

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

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Abstract

Keywords:

visual quality, visibility, heritage building, Kayutangan Church, historic area

The Sacred Heart of Jesus Parish Church (Kayutangan Church) is one of the most prominent cultural heritage buildings and landmarks in Malang's Historic Kayutangan Area. As an important visual marker within the historic urban landscape, the church's visibility has been affected by various physical obstructions along the surrounding street corridor. This study aims to assess the church's visual quality from a pedestrian perspective by analyzing its visibility along major pedestrian routes in the Kayutangan Area. A qualitative descriptive method was employed through field observation and sequential photographic analysis. Photographs taken from five pedestrian routes were redrawn and analyzed to determine visibility percentages at each observation point. The results indicate that visual quality varies significantly among observation routes. The highest average visibility value was recorded on the Basuki Rahmat corridor (1.61%), while the lowest was observed from Merdeka Street (0.89%). Tree canopies, billboards, and advertisements on pedestrian bridges were identified as the primary visual obstructions affecting the visibility of the church facade. The study recommends regulating billboard placement and conducting periodic tree pruning to improve the visual quality of this important heritage landmark.

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1. INTRODUCTION

The city of Malang is home to many historic buildings. Some of these historical buildings in Malang have been designated as cultural heritage sites. Cultural heritage buildings in Malang must be preserved and their authenticity maintained. This is an important factor that can influence Malang's image. With its many historic buildings and areas, Malang will attract many tourists.

One of the historic areas in Malang is Kayutangan. The Kayutangan area, centered on Kayutangan Street, has several historical buildings. The Malang City Government has even designated these historical buildings as cultural heritage sites. These cultural heritage buildings must be protected. Kayutangan Street itself has two cultural heritage buildings that have become landmarks. These buildings are the PLN Building and the Sacred Heart of Jesus Parish Church, commonly referred to as the Kayutangan Church.

The Historic Kayutangan Area was selected because it represents one of the most important heritage corridors in Malang City. The area is home to a concentration of cultural heritage buildings and serves as a major commercial and tourism corridor. Rapid urban development, increasing commercial activities, and the presence of visual obstructions make this area relevant for visual quality assessment studies.

Cultural heritage buildings can serve as markers or landmarks of an area. These landmarks will influence the area's image. If there are cultural heritage buildings or historic buildings, they will indirectly affect the area or street. Therefore, these landmarks should be monumental or easily visible to both pedestrians and drivers.

This landmark is a building that must be conserved. This is the reason why the Kayutangan Church must be designated as a cultural heritage building and preserved. (Catanese & Snyder, 1979) Provide criteria for buildings that are worthy of conservation. These criteria include aesthetics, uniqueness, rarity, historical significance, enhancement of the area's image, and special characteristics.

The Sacred Heart of Jesus Parish Church was selected as the research object because it is one of the most recognizable landmarks in Malang and has been designated as a cultural heritage building. The church possesses significant historical, architectural, and cultural values that contribute to the identity of the Kayutangan Area.

Previous studies have examined visual quality in urban corridors, historic districts, and heritage building facades. However, limited research has specifically evaluated the visual quality of individual heritage landmarks using pedestrian-based visibility analysis. Furthermore, studies focusing on the visual quality of the Sacred Heart of Jesus Parish Church within the Historic Kayutangan Area remain scarce. Therefore, this study contributes by assessing the church's visual quality through sequential photographic analysis and visibility measurement from pedestrian viewpoints.

Based on the issues identified above, this study addresses the following research question: How is the visual quality of the Sacred Heart of Jesus Parish Church perceived from pedestrian routes within the Historic Kayutangan Area? Accordingly, the objective of this study is to assess the church's visual quality through visibility analysis and to identify factors affecting its visual appearance within the historic urban corridor.

