Old shophouses façade of the waterfront city

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Abstract. Selatpanjang city is a part of trade development since Siak empires. The trading areas were starting from waterfront to the Ahmad Yani, Merdeka, and Imam Bonjol corridor. As a result of the activity, shophouses began to appear around the area. Generally, this building is combining residential and commercial were typically used for business and trading. The research purpose is to analyze and understand the characteristics of the old shophouses façade. The method used is qualitative descriptive by façade element, façade composition, and building profile. The result shows that there is an architectural assimilation between Chinese, Colonial, and local. The implication of this research will be a reference to preservation corridor development in the future.

1. Introduction

Selatpanjang City is the center of Meranti Regency government. The uniqueness of this city has been formed for a long time ago in a heterogeneous society, especially Malay and Chinese. The building style in Selatpanjang City area such as Jalan Merdeka corridor, Jalan Ahmad Yani corridor, dan Jalan Imam Bonjol corridor consists of old shophouses. The buildings in Jalan Merdeka corridor is an assimilation of Chinese architecture. This is a business area [1]. The style makes the character. But damage and physical changes can occur slowly. Typical façade in this area can be a reference for conservation efforts. Therefore, the purpose is to identify and analyze the characteristics of old shophouses façade in Selatpanjang City.

Chinese people have known the archipelago since the 5th century. In general, Chinese settlements in Java city until the 1900s were found in Chinatown and were still thick with the style of Chinese architecture. According to Gurstein (1990), shophouses are part of urban architecture from cities in Asia from the 18th to 20th centuries due to socio-economic benefits [2]. But after the 1900s, the building style of Chinese architecture began to disappear gradually [3]. The characteristics of Chinese architecture, especially those in Southeast Asia [4] are:

a. Courtyard
b. Emphasis on the typical roof shape
c. Open structural elements (sometimes accompanied by decorative elements)
d. Color usage

Chinese ethnic areas are called Chinatowns. The relatively narrow and very densely populated Chinatown area does not allow for large-scale buildings. Chinese architecture buildings in Chinatown are temples, shophouses, and residences.

Shophouse is a typical Chinatown building. It is a 'landmark' in Chinatown in the coastal cities of Southeast Asia [4]. Shophouse is a combination of business areas on the lower floors and residential
areas on the upper floors. It is a combination of high density and intensity of economic activities in Chinatown. But Alain Viaro (1992) gives his argument that shop houses occur as a mixture of architecture due to trade along with the coastal cities between China and Southeast Asia by Westerners, Chinese, and residents [3]. According to Hasan and CheYahaya (2012), parts of the building forms also integrated the local architectural settings such as roof overhangs for shades, maximum openings for cross ventilation purpose, cantilever floors (verandah or anjung), and double roof construction (jack roof systems) for cool and hot air internal circulation, that eventually produced a new hybrid architectural styles [2]. Any physical object has its visual characteristics. The building has an architectural form, which makes it recognizable and different from other buildings [5].

According to Burden (2003), façade is the exterior face of a building, particularly one of its main elevations, almost always containing an entrance and characterized by an elaboration of stylistics details [2]. The composition must consider functional requirements, namely windows, door openings, sun shading, and roof areas. The facade design relates to the creation of harmonious unity between proportions, vertical and horizontal structure arrangement, rhythms of material, color, and decorative elements.

To produce the facade arrangement criteria include the principles of composition, completion (material, color, texture), facade architectural proportions (comparison of massive openings, vertical-horizontal, visual linkages), and the use of decorative elements [6].

The facade is composed of several single elements namely entrance and entrance, arcade, ground arrangement on the other side. Facade elements are different objects so that they have different shapes, colors, and materials.

The facade elements of the building consist of doors, windows, walls, roofs, sun shading, and ornaments. The roof facade element as an orientation of the height of the building consists of 4 factors, namely the shape, slope, color, and roof material. Walls are the determinant of the assessment of the existence of buildings. Ornaments serve to add aesthetic to a building that will eventually add financial value to the building.

The building facade composition consists of geometry, symmetry, rhythm, proportion, and scale. The proportion is the relationship between parts of a design or the relationship between parts and the whole. A ratio is the basis of each proportion system, i.e. a value that has a fixed price can be use as another comparison. Rhythm is defined as movement characterized by repetitive elements or motives patterned at regular or irregular intervals. The facade profile of the building is affected by the building's back and forth, the presence or absence of sun shading, overhangs, columns, and the presence or absence of a balcony.

