

Study of Facade Characteristics of Limpapeh Bridge as an Iconic Building in Bukittinggi City

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Abstract

Bukittinggi City is a city in West Sumatra that has high historical value and has iconic buildings, one of which is the Limpapeh Bridge as the pride of the community so that it must be preserved. This research aims to find out the characteristics of the building and the elements that influence it. The method uses descriptive qualitative by conducting observations, surveys, interviews, and documentation. Based on the analysis of the facade of Limpapeh bridge in terms of facade elements and facade composition. Viewed from the facade elements, Limpapeh Bridge has a strong cultural character with bagonjong roof shape and typical Minangkabau cultural ornaments from nature and plant motifs while the overall wall of the Limpapeh bridge looks plain with a dominant yellow colour so as to give a neutral feel to the building. The building door is a double door with no windows and a triangular gavel shape, railing with rectangular and circular shapes and there are two columns in the building. While the composition of the Limpapeh bridge facade has a formal and slightly monotonous character with a symmetrical balance, static rhythm, vertical rectangular geometry, the proportion of the width of the building is longer than the height of the building and has a dominance of discordant contrast.

Keywords: Characteristic, Iconic, Facade, Architecture, Bukittinggi

Introduction

Bukittinggi City has buildings that have high visual and historical value as well as buildings that are characteristic and Minangkabau culture so that they become regional identity buildings for Bukittinggi City. According to the English-Indonesian Dictionary (Hambali Sadely-1986), iconic buildings are buildings that have characteristics and culture so that they become landmarks or markers in the City of Bukittinggi. According to Pawitro (2012) iconic buildings or iconic architecture are buildings that mark places or mark times, neighbourhoods, cities and even countries. The characteristics of iconic buildings include having a unique, attractive and attractive building form, having a strong and strong building strength so that it can last for a long period of time and having a building scale that tends to be large and magnificent and is located in strategic locations such as parks, crossroads, and other human gathering points.

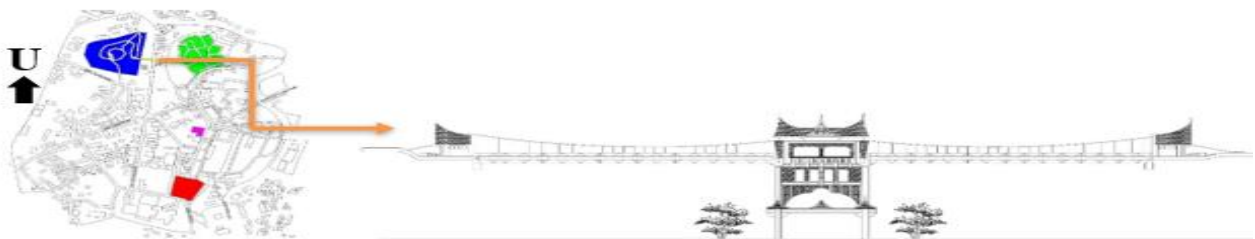


Figure 1. Location and View of Limpapeh Bridge

Source: Author's Documentation, 2024

Research on building facades already exists in previous studies but with different objects and locations,

previous research on iconic building objects in Bukittinggi City only in general, while this research discusses building facades specifically and in detail. Iconic buildings become a regional identity for Bukittinggi City, one of which is the Limpapeh Bridge which is a form of material culture that is meaningful and becomes the pride of the Minangkabau people (Syafwan, 2016). Minangkabau has a unique trait in giving birth to cultural identity through traditional architecture, namely in the form of rumah gadang (Gushendri et al, 2015). as a regional identity, the building has its own challenges in maintaining its character and characteristics as the identity of a city. The diversity of historical events passed by the Indonesian nation should be preserved by the community and known as a national identity (Mirsa et al., 2023). Lack of attention to preservation efforts in addition to being caused by natural factors, these iconic buildings have experienced physical deterioration in quality. On the other hand, the development of the city also threatens the preservation of iconic buildings and cultural heritage in Bukittinggi City, besides that according to the Coordinator of the working group of documentation and publication of the West Sumatra Provincial Cultural Heritage Preservation Centre, Mr Ahmad Kusasi, S.S., M.Hum said that Bukittinggi City has 16 cultural heritage established by the Law of the Republic of Indonesia No.11 of 2010 concerning cultural heritage.

