

## Tracing Tangible Aspect Around Dr Radjiman Street Corridor in Surakarta (From the Perspective of Architecture Students)

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ARTICLE INFO	ABSTRACT
<p><i>Article History:</i> Received: November 27, 2023 Received in revised form: June 29, 2024 Accepted on: November 20, 2024 Available Online: December 2024–May 2025</p>	<p>Koridor jalan pada sebuah kawasan bersejarah memiliki peran vital dalam membentuk sebuah elemen citra kota. Koridor jalan Dr. Radjiman di Surakarta menjadi bagian daripada kawasan bersejarah yang didalamnya memuat juga aktivitas sehari-hari warga setempat dalam pemenuhan kebutuhan sehari-hari. Secara fisik, visual manusia dapat menangkap elemen warna, ornamen, dan material sebagai pelengkap sebuah bangunan pada dua sisi koridor. Penelitian ini bertujuan untuk 'merekam' elemen visual yang terbentuk di koridor perkotaan yang dapat dilihat dari aspek fisik. Metode yang digunakan dalam penelitian berbasis mix-methods dan sampel data responden yang didapatkan bersifat probability sampling. Diharapkan penelitian ini dapat memberi gambaran fisik yang dijumpai disekitar koridor jalan Dr. Radjiman, Surakarta. Dari penelitian ini ditemukan bahwa secara visual, aspek warna, material, dan ornamen menciptakan padu padan yang beragam dengan dominasi warna putih, material fabrikasi, dan ornamen akulturasi budaya seperti ornamen peninggalan Belanda, China peranakan, dan Jawa. Hasil dari penelitian ini diharapkan dapat menjadi temuan ilmiah terbaharukan untuk mendukung usaha revitalisasi koridor jalan di Kota Surakarta.</p>
<p><b>Corresponding Author:</b> Robi Hidayat Institut Teknologi Nasional Bandung <a href="mailto:robi.hidayat@mhs.itenas.ac.id">robi.hidayat@mhs.itenas.ac.id</a></p>	<p><i>Street corridors in a historical area are vital in forming an element of the city's image. Dr Radjiman's corridor in Surakarta is part of a historical area containing residents' daily activities. Physically, humans can visually perceive colour, ornament and material elements as a building's facade on two sides of the corridor. This study aims to trace the visual elements in the corridor, which can be seen from the physical aspect. The method used in the research is mixed-methods based, and the respondent data sample obtained is probability sampling. This research can provide a physical description of what is found around the corridor. This research found that visually, the colour, material and ornamental aspects create a diverse mix and match the dominance of white, fabricated materials and cultural acculturation ornaments such as Dutch, Chinese Peranakan and Javanese heritage ornaments. The results of this research can become scientific findings to support efforts to revitalize street corridors in Surakarta.</i></p>

### 1. Introduction

Street corridors are essential to an urban area's role in people's movement. Moreover, street corridors are also geographically connected street networks that connect various locations from one location to another. Street corridors also have the

potential to grow and develop space for community activities, especially in trade (Ananda *et al.*, 2021). In addition, street corridors have various elements, starting from the main highway and including vehicle traffic, pedestrians and bicycle users. Therefore, planning and maintaining street corridors is essential in an area.

Dr Radjiman Street Corridor is one of the historical areas in Surakarta and the oldest street built during the move from the Kartasura Palace to Surakarta Palace. This corridor, built in 1745, is still a remnant of historical architectural remains that have high value in life in Surakarta; this influences the uniqueness of Surakarta and strengthens its competitive ability. The kings used this street as a strategic area to produce symbols of power; in ancient times, this street was believed to be the axis of worship of Mount Merapi, which is interpreted as the direction of the *Qibla*. The people of Surakarta remember the street that crosses the Coyudan shops as the identity and foundation for the history of Surakarta (Nursanty, 2020). This street eventually became a strategic area used by the king to produce abstract symbols of power.

Recently, the corridor of Dr Radjiman experienced an intensification of development in the commercial sector in the form of offices and trade. With the development of these activities, the old buildings along the corridor carried out renovations with new forms and functions (Huda & Pramitasari, 2022). Revitalization is an activity to revive an area, which includes physical, economic and social improvements (Westriani *et al.*, 2017). Moreover, Revitalization is an effort to increase the value of land or an area through redevelopment in an area that can improve the function of the previous area (Pangestiningrum *et al.*, 2021). Also, revitalization is an effort to revive areas or parts of a city that were once vibrant and have fallen into decline or are underdeveloped (Audrian & Surya, 2023).

