigede Sumedang Reservoir

Aprizal^{1*}, Sheila Andita Putri²

^{1,2}School of Creative Industries, Telkom University, Bandung, Indonesia

Abstract. Waduk Jatigede is an artificial reservoirs made by government, which has begun flooded in August 2015 ago. The inundation takes 26 villages in the area Sumedang, West Java. Because of the flooding, the villagers that were evacuated becomes not had a stable job as it used to, that became farmers. Since losing their job, there are some people who start working by utilizing Jatigede scenery, which makes dining facility from bamboos at the edges of Waduk Jatigede, with the aim that people also can enjoy the beauty of the Waduk Jatigede while doing activities such as eating and drinking. However, after less than two years since they made the dining area, visitors who came isn't too much, so that incomes are also unstable every day. That matter is a problem for people who affected by reservoir construction of Waduk Jatigede until today. Seeing this problem, the designer provides the solution of the problems through the visual aspects of the approach, by redesigning the dining facility to look more attractive, comfortable, and beautiful by using observation user interest method, so that will bring many visitors to dining facility at the edges of Waduk Jatigede.

Keywords: reservoirs, Jatigede, visual aspects, design, dining facility.

1 Introduction

Jatigede Reservoir is a reservoir located in Sumedang area of West Java province and is the second largest reservoir of Indonesia after Jatiluhur Reservoir which is also located in West Java Province. Jatigede Reservoir just started to be inundated in 2015 by the government with the aim of flood protection, drainage of raw water, irrigation network construction and electricity source. In the process of development, there are 28 villages from five districts that must be drowned. Drowning the village in the construction resulted in the majority of villagers from five districts being lost their daily jobs as farmers. Based on the results of interviews, now the unemployed citizens are trying to make a living by switching jobs. Some of them are working outside the city, while those who stay around the reservoir build a Dining facilities or set up fishing ponds. Dining facilities on the edge of Reservoir is one of the income sources of the people affected by the construction of the Jatigede Reservoir at this time. Based on the observation, there are about 24 buildings in the form of Dining facilities on the edge of Jatigede Reservoir, built on the initiative of the villagers and the construction

* Corresponding author: aprizalrizal36@gmail.com

is intended to be a source of income for the locals. Dining facilities is built using recycled wood and bamboo materials with an average area of 16 square meters. The main menu that is served is "nasi liwet", the typical food of the Sundanese culture. Based on the results of literature studies and observations (2018), The Dining facilities using the concept of traditional Sundanese building in the form of a stage with bamboo ornaments.

The locals hope that the construction of Dining facilities can be a source of their income to buy daily necessities in exchange for their old job as a farmer. After further interviews, there are some problems experienced by the residents after building the Dining facilities, one of them is the lack of the Reservoir's visitors. Average visitor Dining facilities is 4 (four) family and tourist group consisting of 5 - 30 people within one week.

2 Theory

2.1 Jatigede Reservoirs



Fig 1. Jatigede Reservoir view (source: personal documentation 2018)

Jatigede reservoir has an area of approximately 4000 hectares and drowned 26 villages. According to Muhammad Ashari in finance.detik.com accessed on February 24, 2018, said four districts that will be drowned in jatigede development by the Ministry of Public Works-Public Housing, the four sub-districts are:

- Jatigede sub-district 760.55 hectares. Consist of Ciranggem, Jemah, Mekarasih, and Sukakersa villages.
- District Jatinunggal 239.89 hectares. Consist of Pawenang and Simasari villages.
- Wado sub-district 459.23 hectares. It consists of Wado, Cisurat and Padajaya Villages.
- Darmaraja sub-district 1575.67 hectares. Consisting of Cibogo Village, Cipaku, Jatibungur, Karangpakuan, Leuwihideung, Pakualam, Sukamenak, Sukaratu, Tarunajaya, and Cikeusi [1].

2.2 Element of Visual Aspects

Visual Aspects is a unity consisting of some of the elements that make up the form themselves, the elements are intentionally or unintentionally created for forming an image. "The elements consist of some parts, that is line, direction, plane, size, texture, tone, chroma and color [2].

