International Journal of Application on Social Science and Humanities
Vol. 1, No. 2, May 2023: pp 1432-1439 ISSN-L 2987-8241 (Electronic Version)

IMPLEMENTATION CONCEPT BACK TO THE NATURE IN DIVERSITY OF THE MAMMAL ROOM AT MUSEUM ZOOLOGI BOGOR

Angela Audy Dharmawan[1], Fivanda[2] & Muhammad Taufiq[3]

[1]Faculty of Art and Design, University Tarumanagara Jakarta
Email: angela.615190036@stu.untar.ac.id
[2]Faculty of Art and Design, University Tarumanagara Jakarta
Email: fivanda@fsrd.untar.ac.id
[3]Faculty of Art and Design, University Tarumanagara Jakarta
Email: m.taufiq@fsrd.untar.ac.id

Submitted: July 2022, Revised: December 2022, Accepted: May 2023

ABSTRACT

The richness of fauna in Indonesia is very diverse, but this wealth in Indonesia is not widely known by the wider community. The lack of facilities that can educate the public about these natural resources is a very crucial factor. Indonesia has a Museum Zoologi located in Bogor, where Bogor is a city dubbed the center of education and is one of the tourist destination cities. The lack of interest among Indonesians in the Museum Zoologi is a real problem. One of the causes is the interior atmosphere and display system that still uses the old concept and does not attract public attention and the museum has not been able to accommodate the need for the function and purpose of the museum, namely as a means of conservation and information center as a whole and has not been supported by the right visualization. In public spaces, in addition to users also need to consider the image of the space in accordance with the brand image that can be seen through the brand image. Brand image is a representation of the entire brand and is formed from information and past experiences with the brand. By using Kilmer's design process method, this design uses a new theme concept related to the habitat or residence of the animal itself. With a touch of modern style using a new atmosphere for visitors. The purpose of this design is for visitors to be educated through a new interior concept that can attract the public.

Keywords: *Fauna, interior, design, museum, nature*

1. PREFACE

Indonesia is located in the Asian and Australian zones, within its borders as a country that has biodiversity and animals, Indonesia is a country that is ranked second in the world in the number of mammal species in the world (515 species), ranked first for bird-tailed butterflies (121 species), ranked third for reptiles (more than 600 species), ranked fourth for birds (1,519 species), ranked fifth for amphibians (270 species), and ranked seventh for flowering plants (25,000) (Pratiwi et al., 2018). Unfortunately, the richness of fauna and animals in Indonesia is not widely known by the Indonesian population and not many facilities in Indonesia can educate the public about the richness of the fauna, either in the form of information media or tourist facilities in the form of museums (Indrosaptono et al., 1995). Museums are part of a historic and valuable element that has a cultural heritage and can connect people from the past to the present. Indonesian people's lack of interest in museums is a real problem. "The advantages of museums in the eyes of the public are still lacking, because the place is considered haunted and boring, this is our job to educate the public, especially students, to make museums a tourist spot as well as a center of knowledge and knowledge," he said. Summarized from the website culture. Kemendikbud, the reasons for the low level of museum visits in Indonesia include the fact that currently the museum has not been able to accommodate the need for the functions and objectives of the museum, namely as a means of conservation and information center as a whole and has not been supported by

 10.24912/ijassh.v1i2.27761

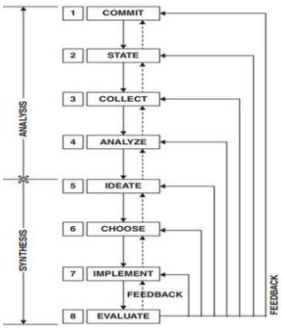
appropriate technology and facilities, in this case it can be a lack of museum efforts to involve visitors as an active part in the development of science.
Museums are part of a historic and valuable element that has cultural heritage and can connect humans from the past to the present. What is meant by cultural heritage itself is evidence of human civilization that has passed through a social process (Irdana et al., 2018). Museums must propose more services to visitors, not to show only in empty event promotions (Hanquinet, 2012). Indonesia has a Museum Zoologi located in Bogor, where Bogor is a city dubbed the center of education because there is the Bogor Agricultural Institute, and is one of the tourist destination cities in Indonesia which is not only ogled by domestic tourists but also foreign tourists (Prasetyo et al., 2018), The new concept that will be raised for this design is *"Back to The Nature in Diversity"*, which describes different animal habitats with a modern design approach that will provide new experiences to visitors along with the times. The concept displays an interior that is responsive to the environment and the relationship between spaces which is an inseparable unit so that it gives the impression of being one (Falk, J.H., & Dierking, 2011) with nature, through the selection of materials. *Diversity* applied is raised from the diversity of fauna and their habitat ecosystems in Indonesia, starting from the tropical rainforest ecosystem, which is a forest in a tropical climate. The second ecosystem is the mangrove forest ecosystem, which is a place to live and shelter fish and birds. The third ecosystem is the sea, which includes coral reefs, plankton, coastal plants, crabs. Using the new concept will maintain and strengthen the Museum's image. Brand image is related to attitudes in the form of beliefs and preferences towards a brand.

