

Architectural - Interior Characteristics of Staatsspoorwegen (SS) Railway Employees in Batavia 1914-1942

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Abstract. The housing railway employee's characteristics in Manggarai, showcase the spirit of the times through its facade, interior, and architectural elements, resulting from the acculturation of building styles that previously belonged to the Dutch railway Staatsspoorwegen (SS), there is the acculturation of modern Indies building styles. The interior-architectural characteristics of the housing follow the development of the needs and style characteristic of the time. The research method uses a heuristic historical approach, criticism, interpretation, and historiography, and combines descriptive qualitative design method analysis to obtain relevant results. This research can present the characteristics of the Manggarai SS train housing which can fill in the history of development and interior-architectural style in the period 1914-1942 in Batavia.

Keywords: Characteristics; architecture; interior; housing; dutch colonial

1 Introduction

The development carried out by the Dutch colonialists in Batavia had many influences on various aspects of life, including culture and architecture. One of the areas they developed was Manggarai, which was part of Meester Cornelis's territory. The presence of a train station in Manggarai to carry people and agricultural products, as well as facilitating the mobilization of the Dutch military to Java and surrounding areas. Manggarai Station is the result of widening the Boekit Duri station which is no longer available enough to accommodate train activity which was part of the Batavia – Buitenzorg (Bogor) route, and became the largest and busiest station at that time. Manggarai Staatsspoorwegen (SS) housing was built to fulfill the housing of employees needs with stratification following the organizational structure issued by Staatsspoor-En Tramwegen in the Dutch East Indies, which is divided into three: Chief Supervisor (Surnumerair), Head of Administration and Affairs, Expert Staff (Engineers and Inspectors), this functional is included as upper-class employees. The characteristic shape of the building in the housing complex looks different, which can be seen from the spirit of style through the front view of the building (facade), and interior-architectural elements. Architectural-interior characteristics are significant to analyze because they are closely related to the social stratification of housing residents, the relationship between housing employees and the social environment, and the building styles at that time.

This study uses the qualitative descriptive analysis approach, which is an analytical method that describes the circumstances in the field related to the data to conclude the places used as a research measurement, and an approach using archive research, books, photos, observations on location, and historiography. This research combines methods of interior design [2] and history. The object in this study was selected based on the housing of the railway employee area, namely the Manggarai. The research describes how the architecture – interior characteristic of the housing Staatsspoorwegen (SS) railway employee.

2 Building Characteristics

It was considered that the developments carried out by the Dutch colonialists in Batavia had a big impact on many aspects of life, including culture and architecture - interiors. Discussing the history, and architectural characteristics of the Manggarai SS housing complex and seeing how the style of railway employee housing as a colonial legacy, can be a reference for the development of interior - architecture in Batavia. The Manggarai subdistrict in Batavia has been known since the 17th century.

The characteristic shape of the building complex looks, where the spirit of style is displayed through the front view of the building (facade), and interior elements through the finishing of building materials. Character in the context of housing is more accurately said to be the physical form character of the building itself. Ching said that the characteristics of interior design, apart from aesthetics, show a good atmosphere of spatial connectivity and layout by considering circulation [1]. The architectural-interior characteristics of residential buildings will be observed in the following sub-chapter discussion using an approach to design principles, aesthetics, and style in buildings [6].

2.1 Front View of Building (Facade)

The Manggarai SS train housing style and aesthetics in Batavia can be observed through the architectural interior elements consisting of floor, wall, ceiling, and roof processing. Apart from that, the front view (façade) will be used to see the style and aesthetic characteristics. John Dewey's concept developed a practical aesthetic theory emphasizing aesthetic experience as an integral part of everyday human experience. Aesthetic experiences refer to subjective experiences involving appreciating beauty, art, or other visual, auditory, or sensory elements [4]. In this case study, the aesthetic can be seen in the building facade and interior. The architectural characteristics of houses are differentiated between the number of rooms and the front view of the building, observed through form, proportion, and style, all of which are functional. The author divides the facade categories based on building type: 1^{de} kl. A *Beamtenwoning*, 2^{de} kl. *Beambtenwoningen*, 3^{de} *Woning*, 3^{de} *Beambtenwoning*, 4^{de} *Beamtenwoning*, 2^{de} *Dienstwoning*, 4^{de} *Dienstwoning*. This disservice does not represent types based on the number of rooms and this is to make it easier to observe based on the image of the front view of the building.

2.2 Building Type of 1^{de} and 2^{de} kl. A *Beamtenwoning*.

The appearance of the Type 1^{de} [Fig.1 left] building has seven rooms. The aesthetics of the front view of the building are a combination of geometric shapes of cubes and triangles, with balanced proportions in the main building between the bottom of the building, the middle of the

building, and the roof (vertical), as well as the walls (horizontal) with the placement of doors, windows, vents and canopy roof in the middle of the building (front gallery) as the center and windows and vents symmetrically at the left and right.

