

Architectural symbolism and semiotics: Signs and meanings analysis in Neo-Gothic architecture of Kayutangan Church

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ARTICLE INFO	ABSTRACT
<i>Article history:</i> Received January 07, 2026 Received in revised form Feb. 26, 2026 Accepted April 19, 2026 Available online June 01, 2026 <i>Keywords:</i> Architectural semiotics Conservation hierarchy Heritage conservation Neo-Gothic architecture Symbolic meaning *Corresponding author: Ema Yunita Titisari Department of Architecture, Faculty of Engineering Universitas Brawijaya, Indonesia Email: ema_yunita@ub.ac.id ORCID: https://orcid.org/0000-0003-1564-0521	<i>Within the ongoing initiatives to reinforce the identity of the Kayutangan heritage district in Malang, comprehension of architectural symbolism remains relatively constrained and is frequently limited to visual and formal dimensions. The Sacred Heart of Jesus Church (Kayutangan Church), as the sole manifestation of Neo-Gothic architecture within the area, encapsulates a complex symbolic system that has yet to be thoroughly and systematically investigated. This research seeks to classify the types of signs and to interpret the symbolic meanings embedded within Neo-Gothic architectural elements, while also formulating conservation implications grounded in meaning-based approaches. A Peircean semiotic framework was employed through the examination of 13 observational units, conducted in two sequential stages: the identification of Neo-Gothic architectural components and the subsequent analysis of sign-meaning relationships. Data collection was undertaken through a comprehensive literature review and field-based triangulation methods, including direct observation, in-depth interviews, and systematic documentation. The analytical process was structured around sign typologies, icon, index, and symbol, as well as architectural interpretations encompassing verticality, permeability, and religious symbolism. The findings indicate that nine architectural elements strongly articulate a Neo-Gothic identity, with symbolic signs emerging as the predominant category, primarily representing religious values rooted in ecclesiastical literature and Christian ideological frameworks. This study offers a significant contribution by elucidating the semiotic configuration of Neo-Gothic architectural elements and by proposing a conservation hierarchy informed by sign typologies and layers of meaning. It underscores the importance of safeguarding both symbolic form and interpretive meaning as fundamental components of architectural authenticity.</i>

Introduction

The Kayutangan district constitutes one of the principal historical tourism areas of Malang City, situated along Jenderal Basuki Rahmat Street. This primary corridor has existed since the nineteenth century during the period of Dutch colonial administration, a condition that accounts for the presence of numerous colonial-era structures distinguished by their unique visual attributes (Yasmin, Santosa, and Ernawati 2025;

Salam, Sudikno, and Parlindungan 2025). At present, these heritage buildings accommodate a wide range of functions, encompassing residential, religious, commercial, trading, and governmental office activities, among others (Titisari, -, and Suryasari 2025; Erine, Rimasari, and Sapto 2022; Santosa et al. 2025).

The study by Ramli, Antariksa, and Santosa (2020) indicates that, from the perspective of the local community, architectural style is perceived as the component possessing the highest aesthetic



value among colonial buildings along Jenderal Basuki Rahmat Street. Moreover, their findings identify the Sacred Heart of Jesus Church as the colonial structure with the greatest aesthetic significance. The Sacred Heart of Jesus Church, commonly referred to as Kayutangan Church, represents one of the most prominent edifices contributing to the visual identity of the area. This church has officially been designated as a Cultural Heritage Building by the Department of Culture and Tourism of Malang City since November 2018.

Architecturally, the building exhibits a distinctive colonial-era configuration and stands as the only Neo-Gothic structure within the district, thereby reinforcing the historical tourism character of the Kayutangan area. It occupies a strategic location at approximately -7.98065, 112.63080, precisely at the intersection of Jend. Basuki Rahmat Street and MGR Sugiyo Pranoto Street. Its relatively expansive open forecourt, combined with a pronounced visual contrast in relation to surrounding buildings, establishes it as a dominant visual landmark within the urban fabric (Junianingrum, Wijaya, and Setyono 2021). In a broader architectural discourse, Gothic and Neo-Gothic styles are recognized as forms imbued with rich symbolic significance, functioning as markers of cultural identity and social stratification in modern European urban contexts (Basina, Rybalka, and Popova 2019; Catella 2024; Malanca 2022). Consequently, the presence of Neo-Gothic architecture in Kayutangan Church warrants closer scholarly examination, particularly as its management and architectural regulation should be guided by policies that reference and safeguard its visual and stylistic integrity.