Museums should offer more services to visitors and not just feature them in empty promotions (Laurie Hanquinet and Mike Savage, 2012). With the design of this Zoological Museum in addition to adding tourist destinations, it is also expected to be the attraction of the city of Bogor itself. So that visitors who come are not only educated but also entertained with new concepts that will be designed following the times. As well as interesting facilities that will be offered through this design. With the design of this Museum Zoologi in addition to adding tourist destinations, it is also expected to be the attraction of the city of Bogor itself. So that visitors who come are not only educated but also entertained with new concepts that will be designed following the times. As well as interesting facilities that will be offered through this design.

2. RESEARCH METHOD

The design method used is the method pioneered by Rosemary Kilmer (2014). According to (Kilmer, 2014), the design process can be divided into 2 stages, the first stage is analysis, at this stage the problem is identified, dissected, examined, researched and analyzed. The second stage, namely synthesis, the author processes and produces design solutions which are then implemented.

Figure 1
Design method diagram



Commit
This stage consists of readiness administration to conduct and implement the design program.

State
This stage is the stage of defining the problem as detailed as possible can have a major influence on solving the problem. At this stage the designer creates a background for the design of the Bogor Museum Zoologi. The designer also formulates several problems from this background.

Collect
Collecting primary and secondary data. Primary data is obtained through the website, Zoology Museum survey, observation and interviews with Museum staff. Secondary data is compiled based on literature review related to the TA title and problem formulation.

Analyze
Consists of: (a) image analysis; (b) analysis of environmental/site potential; (c) building analysis; (d) user analysis; (e) analyze collection data; (f) analysis function, activities and facilities, space size; (g) analysis organization space and space circulation; (h) analysis of space requirements; (i) story-line analysis.

Ideate
Programmatic Concept, it is an evaluation and conclusion obtained and then developed in the design concept to be realized in 3-dimensional form. Design Concept, it is the result of the evaluation in the previous stage, and the conclusion in the form of drawings that will be a guide in designing the interior.

Choose
Best alternative based on criteria and assessment. The best alternative proceeds to the Selection implementation design process.

Implement
Once the layout is selected, the next stage is the creation of working drawings and presentation drawings. Working drawings and presentation drawings are completed after the layout approval stage.

Evaluate

This is the interior design final and evaluation assessment stage of the Museum Zoologi interior design project which consists of Evaluation 1, Evaluation 2, Evaluation 3, Feasibility Session, and final session.

3. RESULTS AND DISCUSSIONS

Design object identification

The design was carried out at the Museum Zoologi in Bogor, located within the Bogor Botanical Garden complex. Located at Ir. H. Juanda Street 9, Paledang, Bogor. It has a building area of 756.9 m^2 and a land area of 1500 m^2. Museum Zoologi Bogor based on its position is a national museum and based on the type of collection is included in the category of special museums.

Figure 1
Museum zoologi in bogor

Theme and style concept

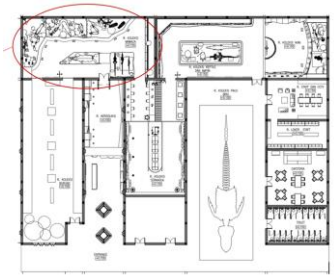
Through mindmapping, the style used in this design is "Modern Nature", which is a style that focuses on the natural environment. The modern point will be focused on simplicity and functionality. Using neutral earthy colors to emphasize the natural impression. The style used is "Back to The Nature in Diversity", which describes the habitat of animal ecosystems such as air, land, and water with a modern design approach.