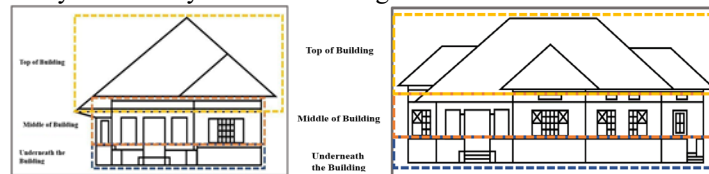


Fig. 1 Front View (Façade) of House Type 1^{de} (left) and 2^{de} (right) kl. A *Beamtenwoning* SS Manggarai 6 and 7 rooms

The Type 2^{de} building (Fig.1 right) has six rooms and is a single-building house. In the front view, the building has a combination of geometric shapes of cubes and triangles, with balanced proportions in the main building between the bottom of the building, the middle of the building, and the roof (vertical). Wall section (horizontal) with doors, windows, vents, and canopy roof placed in the middle of the building as the center and windows and vents symmetrically left and right. The front gallery area is not placed in the middle, but on the left side of the building and there is a raised floor. In this type, the front of the back building is not visible, but almost the same as the 3^{de} *Woning* type [Fig.2], it has an arched door as its access for bedinde, or workers.

2.3 Building Type of 3^{de} *Woning*

Building Type 3^{de} *Woning* [Fig.2], with five rooms, has a slightly different front at the entrance to the front gallery. Still the same as using the combination of geometric cube shapes on doors, windows, and air holes. At the top of the building above the entrance (canopy), there is a play on shape composition with the addition of accents following the shape of the triangular roof, so that the proportion of the canopy looks balanced in the main building between the bottom of the building, the middle of the building and the roof (vertical). The curved shape seen in the front view on the right is access to the rear building for house residents who work in the house (especially workers). There is no specific explanation for why the curved door shape is placed on the side door, but this is the character of Dutch buildings in Europe.



Fig. 2. Front View (Façade) of House Type 3^{de} *Woning* SS Manggarai 5 rooms

Compared with the building type, the visual character of the appearance of the building, type 3^{de} *Woning*, is the idea of the architect to apply more geometric shapes at the front of the entrance so that the aesthetics of the shape are better perceived by the view. The roof height also the front building is higher and the rear is lower, showing the differences between owners and workers at home.

2.4 Building Type of 4^{de} and 3^{de} *Beamtenwoning*

Building Type 4^{de} *Beamtenwoning* [Fig.3 left], four rooms, has a different front view from the type of house with four rooms. This type also shows that there is processing of geometric shapes combining geometric shapes of cubes on doors, windows, and air holes, but the top of

the building on the upper left side has cube shapes and truncated and rounded triangles on the side door leading to the back building.

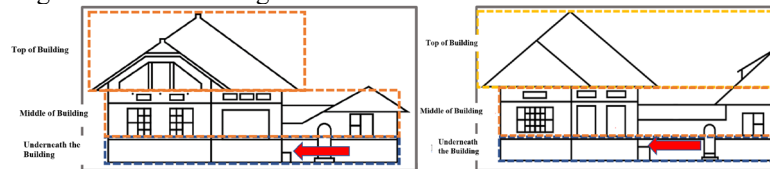


Fig. 3. Front View (Façade) of House Type 4^{de} (left) and 3^{de} (right) *Beamtenwoning* and SS Manggarai 4 and 5 rooms

There balanced proportion in the main building between the bottom of the building, the middle of the building, and the roof (vertical), there's a complete composition and truncated triangular shapes, and there are turns on the left and right sides of the canopy. The entrance is not visible because of the terrace in the middle of the building (red arrow). The right side of the building also shows a terrace building close to the service area, lower than the main building as the homeowner's residence. Building Type 3^{de} *Beamtenwoning* [Fig.3 right], (five rooms) has a front view similar to Type 4^{de} *Woning*. This type also shows that there is processing of geometric shapes combining geometric cube shapes on doors, windows, and air holes, but the top of the building on the top left side has cube and triangle shapes. The proportions in the main building between the bottom of the building, the middle of the building, and the roof (vertical) appear there a performance of repeating the composition of the cube shape. The position of the entrance is similar to the other building and is not visible because the entrance is to the terrace in the middle of the building (red arrow). The curved shape on the right side is the entrance to the rear building for bedinde or workers who live in the house.

2.4 Building Type of 2^{de} and 4^{de} *Dienstwoning*

The Type 2^{de} *Dienstwoning* [Fig.4 left] building has four rooms the front view of the building is similar to the Type 4de *Woning* and Type 3^{de} *Beamtenwoning* houses with four rooms. This type also shows that there is processing of geometric shapes combining geometric cube shapes on doors, windows, and air holes, but the top of the building on the top left side has cube and triangle shapes [Fig.4]. The curved shape can be seen at the front of the central building and the side door leading to the back building, there was a desire from the architect to make a difference so that the character of the building shape was different. The balanced proportions in the main building between the underneath of the building, the middle of the building, and the roof (vertical), it appears that there is a game of repeating the composition of the cube shape.

