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THE CHARACTERISTICS OF RAILWAY STATION BUILDING FAÇADE ON THE JOMBANG-TUBAN RAILWAY TRACK

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ABSTRACT

The station is one of the modes of transportation that shows the progress of a city's civilization. Stations in Indonesia are one of the modes of transportation that are influenced by developments in transportation technology problems which began in 1983 and are one of three railway developments in the world. This research wants to know the characteristics of the facades that are owned by stations in Indonesia. This study used a qualitative descriptive research method by analyzing the components of the station building facades. The components of the building facade provide an overview of the architectural features of a building, its characteristics, and the style of the building. This study aims to determine the architectural characteristics of the station buildings which is formed from the building facade, the proportion resulting from the composition of the existing space which will be reflected in the proportions, component, and scale of the building. The station building on the Jombang Kota - Tuban line has the characteristic of a long building with the facade composition from the direction of passenger arrival dominated by the arrangement of the windows and vice versa the arrangement of the doors. The station building has a gate which is always at the end of the station building. The building entrance gate represents the convenience for passengers to enter with a wide enough opening and is easily recognized as a station.

Keywords:

Characteristic, Façade, Railway Station, Building

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1. Introduction

One of the architectural characteristics can be seen from the physical appearance of a building. Station buildings have different characteristics and are unique to buildings with other functions. This characteristic makes the station easily recognizable because of these characteristics and because of the unique characteristics of the station is also a landmark of an area (Ikaputra, 2013; Kido, 2013). Then, if viewed on this track, do they have similarities or different characteristics of the facade with other rail lines in Indonesia? does it have different facade characteristics between train service providers and what are the facade characteristics of the station building on the Jombang Kota-Tuban track? Architectural facade characteristics become characteristics that can be observed and seen from several things, one of which is from the proportion of buildings that are made (Rybczynski, 1976; Zumthor, 1998; Ching, 2007). Symbiotic relationship between the building period, forming building compositions that have rhythm / order and aesthetics in the building. The proportions also illustrate the ratio between the two sides of the building seen from the appearance (length and height of the

building) to create rhythm / order and harmony (Mallgrave, 1989; Gharibpour, 2012). Facade forming components have a role in shaping a building facade character which then becomes important in conveying the function and identity, meaning in the building formed (Ching, 2007). And in the end the characteristics of the facade components can also describe the architectural style that developed when the architectural building was built in which era and became its own identity for the region.

The architectural style that exists in Indonesia, buildings built in the Dutch period that may be found in Indonesia that characterize the characteristics of the locality (Kido, 2005) of the tropics or can be said as indische style architecture with local form. Indische architecture is a process of cultural acculturation and identity between local architecture and Dutch (European) architecture brought by the Dutch during their residence in Indonesia. Some architectural styles that are often found in station buildings in Indonesia are simple vernacular architecture, Indonesian art deco (after independence day), Indische architecture with vernacular expression, or the last characteristic of indische architecture with colonial expression (Ikaputra,

2013). The Jombang Kota to Tuban track used to be an active route connecting the interior (Jombang, Babat, Tuban, etc.) as a place for people to live in large urban areas such as Surabaya, Malang where people work. The Jombang City to Tuban track is also a city that has the potential for abundant natural resources to be used as a commodity for sale to big cities (Surabaya, Malang, Semarang, Jakarta) and part of it is exported to the colony origin (Netherlands). Stations on this track are important stations for the mass transit of goods and passengers. The importance of this track makes the Jombang Kota to Tuban track interesting to study because the station at that time became an icon or as a landmark in the city that had a station. Stations as regional landmarks certainly have certain characteristics to be recognized as "signs". This research was conducted to see what the characteristics of the station buildings on the Jombang Kota to Tuban track is and how the features of the facades are formed from the components that form the building facades and the characteristics of the station buildings on these tracks.

