



Representation of Liturgical Symbolic Meaning in the Temporary Worship Space of the St. Pius X Catholic Church, Karanganyar

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Abstract

In the Catholic Church tradition, the worship space serves as a critical architectural framework for liturgical activities and for spatial articulations of symbolic meaning that structure ritual experience. Previous studies have predominantly addressed permanent church buildings, while investigations into temporary worship spaces remain limited, particularly in terms of their spatial adaptability and symbolic performance. This study aims to examine how the Pastoral Service Building, adapted as a temporary worship space at St. Pius X Catholic Church, Karanganyar, spatially represents liturgical symbolic meaning and constructs a sense of sacredness through architectural configuration. The research adopts a qualitative case study approach, employing direct observation of spatial geometry, circulation patterns, visual orientation, and lighting conditions during liturgical celebrations, complemented by in-depth interviews with the pastor, church administrators, and congregants. A semiotic framework is used to analyze and interpret spatial signs and architectural elements within the liturgical context. The findings show that despite physical constraints and the absence of permanent sacred elements, strategic spatial arrangement, such as geometry, circulation, congregation–altar orientation, sanctuary configuration, and lighting, preserves the symbolic structure of Catholic liturgy and supports a coherent ritual experience. The study offers insights into adaptive design strategies for temporary worship spaces, particularly in addressing spatial constraints while preserving symbolic and ritual functions.

Keywords: Catholic church, liturgy, semiotics, symbolic meaning, temporary worship space

Representasi Makna Simbolik Liturgis dalam Ruang Ibadah Temporer Gereja Katolik Santo Pius X Karanganyar

Abstrak

Dalam tradisi Gereja Katolik, ruang ibadah memiliki peran fundamental dalam mendukung pelaksanaan liturgi serta menyampaikan makna simbolik yang membentuk pengalaman sakral umat. Selama ini studi yang ada umumnya berfokus pada bangunan gereja permanen, sementara penelitian terhadap ruang ibadah temporer masih relatif terbatas. Penelitian ini bertujuan untuk menganalisis bagaimana pemanfaatan Gedung Pelayanan Pastoral sebagai ruang ibadah temporer di Gereja Katolik Santo Pius X Karanganyar mampu merepresentasikan makna simbolik liturgis serta membangun suasana sakral secara adaptif. Metode penelitian yang digunakan adalah pendekatan kualitatif dengan studi kasus, melalui observasi langsung terhadap kondisi dan tata ruang ibadah saat perayaan liturgi, serta wawancara mendalam dengan pastor, pengurus gereja, dan jemaat. Data dianalisis secara tematik dengan pendekatan semiotika. Temuan tersebut menunjukkan bahwa meskipun terdapat kendala fisik dan ketiadaan unsur-unsur sakral permanen, strategi penataan ruang seperti geometri, sirkulasi, orientasi jemaat terhadap altar, konfigurasi ruang suci, dan pencahayaan tetap mempertahankan struktur simbolis liturgi Katolik dan mendukung pengalaman ritual yang khidmat. Penelitian ini berkontribusi secara konseptual pada perencanaan dan adaptasi ruang ibadah temporer dalam arsitektur religius.

Kata-kunci: Gereja Katolik, liturgi, makna simbolik, ruang ibadah temporer, semiotika

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Introduction

In the Catholic Church tradition, the worship space plays a fundamental role in supporting the celebration of the liturgy as the center of the faithful's spiritual life. The liturgy is not merely understood as a series of ritual acts, but as a transcendental experience mediated by the symbols of the space, the order of the celebration, and the active participation of the faithful. In this context, the architecture of the worship space functions as a medium that facilitates a relationship between humans and the transcendent dimension through the shaping of form, orientation, and the atmosphere of the space [1].

An analysis of previous studies on religious architecture in church spatial design indicates that spatial elements, such as room geometry, the congregation's orientation toward the altar, the configuration of processional circulation, and lighting, play a significant role in shaping the sacred experience [2]. These elements not only serve a technical function but also articulate symbolic meanings that reinforce the congregation's focus, reverence, and participation in liturgical celebrations [3], [4]. Thus, the quality of the worship space is a crucial factor in sustaining the sacred experience, particularly during the celebration of the Eucharist.