Although numerous studies have identified this church as embodying a Neo-Gothic architectural style (Ramli, Antariksa, and Santosa 2020; Mulyadi, Witjaksono, and Fathony 2020; Erine, Rimasari, and Sapto 2022; Rondonuwu and Wahjutami 2024; Pratama, Rahmadiano, and Nugroho 2022), comprehensive investigations into the identity embedded within its architectural elements remain scarce. The majority of prior research situates the चर्च within the broader context of the surrounding area rather than undertaking a focused analysis of Kayutangan Church itself. Recent area-based studies that incorporate the visual presence of Kayutangan Church have primarily concentrated on historical

narratives (Erine, Rimasari, and Sapto 2022; Rondonuwu and Wahjutami 2024; Kartika and Arifin 2021), the visual character of the main corridor (Rondonuwu and Wahjutami 2024; Azzahra, Parlindungan, and Hasyim 2026; Pratama, Rahmadiano, and Nugroho 2022), digital modeling of buildings (Santosa, Yudono, and Tolle 2021), and assessments of architectural aesthetics based on public perception (Ramli, Santosa, and Sudikno 2021). Meanwhile, more recent studies specifically addressing Kayutangan Church have focused on three-dimensional façade digitalization (Shaukat, Santosa, and Titisari 2021). As a result, empirical data and analytical discourse concerning the Neo-Gothic elements of the building remain notably limited.

Semiotic perspectives within architecture and landscape studies demonstrate that visual forms and design components operate as systems of signs that convey meaning and actively shape social as well as political relationships within constructed environments (Dilaveroglu 2025; Khakzand and Samir 2024). Within this context, religious architecture, particularly church buildings, is understood as a spatial medium imbued with signs and symbols that communicate social, cultural, and theological meanings, constructed and experienced through everyday spatial practices (Prasetya and Mudra 2022; Haryati and Hiang 2022; Asriany, Raffel, and Amali 2022). Therefore, an analytical focus on the identity of church architectural elements through symbolic interpretation and semiotic analysis constitutes a significant contribution and novelty of this research.

As a historical structure that has existed for more than a century and continues to function actively, the church has likely undergone various alterations or renovations resulting from material deterioration, the expansion of the congregation, and the intensity of activities conducted within the space. Accordingly, beyond identifying architectural identity, this study also aims to develop policy-oriented guidelines for the conservation of Neo-Gothic architectural elements in Kayutangan Church. The analysis of semiotic signs provides a framework for determining which components may be modified and which must be preserved, while the interpretation of symbolic meanings establishes the appropriate extent of conservation interventions. Furthermore, this research contributes to reinforcing the visual identity of the Kayutangan Heritage Tourism Area, thereby

supporting local governmental efforts to enhance tourism appeal through the architectural character of colonial heritage buildings (Putra et al. 2024; Maksimilianus Gai et al. 2024; ORGAZ-AGÜERA et al. 2024; Faghrezi and Satiawan 2022). In addition, the findings are expected to serve as a valuable reference for the application of Neo-Gothic architectural principles in future design practices.

Methods

This research adopted a descriptive qualitative methodology to elucidate the symbolic and semiotic dimensions embedded within each Neo-Gothic architectural element of the church. The investigation commenced with an extensive literature review aimed at establishing the classification and characteristics of the observation units, the typologies of semiotic signs, and the categories of Neo-Gothic symbolic meanings within the context of ecclesiastical architecture. A total of thirteen observation units were examined to assess the significance and manifestation of Neo-Gothic architectural principles in Kayutangan Church. The formulation of the principal elements and defining characteristics of these thirteen observation units was derived from Hermawati ; C. Sudioanto Aly ; Jonathan Hans Y. S (2018), Massey and Maxwell (1994), and Milleni and Sudioanto Aly (2023).

The primary Neo-Gothic attributes of each observation unit were determined through the systematic compilation of visual features identified across the literature, including form, scale, materiality, coloration, reference imagery, and architectural detailing. Characteristics presented in the references that did not pertain to visual descriptions were excluded from consideration as principal attributes. An exception was made for ornamental elements, whose defining characteristics were established based on features consistently observed across all literature sources, thereby reinforcing their identity as distinctive components. The classification of sign types was grounded in Charles Peirce's semiotic theory, which categorizes signs according to their referential objects (Gunardi et al. 2021; Prasetya and Mudra 2022; Hasan and Ikaputra 2025; Thomas, Jariyah, and Ibadi 2024; Fajar, Fatimah, and Bahfiarti 2025). The interpretive framework for symbolic meaning was aligned with Neo-

Gothic architectural significance within church architecture (Kristiadi 2018).

Data collection was conducted between 11 and 18 February 2025 through a triangulation approach encompassing observation, interviews, and documentation. Observational methods were employed to record both qualitative and quantitative attributes of each Neo-Gothic observation unit, including dimensional measurements obtained using a Deli Tape Measure and a Bosch Laser Distance Meter. Comprehensive photographic documentation of each observation unit was carried out using a Sony A6400 camera. In addition, interviews were undertaken with the church's responsible authority to obtain insights into the historical evolution of its architectural form.

The analytical procedure was structured into two principal stages: the identification phase and the sign-meaning analysis phase. During the identification phase, digital redrawings and photographic documentation were analyzed to verify the presence or absence of each Neo-Gothic characteristic. An element was classified as Neo-Gothic only if all defining characteristics were fulfilled; elements failing to meet these criteria were excluded from this classification. The outcome of this phase was a set of architectural components identified as Neo-Gothic, which were subsequently subjected to further analysis in the second phase.