2. Literature Review

The station is a building used by trains to stop as a place to raise and lower passengers. The station building was built more than 150 years ago with a simpler building shown by the need to raise passengers and how to position trains for circulation (Carroll Louis Vanderslice Meeks, 1956). The first times station was originally created and built in 1803-1845 (England, Netherland, Austria) to overcome architectural problems related to a mass transportation needs and an image in an area. And then the development of railroad was followed by several other countries such as Canada, Chile, Brazil in 1852 and Argentina in 1857. Countries in Asia the development of railroad began in 1853 with India as the first country in Asia then Indonesia in 1864 with the development. The first time was in Java in 1872 and finally Japan began to develop the transportation system in 1872 (Ikaputra, 2013). The history of railroad development in Indonesia became an important part because it was included in the third generation in the development of railroad in the world since the railroad transportation system was first introduced. Train stations in Indonesia become an important part of the transportation system in Indonesia that cannot be separated from the history of the development of the railroad. Beginning in 1963 in Semarang (Michiel van Ballegoien de Jong, 1903; H. MA. Baron van der Goes van Dirxland en C.L.J. Martens, 1907) which became the beginning of the development of trains in several regions in Indonesia, including in the Jombang to Tuban region in 1899 and continued to Tuban at the end of development in 1920 with a track length of 114.3 km (H. MA. Baron van der Goes van Dirxland en C.L.J. Martens, 1907). The end of the route from the first track is planned to be connected to the line that leads to Lasem because the route is very strategic for the economy and investment in the rail transportation system (H. MA. Baron van der Goes van Dirxland en C.L.J. Martens, 1907). Historically this path has an important role in the transportation system and its usefulness in the Dutch East Indies era was chosen as a discussion in this study and became important because Jombang-Tuban as one of the important routes to connect two major routes in Indonesia,

namely the SS (Staats-Spoorwegen) and NIS (Nederlands Indische Spoorweg Maatschappij).

The Jombang Kota to Tuban track has two service companies that are connected to each other. Babat-Djombang Stoomtram Maatschappij BDSM and Nederlands Indische Spoorweg Maatschappij (NISM).

Character represents a unique property of an object which is indicated by certain characteristics. According to the English dictionary, "character" has the meaning as the quality of every person, place, object that makes its identity stand out or sharp. The architecture of a building is manifested in a combination of three architectural components, namely Venustas, Firmitas, and Utilities. Venustas shows aesthetics and beauty. Firmitas shows the strength that supports a beauty so that it can last a longer time. Meanwhile, the utilization of the function itself.

Some of the things that support these three things are form, shape, space, function, proportion and scale, and the building facades forming components such as doors, gates, windows, roofs, and entrances.

3. Research Method

The method used in this research is qualitative by describing the facade patterns formed from the comparisons of the building's facade reconstruction results. The analysis process begins by looking for literature related to the state and history of stations in Indonesia through historical books on trains at home and abroad and data taken by the author through direct measurements in the field and communicating some of the important details that make up the facade to make it easier for the author to analyze the characteristics. station building. The results of field measurements were reconstructed using 3-dimensional software (sketchup 3D) and graphical analysis of each station facade to determine the characteristics of the station building. Comparative analysis of each facade is carried out by comparing the patterns formed by the station from the four sides of the building facade. This analysis is carried out to see the patterns formed on the building facades. The analysis data of station building facades are also grouped based on station size and grouped based on the order of station lines. This grouping is done to see the tendency of the repetition of the facade pattern, either from the small station to the big station or from the beginning to the end station, which tends to have the same facade pattern. The author decided to examine the station on the Jombang to Tuban track to see what features the facades form and how the facades manifest in the station building. Reconstruction was also carried out by looking at historical transcripts of several stations that had undergone significant changes.