The previous researchers used several studies regarding Dr Radjiman's corridor as a reference. Several studies explain that the visual character of corridor building facades in pattern elements is dominated by 1-story commercial buildings, expansive openings, and tropical modern building styles. Also, the rows of buildings have a geometric shape that is a mixture of squares and triangles (Nurhalimah & Astuti, 2020). Researchers used several observation parameters from Building's facade theories in this study. Thus, the facade is an essential element in a building, where the facade can reflect the function, history and culture of an area as an element that looks bigger than the roof of the Building and can become the visual identity.

In architecture, the facade is defined as the face of a building or the front of a building (Saputra *et al.*, 2023; Kosanti & Dwiyanto, 2018). Moreover, the facade is an essential element in a building because it is the face or representation of the function or the work of architecture itself; apart from that, the facade is also a record of the history, civilization and culture that once existed in a particular area. The facade is also the visible part of a building and occupies a larger area than the roof (Montero-Parejo *et al.*, 2020). A group of facades can be seen visually from a street corridor.

According to Darmawan *et al.*, a corridor is a street bordered along the right and left sides by walls forming a facade. A street can be called a corridor if it can connect from

one place to another and unite parts of that place (Wardhana & Haryanto, 2016). Meanwhile, the corridor is formed by two rows of masses, and it forms an elongated space that connects one mass from two areas in a neutral manner (Ananda *et al.*, 2021). Moreover, corridors are usually overgrown, with buildings on either side of the street along its length (Jamaluddin *et al.*, 2019). A corridor is an elongated street flanked by buildings that connect two areas. This study will reveal concrete aspects of road corridors that are important for maintaining the character of historic areas. Therefore, this research aims to assist revitalization efforts along the street corridor so that future development can be excellent in urban design concepts.

## 2. Materials and Methods

This research location is in the corridor of Dr Radjiman in Surakarta, where the research observation boundary is 500 meters long. There were eight building samples taken along this corridor for analysis: Klewer Market (A); Shophouse 1 (B); Kita store (C); Surabaya store (D); Kelapa Mas & Delima jewelry (E); Generous coffee shop (F); Shophouse 2 (G); Nikita Jaya store (H). The locus corridor of the study can be seen in Figure 1 below:



Figure 1. Top view of Dr Radjiman corridor street  
(Source: Authors, 2023)

Apart from that, the material used in this research is a voice recording from a key person. The statement from key person can be used as supporting data from the results of the questionnaire that has been distributed.

In this study, the method that will be used is a mixed method, where the researcher gives a questionnaire to respondents with several types of questions. The target respondents were focused on architecture students living in Surakarta. The aim is to provide an actual 'picture' of what is found along the corridor. The following are the research stages (figure 2).

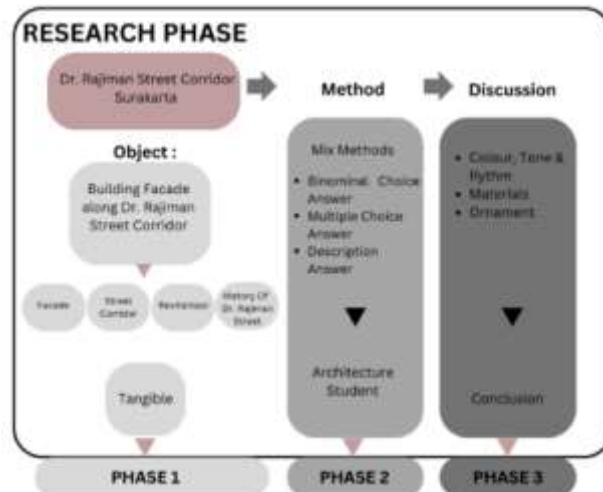


Figure 2. Research phase  
(Source: Authors, 2023)

The research stages start with determining the research object which is Dr. Radjiman's street corridor in Surakarta. After that, the author determines the theory that will be used as a reference to support the observation stage, especially in determining observation parameters. The parameters discussed in this research are colour, material and ornament as the focus of discussion.

### 3. Result and Discussion

#### 3.1 Colours

Colour is the pattern, intensity and tone on the surface of a shape. Moreover, colour is an attribute that influences the differentiation of a shape from its environment. Colour also affects the visual quality of a shape (Arifin & Raidi, 2015).

Colour harmony can be seen in the presence of a variety of colours that are in harmony or the absence of a dominant colour in the colour group (Thania & Purwantiasning, 2020). The result of the colours on the building façade along the corridor can be seen in figure 3.