Table 1. Classification and characteristics of types of signs

Sign	Characteristics
Icon	- Has visual similarity or resemblance in shape, form, color, or proportion to the object it represents. - Can be directly recognized.
Index	- Has a real causal relationship with the object. - Can refer to a trace, clue, or the presence of something. - Its existence indicates the occurrence of a certain phenomenon or object. - Undergoes direct process of meaning-making.
Symbol	- Based on convention, agreement, or ideology. - Does not have visual connection with the object. - Its meaning is context-dependent and subject to variation. - Undergoes indirect process of meaning-making.

Source: (Gunardi et al. 2021; Prasetya and Mudra 2022; Hasan and Ikaputra 2025)

In the second phase, the examination of signs and meanings was conducted concurrently, as the determination of meaning is intrinsically linked to the criteria associated with each sign type. This analytical approach also allowed for the possibility that a single architectural element could embody multiple signs, and that each sign could convey multiple meanings in accordance

with its defining characteristics. The analysis was carried out based on the classification of sign types and meanings as outlined in [table 1](#) and [table 2](#). The outcome of this phase was the formulation of reference-based conservation guidelines for each element, specifying which aspects may be modified, which must be preserved, and the permissible extent of such interventions.

Table 2. Classification and characteristics of types of meanings

Meaning	Description	Characteristics
Verticalism	An imagined upward-extending line from a base perpendicular to the ground plane, symbolizing the relationship between human existence on earth and the divine realm above.	1. Taller vertical proportions compared to its width. 2. An effort to lighten the structure and emphasize height.
Transparency	The unobstructed penetration of light into a space, symbolizing divine grace illuminating human life.	1. Sunlight that enters the interior without obstruction. 2. Effort to create striking color effects from the incoming light.
Religious Symbolism	Any form that contains religious meaning, whether visibly expressed or implied.	Elements that depict biblical narratives and Christian ideology.

Source: (Kristiadi 2018)

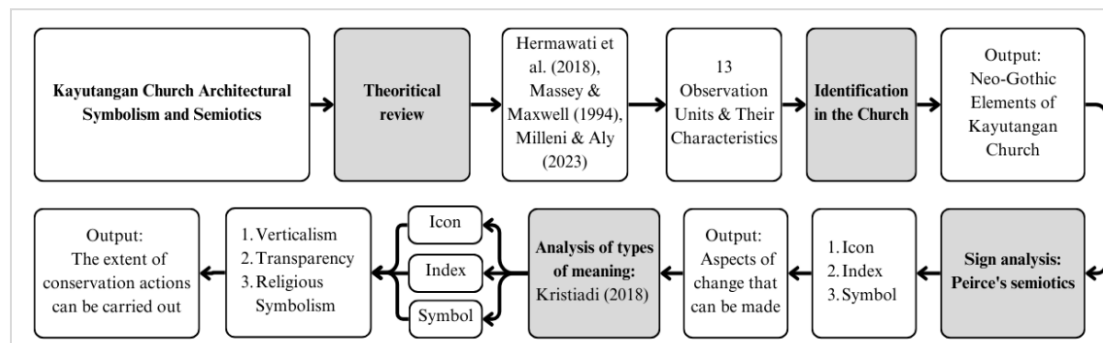


Figure 1. Analysis process diagram

Results and discussion

Overview of Kayutangan Church history

Kayutangan Church was constructed in 1905 by the architect Marius J. Hulswit, following his completion of the Jakarta Cathedral Church in 1898. Hulswit played a significant role in shaping architectural development in Indonesia during the Dutch colonial period (Santosa, Yudono, and Tolle 2021). Indrakusuma and Dewanto (1997) note that around 1880, a church was established to the north of the Malang city square, serving both Catholic and Protestant congregations, although this structure was later demolished. Subsequently, in 1905, the Sacred Heart of Jesus Church was erected north of the square, making it the earliest Neo-Gothic church in Malang City (Santosa, Yudono, and Tolle 2021). During the

Japanese occupation, valuable church furnishings were relocated to the residences of congregants, pews were stacked near the altar, and the building was repurposed as a rice storage facility. The church tower experienced two collapses and subsequent reconstructions. The first incident occurred on February 10, 1957, when a cross at the top of the tower fell during a sermon due to strong winds. The second incident took place on November 27, 1967, when the iron cross on the southern tower collapsed after being struck by an Indonesian Air Force aircraft that crashed due to engine failure (Santosa, Yudono, and Tolle 2021).

