Building Façade of the Architect Richard L.A. Schoemaker in Bandung

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Abstract. Schoemaker is the first Professor of Architecture in Indonesia. His works are the basis of modern architectural design in Indonesia. The aim of this work is to find out Schoemaker’s concepts through scrutinizing the facades of his work. An architectural survey method is used in collecting the architectural data among several Schoemaker’s buildings in Bandung. Artifact measuring is conducted to build the 3D models of each of his building works, to analyze the architectural thinking of his. The result is showing that Schoemaker is using many concepts of early Dutch Architects used, including the Indo-European Architecture, the Art Deco and in time, combining it with the ornaments, materials, and patterns of local tradition.

1. Introduction

Until recently, not much is known about R. L. A. Schoemaker, the first Architecture Professor in Indonesia. Richard Leonard Arnold Schoemaker was born on October 5, 1886 in Roemond, The Netherlands. Son of Jan Prosper Schoemarker and Josephine Charlotte Wolff [1]. In 1905, He studied as a cadet of the engineering corps at the Koninklijke Militaire Academie in Breda, Netherlands and was sent to the Dutch Indies to serve as lieutenant. After gave up his military career, in October 1920 Schoemaker was appointed professor of Architecture at Technische Hoogeschool te Bandoeng[2]. Furthermore, on Saturday, July 2, 1921 he delivered a scientific oration entitled Constructie, doelmatigheid en schoonheid in de bouwkunde (Construction, efficiency, and beauty in architecture) in the first anniversary of TH Bandoeng. Schoemaker colored Bandung by designing many buildings, along with the architecture bureau C.P Schoemaker en Associatie founded by his brother, C.P. Wolff Schoemaker. His architectural works play a significant role in the activities and architecture of the city of Bandung include; Concurrent Store, the National Gas Building and the Insulinde Building in the Braga area, the Bank Mandiri Building, Banceuy, the Sabau Building which is now the headquarters of the National Army, the Kologdam Building, and the Red Villa which is now inherited by the Institut Teknologi Bandung (ITB) [3].

According to Rob Krier, building facade is the most important element in establishing communication between architects and building users as well as the non-building users [4]. Therefore, it is important to study the facade of architectural works and relate them to styles that are popular at the same time.

The purpose of this research is to analyze building facades designed by Professor Schoemaker to gain information on how architect communicate his message to people at the era of the first awaken of Indonesian architect in 1920s through architectural survey on several buildings where Schoemaker is involved in the design process. The result will show how Schoemaker and the several colleagues of his
is using the western construction techniques and architectural values, combining it with local architectural values and building form to build the new regional architectural style through the design of building facades.

2. Method
Architectural survey was conducted on several buildings designed by R. L. A. Schoemaker. Those buildings are measured to have its plan-spatial dimension. Next, the facade model is developed using the plan as the basis and photographs taken to justify. A 3D model is built to develop the sense of in depth and three dimensional nuances. Those building facades then compared to each other as well as the style of design popular in its time to have the knowledge of things influenced the work of Schoemaker and also how the design reacted, communicate and giving meanings to the environment surroundings, as mentioned in literatures, such as Handinoto[5], Rachmayanti[6], and Wolf[7].

3. Results and Discussion
Before Schoemaker era in Bandung, the more popular architectural style was The Empire Stijl, a 19th century Dutch Indies architectural style popularized by Governor General Daendels. This style by Handinoto [5] is referred to as The Dutch Colonial style with symmetrical single floor plan covered by a shield roof. Other characteristics of this style include: open space design, pillars on the front and back porches, middle porch leading to the bedroom and other rooms. The distinctive feature of this architectural style is a towering column in Greek style, and also gables and crowns on the front and back porches. The back porch is often used as a dining room and connected to the service area [6].

In the early 1920s, there was a renewal movement in architecture, both national and international in the Netherlands which then influenced colonial architecture in Indonesia. Schoemaker and young architects at that time developed eclecticism as tension built to give a characteristic to the architecture of the Dutch East Indies by using the Indonesia's traditional architectural culture as the source.