4. Results and Discussions

4.1 Characteristics Façade

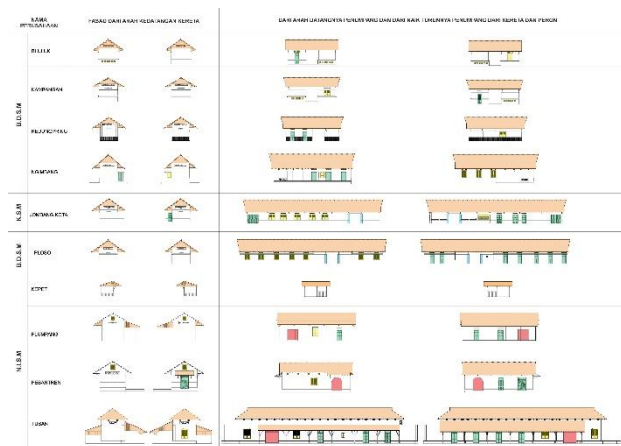


Figure 1. Facade-forming Components

See Figure 1, it can be seen from the results of the graphical analysis carried out that the facade components on the Jombang Kota - Babat route have a facade gate pattern and station windows with air vents on them and a gable roof with extensions at both ends of the right and left sides of the building from the direction of passenger arrival from the direction of passenger arrival. When viewed from the direction of the station platform, it can be seen that the pattern of the facade gate component and the entrance to the room with air vents above it and the form of a gable roof with extensions on both the right and left sides of the building from the up and down directions of passengers. And when viewed from the direction of the train. You can see the pattern of using air vents in the form of a saddle roof from the side view of the building. The difference in the shape of the roof is only visible in the Bluluk station building with the shape of the roof that does not have an extension at the right and left ends as seen from the direction of passenger arrival and from the direction of passenger arrival and descent of passengers on one side of the direction of arrival of the train the position of the air vents is below.

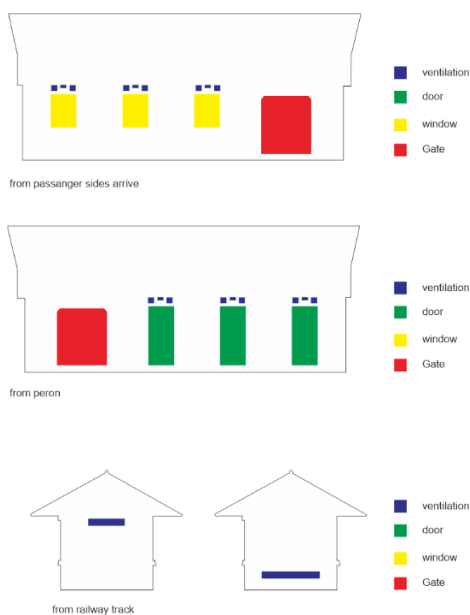


Figure 2. Facade-forming Components

A different pattern is shown by the station building on the Babat-Tuban route. From the analysis of the components forming the facade, it can be seen that the pattern of alignment of the station facade components from the direction of passenger arrival is visible. There is a passenger gate pattern, room windows, and entrances with a ventilation position near the roof trim. When viewed from the ascending and descending directions of passengers, it can be seen that there is a pattern of placement of gates and entrances to the room and a platform roof that covers them, except in the Islamic boarding school station building where the platform is not shaded by a roof. iii. When viewed from the direction of the train, it can be seen that there is a pattern of placing air vents on the roof. However, there is a different pattern on one side of the Tuban station building, the kepet bus stop and the pesantren station building. Tuban Station on one side of the direction of the train arrival shows a window, at the pesantren station there is a door which gives a difference in the composition of the station building facades in the NISM company. Likewise with the kepet bus stop which has a different composition from the station building because of the simple form of service carried out by the building.