In the Mayor's regulation No.2 of 2012 concerning the management of cultural heritage, there are 42 cultural heritage and 24 of them have been determined by the Indonesian Minister of Culture and Tourism. Mr Kusasi also said that currently there are no books or data about cultural heritage other than only regulations that discuss what includes cultural heritage, therefore data and references are needed about cultural heritage which also includes iconic buildings in Bukittinggi City. the lack of data and references related to the character of iconic buildings in Bukittinggi City so it is necessary to conduct research to find out the diversity of iconic building characters in Bukittinggi City. The preservation and development of cultural heritage buildings and iconic buildings is the responsibility of the government, but even so, public and private participation is still needed in the preservation of cultural heritage objects and iconic buildings in order to get more optimal benefits. If not handled specifically, the development and physical changes of the building will result in the loss of uniqueness and impact on the history and identity of Bukittinggi City.

The purpose of this research is to find out the characteristics of the facade of Limpapeh Bridge as an iconic building in Bukittinggi City and what elements influence it, so that it can maintain the shape and character of the building. With a qualitative approach, the characteristics of the building facade are reviewed from the characteristics of facade elements and facade composition, these characteristics are expected to be useful as input to continue to preserve Limpapeh Bridge as an iconic building in Bukittinggi City. Thus, this research not only provides an understanding of building facades but also has an impact on building preservation to maintain the identity of Bukittinggi City.

Literature Review

A. Building Characteristics

Characteristic means describing the specific properties or characteristics of an object so that it is easily understood. Building characteristics mean describing the physical characteristics in a building so that it is easy to understand so that it can be known how the meanings and symbols that exist in the building. Bukittinggi City has an iconic building which is also the identity of Bukittinggi City. In a city usually has an identity. City Identity is a form of uniqueness and characteristics that a city has so that it becomes a differentiating aspect with other cities. According to Lally (1991), the formation of urban identity is influenced by the meaning of symbolic components.

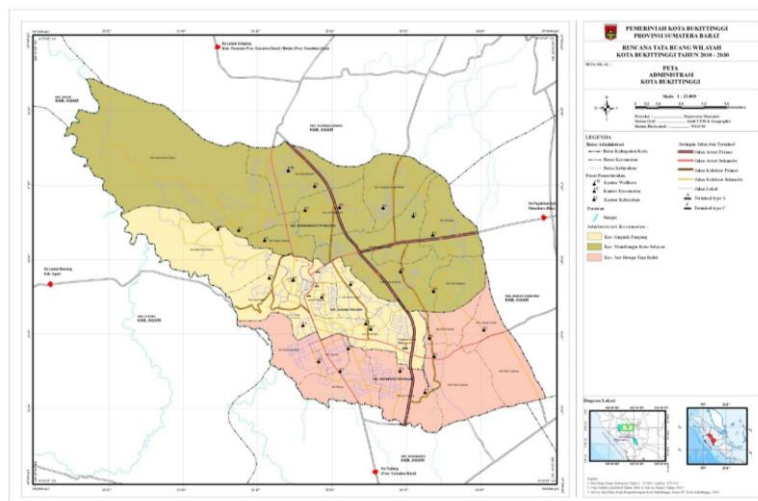


Figure 2. Administrative Map of Bukittinggi City 2010-2030

B. Bukittinggi City

Bukittinggi is the sixth largest city in West Sumatra Province. Historically, during the Dutch colonial period, Bukittinggi was the administrative centre for the Sumatran highlands. Bukittinggi was also chosen as the centre of military administration for Sumatra during the Japanese occupation. Bukittinggi was officially designated as a tourism city on 11 March 1984 in accordance with Perda No. 25 of 1987 concerning the establishment of Bukittinggi City as a

tourism development area of West Sumatra province. Bukittinggi is also classified as a tourism development area of West Sumatra according to Bukittinggi.go.id (2006).

The city of Bukittinggi is an alluring tourist destination because of its natural beauty and bounty. The city's important location is also flanked by three trans-Sumatran routes: north, east and south. Bukittinggi city Bukittinggi has a long history and is currently a very strategic city with an area of 25.24 km² *de jure* according to government regulation No. 84 of 1999 concerning changes in the boundaries of Bukittinggi city with agam regency. The area of Bukittinggi city became 145.29 km² the inclusion of several villages from Agam Regency into the administrative area of Bukittinggi City, making Bukittinggi City the sixth largest city in West Sumatra.

a. Iconic Buildings

Iconic buildings are buildings that can be used as markers in an area or city or also known as city landmarks because iconic buildings can become the identity of an area or city so that the building is easy to remember and has historical and cultural value in the area or city. According to Pawitro (2012), Iconic Buildings have several characteristics including:

1. has a unique, attractive, or interesting building form.
2. has a large and majestic building, so it is easily remembered and recognised by many people.
3. has a strong element of strength so as to make the longevity of the building.
4. strategic location of the building.