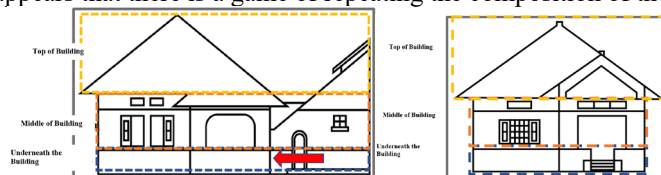


Fig. 4. Front View (Façade) of House Type 2^{de} (left) and 4^{de} (right) *Dienstwoning* SS Manggarai 4 rooms

The appearance of the Type 4de *Dienstwoning* [Fig.4 right] building, with four rooms, has a front view are similar to the Type 2de *Woning*, Type 3de *Beamtenwoning*, and 4de *Beamtenwoning* houses with four rooms. Overall, the aesthetics of this building are proportional. Similar to other building types, there is a side door (arched) and two balanced windows; The main building has almost the same character, both the shape of the roof and the position of the front gallery are all on the right side. These classifications are all single buildings

(in the middle) [Fig.1, Fig.2]. The shape of the front gallery space and the rear building are shifted to the right and attached to the house next to it (coupling) so that viewed as a whole it is connected as a complete building [Fig.1, Fig.3 Fig.4].

3 Interior Elements

Interior elements are integral to the building, consisting of floors, walls, and ceilings. The floor is one of the important elements in the house which is characterized as a legacy of the choice of materials from the Dutch colonial era. The floor elements of the house use original materials, with a symmetrical square base shape as a characteristic of Indies-style buildings [Fig.5]. Tile floors are a type of floor covering that is often found in Dutch colonial buildings, especially the homes of SS train employees throughout Java. 'Tegel' is a word in Dutch that means in Indonesian 'Ubin' [Fig.5].

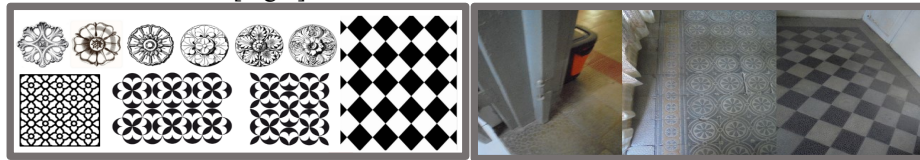


Fig. 5. Rosette and checkerboard motifs from classic Western decoration & and composition in design are applied to the house floor motif (left) and the application finishing floor materials with rosette and checkerboard motifs from classic Western decoration.

The finishing material used for floor coverings in the house consists of four types: 1) Gray with a rough texture in small round shapes is the dominant material; 2) Tiles with a Rosette (wide-petaled flower) motif in gray and cream; 3) Plain black and white tiles (Fig.5). The classic Western-style Rosette motif is a motif inspired by the shape of flowers and leaf petals. The term "Rosette" in classical Western decoration can also come from the rose flower, lotus flower, and cherry blossoms, which show the shape of flower petals in bloom as seen above (left image). This motif is often used for decoration in the center and is sometimes made in an all-over (spread) pattern on Dutch colonial heritage buildings. (Fig.5). The use of patterns and motifs on the floor gives a different atmosphere and spaces at that time, where the aesthetic experience shows in the rooms.

4 Door and Window Interior Elements

Doors are one of the important parts of the wall elements in a building, they can function as circulation for owners and guests, air circulation, and security. The door styles are traces of the remains of a period of life, so European-style doors at the beginning of the 20th century experienced development both in Indonesia and the Dutch, thus influencing the door and window designs of Dutch colonial houses in Indonesia, as well as the houses of railway employees (Fig.6)



Fig. 6. SS Manggarai Railway Employee House Door and Window, 2017 condition

The design of windows and vents follows developments that occurred in Europe, referred to as 'The Modern Movement' which occurred in the period 1920-1965, when the popular Crittall's windows were based on multiples of standard sizes. The window shapes are designed using cubic or rectangular geometric shapes. The windows of the house consist of two shutters, one that opens inward and one that opens outward. The windows that open to the outside have jalousie/wooden grilles (air holes) that function for good air circulation when the windows are closed.

5 Conclusion

To find the visual character (style) and aesthetics of the seven building classifications [5], observations must be comprehensive through the building facade, building mass, floor, walls, and roof of the building. The elements that characterize modern Indies style residential buildings are applied to residential buildings, especially in the building characteristics. Changes in visual character and aesthetics from the Indies' transition to modernity can be seen in the pre-modern buildings in the Manggarai SS railway employee housing complex. The visual and aesthetic character displayed is the result of modern technology's power, where machines produce modern materials that can be processed and shaped quickly according to the times. As Domer said [3], the meaning of modern design can include an understanding of how design reflects and shapes the material culture of a society. It can be concluded that the characteristics of the houses in the Manggarai SS railway do not expose aesthetic elements taken from local culture. The specific building style does not represent a particular style at that time when the Art Deco style developed in Europe but can be concluded as a Modern Indies style. The results of this research can still be explored more deeply to see the development of interior characteristics through the use of furniture, but the obstacle in searching for archives requires more time. I hope this research can become a reference for the field of interior design to add to the historiography of interior design during the Dutch colonial period in Indonesia.

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