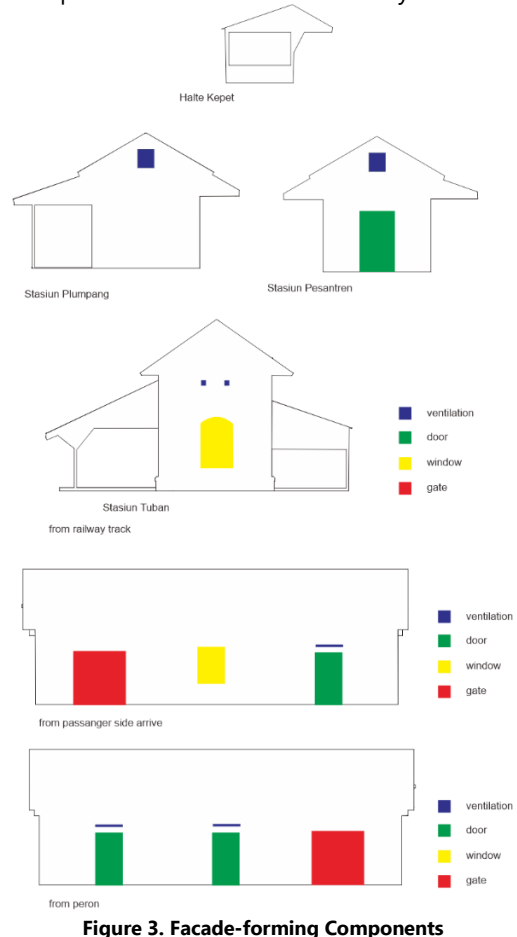


Figure 3. Facade-forming Components

From the results of the analysis, it can also be found that there are several gate typologies along the Jombang Kota train line to Tuban such as the Flate Gate, Arc gate, and Structure Expose Gate.

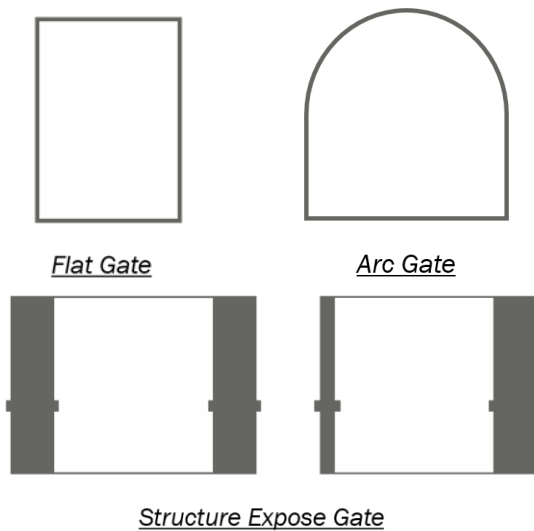


Figure 4. Typology of Gate Entrance in Building Station

In addition to the findings about the gate typology found in station buildings along the Jombang Kota - Tuban train line, there is a roof typology that is shown in the building. The roof typology shown uses a lot of Javanese vernacular roof shapes with several variations and modifications as shown in Figure 5.

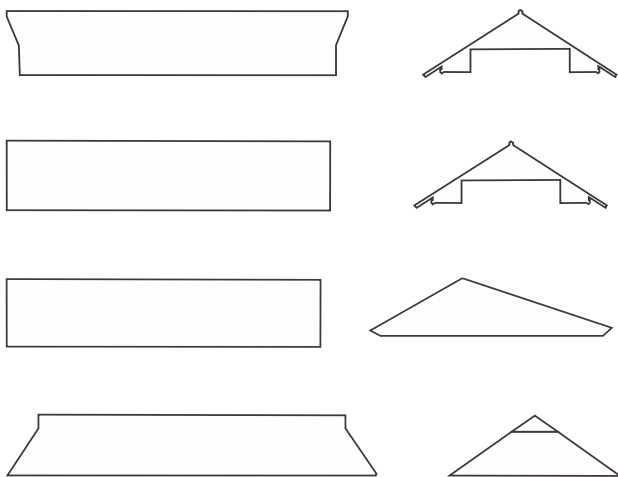


Figure 5. Typology of Roof Building Station

The typology of gable roofs with extensions at the right and left ends of the building is found in the Kambangan station, Ngimbang station, Kedungpring station, Jombang city station and Ploso station. The typology of gable roof without extension on the Jombang Kota - Tuban route is found in Bluluk station, Plumpang station, and Islamic boarding school stations. The typology of roasted roof pe in the Jombang Kota - Tuban route was only found in the Kepet bus stop building. The kepet stop is the smallest and simplest train stop building found on this route. The typology of pyramid roofs on the Jombang Kota - Tuban route is only found in the Tuban station building. Tuban Station is the largest station owned by the NISM company.