In terms of more modern architecture, there is no denying the great influence of Art Deco Architecture on the designs of Schoemaker and several young architects at the time. According to Rachmayanti, et. al. [6], Art Deco Architecture is a design style emerged after the 'Expository Internationale des Arts Décoratifs et Industriels Modernes' was held in 1925 in Paris. Art Deco architecture refers to art designs that are popular and modern. Art Deco style depicts masculinity with firm lines. This was influenced by the Industrial Revolution in England at the end of the 19th century, when factory machinery at that time was finally able to create something that was very difficult to be created by humans, one of which was a straight line. Art Deco design gives designers freedom of art to create a modern meaning in architectural design. It is daring to be different, and appear more attractive than others with striking colors, unusual proportions, the use of the latest materials, and simple yet magnificent decoration. It is also an eclectic mixture of traditionalist with futurism and expressionism [8].

Meanwhile in the Netherlands, the Amsterdam School movement was developed. It is rooted in the "Art Nouveau" which entered the Netherlands at the turn of the 19th to 20th century, (1892-1904). It is somewhat different from the 'Art Nouveau', Amsterdam School adheres to two main points; first is 'originality' and second is 'spirituality', besides rationality which helps in the universal validity of created forms [8].

The Amsterdam School movement interprets this 'originality' as something that every designer must have, each design must be a personal expression. 'Spirituality' is interpreted as a method of creation based on reasoning to produce the works of art (including architecture), using basic materials derived from nature (brick, wood, natural stone, clay, etc.). These natural materials are installed with high hand skills, to enable a variety of beautiful ornamentations to be applied.

In the Netherlands, in those days De Stijl also developed. De Stijl's style, known as neoplasticism, is a Dutch artistic movement founded in 1917. Neoplasticism can be interpreted as a new plastic art. De Stijl's supporters sought to express the ideal new utopia of spiritual harmony and order. They advocate pure abstraction and universality with a reduction to the core of form and colors;
simplification of visual composition in vertical and horizontal directions, and only primary colors are used together with black and white [9].

In general, De Stijl proposes simplicity and basic abstraction, using only horizontal and vertical straight lines and rectangular shapes. Colors is limited to the main colors; red, yellow, and blue, and three main values, black, white, and grey. This style avoids the balance of symmetry and achieves aesthetic balance by using opposition [10].

The things above are a big picture of the situation happening in the world of architecture in general at the time where Schoemaker and his colleagues are in. The following is Schoemaker architectural response, through his works in Bandung.

3.1 The Concurrent Shop, Braga.
The Concurrent Shop (1908) has a symmetrical facade which is emphasized by the placement of openings. In the architectural style developed at that time, the Concurrent Shop facade can be said to be slightly affected by neo-classical architectural styles being used in Europe. The door and window sills, as well as the ornaments in the columns, show a simple one, unlike the neo-classical ornaments in Europe.

Like the other buildings, the entrance area of the facade always has a proportion of different shapes. At the entrance of the Concurrent Shop there are so many prominent and curved windows at the top aimed at breaking up monotony and marking the entrance. On the left and right side there are also prominent windows typical of shops in Europe.

There are some changes applied to the Concurrent Shop building facade compared to the original 1908. There used to be a marker, the writing on metal plate "De Concurrent" on between the entrance and the upper window, now it is replaced by a more modern marker made of pvc panels. However, these markers tend to obstruct building facades.

Other changes are seen in the window, horizontal ventilation, and entrance. There used to be a protruding window with a typical canopy of European shops, now the lower facade is made flat with iron folding doors. The color of the building does not change too much, still dominated by white, as seen in Figure 1.

![Figure 1. The Concurrent, 1908(left) and 2019 (right)](image_url)

3.2 The Gas Negara building, Braga.
The Gas Negara building (1913) tends to be influenced by De Stijl architectural styles that display a clear simplicity of form. There are only simple ornaments on the column. The facade is asymmetrical but still displays consistent horizontal pattern repetition. The entrance area is made higher in order to mark the entrance. Not much has changed from the original facade of 1913. Almost all facade elements such as shape, texture, and colors are retained as they were originally built. There are only treatments such as repainting the walls and door frames so that it looks new again. The image of Gas Negara building can be seen in Figure 2.
3.3 The Bank Mandiri building, Banceuy.

The Bank Mandiri building at Banceuy Street, formerly The Escompto Bank (1915) is a unique building. Its position at the crossroads makes this building have two exposed facade sides. In contrast to previous works with minimal ornaments, Schoemaker applied a lot of neo classical or empire style architectural ornaments.