As for making a building become the identity of a city or region, iconic buildings have characteristics including the building is located in a strategic location that will become the centre of community activity so that it is easily known and remembered as the identity of the city or region. The definition of Iconic Buildings comes from two different definitions. First, a building is something that has been built by humans and has a form, shape and room in which the building also consists of a base, walls, and support for temporary, permanent, and semi-permanent buildings in a certain place to support human activities. Buildings can be seen directly and have certain symbols and meanings besides having the main function as a place to facilitate human activities and other benefits. Second, iconic, the word iconic comes from the ancient Greek word icon, which means extras, images, and representations. When the word icon is added to -ic, it turns into an adjective which means that iconic is a trait that describes and represents something strongly. An iconic building is something that is different from others both in terms of form and the vision conveyed to the general public. Iconic buildings can also be said to be landmark buildings of a city/region because these buildings have forms and characteristics that are easily remembered or remembered such as having a large building scale, having a strategic location such as being in the city centre and the centre of community activities, having a magnificent building form, having a long history and age so that it is used as a research centre and tourist destination that is often visited both from within and from outside the region and even from abroad so that iconic buildings become landmarks in a city/region.

Materials & Methods

Rob Krier (2001) mentions that the facade is the main element in the building that gives meaning and symbols to the building, so the building facade is the most important aspect in determining the characteristics of the building. Facades form their own characteristics, characteristics formed by facade elements and facade composition. Facade elements consist of exterior walls, roofs, doors, windows, columns, gables/gevels, railings, and ornaments while facade composition is the aesthetic part of the visual characteristics of a building, according to Sanyoto (2009), facade composition consists of balance, rhythm, geometry, proportion and dominance.

1. Balance
2. Rhythm
3. Geometry
4. Proportion
5. Dominance

This research was conducted to identify the characteristics of the Jam Gadang facade as an iconic building in Bukittinggi City and the elements that influence it, therefore the general method used was a qualitative method with a descriptive approach. Qualitative method is a method aimed at studying natural object research Sugiyono (2005). Research with this method is data processing in the form of primary data from observations, surveys, interviews, documentation and secondary data from books and journals of previous research into data to determine the characteristics of building facades and elements that influence Jam Gadang as an iconic building in Bukittinggi City by

grouping forms based on research variables. The descriptive qualitative method can be through the analysis of iconic building objects in Bukittinggi city. The analysis is done to find the characteristics of the facade of Jam Gadang as an iconic building in Bukittinggi City. The data processed in this research is qualitative and uses interactive analysis then the data is processed through data reduction first before verifying and presenting the data (Milles, 1992). The data that has been collected is then analysed to produce findings and match the research variables with valid theories.

Results and Discussion

Limpapeh Bridge is a suspension bridge located in Benteng Pasar Atas Village, Guguk Panjang District, Bukittinggi City. This bridge has a size of 90 metres long and about 3.8 metres wide and has a coordinate point of 0.30073 °LS 100.36849 °BT. The bridge was built by the West Sumatra Provincial Government in 1992 and inaugurated by the Minister of Tourism, Post and Telecommunications, Mr Soesilo Sudarman. Limpapeh is the name for Minang girls. The bridge spans the Ahmad Yani road and was built to connect the Kinantan Wildlife Park in Bukittinggi with Fort De Kock and is 90 metres long and approximately 3 metres wide.

a. Character Analysis Based on Facade Elements of Limpapeh Bridge

Facade elements at the Museum include exterior walls, roofs, doors, windows, columns, gables, and railings.

- Exterior wall of Limpapeh Bridge.