However, ideal conditions for a place of worship cannot always be maintained. In certain situations, such as church renovations or reconstructions, liturgical activities must be relocated to temporary alternative spaces that were not originally designed for sacred functions. Such spaces generally have a neutral or secular architectural character, posing a challenge in maintaining the representation of liturgical symbolic meaning. This situation was experienced by the Santo Pius X Catholic Church in Karanganyar, where the Pastoral Service Building (GPP) was repurposed as a temporary worship space during the rehabilitation and reconstruction of the main church. The use of the second and third floors of this building required adjustments to liturgical elements, such as the placement of the altar, the priest's chair, and the seating arrangement for the congregation, within the constraints of the existing spatial configuration.

Conceptually, the liturgical space of the Catholic Church is designed to support the aspects of order and symbolic meaning in the celebration of the Eucharist. Key elements such as the sanctuary, the congregation area, and the processional aisle form a spatial structure that is not only functional but also symbolic [5]. The orientation of the space, which

traditionally faces the altar, along with the use of lighting as a metaphor for the presence of the Divine, is an integral part of the articulation of sacred meaning in church architecture [6]. When these elements are placed in a temporary space with physical and visual limitations, the question arises as to the extent to which this symbolic meaning can be fully represented and perceived by the congregation.

Previous research on the architecture of worship spaces has generally focused on permanent churches, with an emphasis on typology, symbolism, and theological expression within the context of buildings specifically designed for sacred functions. Meanwhile, studies on temporary worship spaces remain relatively limited, particularly regarding how liturgical symbolism is articulated and adapted within non-sacred spaces. Unlike research that emphasizes the theological or aesthetic aspects of permanent churches, this study highlights the dynamics of architectural adaptation and congregational perceptions in the use of temporary worship spaces, specifically within the context of the Catholic Church.

The significance of this research extends beyond the local level; it is relevant within the broader discourse on religious architecture and adaptive architecture. The phenomenon of utilizing non-sacred spaces for worship functions is becoming increasingly common, whether due to renovations, emergency situations, or post-pandemic social changes. Therefore, understanding how temporary spaces can continue to support symbolic representation and ritual experiences is crucial as part of developing an adaptive and contextual approach to the design of worship spaces.

To address these issues, this study employs five primary units of analysis considered crucial in shaping the experience of the worship space, namely: (a) the form and geometry of the worship space; (b) circulation and liturgical processions; (c) the congregation's orientation and perspective toward the altar; (d) the configuration of the sanctuary's spatial elements; and (e) the quality of the space's lighting. Analysis of these elements allows for a more systematic evaluation of the ability of temporary worship spaces to represent liturgical symbolic meaning.

Based on this framework, there are two research questions in this study. First, to what extent do the spatial configuration and visual quality of the temporary worship space in the Pastoral Service Building represent the principles of liturgical symbolism typically found in permanent worship

spaces? Second, how are the differences in the quality of symbolic representation and spatial experience between temporary worship spaces and permanent churches perceived by the congregation at St. Pius X Catholic Church Karanganyar?

Methods

Research Approach

This study was conducted using a qualitative approach with a descriptive-interpretive method. This approach was chosen to allow for an in-depth exploration of the symbolic meanings of liturgical elements and the congregation's perceptions of the worship space experience in the context of using temporary spaces. Qualitative methods were relevant because the research focus was not directed at quantitative measurement, but rather at understanding the meanings, experiences, and symbolic interpretations experienced through the congregation's involvement in liturgical celebrations as ritual aspects [7]. Meanwhile, the descriptive-interpretive method was used to examine how the spatial and visual elements of the worship space, which are not always explicitly designed as sacred spaces, can represent liturgical symbolism through adaptive conditions [8]. Thus, this approach directly supports the research objective of examining the relationship between spatial configuration, liturgical symbols, and the congregation's experience of sacredness in temporary worship spaces.

Context and Characteristics of the Case Study

The case study for this research is St. Pius X Catholic Church complex in Karanganyar (Fig. 1).



Figure 1. St. Pius X Church building, which is set to undergo renovation (top), and the interior of the worship space (bottom) (Authors' own documentation, 2025)

The permanent St. Pius X Church is a place of worship designed in the Modern Javanese architectural style and features a complete liturgical layout, consisting of a narthex as a transitional space, a nave as the congregation area, and a sanctuary as the center of liturgical celebrations (Fig. 2).