From the questionnaire data obtained, with a total percentage of 148.3% where respondents can choose more than one answer, white was chosen as the dominant colour that can be captured visually with a percentage of 74.2%. Brown was found at 41.9%, yellow at 25.8%, orange at 3.2%, and red at 3.2%. From the respondents' answers, white is the colour that dominates the visual façade along the Jalan Dr. corridor. Radjiman. This is reinforced by statements delivered by three key persons with the following statements:

Key Person 1 (KP1): *"...Because if you look at it from the street, white is more dominant, actually there is brown, but it seems like a line element, so it's not dominant. As far as I know, why is it white? Because of the regulations on cultural heritage buildings.."*

Key Person 2 (KP2): "...Choose the white colour because it looks like the whole concept of the building. There is still a big influence from the colonial era, right? it's an area that is still part of the palace, right? Well, as far as I know, the palace is a mix between Javanese architecture and European or Dutch architecture, well this is the first because it is white, and the second still has influences from the colonial era, that's why I answered white..."

Key Person 3 (KP3): "...In the street corridor there is a lot of ACP material used in white, but there are also other additional colours, according to the appearance of the shophouse, for example there are fashion ones or those that are colourful but dominated by white..."

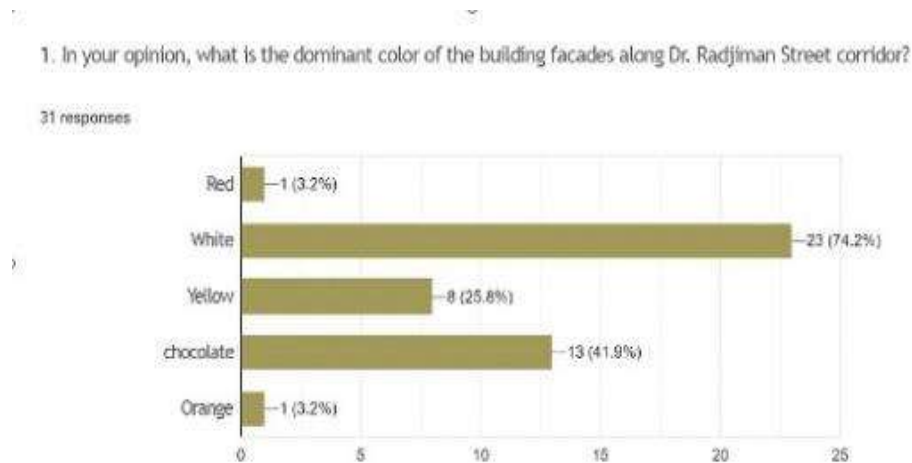


Figure 3. Dominance of façade colours

(Source: Survey data, 2023)

It can be seen from the key person's answers above that white is chosen as the dominant colour along the corridor for several interrelated reasons. According to KP1, white was chosen because regulations governing cultural heritage buildings require white to be the primary colour. Moreover, KP2 added white to the building concept along the corridor, greatly influencing Dutch Colonial architecture, especially in areas still related to the palace. KP3 complements the choice of white due to white ACP (Aluminium Composite Panel) material dominating the building facade. In this case, choosing white is considered part of the Dutch Colonial architectural heritage and relates to cultural heritage development regulations.

### 3.2 Materials

Material is an architectural element that plays a vital role in creating expression in a building. The characteristics inherent in each material give a different impression in each application (Hajaria & Ekomadyo, 2022). Moreover, natural materials are building materials obtained from nature without any human intervention. Non-natural materials are building or construction materials produced through human intervention (Rasyid, 2019). Thus, determining the material can influence the visual appearance with the surrounding environment. From the questionnaire data obtained, expressions can be created along the corridor in buildings with a percentage of 80.6%, where materials can

create characteristics in the corridor. This is reinforced by statements delivered by three key persons with the following statements:

Key Person 1: *"...if I look at it from the shape of the material, there is a real sense of history there once being the Netherlands, from the art deco buildings, you can see the oval shape of the columns that is visible..."*

Key Person 2: *"...The colour, the same as the texture, also influences that. If colour has a psychological effect, that is right, so white means pure and clean, and if it is brown, I forget what it means, but yes, it is the effect of using colour. (material) creates a psychological effect, so that is what influences the expression of the building. The second thing is about texture; the texture also has an important influence on the expression of the building, right? For example, if the building material uses concrete, the texture is rough, showing an industrial expression.*

Key Person 3: *"...For the facade, there was a lot of ACP and metal materials, so it looks like a lot of it, the texture is like wavy following the metal, and maybe there's some concrete playing on the windows like that, right?"*

3. In your opinion, what type of material is most commonly applied to the building facades along Dr. Radjiman Street corridor?