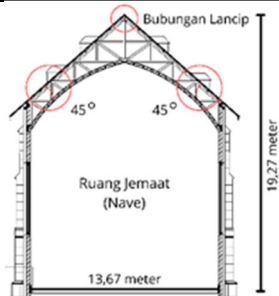
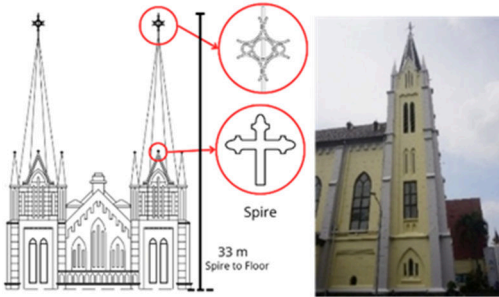
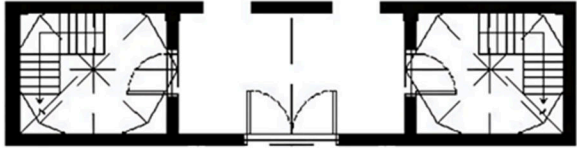
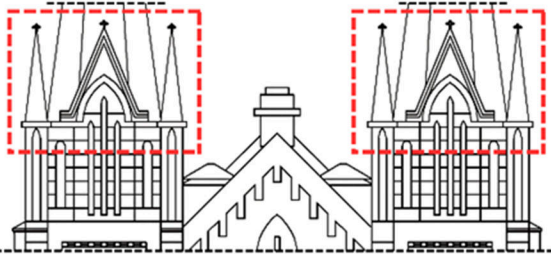
Identification analysis

Based on the visual and characteristic analysis presented in [table 3](#), nine out of the thirteen architectural elements of Kayutangan Church were identified as embodying Neo-Gothic

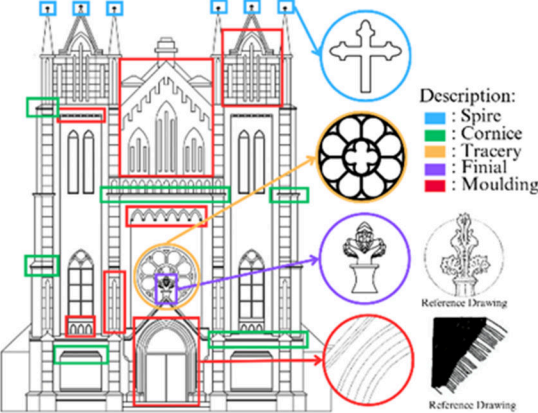
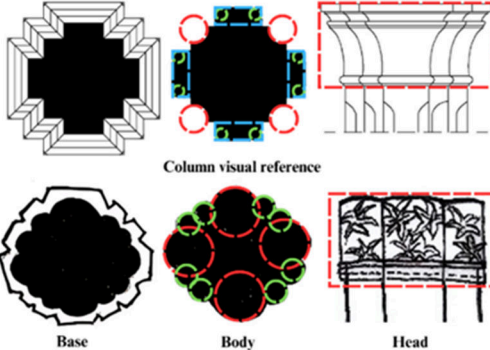
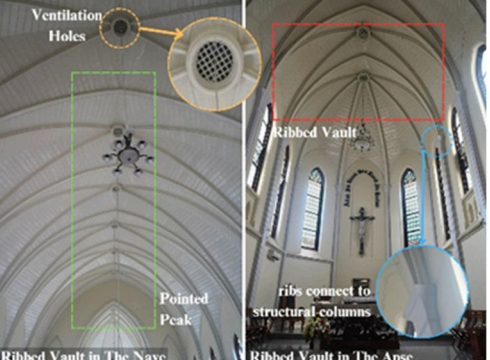
architecture. These results indicate that the church predominantly expresses a Neo-Gothic architectural character. The elements classified as Neo-Gothic include the gable roof, tower, doors, windows, ornaments, ribbed vault, statues, rose window, and stained glass. Conversely, the plan, columns, and wall elements were not categorized as Neo-Gothic due to simplification in form and spatial configuration. The floor plan does not incorporate a transept typically a projecting element that extends from the main body to create a cruciform layout. The columns exhibit simplified cylindrical shafts with minimal

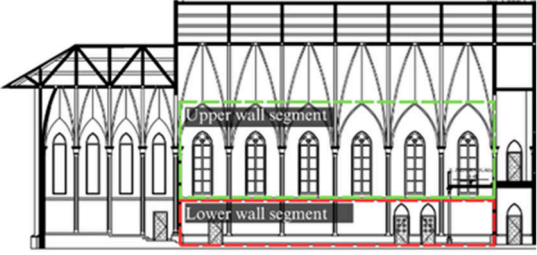
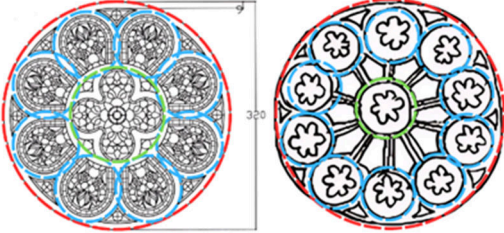
ornamentation on the capitals. Wall elements display reduced segmentation, with the lower sections left unarticulated without molding or carving. Furthermore, the color element could not be definitively classified, as maintenance interventions introduced white paint on the façade, altering its original chromatic characteristics. These findings suggest that the Neo-Gothic architectural expression of the church is more strongly articulated through visual and symbolic features rather than through structural or spatial configurations.