There are gable elements on both sides of the building with horizontal line ornaments. The entrance is marked by the presence of towers in the corner of the building facing the intersection. The tower gives a majestic impression even though the building basically a single storey. The pattern of openings remains typical with a slightly different shape, such as the addition of a triangle shape at the top of the window frame. The number of ornaments in the facade is successfully giving it a luxury impression.

Changes seen between the 1915 and 2019 facade are in the entrance and building markers. At the beginning of construction, there was a canopy in front of the entrance, but it is nonexistent now. The removal of the canopy at the front of the entrance is probably due to the current function that does not use the former entrance as the main entrance so it is feared that the canopy will obstruct pedestrian circulation.

There have also been changes to building markers that previously used metal on the building signpost, now using composite panel materials. The rest are not many significant changes. The colors of the building remains dominant white like the original 1915, as seen in Figure 3.

3.4 The Sabau Building.

The Sabau building (1915) is Schoemaker’s most magnificent work. This building also applies some neo-classical ornaments; gables, dormers, and balustrades found on the roof. Building facade extends dynamically with subtractive-addictive elements to avoid looking monotonous.

Parts of the facade in the corners and center of the building have a higher proportion. In the middle, besides being made taller, it is also made wider. Typical opening pattern with consistent repeatability in the horizontal direction. The shape of the opening at the entrance is slightly different by the addition of the semi-circular shape above the door and window openings.
What distinguishes the building facade of the past and present is the roof and colors. At the beginning of construction there were many dormers on the roof, now only left at a certain point. This is because it leaks, which is caused by the inability to adapt to intense rainfall.

The building which used to be white in almost all parts, is now painted green, yellow, black, and red on certain wall ornaments to give the characteristics of the Siliwangi KODAM III Army Headquarters. Although it has a specific purpose, this building has become less aesthetic. The detail of the buildings can be seen in Figure 4.

![Figure 4. The Sabau building, 1915 (left) and 2019 (right) are shown here.](image)

### 3.5 The Insulinde Building

Insulinde Building (1917) is the most changed building. The Insulinde Building at the beginning was quite similar to the building of the National Gas Building which applied De Stijl architectural style with a simple, firm, and minimal ornamentation. The building has an asymmetrical facade with a typical opening pattern and consistent repetition. The dominant color is white with a higher proportion of entrances.

Many changes occur in the facade. A contrast change that can be seen is the mass of the building that was expanded and made like the previous building so it looks like in a "mirror". Changes were also made to the building markers on the roof using composite panel material. In addition, there is the addition of a long glass canopy as well as a glass wall on the balcony.

The color of the building which was dominantly white is now added with a red element in certain columns and ornaments that show the characteristics of the BJB Syariah Bank. The number of changes that occur is likely due to the need for wider space to display the current building character of the BJB Syariah Bank.

![Figure 5. The Insulinde building, 1915 (left) and 2019 (right) are shown here.](image)
3.6 The Kologdam Building.

Kologdam Building (1920) is almost similar to the Insulinde Building and the Gas Negara Building, both of which apply the De Stijl architectural style. This can be seen in the terraced facade which is getting higher to the middle, the entrance door. There is a simple ornament on the wall, column and balustrade that is a vertical or horizontal line pattern.

A unique part of the building facade of the Kologdam Building is the presence of 3 atlas statues at the top. The shape of the opening is very simple, typical, with consistent repetition. The dominant color is white. There is a marker in the form of the name of the building at the top of the entrance.

What distinguishes the past and present facade is at the top of the entrance. If at first there were 3 atlas standing, now covered by the hollow frame of KODAM III Siliwangi.

![Image of Kologdam Building](image)

**Figure 6.** The Kologdam building, 1920 (left) and 2019 (right)

3.7 Villa Merah.

Of all the buildings by Richard L. A. Schoemaker, Villa Merah or the Red Villa (1922) is the only building that applies the Amsterdam school architectural style consistently. A clear characteristic is seen in the use of exposed red brick material. The ornaments that are visible are the result of the arrangement of bricks with thickness variations. The shape of the building is symmetrical, but the facade is not symmetrical because of the different pattern of openings in the building's facade.

There are not many changes occur in the building facade. As with Schoemaker's other works, there was a change for the function of the current building. This can be seen on the signboard name of the building located at the top of the entrance.