2. LITERATURE REVIEW

Visual beauty can be created from the building's facade elements (Agmitya et al., 2024). If the facade is well managed and arranged, it can leave an impression or character that will strengthen the area's image. Kayutangan Street, a historic area in Malang City, hosts a variety of activities. Buildings around Kayutangan Street have emerged and developed over time, with various architectural styles. Moreover, many large trees and billboards have started to obscure the facades of the buildings. The variety of facades

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

Wahyuni Eka Sari, Alfia Yufariani

competing with the growth of trees and the numerous billboards covering the building facades will lead to a decline in visual quality (Agmitya et al., 2024). As a basic design element, color has powerful expressive properties and represents the most important visual experience. It effectively communicates messages to the human perceptual system and significantly boosts memory. Building character significantly affects area identity, with facades crucial to a city's visual character (Bahar et al., 2022). Optimal visual quality not only enhances aesthetic appeal but also provides psychological benefits for users, particularly by fostering a sense of safety. Moreover, well-composed visual environments foster positive emotional bonds between communities and their surroundings (Syahputri et al., 2023).

Changes in building typology have the potential to reshape an area's visual character. These alterations may profoundly affect the established visual quality that once served as a streetscape's defining feature (Ramadhanti et al., 2022). Imageability plays the most significant role in assessing an area's visual quality, as it captures the area's overall image. Building façades act as key elements that shape visual perception. Through the characteristics of the visible colonial building façades, the extent of the building's visual quality can be evaluated, as well as its contribution to forming the overall image of the area. In other words, the visual appearance of the building façade not only reflects its architectural value but also functions as an indicator that determines the image and identity of the area (Nugroho et al., 2021). Therefore, the visibility and appearance of building facades are important indicators for evaluating visual quality and understanding how heritage buildings contribute to the identity of an urban area.

Visibility or visual quality of a landscape can be observed from a single viewpoint, where the object can either be seen or not (Nurin et al., 2024). Visual quality can be formed from the visual condition of the elements that make it up, while aesthetics can be seen from the condition based on sensory perception (Porteous, 2013). Several aspects can influence the visual quality of a building, including unity, proportion, scale, balance, rhythm, color, and order (Booth, 1983). The visual quality of a street corridor can be seen from the physical elements based on an individual's sensory perception, such as the shape of the road, the degree of enclosure, trees along the road or median, architectural patterns, and activity patterns (Agustin et al., 2021). The beauty of a street corridor can be created, in part, from the shape of tree canopies. However, if the tree canopy covers the building's facade, it will affect the visual quality of the building's façade (Nurin et al., 2024). An area requires a more comprehensive arrangement of the visual environment and buildings to maintain local visual values. Without serious efforts to regulate this, the region's distinctive visual character risks being neglected by policymakers and commercial actors. Uncontrolled visual conditions can create a disorderly environment and even potentially cause chaos in the building layout. In this context, the visual order document plays an important role as a controlling instrument to ensure that the visual development of buildings remains in accordance with the local identity (Zuhri et al., 2022). Therefore, evaluating the visibility of heritage buildings and identifying visual obstructions are essential for maintaining visual quality and preserving the distinctive character of historic urban areas.

The control of tree canopies and the placement of billboards have become issues on Kayutangan Street, which have not been well managed due to a lack of guidance on regulating the visual character of building facades. This is an issue that must be addressed urgently because the physical and natural conditions of the Kayutangan Street corridor are part of one of the main routes to the city center and the commercial hub. If no changes and

preventive measures are made, there is concern that the visual quality of the Kayutangan Street corridor and the Kayutangan Church, an important building that must be preserved in the area, will decline. Billboards play a role in shaping the city's aesthetics through the visual effects they produce. However, if not properly managed, their visual impact can create visual pollution and disrupt the harmony of the cityscape (Setiawan & Malik, 2022). Therefore, research is needed to assess the visual quality of the Kayutangan Church. The visual quality assessment will yield recommendations to improve the Kayutangan Church's facade.

Visual quality is an important aspect in the preservation of heritage buildings because it influences how a building is perceived, recognized, and appreciated by the public. Heritage buildings that serve as landmarks require high visibility to maintain their symbolic and cultural significance in the urban environment. A decline in visual quality may reduce public awareness of a building's heritage value and weaken its contribution to the historic area's image.