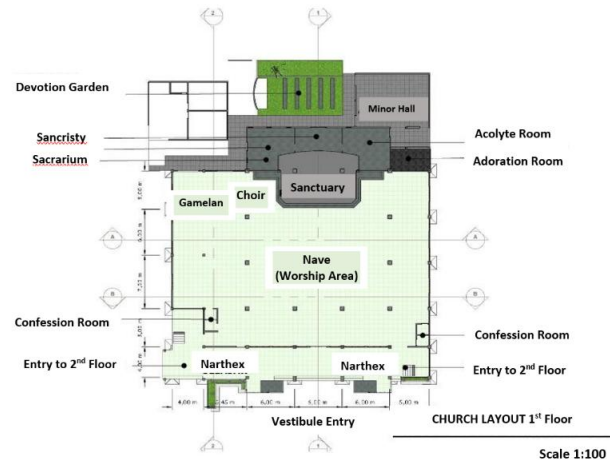


Figure 2. Floor plan of St. Pius X Church prior to renovation (Authors' own documentation, 2025)

The worship space is arranged longitudinally with the altar as the primary focal point, featuring permanent liturgical elements such as the tabernacle, the ambo (pulpit), and the cross. This spatial configuration accommodates approximately 600–700 congregants with a symmetrical seating arrangement and a clear path for liturgical processions. These conditions create a well-established liturgical spatial experience and are used in this study as a comparative framework against temporary worship spaces.

During the renovation and reconstruction of the permanent church, liturgical services were temporarily relocated to the Pastoral Service Building (GPP), which is located within the same church complex (Fig. 3).



Figure 3. The location of the Pastoral Service Building (yellow) relative to the renovated St. Pius X Church (right). (Authors' own documentation, 2025)

Adjustments were made to accommodate the available land area in accordance with permitting requirements (Fig. 4).



Figure 4. Plan to relocate the worship space of St. Pius X Church (yellow) to a temporary worship space in the pastoral ministry building (green). (Authors' own documentation, 2025)

Temporary worship spaces for the celebration of the Eucharist are located on the first and second floors of the building, with layout adjustments to meet the minimum requirements for Catholic liturgy (Fig. 5).

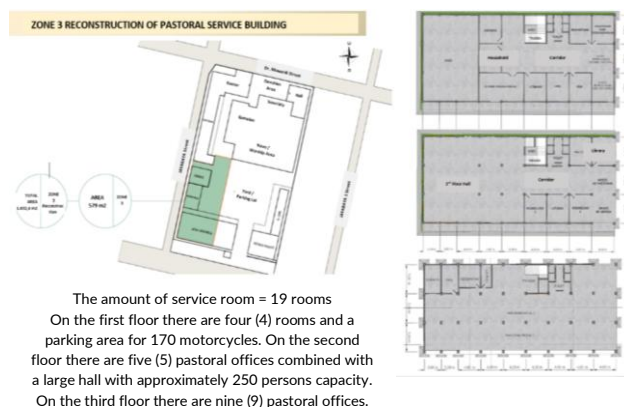


Figure 5. Floor plan of the Pastoral Services Building (right), which will be converted into a temporary worship space. (Authors' own documentation, 2025)

The sanctuary of the Imam's chapel is situated in an open void on the southern side of the building, while the congregation area is arranged in a longitudinal layout oriented toward the altar. Access to the

worship space via stairs from the ground floor serves as a transitional space (narthex) from the profane area to the sacred space. With a space measuring approximately 15 × 34 meters and a capacity of 300–400 congregants, preliminary observations suggest that this configuration presents significant visual and spatial limitations compared to a permanent church. These conditions form the primary context for analyzing the representation of liturgical symbolism and congregants' perceptions of the temporary worship space, particularly during the celebration of the Eucharist (Fig. 6).



Figure 6. The atmosphere of the Eucharistic celebration during the Saturday evening Mass, the orientation of the sanctuary, and the atmosphere of the congregation's worship area in the middle-rear section of the third floor (left), as well as the opening procession of the Mass in the ground floor area (right), which serves as the narthex. (Authors' own documentation, 2025)

Data Collection Methods

Data collection was conducted using three main techniques. First, direct observation of the temporary worship space during liturgical celebrations. Observations were made during several Mass sessions to record the spatial layout, the configuration of liturgical elements, the patterns of processional movement, and the congregation's interaction with the space. The aspects observed included the arrangement of the altar and the sanctuary, the congregation's orientation toward the altar, and the quality of the space's lighting. Second, semi-structured interviews were conducted with informants consisting of the parish priest, liturgical leaders, and members of the congregation. Informants were selected purposefully to obtain a variety of perspectives regarding spatial experiences and the symbolic meaning of liturgical elements. The interviews, conducted with 15–20 congregants representing different seating arrangements, focused on perceptions of the sacredness of the space, comfort during worship, and the interpretation of

liturgical elements within the context of the temporary space. Third, visual documentation in the form of photographs and floor plans was used as supporting data to strengthen the spatial analysis and aid the process of symbolic interpretation of the elements of the worship space.