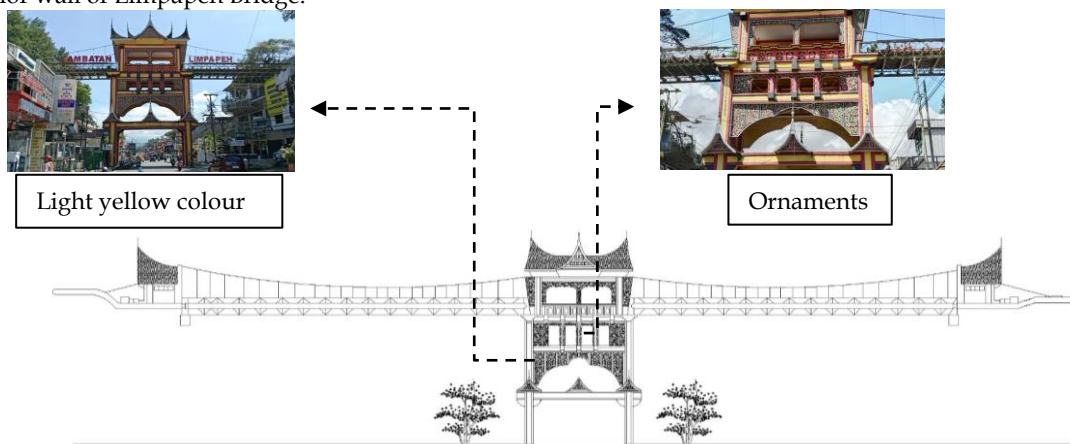


Figure 3. Limpapeh Bridge Exterior Wall

Source: Author, 2024

Exterior walls are viewed from colour, texture, material, and ornamentation. The colour of the walls on the bridge is a primary colour, namely the colour of curing so as to create a character of warmth and cheerfulness on the walls. The wall material is concrete with a smooth texture because it uses paint as a wall finishing. On the walls there are also typical Minangkabau ornaments. The ornaments have motifs from natural forms such as plants and flowers that are usually found in orname in Minangkabau Traditional Houses or Gadang Houses from West Sumatra. These ornaments are familiar to the Minangkabau people who are inspired by the Minangkabau philosophy which reads 'Alam takambang jadi guru' which has a deep meaning and understanding. In language, the philosophy means that nature develops which is used as a teacher or lesson. The entire exterior wall is filled with these ornaments, making the Limpapeh Bridge very thick with Minangkabau culture.

- Limpapeh Bridge Roof

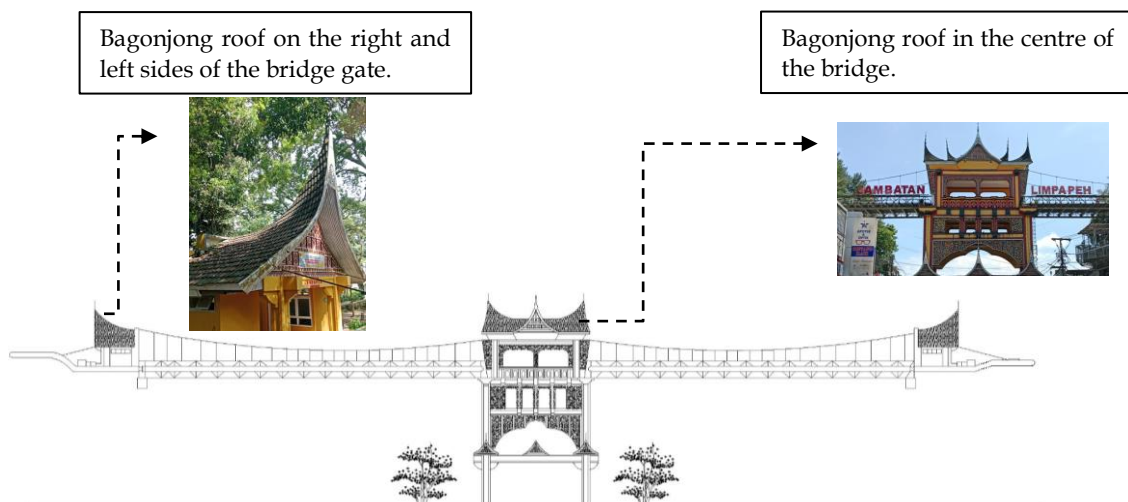


Figure 4. Limpapeh Bridge Roof

Source: Author, 2024

The roof of the bridge is also an application of the meaning and symbols of Minangkabau culture so that it adds to the thickness of Minangkabau culture on the bridge apart from the ornamental motifs on the exterior walls of the bridge. The roof is also called a gonjong or bagongjong roof which means it has a curved shape on both sides like the shape of a buffalo horn. Buffalo is a respected animal in West Sumatra society which has a story and history in ancient times when the Majapahit Kingdom wanted to rebel in the Minangkabau area.