3. METHODS

This study was conducted using photo analysis of field observations. The photos taken during the field observations were identified and redrawn using CAD software. The CAD results were then processed and analyzed in Excel, yielding the percentage of visual visibility of the Kayutangan Church.

The sequential photography technique is used to produce a variety of images with different compositions, varying angles, and dynamic moments. Through photo sequences, each moment, object, or subject captured will have a unique composition. In this way, we obtain a range of diverse photo options (Alyatalathaf, 2023). Harmonious visual arrangement is achieved through uniformity in the dimensions and elevations of each building unit, creating a structured composition of serial views. This visual order produces an architectural rhythm that not only meets aesthetic principles but also creates a comfortable visual experience for the community using the space. The continuity of these elements that form the appearance helps build a perception of orderliness, which positively influences the psychological comfort of observers (Nurmiah & Eran, 2022). This study collects data through photo documentation using two approaches of serial photography. The camera is used to capture the building's characteristics. The data is then analyzed to produce conclusions and recommendations. (Huda & Pramitasari, 2022).

Kayutangan is a historic area with pedestrian pathways, making the Kayutangan Church clearly visible to pedestrians. In the context of architectural visuals, the building facade is an essential element that shapes visual beauty and defines the unique character along the Kayutangan street corridor. The facade should continuously present aesthetics that enhance the urban environment and provide visual comfort for the community, particularly for road users (Fauziah, 2017).

Field observations were carried out by walking along the pedestrian path on Kayutangan Street and around the Kayutangan Church. The observation involved taking pictures from several vantage points using a camera. The camera was directed at the object at the same height as an adult pedestrian's eye level. The observation points routes are presented in *Figure 1*.

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

Wahyuni Eka Sari, Alfia Yufariani



Figure 1. Observation point routes

Source: Author, 2025.

Data were collected through field observations and photographic documentation conducted along the pedestrian routes surrounding the Sacred Heart of Jesus Parish Church (Kayutangan Church) in the Historic Kayutangan Area, Malang. The field observations aimed to capture the church's visual appearance from the perspective of pedestrians on the surrounding sidewalks and in public spaces.

The observation points were divided into 5 routes. Pedestrians walked from a point far from the object to one closer to it. The first observation point was from Merdeka Street in front of the Alun-alun Mosque, heading towards the intersection with Basuki Rahmat Street. The second observation point was from the intersection of Basuki Rahmat Street toward the object, stopping directly in front of the church. The third observation point was from the northern side of Basuki Rahmat Street, walking toward the front of the church. The fourth observation point was from the northern side of Basuki Rahmat Street toward Majapahit Street. The fifth observation point was from the direction of Majapahit Street approaching the church. The research findings (Junianingrum et al., 2021) It reveals that Basuki Rahmat Street has the best visual quality among the locations. As the main street in the Kayutangan Area, it plays an important role in unifying the various elements that shape the area's image. Basuki Rahmat Street serves as a connector integrating circulation routes, meeting points, areas with distinctive character, visual markers, and area boundaries. Thus, this street not only serves as transportation infrastructure but also plays a vital role in shaping the identity and visual character of the Kayutangan area as a whole.

Photographic documentation was carried out using a digital camera positioned at approximately 1.5–1.6 meters above ground level, representing the average eye level of an adult pedestrian. To obtain a comprehensive representation of the church's visibility, observations were conducted along five different pedestrian routes surrounding the church. Each route consisted of several observation points arranged sequentially from locations farther from the church toward locations closer to the building. At each

observation point, photographs were taken facing the church facade to record the visual conditions and potential visual obstructions encountered by pedestrians.

The observation routes were selected to represent the major pedestrian access corridors within the Historic Kayutangan Area and to capture variations in visibility resulting from differences in distance, viewing angle, vegetation, street furniture, and advertising structures. The collected photographs were analyzed using a sequential photographic analysis approach. Photographs from each observation route were arranged in the order they appeared along the pedestrian path, allowing the church's visibility to be assessed progressively from different viewpoints.