2. Method
The old shophouses study area is in Selatpanjang city. The observation begins with several old shop houses in the main corridor, namely Jalan Merdeka corridor, Jalan Ahmad Yani corridor, and Jalan Imam Bonjol corridor. From these three corridors, the old shophouses character is on Jalan Merdeka (Figure 1).

![Figure 1 Jalan Merdeka Corridor in Selatpanjang City](image_url)

This research uses qualitative research with the rationalistic paradigm. Qualitative researchers are usually involved in interactions with the reality they are researching [7]. Characterizes information in a
contextual form and leads to patterns or theories that will explain social phenomena [8]. The research variables are based on the characteristics of the facade theory. It consists of building facade elements, building composition, and building facade profiles. Data collection techniques consist of field observations, interviews, and documentation. The analytical method used in this study is a qualitative descriptive analysis. The descriptive analysis method is a research method that describes or describes and explains the state or status of phenomena or the relationship between that are studied systematically, factually, and accurately.

3. Results and Discussions
Analysis of building façade consists of 5 elements: doors, windows, roofs, walls, and ornaments. Table 1 shows in terms of geometry and material consist of the doors, windows and roofs. Geometry ornaments is material, motif/pattern, location, and color.

| Element | Form  | Material |
|---------|-------|----------|
| Doors   | Square| Wood     |
| Windows | Square| Wood, Glass |
| Roof    | Gable | Zinc     |
| Wall    | Square| Brick, Wood |

Figure 2 Material of windows and doors is wood. The position of the door is in the middle.

Forms of doors and windows are square that consists of 2 units. The position of the door is in the middle, and the window is on the left and right side of the door. Door and window material is wood. Some of the old shop houses, window materials use glass. When viewed from Figure 2a, the top of doors and windows have air ventilation in the same material. Figure 2b showed that air ventilation material is cement, which is integrate with the wall, and it has a hexagon pattern. In addition to the pattern, some old shop houses have a rectangular.

Figure 3. Shape of a gable roof and wall of wood and brick material
The roof material is made of zinc and saddle-shaped (Figure 3). Some of the old shophouses that increase the number of floors, the roof form is a flat made by concrete. Old shophouses wall, for the 1st
floor, is a plaster brick. The 2nd floor is made of wood material. But some of the shophouses walls with plaster masonry, 1st floor or 2nd floor. Wall color consists of white, beige, green, yellow, and blue.

![Figure 4](image-url)  
**Figure 4.** The balustrade of various geometry patterns

When compared to the form of old Chinese shophouses in several places, the old shophouses in the Merdeka street corridor use balconies. Balustrades have geometric patterns (Figure 4). This pattern consists of a square, rectangle, and circle. Details of the balustrade and pattern (Figure 5). It shows that there are also iron materials on balustrade ornaments.

![Figure 5](image-url)  
**Figure 5.** Balustrade ornaments consist of various geometry patterns

In addition to balustrade ornaments, there are also on air vents, both on the 1st and 2nd floors. Ornament patterns in the form of geometry (Figure 6).
The characteristics of the building facade that viewed from the composition of the building, namely (Figure 7):

a. Proportion
The proportion of the distance between the door elements to the left and right windows is the same. Height per floor is around 3.5 meters to 4 meters.

b. Symmetry
Building symmetry by sharing the same facade elements between right and left.

c. Rhythm
There is a repetition of shapes on the opening and column elements. Repetition of forms is found on balustrade and air ventilation.

d. Hierarchy
Seen on the door elements of the window in the same shape and different sizes.

Types of old shop building profiles in the study area are almost have balconies that function as sun shading (Figure 8). The position is on the 2nd floor, makes the building look more forward when compared to the 1st floor. Some shop buildings also have columns on the 1st floor as vertical lines under the balcony. The shape of the column consists of a rectangle with brick exposed and round type with concrete material.
Overall, the old shophouses in Selatpanjang area, especially Jalan Merdeka, Jalan Ahmad Yani, and Jalan Imam Bonjol corridors have the following characteristics: clean façade design, using zinc materials gable, reinforced concrete construction, no ornamentation, wood on doors and windows, simple geometry decoration, air ventilation section in façade, balcony. The influence of colonial architecture is on the adaptation of balustrade iron material and brick combination. Also, local architectural adaptation is on ventilation air holes and cantilever roofs.

4. Conclusions
The shophouses façade, as an architectural type, have the unique visual characteristics. Jalan Merdeka corridor is a trading corridor which it has Chinese architecture characteristics. Some factors that influence corridor characteristic are architectural building style. There are several building changes, façade elements, addition floor number, and new building. Building façade design criteria refer to building façade elements, composition, and profiles. The façade consists of Chinese architecture, colonial architecture style, and local architecture style.

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