- Limpapeh Bridge Door

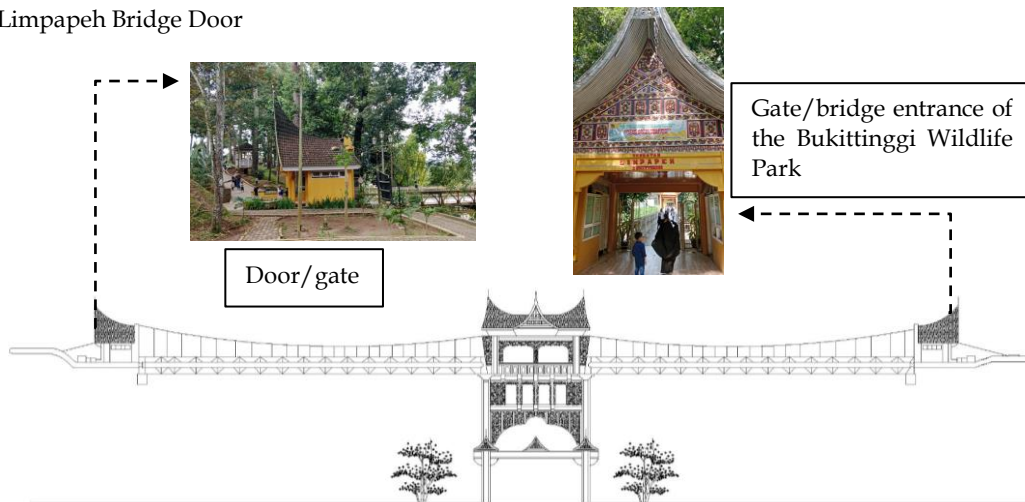


Figure 5. Limpapeh Bridge Door
Source: Author, 2024

Doors are viewed in terms of shape, number, material, and type. The shape of the door is rectangular. Doors on the bridge are found in the manager's room located at the entrance gate, the centre of the bridge and the exit gate. The door material is made of massive wood with a double door type. The shape of the door gives a simple character because it is only made of wood and there is no ornamentation on all doors. The door is not found on the bridge but only functions as a door to the manager's room which is three rooms located at the right end of the bridge, the middle of the bridge, and the left end of the bridge. The manager's room on the Limpapeh Bridge at this time no longer functions as it should because there is already a special room for the manager of the entire area not far from the bridge.

- Limpapeh Bridge Columns

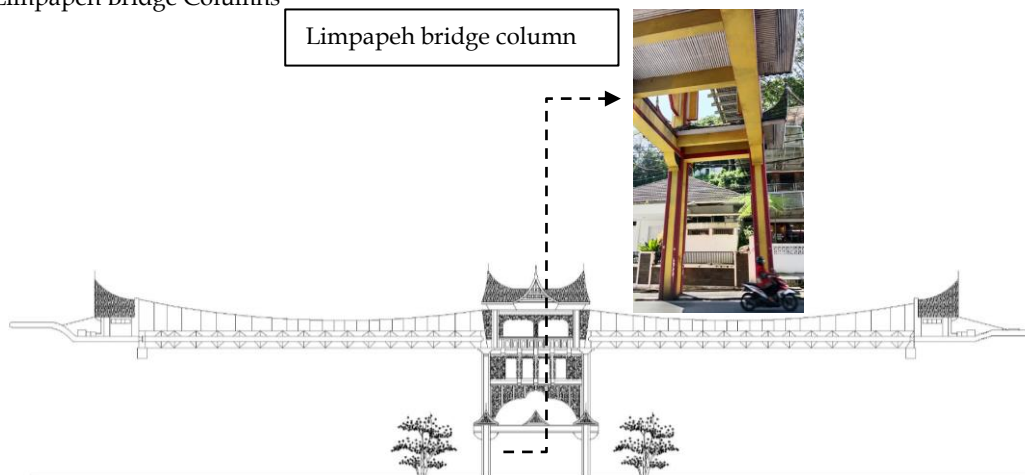


Figure 6. Limpapeh bridge column
Source: Author, 2024

The bridge column has a primary colour, yellow, which adds to the impression of sturdiness and warmth on the bridge with additional dark red lines on the bridge column. As a whole building, the column has three levels with a total column length of about 20 metres. The first level column height has a length of about 6 metres plus a beam with a length of 1 metre. The second level column is 7 metres long plus a 2 metre beam. The third tier of columns is about 5 metres long.

- Limpapeh Bridge Window

There are no windows on the Limpapeh Bridge.

- Limpapeh Br

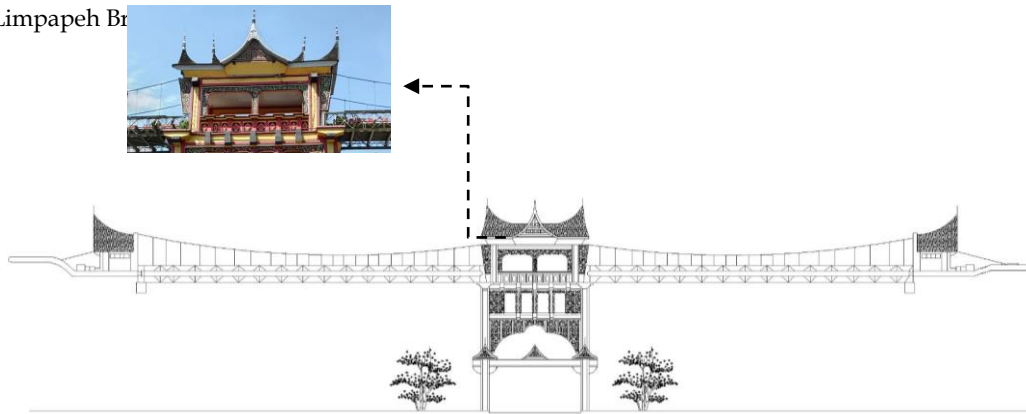


Figure 7. Limpapeh Bridge *Gables/Gevels*
Source: Author, 2024

Gevel is reviewed from the shape, number, material. The bridge gevel has a triangular shape with typical ornaments so that the gevel is familiar to visitors because the typical ornaments are typical of Minangkabau traditional houses.