31 responses

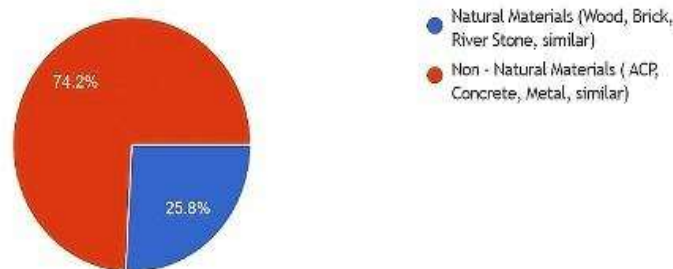


Figure 5. Material types of facades

(Source: Survey data, 2023)

It can be interpreted from the interview data above that the materials on the building facades along the corridor can create expression in buildings for several reasons. KP 1 stated that the form of material on the facade of the corridor building can express buildings. KP2 stated that the colour and texture of the building facade material could create its expression, where the material's colour psychologically impacts users around the building. In contrast, the texture itself can reflect the characteristics of the architectural style. KP3 stated that the materials applied to building facades, such as ACP and zinalume (a coating applied to the steel before it is painted as known as galvalume) metal, can express a building. The choice of materials in terms of colour, texture and shape are an essential element in expressing the history of a building. The survey results on material types can be seen in figure 5.

From the questionnaire data obtained along the corridor, the material most often applied to building facades is non-natural material, with a percentage of 74.2%; in other

words, the non-natural material applied to facades along the corridor is in the form of fabrication materials. This is reinforced by statements delivered by three key persons with the following statements:

Key Person 1 (KP1): *"...What I see there looks like it's been destroyed because there are a lot of cultural heritage buildings like that, so there's a lot of natural materials like wood, brick and the like, but when it's close to the intersection, it's already far away from the big mosque area and the market area. There it has started to be covered with typical Dutch natural materials with ACP like that to become a secondary skin, so on the building box, maybe that's modernization too..."*

Key Person 2(KP2): *"...It's non-natural, the first thing is this, concrete iron and glass bricks, what's more, glass and one more ACP..."*

Key Person 3(KP3): *"...You can see there are a lot of them here, because the shophouses have a lot of signs and some of the facades are made from non-natural materials, namely ACP and metal, yes, with the addition of non-natural concrete..."*

It is concluded from the interview data above that non-natural materials are more widely used on building facades along the corridor. KP1 stated that the buildings along the corridor are cultural heritage buildings adjacent to the Great Mosque and a market that uses natural materials such as brick and wood. However, when people move away from the area, they can see the modernization of the building facade materials by using non-natural materials such as ACP as a secondary skin. KP2 added that non-natural materials are often applied to building facades along the corridor; concrete, glass, and ACP are known materials. KP3 highlighted non-natural materials most widely used on building facades, namely ACP and zincalume metal on shophouse signage. This means the use of materials on building facades along the corridor underwent modernization without losing their historical elements, and the materials most widely used were fabrication materials such as ACP, metal zincalume, concrete, and glass.

### 3.3 Façade's ornaments

According to Gustami in Sunaryo (2009), ornaments are components of art products that are added or deliberately made for decoration. So, based on that definition, ornament is the application of decoration to a product (Shalika *et al.*, 2020). According to Mesra *et al.* (2022), Ornaments are decorations in patterns with cultural value, such as Javanese, Chinese and colonial ornaments. The survey results can be seen in Figure 6.

From the questionnaire data obtained, with a total percentage of 170.9%, the dominant cultural ornament applied to building facades along the corridor is a Javanese ornament (especially Surakarta style), with a percentage of 64.5%. Dutch Colonial ornaments are as many as 48.4%, Modern Ornaments are 41.9%, and Chinese Peranakan ornaments are 16.1%.

4. While walking along Dr. Radjiman Street corridor, in your opinion, what cultural ornaments are predominately applied to the building facades?