The visible portion of the church facade was identified in each photograph and subsequently redrawn using Computer-Aided Design (CAD) software. The redrawn images were used to calculate the visible facade area of the church within each photograph. The resulting data were then processed using Microsoft Excel to determine the visibility percentage at each observation point.

The visibility percentage was calculated using the following equation:

$$\text{Visibility (\%)} = \frac{\text{Total image area}}{\text{Visible facade area}} \times 100$$

Where visible, the Facade Area represents the area of the church facade visible in the photograph, and the Total Image Area represents the total area of the photograph frame.

The visibility percentages obtained from all observation points were then averaged for each observation route. Higher visibility percentages indicate better visual quality, while lower percentages indicate reduced visual quality due to visual obstructions. The average visibility values were subsequently used to evaluate and compare the church's visual quality from different pedestrian routes within the Historic Kayutangan Area.

4. RESULTS AND DISCUSSION

4.1 Area Overview

The Kayutangan area is a historic area in the city of Malang. The Kayutangan area contains historic buildings designated as cultural heritage sites. According to Law No. 11 of 2010, a cultural heritage building is a structure made from natural or human-made materials designed to serve as a complete unit, with walls and/or no walls, and a roof. (Tonapa et al., 2015) explains the characteristics of a cultural heritage building according to Law No. 11 of 2010, which include being at least 50 years old; representing a style that is at least 50 years old; having special significance for history, science, education, religion, and/or culture; and possessing cultural value for strengthening the nation's identity. The Kayutangan historic area is presented in *Figure 2*.

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

Wahyuni Eka Sari, Alfia Yufariani

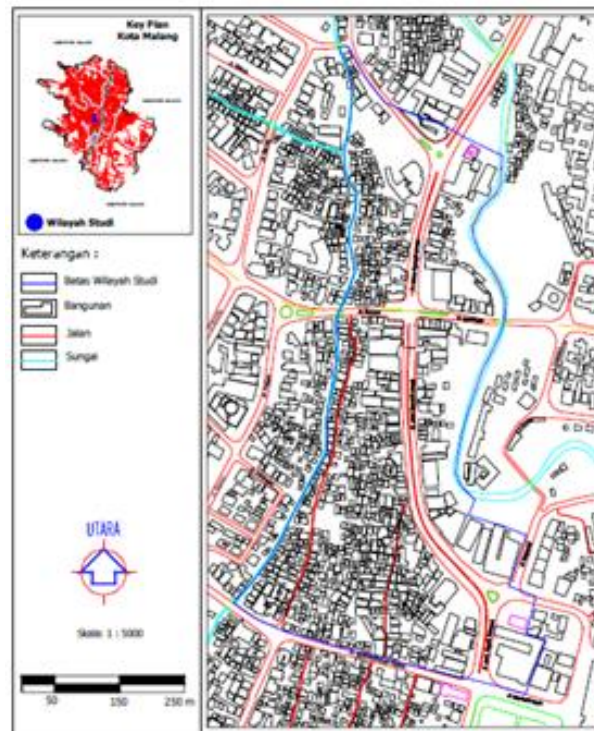


Figure 2. Kayutangan Area

Source: Rizaldi et al., 2010

As part of the cultural preservation efforts, the Malang City Government has taken steps to develop thematic villages within the city. One of the thematic villages is Kampung Kayutangan, located on Jl. Jenderal Basuki Rahmat, Kelurahan Kauman, Kecamatan Klojen, Kota Malang. According to the Malang City Regional Regulation No. 4 of 2011 concerning the Spatial Planning of Malang City for the period 2010 – 2030, Kampung Kayutangan, part of the Kayutangan area, is designated for development as a cultural tourism area. The cultural tourism in Kampung Kayutangan plays an important role in preserving colonial-era buildings with architectural aesthetic value, traditional cuisine, social and cultural activities passed down through generations, and graves with unique historical significance (Darmawan & Umilia, 2024).