- Limpapeh Bridge *Railing*

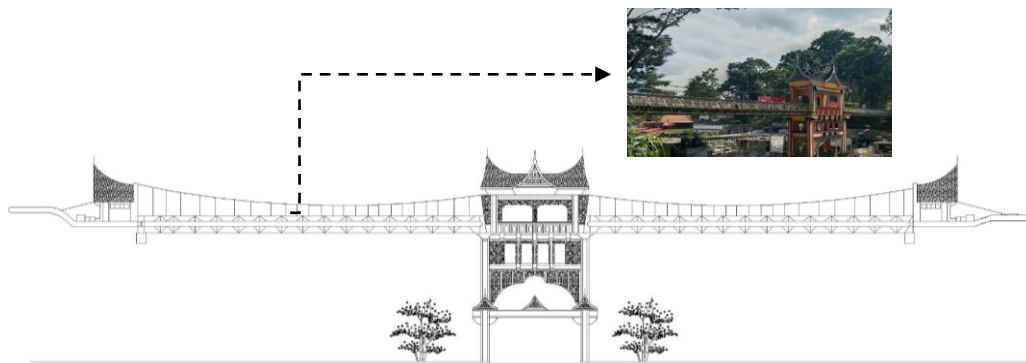


Figure 8. Limpapeh Bridge *Railing*
Source: Author, 2024

Railings are reviewed in terms of shape, material, and placement. Railing bridges are found on the right and left side of the bridge which functions as a safety. Railing material from iron with rectangular and round circular shapes.

- Limpapeh Bridge *Ornament*

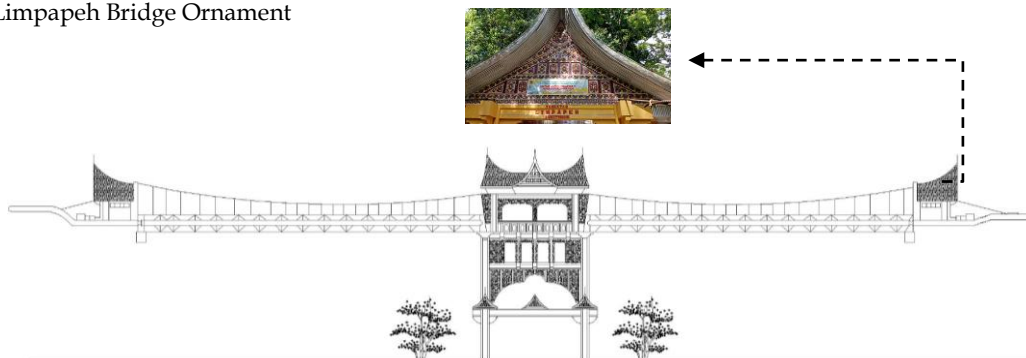


Figure 9. Limpapeh Bridge *Ornament*
Source: Author, 2024

Ornaments are reviewed from motifs, materials, placement and colours. Ornaments on the bridge are found on the roof with natural motifs. Material from wood with predominantly brown colour.

b. Character Analysis Based on the Composition of the Limpapeh Bridge

The composition of the building with the aesthetic visual characteristics of the Limpapeh Bridge Fort consists of balance, rhythm, geometry, proportion and dominance.

- Balance on Limpapeh Bridge

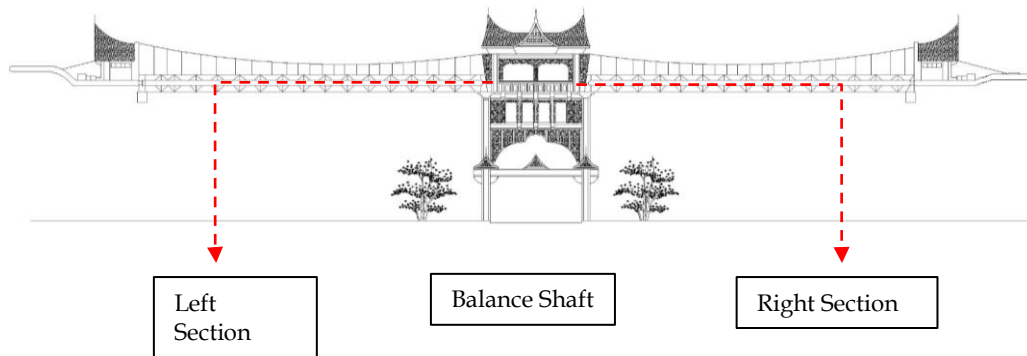


Figure 10. Balance on Limpapeh Bridge
Source: Author, 2024

The roof of the centre of the bridge is used as the axis of balance. The shape, material, and texture of the right and left sections of the bridge are the same, resulting in a symmetrical balance on the bridge.