4.2 Proportion of Building Station

The analysis of the proportions shown from the Jombang City to Tuban line groups consisting of Bluluk Station, Kambangan Station, and Kedungpring Station in the View Sided A section, and View Sided B shows the same proportion values namely value (a) = 1, and value (b) = 2 so that the comparison of (a) and (b) 1:2 and the proportion comparison values that exist in View Sided C and View Sided D (a) = 2 and (b) = 3, so the proportion value of the three stations in View Sided B and C all have a value of 2:3. While Ngimbang Station has a proportion comparison value of View Sided A and View Sided B value (a) = 1 and value (b) = 3, so the comparison value a: b is equal to 1:3, and if the proportion seen from View Sided C and View Sided D, the value (a) = 3 and value (b) = 2 so that the proportion value in Ngimbang Station for the sides of View Sided C and D is 3:2. Ploso Station and Jombang Kota Station have the same long proportion ratio value and height of the building, when viewed from a comparison of the proportions of View Sided A and View Sided B the value of projection (a) has a value of 1 and the value of comparison (b) has a value of 6, so the value of the projection of View Sided A and View Sided B has a ratio of 1:6. While in View Sided C and View Sided D, these two stations still have the same proportion value (a) = 3 and value (b) = 2, so that the proportion values that are in View Sided C and view Sided D in both of the station is 3:2, and the results of the comparison of the proportions, it have the same value as the stations in the group on the Jombang Kota to Babat tracks.

The next building is the same tracks but as a group of buildings have different proportion values, namely the Babat to Tuban tracks there are four stations consisting of Halte Kepet, Plumpang Station, Pesantren Station, Tuban Station. Kepet Stop is a type of station with the simplest model and the smallest proportion of building shapes, Halte Kepet in the analysis of the proportion of buildings from View Sided A and View Sided B has a proportion value (a) = 1 and value (b) = 3, while the value of View Sided C and View Sided D the proportion value (a) = 3 and the proportion value (b) = 2, then the comparison value of the two view sided is 3:2. Plumpang Station and Pesantren Station have comparative values with one another. From View Sided A value (a) = 1, and value (b) = 3, seen from the proportion the comparative value of that side is 1:3. For View Sided C and View Sided D at the station has a proportion value (a) = 3 and a proportion value (b) = 2, so the proportion ratio value on that side is 3:2. One part of this line that has a value of different length proportions from the values that exist in the previous stations. Tuban Station on View Side A and View Sided B has a side comparison value (a) = 1 and a value (b) = 6, so that in comparison the station has a proportion of 1:6. However, the comparative values in View Sided C and View Sided D have the same value in the Babat-Tuban tracks group with the value (a) = 3 and value (b) = 2 so that the proportion ratio is 3:2.