4.2 Historical Review of the Building

The church located in Malang City, with a Neo-Gothic style, was originally named Kajoetangan met de rooms katholieke Heilig Hartkerk te Malang (Indrakusuma & Dewanto, 1992). The church was founded by a Jesuit priest, Father Godefriedus Daniel Augustinus Jonckbloet, with Ir. as the architect. M. J. Hulswit, who began construction on May 11, 1905 (Fauziah, 2017). The name Van't Pad & Bourguignon served as subcontractors at the time, and Molijn was the building supervisor. Today, the church is located at Jl. MGR Sugiyopranoto No.2, Kiduldalem, Klojen, Malang City, East Java 65119. The current owner and manager is the Carmel Order Foundation - Diocese of Malang. The building covers an area of 467.4 m², with a land area of 4878 m².

The church's construction began due to the need of Dutch Catholics for a place of worship (Fauziah, 2017). Since 1880, Catholic and Protestant worshipers have visited the GPIB church in front of Alun-alun Merdeka to pray, taking turns. However, in 1896, Catholic worshipers celebrating Easter had to do so at the Pendopo Kabupaten. On

November 18, 1896, construction began on an emergency church on North Merdeka Street, which is now the Bank Indonesia building. The name given at that time was Gudang Baru.

The Gothic-style building features windows and doors with pointed arches. It also has high spaces and many ornaments. The interior of the church has arches supported by tall columns along the walls. Between these columns are large, tall windows that let in plenty of sunlight, creating a sense of spaciousness and grandeur. Arched motifs are found in almost all elements of the building (Indrakusuma & Dewanto, 1992).

This church is adorned with beautiful stained-glass ornaments, which have been preserved in their original form to this day. The beautiful floral motifs in vibrant colors symbolize heavenly beauty (Indrakusuma & Dewanto, 1992). The church has undergone two renovations on its tower because the heavy iron cross at the top of the tower fell and damaged the roof. Additionally, repairs were made to the roofing material of the main church building, with the original sirap (wooden shingles) being replaced with genting (roof tiles) because the wooden shingles had aged. Regular maintenance is also carried out, such as wall painting and upkeep of the church pews (Fauziah, 2017). The situation around Kayutangan Church in 1946 is presented in *Figure 3*.



Figure 3. Kayutangan Church and its surroundings on January 24, 1946
Source: Van Schaik & van Diessen, 1996

Figure 3 depicts Kayutangan Church in 1946, with a peaceful and tranquil atmosphere. The lush trees lining the street provide shade, their leaves gently swaying in the soft breeze, creating a cool and comfortable ambiance. Some pedestrians walk slowly along the sidewalk, dressed in simple, everyday clothes, while others pause to enjoy the surroundings. Among them, the sound of a slow-moving carriage can be heard, catching attention with the rhythmic clomp of horse hooves on the cobbled streets. The delman, a traditional vehicle still popular at the time, carries passengers with various destinations, evoking a sense of nostalgia and peace amid a city life that has just emerged from the turmoil of war. This scene reflects a blend of natural calm and simple yet meaningful daily life activities.

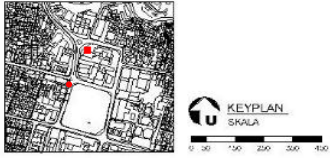
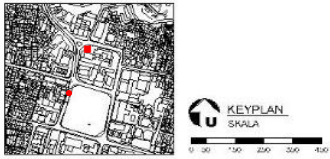
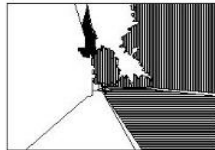
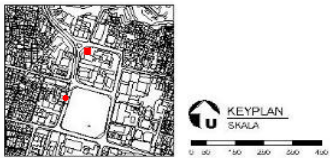
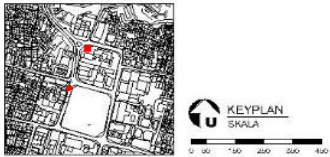
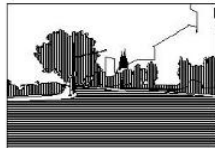
4.3 Sequence Photo Analysis

The first observation was conducted by walking from the southern side of Merdeka Barat Street, directly in front of the Masjid Agung, heading north, while taking 4 observation points, each spaced 20 meters apart. The observation results at point 1, and the calculation results are presented in *Tables 1 and 2*.