Table 3. Identification of observation units

Element	Characteristics	Images analyses	Identifi cation	Neo Gothic
Gable Roof	Gable roof with high dimensions and steep ends		Yes	Yes
Tower	Having pointed peak, like pinnacle or spire		Yes	Yes
	Basic shape of the floor plan is square or octagonal		Yes	
	The upper wall of the tower is triangular in shape following the roof segment.		Yes	

Element	Characteristics	Images analyses	Identifi- cation	Neo Gothic
Section Plan	The basic shape of the plan is a cross, but the plan can be flexible. Space arrangement based on reference image		No	No
Door	Dark wood material Rectangular door panels The wall opening around the door is pointed arched		Yes	Yes
Window	Window Type: Casement, Oriel, or Dormer Trefoil, quatrefoil, or cinquefoil-shaped window, opening, or glass panel Window with a circular pattern above with two pointed arches below.	Casement Window: Window that has more than one hinge on its vertical side.	Yes	Yes
Statue	Shape according to human proportions No gargoyle Shape according to human proportions No gargoyle Simpler statue carvings	Reference Image Kayutangan Church Statues	Yes	Yes
Ornament	Molding: A long, thin, uniform ornament on a		Yes	Yes

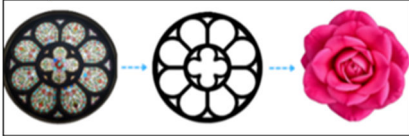
Element	Characteristics	Images analyses	Identifi- cation	Neo Gothic
	wall border or a molded shape. Tracery: A metal or wooden frame that forms a specific pattern in a wall opening.	 Description: ■ : Spire ■ : Cornice ■ : Tracery ■ : Finial ■ : Moulding Reference Drawing	Yes	
Column	Base: Square or octagonal base with simple carvings and 1-2 tiers Body: Form 4 large circles with 4 small circles in between. Head: Ornaments and floral carvings such as leaves	Column details on Kayutangan Church  Base Body Head	Yes No No	No
Color	Natural colors with low saturation Not using white color Oak or olive brown color for wood elements		Yes No Yes	No
Ribbed Vault	There is a rib structure on each arch The peak of Vault is pointed The Vault ribs connect to the structural columns	 Ventilation Holes Pointed Peak Ribbed Vault ribs connect to structural columns Ribbed Vault in The Nave Ribbed Vault in The Apse	Yes Yes Yes	Yes

Element	Characteristics	Images analyses	Identifi- cation	Neo Gothic
Wall	Consisting of three segments, namely nave-arcade, triforium, clerestory.		No	No
Rose Window	Circular Shaped Stained glass with clear radial pattern	 Kayutangan Church Reference Image (Hermawati, 2018)	Yes Yes	Yes
Stained Glass	Geometric motifs or patterns, such as flora, doves, Virgin Mary, and Jesus Christ		Yes	Yes

Signs and meaning analysis

Table 4. Identification of observation units

Units	Sign – Meaning	Analyses
Gable Roof	Index – Verticalism	The roof height serves as an index indicating the presence of a tall roof structure in the interior behind it. Its meaning falls under the category of verticalism because the roof height is much greater than its width.
Tower	Icon – Religious	The cross shape on the spire ornament of the tower as icon sign functions as religious symbol of the Christian religion.
	Index – Verticalism	The prominent height proportion and the two towers that flank the main entrance symmetrically serve as an index sign for the main façade and as directional guidance for visitors entering the church.
	Symbol & Index – Religious	Symbol: Church literature (Indrakusuma and Dewanto 1997) Index: A sign indicating the presence of the house of God Religious Symbol: A guardian figure symbolizing unmatched power and divine authority
Door	Symbol - Religious	Symbol: Church ideology (Indrakusuma and Dewanto 1997) Religious Symbol: The unity of vision and mission between the church and its congregation
Window	Index - Transparency	Index: Windows create traces of sunlight that are able to penetrate the interior space. Transparency: Natural light diffusion

Units	Sign – Meaning	Analyses
	Index - Verticalism	Index: The height of the windows serves as a sign indicating high ceilings in the interior space. Verticalism: The height proportion of the windows and interior space
Ornament	Icon - Religious	Icon: The cross shape Religious Symbol: The ideology of the Christian faith
Ribbed Vault	Index - Verticalism	Index: Greater height and spatial volume demonstrate a higher degree of hierarchy. Verticalism: Height proportion of the interior space, which is taller than its width
	Icon - Religious	Icon: The ribbed dome shape represents the path of the church as a journey of the faithful toward the house of God Religious Symbol: The journey of Christians toward the house of God
		
	Symbol - Religious	Symbol: Church literature (Indrakusuma and Dewanto 1997) Religious Symbol: The Meaning of the Victory Arch (Christ who triumphed over death and became a symbol of the Path to achieving heavenly happiness)
Statue	Icon - Religious	Icon: Visual representations of Mary, Jesus Christ, and the Saints Religious Symbol: Holy figures in Christian ideology
	Icon - Religious Symbol-Religious	Symbol: Church traditions based on the Bible Religious Symbol: The statue of Mary is always placed on the right side of the statue of Jesus Christ
Rose Window	Icon - Religious	Icon: Rose flower (8 petals) Religious Symbol: The church gathers people from the 8 cardinal directions to worship God (Indrakusuma and Dewanto 1997)
		