2.2.1 Line

Lines are elements that form from many points so it becomes a unity of lines called lines. Line also defined the relationship between two points straight. Meaning others also mention that the line is a point that is expanded into something that has length, position, and direction.

2.2.2 *Direction*

The direction if interpreted from the language is the intention or aim. The role of direction within the visual element is as rhythmic formers in a way, like the ones revealed by Irawan and Tamara, directions play a role to give the impression of motion and rhythm [2].

2.2.3 *Field*

Fields or patterns are the elements of form that are formed because of the intersecting direction line thus creating a field or pattern.

2.2.4 *Size*

Size is one of the elements that roles play as a combination or a counterweight.

2.2.5 *Texture*

Irawan and Tamara explain that the texture is the physical state of the surface of the ingredient felt with the sense of touch. Texture is formed from structure which is the composition of the material on a field.

2.2.6 *Chroma and Tone*

Chroma is a series intensity of color [2]. The chroma is one color in a series with each level different brightness. While tone is the harmony or benchmark of the line and field. Tone is divided into two kinds, namely tone contrast and similar or similar tones. The contrasting tone is tones that have a distant difference between the one and the tones other tones. While similar or similar tone dalam which are close together.

2.2.7 *Color*

Colors in the visual elements act as constituents a harmonious and eye-catching atmosphere. In words Another color is something that can build a perception and the mood of the human being who sees it.

2.2.8 *Type Of Form*

Inspiration form basically can be taken from nature or from various basic shapes created by the humans. In their book, Irawan and Tamara divide the form into 2 (two) types, namely the natural and artificial form [2]. Natural Form are the natural shape or all of the forms contained in universe, that is the freer forms and not seen by rules of form made by man. Artificial form is the form created by humans through process of processing. The other type of form is the form described by Bram Palgunadi, visual processing based on the originating form from nature or various geometric shapes [3]. Natural form called the bio design and geometric shapes are called with geo design.

- Bio design or organic form is the visual processing which is constituted by a natural form. The shape of nature or design generally have characteristic that tends to be irregular, random, non-repetitive, irregular, not measurable, memorable bending, lively, flexible and relatively dynamic [3].

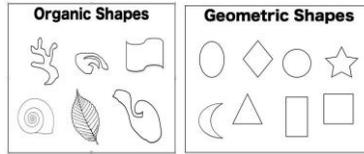


Fig. 2. Example of organic and geometric shapes (Source: pinterest)

- Geo design or geometric shape is based on geometric shapes, a form that is essentially absent in nature and only exists in our minds. Generally, it has a basic shape whose nature tends to be regular, not random, highly measurable, can be repetitive, memorable stiff, giving the impression of death (not alive), not flexible, and memorable relatively static (not moving) [3].

3 Data

3.1 Observations

Observations are made to observe the surroundings as a source of data for the designer to design the product. Observations conducted on the banks of Jatigede Reservoir, Pakualam Village, Darmaraja Subdistrict, produced several sources of data such as weather conditions, visitor activity, and simple restaurant conditions. The data are then summarized as the weather conditions. Jatigede Reservoir has a fairly stable weather, almost all day the area is covered by clouds so that the location becomes cool. Conditions adjacent to the reservoirs make the air hot due to evaporation from the water Reservoir carried by the wind. The condition of dining facilities. From the observation, there are some unfavorable conditions when viewed by visitors, the arrangement of a Dining facilities that is less neat and kitchen conditions are less well maintained and also there are some potential that makes Dining facilities become necessary to do re-design. Here are the conditions of a Dining facilities today:

- The kitchen display is a bit messy and make the Dining facilities is less attractive in the eyes of customers, also on the arrangement that is less tidy.
- Other conditions that are in the garbage dumps that are only in the container in a bucket, causing unpleasant odor for visitors.
- This Dining facilities uses the traditional concept of Sunda, can be seen from the most widely used materials of bamboo webbing and seating, using the concept of "lesehan" (seating around meals without chairs and tables, just sit on the floor with woven mats). In addition, the hallmark of Sundanese building concept is in the building which is stage building. As said by Anwar and Achmad, the architecture of the Sundanese house is influenced by tradition or customs [4]. The traditional Sundanese house in the form of a stage means that the building should not stick to the ground to honor the deceased. The building materials use natural materials such as bamboo, wood, palm fiber and palm leaf midrib.
- Conditions on the counter of the Dining facilities is only equipped with a table with a size of 2x1 meters and merely merchandise display. These conditions cause the Dining facilities to be not well ordered.
- Approximately about 24 Dining facilities building that was built at Jatigede Reservoir. Empty ground in front of the restaurant is used as a parking lot for visitors.



Fig. 3. The condition of the dining facilities at Reservoirs Jatigede (source: personal documentation)

One potential that can be utilized this Dining facilities is the natural scenery Jatigede Reservoir is located right in front of the facilities. This is the value of the Dining facilities. This allows the visitors to enjoy natural scenery Jatigede Reservoir while eating with family.

3.2 Interview Data

The interview was conducted to the owner of one owner and seller at a Dining facilities on Jatigede Reservoir, Ibu Entin who is also a citizen of Jatigede Reservoir development impact. In the interview Ibu Entin presented some previously prepared information to complete the design data source. Here is the interview information obtained from Mrs. Entin:

- a) Average customer is a group of small and large families, there are also tour groups.
- b) Facilities and infrastructure are still lacking, especially on sinks, garbage dumps, and kitchens.
- c) Roofing materials using zinc material.
- d) The main menu is a typical Sundanese called "nasi liwet".
- e) The concept applied to a Dining facilities is traditional Sundanese.
- f) Average rainfall occurs 2 (two) times a week.
- g) The front of the facilities is covered with tarpaulins in case of rain, it is done to avoid rain water into the facilities.

4 Analysis and Results

Based on the existing problems, the visual aspect is one of the important aspects to be a reference in the design of the dining facility. This is because the visual aspect is the aspect first seen or perceived by the user before the other aspects. The first look of the dining facility is one of the reasons that attracts visitors to visit the dining facilities. Visual Aspects also affect the psychology of visitors to feel the atmosphere of the dining facility. Here is a table of problem analysis on the Visual Aspects aspect to Dining facilities:

Table 1. Problem Analysis

No	PROBLEM ANALYSIS	DESCRIPTION
1	Background user	Background of the average visitor dining facilities.
2	User activity	Activities conducted by visitors dining facilities.
3	Visual	Build a cosy atmosphere, display that makes the atmosphere of togetherness, display that makes the regularity, and the display raises interest

According to the Kamus Besar Bahasa Indonesia (KBBI), Visual Aspects is a State that looks outside in (at birth); what seemed (visible). While according to Bram Palgunadi it's the way something looked or visually seen by the eye [3]. In the Visual Aspects, there are several

components that form the basis of the formation of the Visual Aspects, which is shapes, textures, and colors. The component is a basic material for analyzing the problems that exist in order to look for a solution later and also used as a basic material in the design of the product. Visual Aspects of the components outlined in the table component below:

Table 2. Component Design Considerations

No	Component	Description
1	Shape	The overall shape of the dining facilities
2	Color	The colors used on dining facilities
3	Texture	The Textures used on dining facilities

4.1 Form Considerations of the dining facilities

The dining facilities designed are dining facilities by sitting without a chair, but simply by sitting on the floor. The form of eating facilities in general uses basic forms such as square, circle, triangle, and other basic shapes commonly called geometric shapes. In addition to the use of basic shapes, the use of organic forms is also often used in dining facilities today. In the design of dining facilities, comfort and togetherness is the key. Creating an atmosphere of togetherness in a group can be built by designing form of Dining facilities for users to feel more intimate towards the others. The form of a circular dining facility can create an atmosphere of togetherness, because users will face each other face to face. In addition to the circle shape, the square shape is more effective to save space or space, but creates an unfavorable atmosphere of togetherness from the circle. In order for togetherness and space savings to be obtained, the combination of the two forms can be a solution to space savings and create the impression of togetherness. This combination of shapes that make the shape organic and a bit geometric.