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

Wahyuni Eka Sari, Alfia Yufariani

Table 1. Observation Point 1

MERDEKA BARAT STREET		
VIEW POINT	PHOTO	SKUENS
		
		
		
		

Source: Analysis, 2025

Table 2. Calculation of the percentage for observation point 1

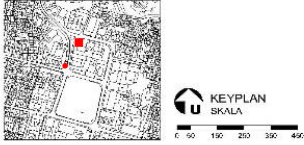
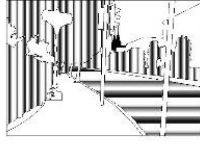
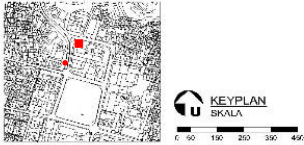
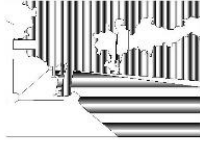
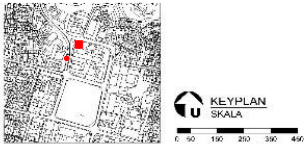
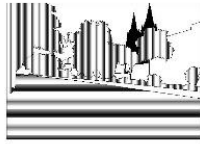
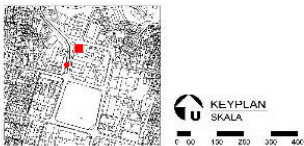
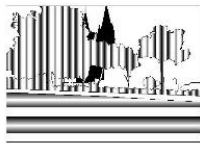
Observation Point	Distance (m)	Area	Percentage
1	191	0.0034	0.45%
2	168	0.0110	1.47%
3	142	0.0103	1.37%
4	115	0.0020	0.27%

Source: Analysis, 2025

The calculation results for observation point 1 show that observation point 2 on Merdeka Barat Street has the highest percentage. This proves that observation point 2 on Merdeka Barat Street has the highest visibility value.

The second observation was conducted by walking northward from the southern side of Basuki Rahmat 1 Street, with 5 observation points spaced 10 meters apart. The observation results at point 2, and the calculation results are presented in Tables 3 and 4.

Table 3. Observation Point 2

BASUKI RAHMAT 1 STREET		
VIEW POINT	PHOTO	SKUENS
		
		
		
		
		

Source: Analysis, 2025

Table 4. Calculation of the percentage for observation point 2

Observation Point	Distance (m)	Area	Percentage
1	91	0.0030	0.40%
2	73	0.0008	0.11%
3	54	0.0137	1.83%
4	41	0.0199	2.65%
5	36	0.0229	3.05%

Source: Analysis, 2025

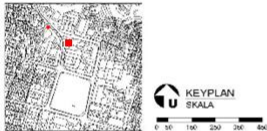
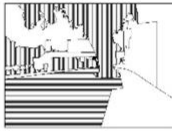
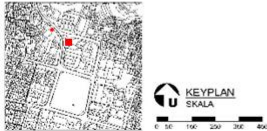
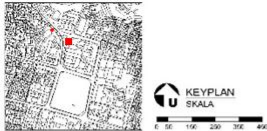
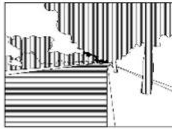
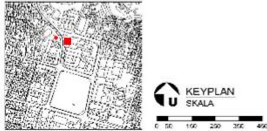
The calculation results for observation point 2 show that observation point 5 on Basuki Rahmat 1 Street has the highest percentage. This proves that observation point 5 on Basuki Rahmat 1 Street has the highest visibility value.

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

Wahyuni Eka Sari, Alfia Yufariani

The third observation was conducted by walking from the northern side of Basuki Rahmat 2 Street south, taking 5 observation points, each spaced 20 meters apart. The observation results at point 3, and the calculation results are presented in *Tables 5 and 6*.