Figure 2
Mindmapping

Layout concept

The mammal collection room has three way for visitor circulation openings, namely the main entrance, the entrance to the bird room, and the exit from the bird room to enter the mammal. The fish collection room has 2 openings, which are different exits and entrances. The plan form of the Museum Zoologi Bogor has a geometric and widened shape. The mammal room has several window openings that provide natural light.

Figure 3
Layout of museum zoologi



Interior of mammal collection room

The mammal collection room is where the Museum Zoologi exhibits and stores mammals spread throughout Indonesia. Starting from Kalimantan, Sulawesi, Java, Sumatra. The storyline designed for this space is taxonomic, according to the habitat of the animal's origin based on longitude, namely 'Waktu Indonesia Barat' (WIB), 'Waktu Indonesia Tengah' (WITA), and 'Waktu Indonesia Timur' (WIT). Visitors usually walk according to the predetermined circulation and see the explanations that have been provided. Ecosystems that are raised to design diorama collections are also different. In the western part of Indonesia, the distribution of animals is found in Sumatra, Java, Bali, and Kalimantan. The forest in the western part is a tropical rainforest, has its own characteristics, which thrives with climate and frequent rain intensity. So that many western flora are found that thrive in Kalimantan and Sumatra. There are some flora that have a size of it can reach up to 50 meters in height. Usually, this flora is often found in tropical rainforests which are indeed lush and distort sunlight to reach the ground.

Figure 4
Perspective 1 interior of mammal collection room

The mammal ecosystem for the central part of Indonesia, which includes Sulawesi, Maluku and parts of Kalimantan, is mountain forest. The ecosystem of this region is influenced by the flora of the Asian and Australian continents so it is classified as a transitional area. The central part of Indonesia has a drier climate with low air humidity (Silmi, 2020). Trees begin to be covered with moss and epiphytic plants, including orchids. Meanwhile, the crown roof begins to shorten with a height of about 30 meters.

Figure 5
Perspective Interior of Mammal Collection Room

Eastern Indonesia includes Papua, Nusa Tenggara, and Maluku. It has characteristics such as sahul exposure, has parallel leaves, and has some steppe or grassland. The materials used to show the impression of nature are stone skin, synthetic grass, sand, and some synthetic trees. Technology is also added to this design, namely using video mapping shot by a projector to the floor, to give the atmosphere of walking in the forest.

Space shaping elements
For this interior design itself, the concept is taken from the variety of Indonesian fauna which is very varied, both in species and habitat. The mammal hall is divided based on taxonomy, since Indonesia is divided into 3 parts of time, namely the eastern, western and central regions, the fauna habitat follows the division of these regions. Interior space-forming elements are elements that must be present in the interior. One and the other are interdependent. (Ching & Binggeli, 2012):

Floor
Figure 6
Floor mammal room

The floor of the mammal and fish collection room uses concrete material consisting of cement, water, and aggregate. Then polyurethane coating is applied to the floor. The use of polyurethane is the right choice because the exhibition area is an area that is often passed by people, so using this material makes the floor not quickly damaged and scratch resistant. The goal is to make it more modern and natural and so that it can be shot with a laser projector.

Wall
Figure 7
Mammal room wall

The walls use matte black wall paint material, matte wall paint is more resistant to weather and the heat of sunlight, making it suitable for use on museum walls. The soft effect also makes this paint not reflect the lights (Joseph De Chiara, Julius Panero, 1991). The wall uses a custom wallpaper with a picture of the atmosphere of the fauna habitat so that it looks more natural. Using resin stone molds in the form of stalagmites and cliff surface textures using stone skin. All the shapes used follow what exists in the nature where the animals live.

Ceiling
Figure 7
Mammal room wall

On the ceiling using a grid ceiling in black paint, to provide education to visitors, the rotation of the wind that occurs. The goal is also to expose the existing ceiling to maintain the shape of the building. The black color is used with the aim that visitors do not focus on the ceiling, but focus on the museum collection. Grid ceilings are also used so that air circulation in the room runs well.

