Interior design of tin museum in Jakarta

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Abstract. This research aimed to seeks interior design for the tin museum in Jakarta. The objective of this research was to increase the knowledge of the society about the tin. The museum was built in Jakarta because it is Indonesia’s capital that became the center of activity for all people, both Indonesian and outsider. The facilities in the museum were display areas, auditoriums, museum management offices, and cafeterias. The research question raised was, “how is the circulation of the tin museum display area to facilitate visitors to access information”. To answer the research question, it would be a needed concept that supported the activities and objectives of the museum design. This research used direct research methods, such as field surveys, interviews, and observation. It finds that to support the activities of visitors in the museum, the design is supported by circulation patterns that make it easier for visitors to access information. Besides, the design of the museum is also supported by lighting techniques, so the collections on display can be displayed to the maximum. The concept of colors, materials used, and the layout are also a support to maximize the museum’s design so the functions and activities in the museum can be appropriate and used comfortably.

Keywords: tin museum, circulation, design

1. Introduction

Indonesia is a country that consists of a fairly large area of the archipelago and has a fairly large natural resource income from each region in Indonesia. Many of the products that we can find in Indonesia, one of which is tin. The largest tin producer in Indonesia is the Bangka Belitung archipelago. Not surprisingly, this makes the Indonesian State the fourth-largest tin producer in the world after the People's Republic of China, Latin America, and Peru [1].

Tin has its history, and of course, that history must be well guarded so later it can become a legacy and knowledge for future generations. Thus, a museum is needed as a place to preserve these historical objects so that these historical objects can be enjoyed by our future generations [2].

The museum certainly becomes a very important role for these historical objects, so it must be designed following the museum's space requirements, so it can be maintained security for historical objects and comfort and has an attraction for visitors [2]. However, unfortunately, the tin museum display area in Bangka is still very narrow, even though this museum is the only tin museum in Indonesia that introduces history to the types of tin. Thus, the authors designed the tin museum located in Jakarta, the capital of Indonesia, so people from outside Bangka Island would be able to learn about tin or the introduction of tin [3].
It is necessary to have interior design in the tin museum that supports learning and introduces the history and knowledge of tin to be better known in the wider community, both children and adults. Making science interesting stimulates curiosity and the development of interest - talent in children and adults. This is where an important role for museums and scientific and historical centers is needed to actively introduce children to the broader environment [4].

Thus, it is necessary to have a good design in the Tin Museum by taking into account the activities carried out and then bringing up various facilities, both main and supporting facilities for visitors. The use of interior elements such as floor, wall, ceiling, and furniture, is very important in its influence on museum visitors because it can cause bored/pleasant [5]. Proper circulation will make visitors interested in exploring this Tin Museum. Also, decorative elements that need to be considered to stimulate visitors' knowledge in the displayed display order. So in it, children can explore knowledge about tin with fun and comfort. And the fulfillment of the education and entertainment functions of the museum itself [6].

Based on the background of the above problems, the problem formulation of this research are; (1) What is the concept of the tin museum to attract visitors of various ages?; (2) How is circulation in the tin museum display area so it can make it easier for visitors to access information?; and (3) What is the display plan that fits various sizes of objects for the Tin museum collection objects?

So, the purpose of this research is to create a museum interior design with a concept that can be enjoyed by all ages. Besides, it aims to make a good circulation to support activities in accessing information in the museum and display layout with a size that matches the collection objects that will be displayed at the tin museum.

2. Methodology

This research used direct research method, such as field survey, interview, and observation.

a. Field Survey: Field surveys are needed to obtain and collect information directly related to the museum. The survey was conducted by visiting several places, namely, the Indonesian Tin Museum located in Pangkal Pinang, Bangka, the land Museum located in the city of Bogor, and the Oil and Gas Museum located in TMII, DKI Jakarta. The survey results obtained data that includes a photo and video documentation, circulation in the exhibition area by placing the display layout in the museum, collection objects, and facilities used in the museum.

b. Interview: The method used to obtain or gather more in-depth information and research data about the space requirements of the tin museum to be used in the tin museum design process. Also, interviews were conducted to obtain internal information on the tin museum. This interview was conducted by way of question and answer directly to the parties concerned. The data obtained include the types of collection objects on display, information on collection objects, building history, space requirements, and interior elements in the surveyed museum. This information will later be used in the process of designing the tin museum in Jakarta.

c. Observation: The method used to obtain or collect information and data by directly observing various activities that occur at the museum, as well as matters relating to interior design. They are such as interactions between visitors, officers, and other parties in the museum. This observation method also needs to be done to observe the building's condition both inside and outside the building and the condition of the surrounding environment. These data will be useful during the design process of the tin museum.

Besides the direct research method, this research used a literature study. A literature study is a form of data collection related to interior design in general, such as collecting data on guidelines for designing a tin museum and arranging a museum tin space so the room can be used effectively by its function. The data can be obtained from journals, blogs, and reference books such as Guidelines for Museum Management [7], Let's Get to Know the Museum [8], Guidelines for Establishing Museums, Smart Books on Museum [5], Management of Museum Collections, Technical Guidelines for Making
Exhibition Facilities at Museums, Exhibition Guidelines in the Museum, Guidelines for the Indonesian Museum and Museums in Indonesia [9].