![Image of Villa Merah](image)

**Figure 7.** The Villa Merah, 1920 (left) and 2019 (right)

All the works of Richard Schoemaker in Bandung above can be put together, and compared as seen in Table 1.
### Table 1. The work of Richard Leonard Arnold Schoemaker.

| Facade | The Concurrent Shop (1908) | The Gas Negara Building (1913) | The Bank Mandiri Building (1915) | The Sabau Building (1915) | The Insulinde Building (1917) | The Kologdam Building (1920) | The Villa Merah (1922) | Additional information | Conclusion |
|--------|---------------------------|-------------------------------|----------------------------------|--------------------------|-----------------------------|----------------------------|------------------------|----------------------|------------|
|        | ![ Concurrent Shop](image1) | ![ Gas Negara Building](image2) | ![ Bank Mandiri Building](image3) | ![ Sabau Building](image4) | ![ Insulinde Building](image5) | ![ Kologdam Building](image6) | ![ Villa Merah](image7) |                     |            |
| 2 storeys | Symetrical facade | Repetition of the opening shape with a constant distance horizontally. | Columns as vertical element. | Plenty of horizontal line ornaments. | White dominates the wall colors. | 1 storey. | Asymetrical facade | Openings repetition. | Tower as vertical element. | White dominates the wall colors. |
|        | 2 storeys | Symetrical facade | Repetition of the opening shape with a constant distance horizontally. | Columns as vertical element. | Tall entrance, jutting forward. | Plenty of horizontal line ornaments. | White dominates the wall colors. | 2 storeys | Symetrical facade | Repetition of the opening shape with a constant distance horizontally. | Columns as vertical element. | White dominates the wall colors. |
|        | 1 storey. | Asymetrical facade | Openings repetition. | Tower as vertical element. | Tall entrance, emphasized by the tower. | Plenty of ornaments, mainly in gable, pediment and tower. | White dominates the wall colors. | 2 storeys | Symetrical facade | Repetition of the opening shape with a constant distance horizontally. | Columns as vertical element. | White dominates the wall colors. |
|        | 2 storeys | Symetrical facade | Repetition of the opening shape. | Facade proportion is increasing towards the middle, jutting forward also. | Square ornament on several places. | White dominates the wall with red stick stone on top. | 2 storeys | Symetrical facade | Constant repetition of the opening shape. | Facade proportion is increasing towards the middle, jutting forward also. | Square ornament on several places. | White dominates the wall with red stick stone on top. |
|        | 2 storeys | Symetrical facade | Opening shape with a constant distance horizontally. | Centre column as vertical element. | The facade area at the entrance is emphasized by different roof shape. | Few wall ornaments. | 2 storeys | Slightly asymetrical facade. | Few repetition on the opening shape. | Centre column as vertical element. | The facade area at the entrance is emphasized by different roof shape. | Few wall ornaments. |
|        | 2 storeys | Symetrical facade | Repetition of the opening shape. | Facade proportion is increasing towards the middle, jutting forward also. | Square ornament on several places. | White dominates the wall with red stick stone on top. | 2 storeys | Symetrical facade | Constant repetition of the opening shape. | Facade proportion is increasing towards the middle, jutting forward also. | Square ornament on several places. | White dominates the wall with red stick stone on top. |
|        | 1-2 storeys. | Symetrical facade. | Constant repetition in the opening shape. | Simple verticalism ornament. | Variation on the entrance side. | Simple ornament shapes; square, vertical or horizontal line. | White dominates the wall colors. | Several physical modification in time affecting the originality like roofs, openings and materials. |            |            |            |            |            |

Several physical modification in time affecting the originality like roofs, openings and materials.
4. Conclusion

As an early generation of architectural academics in Indonesia, Professor Richard Leonard Arnold Schoemaker explored many aspects of traditional Indonesian architecture and combined them with western styles - mostly from the Netherlands - which had already been popular. He applied design modifications such as the application of façade materials, as well as repetition patterns in the openings. In addition, he also uses distinctive ornaments in the completion of the design, especially at the top of the building. His work consists of mainly 1-2 storeys white color dominant building with simmetrical facade. Sometimes he uses towerlike shape in one side to give accentuation. All of the characteristics helped the architect to deliver messages to the building users.

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