- Rhythm on the Limpapeh Bridge

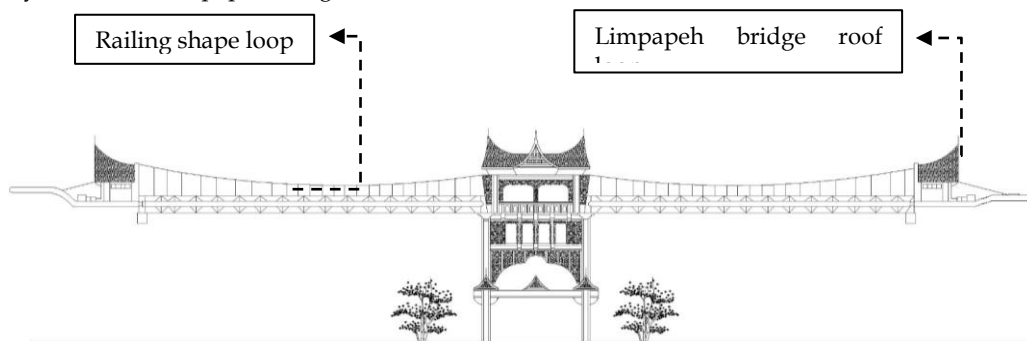


Figure 11. The rhythmic shape of the Limpapeh Bridge
Source: Author, 2024

The repetition of shapes is found on the railing and roof of the bridge. The most dominant repetition occurs on the bridge railing, resulting in a rhythm of repetition. The limpapeh bridge has different sizes, resulting in a transitional rhythm.

- Geometry of the Limpapeh Bridge

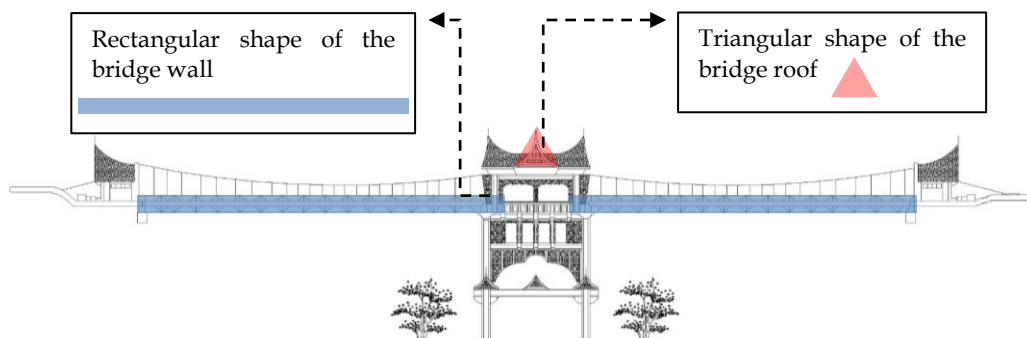


Figure 12. Geometry of the Limpapeh Bridge
Source: Author, 2024

The basic shape of the building is found on the walls and roof. The most dominating shape is the exterior wall shape with a vertical rectangular shape.

-Proportions on Limpapeh Bridge

(E)