Furniture
Figure 9
Mammal room furniture

The furniture used is a display system, which includes dioramas, pedestal displays, and wall vitrines. Using multiplex material, solid surface, and stone skin resin to give a natural impression of nature. The basic shape of the display is dominantly curved to emphasize the dynamic image. Furniture materials and shapes are as close as possible to what is in nature, in order to support the atmosphere of nature. The use of LED hidden light to emphasize the modern side. Furniture design must also pay attention to the dimensions and cones of human vision, the comfort of the viewing angle to see should be 40 degrees downward and 30 degrees vertically, and 30 degrees horizontally (Neufert & Neufert, 2012).

4. CONCLUSIONS AND SUGGESTIONS

From the results of the design studied and implementation of concept ‘Back To The Nature in Diversity’ explained the new Museum Zoologi Bogor has applied the modern nature style in accordance with the characteristics of the style in various interior elements, both in the elements of decoration and material selection, and the furniture used has represented the image of the museum. The mammal collection room is where the Museum Zoologi exhibits and stores mammals spread throughout Indonesia. Starting from Kalimantan, Sulawesi, Java, Sumatra. The storyline designed for this space is taxonomic, according to the habitat of the animal's origin based on longitude, namely ‘Waktu Indonesia Barat’ (WIB), ‘Waktu Indonesia Tengah’ (WITA), and ‘Waktu Indonesia Timur’ (WIT). The mammal ecosystem for the central part of Indonesia, which includes Sulawesi, Maluku and parts of Kalimantan, is mountain forest. Visitors usually walk

according to the predetermined circulation and see the explanations that have been provided. The advantages of this research are there is a clear explanation of the interior of the room and analyze about space-forming interior elements.

Acknowledgement
Thank you to the staff of the Museum Zoologi Bogor for taking the time and giving the author the opportunity to conduct interviews, and in-depth observations about the collections and buildings of the Museum Zoologi Bogor.

REFERENCES

Chiara, J.D., Panero, J. (1991). *Time Saver Standards for Interior Design*. New York: McGraw-Hill.

Ching, F. D. K., & Binggeli, C. (2012). *Interior Design Illustrated*. Wiley & Sons, Inc.

Falk, J.H., & Dierking, L. (2011). *The Museum Experience*. Walnut Creek.

Hanquinet, L. (2012). Educative Leisure and the Art Museum. *Journal Museum and Society*, 10(1), 42-59. https://journals.le.ac.uk/ojs1/index.php/mas/article/view/194/207

Indrosaptono, D., Iswanto, D., & Modern, A. P. (1995). *Museum Zoologi di Kota Semarang Selatan : Kantor Pengelola Waduk Timur : Sungai Kreo Letak Lokasi Museum dan Goa Kreo*.

Irdana Program Studi Kepariwisataan, N., Vokasi, S., Gadjah Mada, U., & Kumarawarman Bank Mandiri Tbk Area Yogyakarta, S. P. (2018). *Museum Bank Mandiri Jakarta*. Maret, 1(2), 132–147.

Kilmer, R. (2014). *Designing Interior Second Edition*. Wiley & Sons, Inc.

Monica, M., Yuni, I., & Fivanda, F. (2021, August). The Implementation of the Indonesian Adiwarna Design Concept Towards the Acoustics of Auditorium Tanah Airku Theater TMII Jakarta. In *International Conference on Economics, Business, Social, and Humanities (ICEBSH 2021)* (pp. 1205-1210). Atlantis Press. https://doi.org/10.2991/assehr.k.210805.189

Mutiara, M. W., Kristina, A. (2020). Pengaruh Brand Image Terhadap Implementasi Desain Interior Studi Kasus Museum Basket the Bucketlist, Bogor. *Jurnal Muara Ilmu Sosial, Humaniora, dan Sen*i, 4(1), 145. https://doi.org/10.24912/jmishumsen.v4i1.7750.2020

Neufert, E., & Neufert, P. (2012). *Architects' Data Fourth Edition*. Wiley & Sons, Inc.

Prasetyo, D., Manik, T. S., & Riyanti, D. (2021). Pemanfaatan Museum Sebagai Objek Wisata Edukasi. *Kepariwisataan: Jurnal Ilmiah*, 15(1), 1–11. https://doi.org/10.47256/kepariwisataan.v15i01.146