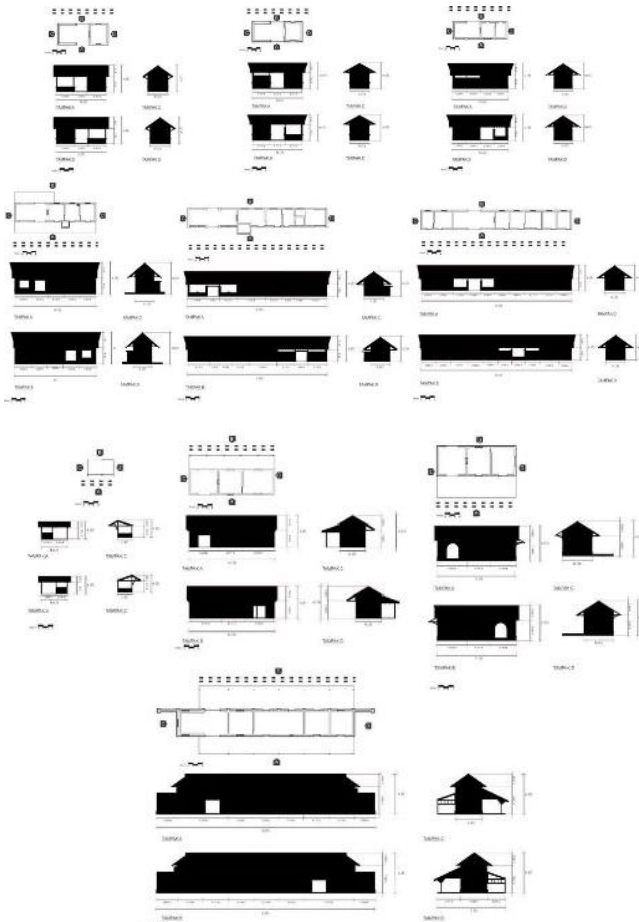


Figure 6. Typology of Roof Building Station

From the results of the proportion analysis carried out at each station. Whereas there are several typologies of building proportions that have similarities in the route from Jombang Kota to Tuban even though there are differences in companies in their management. The typology of station building proportions is as follows:

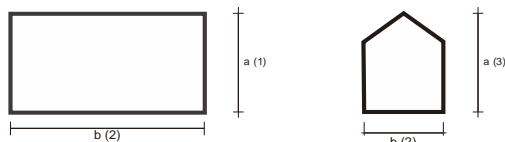


Figure 7. Proportion of Small Building Station

The proportion of station buildings with a small category on the Jombang Kota-Tuban route from the company Babat Djombang Stoomtram Maatschapij has a proportion of length and height of 1:2.

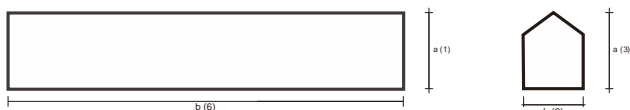


Figure 8. Proportion of Big Building Station

The proportion of station buildings with a large category on the Jombang Kota-Tuban route from the company Babat Djombang Stoomtram Maatschapij has a proportion of length and height of 1:6.

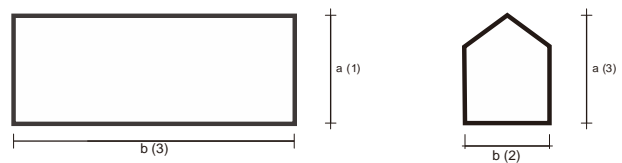


Figure 9. Proportion of Small Building Station

The proportion of station buildings with a small category on the Jombang Kota-Tuban route from the Nederlandsche indische Stoomtram Maatschapij company has a proportion of length and height of 1:3.

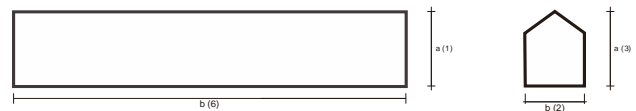


Figure 10. Proportion of Big Building Station

The proportion of station buildings with a large category on the Jombang Kota-Tuban route from the Nederlandsche indische Stoomtram Maatschapij company has a proportion of length and height of 1:6.

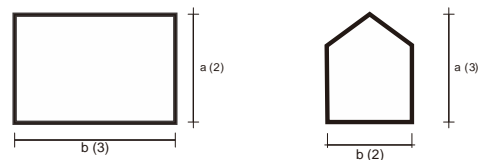


Figure 11. Proportion of Halte

The comparison of the proportion of buildings in the Jombang Kota-Tuban route only differs in the station building category with the small category, while the proportion of large station buildings between the two companies does not experience a difference in proportion.

5. Conclusion

From the results of the analysis carried out by the author, it can be concluded that the characteristics shown by each station on the Jombang Kota to Tuban route have a uniform facade pattern with component components that have the same characteristics and have a gate as a building marker. The characteristics shown show the characteristics of a tropical building with a local vernacular architecture with several modifications in several components such as the shape of the roof and air vents. From the results of the analysis, it can also be concluded that the architectural characteristics of the Jombang Kota to Tuban route have two groups of differences, which are visible differences in the facade components from the direction of arrival of the station. This difference is since along the railway line there are two service companies Babat-Djombang Stoomtram Maatschapij (BDSM) and Nederlands Indische Spoorweg Maatschapij (NISM).

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