Table 5. Observation Point 3

BASUKI RAHMAT 2 STREET		
VIEW POINT	PHOTO	SKUENS
		
		
		
		
		

Source: Analysis, 2025

Table 6. Calculation of the percentage for observation point 3

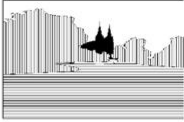
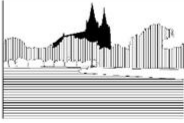
Observation Point	Distance (m)	Area	Percentage
1	137	0.0004	0.05%
2	123	0.0002	0.03%
3	103	0.0025	0.33%
4	82	0.0228	3.04%
5	64	0.0229	3.05%

Source: Analysis, 2025

The calculation results for observation point 3 show that observation point 5 on Basuki Rahmat 2 Street has the highest percentage. This proves that observation point 5 on Basuki Rahmat 2 Street has the highest visibility value.

The fourth observation was conducted by walking from the north side to the right side of Basuki Rahmat 3 Street, heading south, while taking 3 observation points, each spaced 20 meters apart. The observation results at point 4, and the calculation results are presented in Tables 7 and 8.

Table 7. Observation Point 4

BASUKI RAHMAT 3 STREET		
VIEW POINT	PHOTO	SKUENS
		
		
		

Source: Analysis, 2025

Table 8. Calculation of the percentage for observation point 4

Observation Point	Distance (m)	Area	Percentage
1	96	0.0050	0.67%
2	71	0.0162	2.16%
3	57	0.0262	3.49%

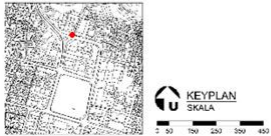
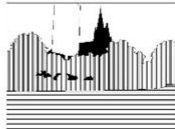
Source: Analysis, 2025

The calculation results for observation point 4 show that observation point 3 on Basuki Rahmat 3 Street has the highest percentage. This proves that observation point 3 on Basuki Rahmat 3 Street has the highest visibility value. The fifth observation was conducted by walking from the north Jalan Majapahit, heading south, while taking 4 observation points, each spaced 15 meters apart. The observation results at point 5, and the calculation results are presented in Tables 9 and 10.

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

Wahyuni Eka Sari, Alfia Yufariani

Table 9. Observation Point 5

MAJAPAHIT STREET		
VIEW POINT	PHOTO	SKUENS
		
		
		
		

Source: Analysis, 2025

Table 10. Calculation of the percentage for observation point 5

Observation Point	Distance (m)	Area	Percentage
1	122	0.0013	0.17%
2	100	0.0023	0.31%
3	82	0.0158	2.11%
4	59	0.0288	3.84%

Source: Analysis, 2025

The calculation results for observation point 5 show that observation point 4 on Majapahit Street has the highest percentage. This proves that observation point 4 on Majapahit Street has the highest visibility value. Based on the analysis of the data and photos, the visual quality percentage of the Kayutangan Church at each observation point along the route was determined. After analyzing each point, the next step was to calculate the average to determine which observation point would present the highest and lowest visual quality.

Table 11. Calculation of the average percentage of all observation points

No	Distance Range (m)	A	B	C	D	E
1	150–200	0.45%	0.40%	0.05%	0.67%	0.17%
2	125–150	1.47%	0.11%	0.03%	2.16%	0.31%
3	100–125	1.37%	1.83%	0.33%	3.49%	2.11%
4	75–100	0.27%	2.65%	3.04%	—	3.84%
5	50–75	—	3.05%	3.05%	—	—
Average		0.89%	1.61%	1.30%	1.27%	1.27%

Source: Analysis, 2025

The observation points, divided into five, show different results. The point with the highest value is at the second observation point, which is from the direction of the Basuki Rahmat Street intersection towards the west, up to the Kayutangan Church. The visibility value obtained is 1.61%. The lowest observation point is the first point, from Merdeka Street in front of the Alun-alun Mosque to the intersection with Basuki Rahmat Street. The lowest observation value is 0.89%. The third, fourth, and fifth points have nearly the same average value: 1.27%.