Data Analysis Methods

The analysis in this study is based on five liturgical spatial units considered essential in shaping the experience of space and liturgical symbolism [9]:

1. The geometric form of the worship space; to examine the influence of spatial configuration on the congregation's focus and orientation.
2. The circulation of the liturgical procession, to analyze the movement patterns of the priest, liturgical ministers, and the congregation within the space.
3. The congregation's orientation and perspective toward the altar, to examine the direction of facing and its symbolic implications.
4. Spatial elements of the sanctuary, including the position of the altar, the priest's chair, the ambo, and the cross.
5. The quality of the space's lighting, both natural and artificial, and its contribution to the creation of a sacred atmosphere.

Data analysis was conducted in stages through three main processes: data reduction, categorization, and symbolic interpretation. Data reduction involved sorting observational findings, documentation, and interview excerpts relevant to five liturgical units of analysis. The reduced data was then categorized based on these units of analysis; e.g., grouping findings related to spatial geometry, altar orientation, or lighting. The final stage, symbolic interpretation, involves linking spatial and visual data to liturgical meaning using a semiotic approach, that is, interpreting spatial elements as signs representing specific meanings within the liturgical celebration [10]. Furthermore, the meanings of these signs are interpreted hermeneutically through the congregation's experiences and perceptions obtained from interviews, thereby enabling a deeper understanding of the relationship between space, symbolism, and the experience of sacredness [11].

Data validity was ensured through triangulation of sources and methods, specifically by comparing the results of observations, interviews, and visual documentation. In addition, findings were clarified on a limited basis with key informants to ensure that the researcher's interpretations aligned with the congregation's experiences.

Results

Configuration of the Shape, Geometry, and Orientation of Temporary Worship Spaces

The temporary worship space currently housed in the Pastoral Service Building or Gedung Pelayanan Pastoral (GPP) reflects an effort to adapt to the configuration of an elongated rectangular space with a length-to-width ratio of more than 3:1, although the visual orientation experienced tends to be longitudinal, attempting to align with the basic typology of the nave in a permanent Catholic church. The arrangement of congregational seating is symmetrical along the room's longitudinal axis, with a central aisle serving as a circulation route and path for liturgical processions [12]. Empirically, this configuration ensures that the congregation's visual orientation remains directed toward the altar as the primary focal point of the Eucharistic celebration. The altar, situated in an open void area on the southern side of the building, functions spatially as a sacred space. This position reinforces the liturgical orientation of the space, while simultaneously creating a visual hierarchy between the priest's area and the congregation's area. Observations indicate that this orientation continues to facilitate the fundamental structure of liturgical celebrations, particularly during the entrance procession, the Liturgy of the Word, and the Liturgy of the Eucharist.

However, since the GPP building was not originally designed as a place of worship, the geometric layout of the space presents limitations in providing a clear visual line of sight to the altar for the entire congregation. In the rear sections, particularly on the second floor, the viewing distance and visual angles toward the altar are less than optimal. This issue was addressed by the Eucharistic celebration committee through the use of LED television screens as visual aids to ensure the congregation could continue to follow the liturgical celebration. The placement of LED screens at several visually comfortable points empirically helped maintain the congregation's visual connection with the altar and the priest, particularly for those in areas with limited direct sightlines. However, field findings indicate a shift in visual focus, from the altar as the center of sacred presence toward the two-dimensional visual representation on the screen. This shift suggests a gap between the ideal liturgical orientation and the actual spatial conditions of the temporary worship space.

Spatial Systems and Liturgical Zoning in Adaptive Spaces

Although temporary in nature, the worship space at GPP retains the basic structure of Catholic liturgical zoning, consisting of a narthex, nave, and sanctuary. Access to the worship space is via a staircase on the north side of the building, which serves as a transitional space for congregants moving from the ground floor to the first and second floors. Empirically, this staircase and hallway area functions as the narthex—the transitional zone from the profane to the sacred space. The nave area comprises the main spaces on the first and second floors, filled with congregational seating, while the sanctuary is clearly defined by changes in elevation, the arrangement of the altar, and a visual focus toward the void. This zoning allows for the functional progression of the liturgical structure, even without permanent physical boundaries as found in conventional churches. The continuous transition from the profane to the sacred atmosphere within the church represents a symbolic experience that the congregation undergoes through the five main rites of the Eucharistic celebration [13]. The entire spatial orientation centers on the sanctuary as the culmination of sacredness, yet the presence of more profane spaces still plays a crucial role as transitional zones. These spaces accommodate the process of movement, organize zoning, and facilitate the congregation's circulation during the liturgy, thereby creating continuity between ritual, symbolic, and spatial aspects (Fig. 7).