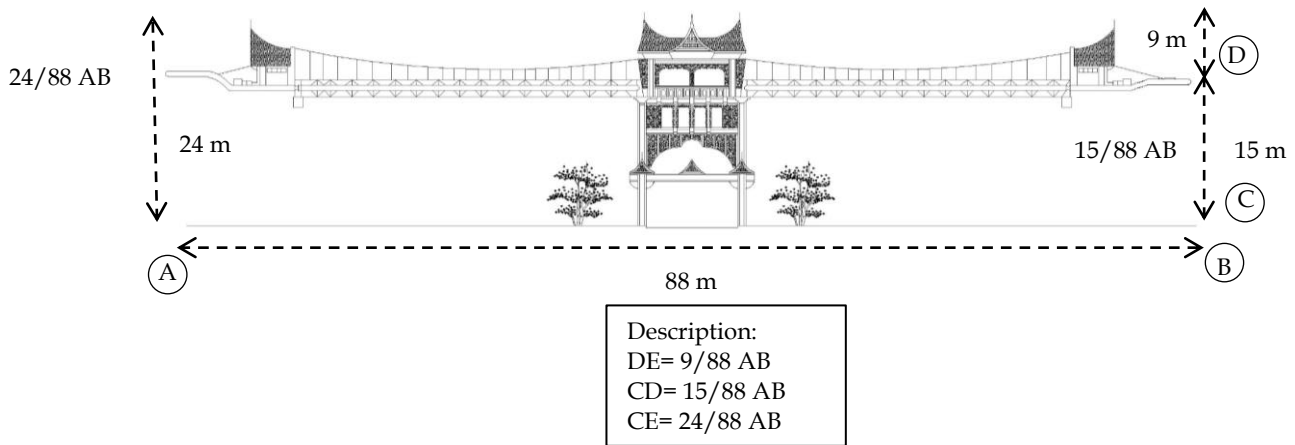


Figure 13. Proportions on Limpapeh Bridge

Source: Author, 2024

Comparison of the limpapeh bridge building can be seen in the comparison of building width: building height: and the overall height of the building.

88 m : 15 m : 24 m
 5,8 : 1 : 1,6

Based on the comparative analysis, it shows that the width of the bridge building is longer than the overall building height. The building width has a ratio of 5.8/1.6 the overall height of the building.

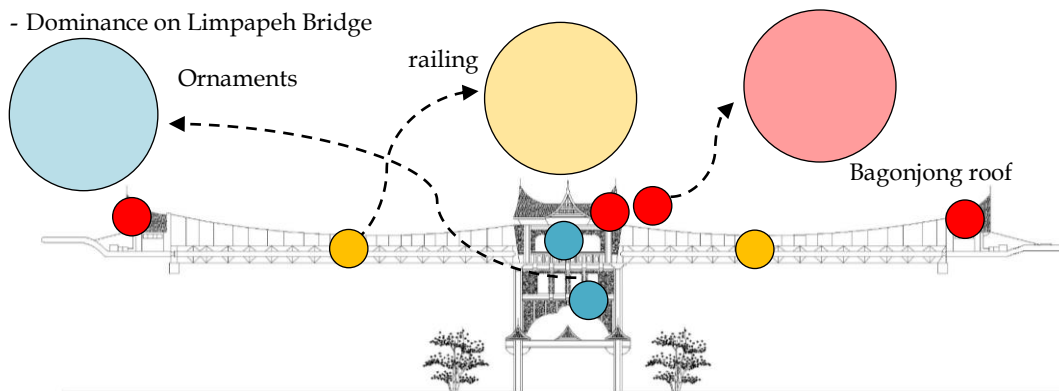


Figure 14. Dominance on Limpapeh Bridge

Source: Author, 2024

The most dominating elements on the bridge are railings, roofs and ornaments. The three elements have differences in shape and size that vary, resulting in the dominance of discordant contrasts.

Conclusions

Based on the analysis with the theory in this study, it can be concluded that the Limpapeh Bridge is an iconic building in Bukittinggi City that fulfils the characteristics of iconic architecture including the building is a building that has a strong and sturdy strength with the age of the old building that was established in 1995, the Limpapeh Bridge also has a unique and attractive shape and with a fairly large building scale. The building is also in a strategic location precisely in the city centre on Jl. Ahmad Yani, Guguk Panjang District, Benteng Area, Bukittinggi City.

Table 1. Facade Element Analysis Results
Source: Author, 2024

Facade Elements	Analysis
Exterior Wall	Primary Colours
Roof	Bagonjong
Door	Double
Window	None
Columns	2 columns
Gevel	Triangle
Railing	Rectangle
Ornaments	Plant Motif

Based on the analysis of the facade elements of the Limpapeh Bridge, it can be concluded that the bridge facade has a primary coloured wall, namely yellow with a typical roof from West Sumatra called a bagonjong roof, the roof contained in the bridge is a double roof with the number of bridge columns of two columns and a triangular gevel shape and rectangular railing and motifs on the bridge with typical plant motifs from Minangkabau.

Table 2. Facade Composition Analysis Result
Source: Author, 2024

Composition	Analysis
Balance	Symmetrical
Rhythm	Static
Geometry	Vertical Rectangle
Proportion	Building width is longer than the height
Dominance	Dominance of discord contrast

Based on the composition of the facade on the Limpapeh Bridge, it can be concluded that the balance of the bridge is symmetrical with a static rhythm, the Limpapeh Bridge has a geometry dominated by vertical rectangles and the proportion of the bridge with a building width that is longer than the building height and the most dominating building is the dominance of discord contrast which means different shapes in buildings such as triangles, rectangles and rectangles.

Acknowledgments

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