	Symbol - Religious	Symbol: Church literature (Indrakusuma and Dewanto 1997) Religious Symbol: God as the light of the church and the world
	Index - Transparency	Index: The windows face west, allowing afternoon sunlight to enter the interior space and refract into various colors. Transparency: Natural light diffusion inside the interior
Stained Glass	Icon - Religious	Icon: Floral shapes, particularly foliage and petals Religious Symbol: Heavenly beauty
		
	Symbol - Religious	Symbol: The emblem of the Sacred Heart Parish and the Carmelite emblem Religious Symbol: Symbolic meaning of the church's ideology
	Index - Transparency	Index: Sunlight enters and is refracted through the stained glass Transparency: Natural illumination

The analysis presented in table 4 indicates that four Neo-Gothic architectural elements, namely the tower, stained glass, rose window, and ribbed vault, simultaneously encompass all three types of signs within a single element (figure 2). However, only one element, the window, demonstrates the presence of all three categories of meaning concurrently (figure 3). The identification of multiple sign types within certain elements

reflects a higher degree of semiotic complexity. Variations in this complexity establish a hierarchical structure among the elements, where those containing multiple sign types perform more significant roles in communicating architectural and religious meanings. Elements incorporating all three sign types occupy the highest hierarchical level, while those containing

only a single sign type are positioned at the lowest level.

Among the identified sign categories, the symbol type is the most dominant within the Neo-Gothic architectural elements of Kayutangan Church, followed by icon and index. Each element demonstrates varying degrees of semiotic richness depending on the number and combination of signs it embodies. A higher degree of semiotic complexity corresponds to a deeper and more layered symbolic meaning. Religious symbolism emerges as the most prevalent form of meaning within the Neo-Gothic elements of the church, appearing in eight out of the nine identified elements, each incorporating icon, index, and symbol sign types. The expression of religious symbolism is most pronounced in elements characterized by symbol-type signs, underscoring their central role in conveying theological and ideological significance within the architectural composition.

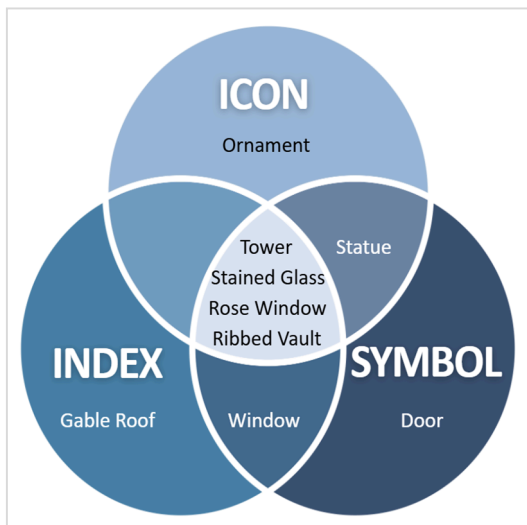


Figure 2. Results of signs classification

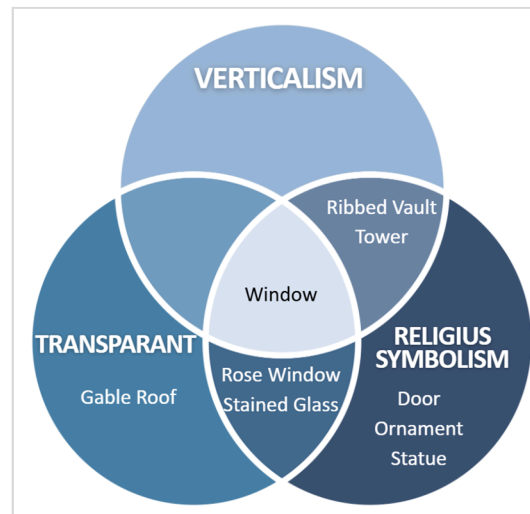


Figure 3. Results of meanings classification

Discussion

Grounded in the outcomes of the sign-based analysis, preservation strategies for symbol-type signs embedded within the Neo-Gothic architectural elements of Kayutangan Church can be systematically formulated. The identification of the symbol as the most dominant category of sign corresponds with the broader understanding of Gothic and Neo-Gothic architecture as stylistic expressions deeply imbued with cultural and religious significance, functioning as markers of identity and social stratification (Basina, Rybalka, and Popova 2019). Within this framework, the church's symbolic elements operate not merely as ornamental features but as a semiotic lexicon that articulates Christian ideology and ecclesiastical traditions (Thane, Titisari, and Kusdiwanggo 2025). Accordingly, only secondary visual attributes, such as particular material finishes and surface textures, may be subject to alteration during conservation processes, especially in elements such as the tower, ornamental components, and vault structures, where strict chromatic prescriptions are absent (figure 4). In contrast, architectural components including statues, the rose window, stained glass, doors, and windows are governed by ecclesiastical texts, biblical narratives, and Christian doctrinal frameworks; thus, their chromatic schemes and iconographic compositions must remain unaltered. This finding is consistent with prior studies (Haryati and Hiang 2022; Prasetya and Mudra 2022), which demonstrate that Christian ideological meanings are conveyed through the symbolic and semiotic systems of church

architecture. While contemporary industrial techniques may be utilized in the restoration of stained glass and sculptural features, such

interventions must ensure the preservation of established symbolic forms and the theological meanings they embody.