5. DISCUSSION

The visibility analysis demonstrates that the visual quality of the Sacred Heart of Jesus Parish Church varies across the five observation routes. Differences in visibility values are influenced by distance from the building, viewing angle, and the presence of visual obstructions along the pedestrian corridor.

The highest average visibility value was recorded on Route B (1.61%), located along Basuki Rahmat 1 Street. This route provides a relatively direct visual corridor toward the church facade, allowing pedestrians to perceive the building more clearly. As pedestrians approach the church, the visible area of the facade gradually increases, resulting in higher visibility values. The unobstructed viewing angle strengthens the church's role as a landmark within the Historic Kayutangan Area.

In contrast, Route A produced the lowest average visibility value (0.89%). Although the church can be seen from this route, its visibility is significantly reduced by dense tree canopies and street elements that partially obstruct the façade. These visual barriers limit pedestrians' ability to recognize the church from a distance and reduce its prominence in the urban streetscape.

The results also indicate that visual obstructions play a crucial role in determining visual quality. Large trees, billboards, commercial signage, and an advertisement structure on a pedestrian overpass obstructed several observation points. These elements interrupt the visual continuity between pedestrians and the church façade. According to (Booth, 1983) Visual quality is influenced by order, balance, rhythm, and visual coherence. The presence of excessive visual elements creates visual clutter, which weakens the aesthetic quality and legibility of the heritage building.

Furthermore, the findings support the argument of Nugroho et al. (2021) that facade visibility contributes significantly to the formation of urban image and place identity. As one of the most important cultural heritage buildings in Malang, the Sacred Heart of Jesus

Visual Quality Assessment of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area, Malang

Wahyuni Eka Sari, Alfia Yufariani

Parish Church functions not only as a place of worship but also as a visual landmark that helps define the identity of the Historic Kayutangan Area. Reduced visibility may weaken the church's contribution to the area's imageability and diminish public appreciation of its heritage value.

The study, therefore, highlights the importance of managing visual corridors surrounding heritage buildings. Controlling billboard placement and conducting periodic tree pruning would improve facade visibility and enhance the church's visual quality within the historic urban environment.

The visual quality of the Sacred Heart of Jesus Parish Church is influenced by several factors observed along the pedestrian routes. First, vegetation, particularly dense tree canopies, partially obstructs the church facade and reduces its visibility from several observation points. Although trees enhance the streetscape's aesthetic quality, excessive canopy cover limits the visual exposure of the heritage building.

Second, billboards and advertisements significantly affect visual quality. Several commercial signs and large-scale advertisements, including those attached to the pedestrian overpass, interrupt the visual corridor toward the church. These elements create visual clutter that competes with the church facade and diminishes its prominence as a landmark within the Historic Kayutangan Area.

Third, distance and viewing angle influence the visibility of the church. Observation points located closer to the building and aligned directly with the façade generally produced higher visibility values. As pedestrians approach the church through a more frontal viewing angle, a larger portion of the façade becomes visible, resulting in better visual quality and stronger landmark recognition.

6. CONCLUSION

This study assessed the visual quality of the Sacred Heart of Jesus Parish Church through visibility analysis from five pedestrian routes within the Historic Kayutangan Area. The results indicate that the church possesses varying levels of visual quality depending on the observation route. The highest visual quality was observed along the Basuki Rahmat corridor, where the church facade remains clearly visible and serves as an effective landmark. In contrast, the lowest visual quality was found along Merdeka Street due to greater visual obstructions. The study identified dense tree canopies, billboards, and large-scale advertisements as the primary factors that reduce facade visibility and weaken the church's visual prominence within the historic urban landscape. These findings demonstrate that visibility plays an important role in maintaining the visual quality and landmark function of heritage buildings. Therefore, the regulation of billboard placement and periodic tree pruning are necessary to preserve visual corridors and enhance the visual quality of the Sacred Heart of Jesus Parish Church in the Historic Kayutangan Area.

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Wahyuni Eka Sari, Alfia Yufariani

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