Moreover, the planning stages for the design of the tin museum showed in Figure 1:

![Figure 1. Planning Stages](image)

3. Results and discussions

Tin in Indonesia has a long history that we should protect. The concept of planning and design of this museum must provide an image or a special image. Through an appearance in a room designed to bring visitors to a perception that the atmosphere in the room that invites visitors can feel the atmosphere created and can support visitors to do activities in it, such as finding new knowledge in the museum. Thus, the author takes a concept inspired by tin mining to support the design of the tin museum.

Bangka Belitung Island is the largest tin producer in Indonesia, and it is not surprising that many former tin mines lie on this island. The hallmark of this former tin mining is like a lake whose shape is erratic. Besides this, former tin mining has a distinctive color that is quite interesting, namely blue and green. There is a stretch of sand around it with white color.

Besides taking inspiration from the shape and characteristics of tin mining, the author also takes inspiration from one of the activities that we can encounter in tin mining is tin weighting. Tinine balance itself is a typical language for Bangka people as a term for looking for drifting tin. Balancing tin is usually done by the Bangka community by finding the remaining tin from tin mining, which uses makeshift tools such as dulang, plastic plates or containers, buckets, and carpets to separate tin from the ground.

The authors get the concept that will be used as inspiration in the design, such as using the colors of blue, green inspired by the color of water in the tin mine. White is inspired by the color of sand around the tin mine—using twisted shapes and patterns inspired by how to offset tin (look for drifting tin).
3.1. Circulation concept
Circulation connects one room to another. Circulation can use existing space that has its own room. There are several circulation types, namely linear, radial, spiral (rotating), grid, and network. This museum will use linear circulation.

Linear circulation is a straight path that can be the main organizing element in a row of space. Roads can be curved or turn directions, cut other roads, branch off, or form a loop. Linear circulation applied at the Tin Museum aims to make it easier for visitors to explore information. It is because this linear circulation form will direct visitors to all the display areas regularly, so nothing is missed. The zones in the Tin Museum exhibition area are as follows:
a. The Introduction to Tin area exhibits tin mining on Bangka Island. In this area, a miniature of the former tin mining will be exhibited, which now a tourist spot on Bangka Island is called Kaolin Lake.

b. The tin history area contains information about the history of tin and the development of tools used for tin mining from time to time.

c. The type of tin area contains the tin type, tin content, and rocks containing tin ore.

d. This tin mining area will provide information about tin mining. In this area, miniature forms of mining will be displayed, such as mining on land and at sea.

e. The tin industry area will exhibit objects made of tin. Various types of the tin industry will be found in this area to add insight into tin products.

4. Conclusions

As we know, Indonesia is a country with diverse natural resources, one of which is tin. For this reason, it is necessary to have a museum so more people will know about tin. Until now, the tin museum is only in Bangka Island, which is the largest tin producer in our country. Thus, learning about tin in our country needs to be developed by building a tin museum in the center of our national capital, Jakarta. As we know, Jakarta has become the choice for people from various regions in Indonesia and even foreign residents to seek knowledge and work. For this reason, the tin museum was built in Jakarta, so more people would know tin.

Tin itself certainly has a history that needs to be preserved to be learned by future generations. Thus, this museum is designed with information about the history of tin from time to time. In addition to the history of tin, this museum also displays types of tin, tin mining, and the tin industry. Besides, this museum is also equipped with an auditorium to provide more in-depth information about tin.

The Tin Museum is designed as a place to get new education about tin for the general public in Indonesia and outside Indonesia. This museum is designed with a concept that can invite public interest to learn about tin. Besides, this museum is also designed with a circulation that makes it easy for visitors to access information.

In designing this museum, the author does several ways to get data, such as conducting surveys in several museums in Jakarta and outside Jakarta and interviewing relevant parties to get more in-depth information. These data will be used as a basis for the interior design of the Tin museum.

To support the activities of visitors in the museum, in the design of the museum is also supported by circulation patterns that make it easier for visitors to access information. Besides, the design of the museum is also supported by lighting techniques, so the collections on display can be displayed to the maximum. Abolition, the concept of colors and materials used, the layout is also a support to maximize the museum's design so the functions and activities in the museum can be appropriate and used comfortably.

This design aims to increase knowledge in the broader community about tin. Besides, this design also makes it easier for the community to learn because the museum will be established in the Capital City area and designed with a design that supports the community to learn.

From the writing of the Final Project report entitled "The Design of Tin Museum in Jakarta", there are some suggestions from the authors for the community. It is hoped that the Tin Museum in Jakarta will be able to help the broader community in terms of adding insight into tin.
The design of the Tin Museum is expected to be a benefit for the people in and outside Indonesia in increasing knowledge about it, which is a crop from the island of Bangka. This museum is made with concepts and circulation that support the community in transferring information in it, so the community is expected to effectively carry out activities in it and provide its attraction so people can be interested in learning about tin. The design of the tin museum in the capital city of Jakarta is expected to make it easier for people to find information about it.

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