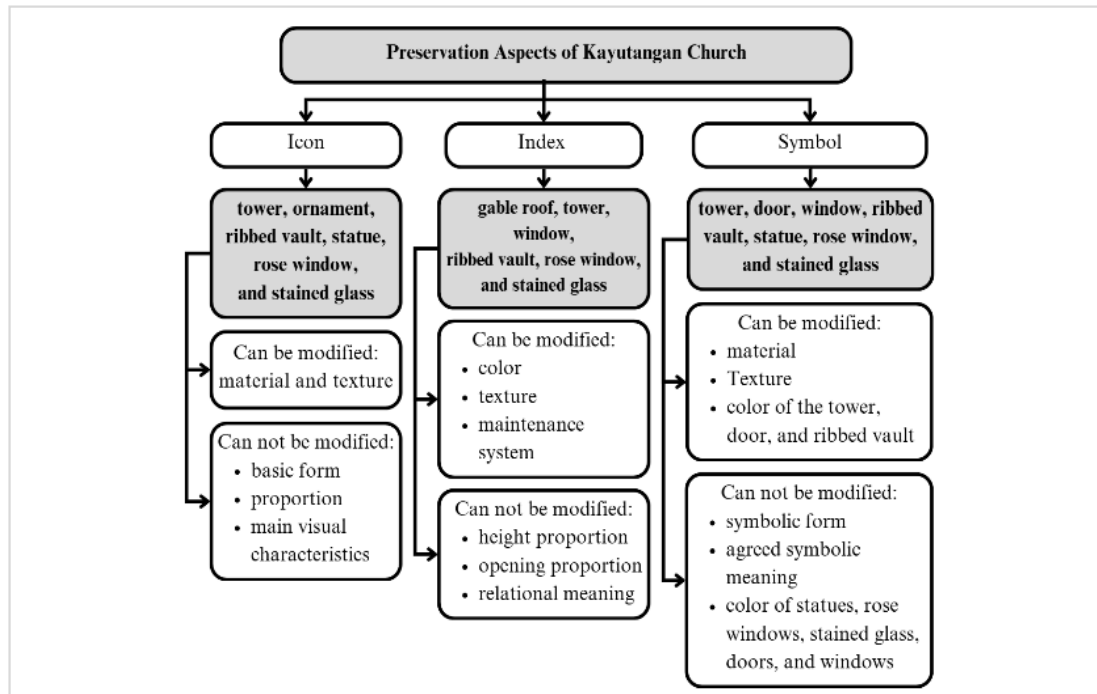


Figure 4. Preservation aspects of Kayutangan Church

From the perspective of meaning-based analysis, the depth of meaning associated with each architectural element determines the degree of permissible intervention. Elements that encompass all three categories of meaning, namely verticalism, transparency, and religious symbolism (Kristiadi 2018), are classified as possessing a high level of meaning depth (figure 5). In accordance with Peircean semiotics, such elements simultaneously function as icons, indexes, and symbols, forming a dense semiotic structure that plays a central role in expressing theological concepts and spatial hierarchies. Consequently, any modifications to these elements must be strictly limited, confined to essential structural maintenance while preserving their fundamental form, proportional relationships (height-to-width), opening-to-wall ratios, and material configurations. This condition is particularly evident in Neo-Gothic window elements, which not only embody verticalism and transparency but also serve as symbolic mediators of divine illumination.

Architectural elements that embodied two categories of meaning (figure 5) were classified as

possessing a moderate level of meaning depth. For this group of elements, controlled and limited interventions were considered permissible, provided that the primary or dominant meaning remained clearly legible and communicatively intact. This interpretation is consistent with (Ran 2026; Arsita et al. 2024), who argue that semiotic components within architectural and landscape contexts exhibit varying degrees of meaning intensity, thereby allowing selective modification without fundamentally disrupting the overall communicative integrity. As long as the essential intended meaning is preserved, such interventions may be implemented through the refinement and idealization of historical narratives, the reinterpretation and recontextualization of existing semiotic resources, or the incorporation of renewed artistic expression into established symbolic forms. Conversely, elements that contain only a single layer of meaning, or that lack a clearly defined symbolic significance, are categorized as having a low level of meaning depth and may therefore be modified with greater flexibility, as long as visual coherence and the overall Neo-Gothic

architectural character of the church are consistently maintained.