31 responses

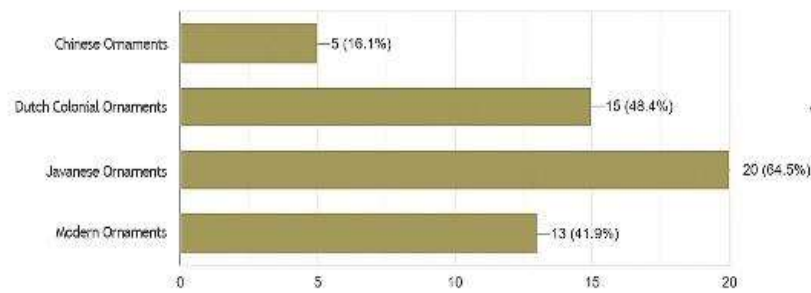


Figure 6. The types of ornament's façade

(Source: Survey data, 2023)

The history of Surakarta formally has two main streets, namely, Dr Radjiman and Slamet Riyadi Street. Dr Radjiman Street was the oldest building when the Kartasura Palace was moved to the current Surakarta Palace. Meanwhile, Slamet Riyadi Street is a street built by the Dutch government as a military street that connects the fort with the surrounding cities (Nursanty, 2020). Moreover, Javanese ornaments are dominantly applied along the corridor of Dr Radjiman because the Dutch government did not have much power over this street. From the questionnaire data obtained, the facade ornaments on buildings along the corridor can create expressions on buildings with a percentage of 87.1%. This can be supported by statements delivered by three key persons with the following statements:

Key Person 1 (KP1): *"..Maybe it's because it's a cultural heritage building too, it really looks like there are horizontal and vertical elements that really stand out, for the vertical elements there are slabs and Dutch tritisans, the style is really art deco, it really stands out.."*

Key Person 2 (KP2): *"..So yeah, creating expressions from ornaments, yes, in the klewer market it expresses Javanese culture, from ornaments other ornaments are rich, oh I have this, Mas Coconut Shop, bro, there is a signage ornament that has coconuts, what is that, coconut trees? It's still gold in colour.."*

Key Person 3 (KP3): *"...As for the ornaments alone, I saw them at the klewer market, so it's more in the direction of what is it called? beautifying the facade and representing what the klewer market is in, Solo, yes, with Kawung batik, Kawung batik ornaments.."*

It can be seen from the interview data above that the ornaments on the building facades along the corridor can create expressions on buildings. KP1 stated that horizontal and vertical ornamental formations on building facades, especially slab ornaments and eaves, which reflect the Dutch Art Deco style, can express a building. KP2 said that the lower market expresses Javanese culture through ornaments; another example is at the *Kelapa Mas* shop, where signage elements form golden coconuts. KP3 added that, especially at the *Klewer* market, there are knowing batik ornaments on the building



facade. This means that an ornament influences the expression of a building, especially in street corridors, where this ornament can also be a marker or identity for a building.



Figure 7. Facades of the eight sample buildings

(Source: Analysis, 2024)

Figure 7 above shows the facade elements such as colours, ornaments, and existing materials that maintain their contextual aspects. Based on the results of the analysis that has been carried out, it can be found that the visual aspects of colour, material and colours in the Dr Radjiman corridors, such as:

- a. **The colours of façade:** Colour plays a role in art and design; white as the dominant colour along the corridor, where cultural heritage building regulations and Dutch colonial architectural concepts influence the white colour. Color is essential in shaping the visual image of an area (Suri & Sugiri, 2015).
- b. **The materials of façade:** The selection of materials in terms of colour, texture, and shape is an essential element in planning an area or corridor, where materials influence the expression of history or a building (Torabi & Brahman, 2013). In particular, fabricated materials such as ACP, concrete, glass and zinalume are the dominant non-natural materials used along this corridor.
- c. **The ornaments of façade:** Ornaments are an influential element in expressing a building (Salingaros, 2015; Shalika et al., 2020), especially in street corridors, where these ornaments can also be a marker or identity for a building (Grütter, 2020). The corridor of Dr Radjiman includes Chinese Peranakan, Surakarta Javanese, Dutch Colonial and Modern ornaments, where the dominant Surakarta Javanese ornaments are applied to building facades.

#### 4. Conclusion

The corridor of Dr Radjiman can reflect diversity in the use of colours, materials, and ornaments, which ultimately creates a visual impression on street users and has a

unique and diverse impression of Surakarta. There is a limitation of the research, which is mixed methods research only reveals the perspective of architecture students, not the perspective of the residents who spend their daily lives around the corridor, such as traders and buyers around the *Klewer* traditional market, shop owners, and the people who live nearby. The suggestion for further research is how the corridors of historical areas can form a vision series for each segment to provide a narrative of supporting activities as an urban catalyst concept that supports tourism areas.

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