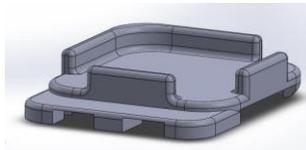


Fig. 4. Example of form combination Jatigede dining facilities (source : personal data)

4.2 color consideration of dining facilities

Color is the most influential view on one's attraction or mood. The colors that exist today contain a different meaning in each color. Such as the red color that symbolizes heat, courage, energy, and love. In designing this seating facility, colors that match the condition of the atmosphere to be built are the colors that can lead to an atmosphere of togetherness, which color will make the heart to feel the togetherness. Building color in the dining facility can be done by taking the color of the material or by adding a pigment (paint) to the surface of the dining facility. Taking color from the material will also make more of a natural impression than adding paint to the surface of the facility.



Fig. 5. example of color from material (Source: dreamstime.com)

4.3 texture Considerations of dining facilities

To embrace the traditional and modern impression of Dining facilities, the texture is natural texture but clean. Natural textures can be obtained from natural materials and artificial materials. Examples of natural textures are textures of bamboo, wood, woven bamboo and rattan, while the artificial textures for example are fabric, plastic, iron, resin and HPL layers. Another consideration for the seating facilities as well as the facilities of the food area is to make sure the applied textures should be textures that are not easily soiled and easy to clean when exposed to food. Clean texture is a texture that is not rough and not hairy like cloth, leather, webbing and so forth. It is important to avoid dust and make it easier to clean. Some materials with these specifications include wood with a layer of waterproof (parquet wood), ceramics, and fiberglass.



Fig. 6. Bamboo texture and wood parquet (Source: Alibaba.com)

4.4 T.O. R (Terms of Reference)

T.O.R is a reference frame to be applied in the design. T.O.R is one of the things that should be considered to make the right design so that the product produced can work properly. Based on the analysis of aspects that have been done, here are T.O.R from the design of the dining facility:

4.4.1 Product Description

- Products designed are dining facilities that can increase visitor interest and add comfort for users of the dining facility.
- Dining facilities only use the procedure of eating sunda, it called "lesehan" or cross-legged and do not use furniture.
- The dominant color used is the color that matched to the nature of Jatigede Reservoir.
- The form of a dining facility is a form that can build an atmosphere of togetherness and easy in care.

4.4.2 Design Consideration

- The shape of the dining facility to adjust to the natural conditions and forms that can build an atmosphere of togetherness, it is because the targeted visitors are family, relatives, or close friends.

- Using a color scheme that suits the hot weather conditions Jatigede Reservoir, which is the colors that give the cold impressions such as white, blue, green and other colors from the same tone.
- The recommendation form for this dining facility is a combination of geometric and organic forms, which are not rigid or organic.
- Color recommendation for this dining facility is a color that can cause the impression of togetherness such as white, green, yellow, brown, gray, and natural material colors are usually close to brown.
- the recommended Texture for this dining facility is textures that follow natural materials, such as wood, woven bamboo, and so on, except on the dining area, which should use materials that are easy to clean and mildew-free like plastic.

4.4.3 Design Constraints

- Forms of dining facilities should be rounded (minimal edges) for easier cleaning.
- Using the color scheme that can lead to an atmosphere of togetherness, as has been shown above.
- The form of the dining facility should be appropriate and blend with the natural condition of Jatigede Reservoir.
- The main objects is to attract more visitor to the dining area. Therefore, the designed Facilities are facilities that deal directly with customers, not the seller.

5 Conclusion

Based on the results of the analysis that has been done, it can be concluded that the design of the recommended dining facilities for the dining facilities become more interesting is to use some design considerations, namely the consideration of shape, color and texture. The overall shape consideration is to use a combined form between the organic form and the geometric shape, whereas the color using a color that can lead to the impression of togetherness, that is like the natural color. Texture recommendations used are natural textures such as wood, bamboo and rattan or alternatively, textures of artificial materials such as HPL, fiberglass, and plastic.

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