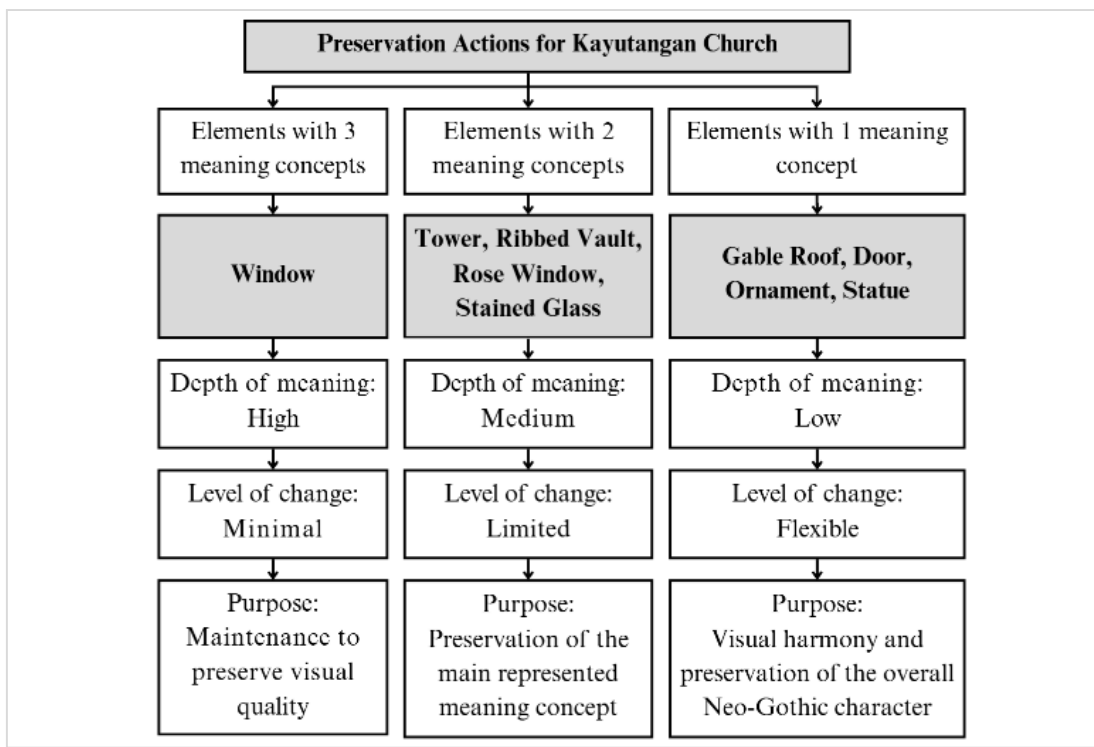


Figure 5. Preservation actions for Kayutangan Church

These findings advance prior studies on the Kayutangan area, which have predominantly emphasized historical narratives, façade aesthetics, and digital modeling, by demonstrating that the Neo-Gothic architectural elements of Kayutangan Church function as an organized and coherent semiotic system. The proposed conservation hierarchy, grounded in the classification of sign types and the gradation of meaning depth, provides a conceptual framework that integrates architectural heritage conservation with the safeguarding of spiritual and symbolic values. This perspective aligns with the broader theoretical position that built environments generate and communicate meaning through the interrelation of material, formal, and symbolic configurations.

Conclusions

This study produces three principal conclusions. First, symbolic signs represent the most dominant category within the Neo-Gothic architectural

elements of Kayutangan Church. Elements characterized by symbolic signs are inherently governed by conventions and ideological frameworks within a religious context, thereby affirming that Neo-Gothic architecture operates as a dense system of symbolic communication rather than merely as an expression of stylistic ornamentation. Second, the most prevalent category of meaning identified is religious symbolism, derived from ecclesiastical literature, biblical narratives, and Christian ideological constructs. The manifestation of religious symbolic meaning across the three categories of signs demonstrates that meaning is constructed through visual resemblance between sign and referent (icon), causal or existential relationships indicating the presence of a phenomenon (index), and codified associations grounded in theological doctrine and institutional authority (symbol). Third, the classification of semiotic signs embedded within an architectural element determines which aspects may be subject to alteration, while the depth of meaning establishes the permissible extent of conservation interventions. This research contributes to the

field of architecture and heritage conservation by proposing a semiotically informed conservation hierarchy for Neo-Gothic architectural elements. For practitioners and policymakers, this framework offers a valuable basis for formulating conservation guidelines, making restoration decisions, and developing regulatory instruments for cultural heritage buildings, particularly ecclesiastical structures whose architectural language is intrinsically intertwined with religious symbolism. Future research may be directed toward more comprehensive digital documentation, the incorporation of quantitative analyses to evaluate proportional systems and lighting conditions, and the expansion of case studies to a broader urban scale, including comparative investigations with other Neo-Gothic churches in Malang City.

Acknowledgments

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Author(s) contribution

Citra Margareth Manalu contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

Antariksa Sudikno contribute to the research concepts preparation and literature reviews, data analysis, of article drafts preparation and validation.

Ema Yunita Titisari contribute to methodology, supervision, and validation.

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