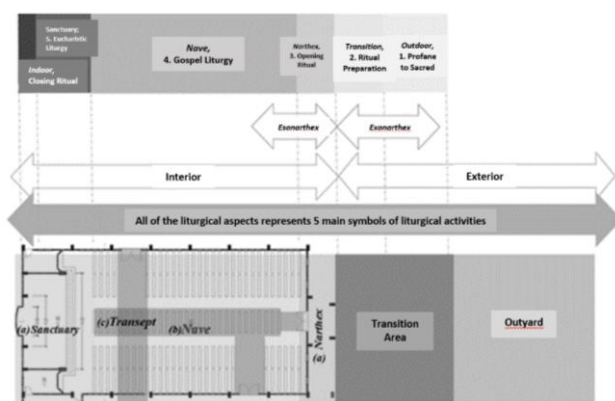


Figure 7. Illustration of Liturgical Zoning in a Church Worship Space, from the Profane Area (right) to the Sacred Area (left), proceeding from right to left through the narthex (a), nave (b), transept (c), and sanctuary (d).

The results of the observation indicate that the boundaries between liturgical zones within the GPP space are more symbolic and functional than architectural. The absence of permanent elements defining sacred space, such as a presbytery wall, an apse, or integrated symbolic elements, results in a

more flexible transition between zones. This condition affects the perception of the sacred hierarchy of the space, especially for congregants who were previously accustomed to worshiping in permanent churches.

Visual Quality, Lighting, and Spatial Atmosphere

Natural lighting in the temporary worship space at GPP primarily comes from the open void in the altar area and the side openings of the building. The greater intensity of natural light in the sanctuary visually reinforces the altar's position as the focal point for the congregation within the space. Meanwhile, the nave area, particularly in the central and rear sections, relies more heavily on artificial lighting. This difference in lighting quality empirically creates a visual contrast between the priest's area and the congregation's area. While this contrast helps define the spatial orientation, it simultaneously creates an imbalance in visual comfort, particularly for congregants in areas dominated by artificial lighting. Some congregants noted that lighting conditions at night or on cloudy days tend to be less conducive to a contemplative atmosphere, unless supported by sufficiently bright artificial lighting.

The profane, neutral, and uniform interior materials of the GPP building—such as plain walls, flat ceilings, and exposed structural elements—reflect the space's multifunctional character. The scarcity of permanent visual symbolic elements, such as liturgical artworks, religious ornaments, or expressions of sacred materials, results in a spatial atmosphere that feels less spiritually profound compared to that of a permanent church. This finding indicates limitations in creating a sacred atmosphere through the visual aspects and materiality of the space.

Parishioners' and Parish Priest's Perceptions of Temporary Worship Spaces

Interviews with the parish priest and parishioners indicate that the temporary worship space at GPP is viewed as an adaptive space that enables the continuation of liturgical celebrations during the renovation of the permanent church. The parish priest emphasized that the arrangement of the altar, the orientation of the space, and the structure of the liturgical celebration are designed to adhere to Catholic liturgical norms, despite the physical limitations of the building. The congregation generally accepts these temporary worship conditions as part of the dynamic journey of the community's faith. Some members interpret the spatial limitations as a symbol of sacrifice and solidarity, while others perceive a

decline in the quality of the solemn atmosphere, particularly regarding visual, acoustic, and sacred elements. The use of LED television screens as a visual aid has become a significant adaptive element in GPP's temporary worship space. These screens display the altar, the priest, and the liturgical celebration in real time, allowing congregants in areas with limited visibility to follow the worship service. Empirically, the presence of this visual medium enhances the legibility of the liturgical celebration and reduces the potential for congregants in the back rows to feel alienated. However, congregants' perceptions from the interviews indicate an ambiguity in the liturgical experience. Some parishioners feel that this helps them and allows them to focus more on the Mass, while others feel that their spiritual engagement has diminished because their attention is diverted to the screen rather than to the physical presence of the altar.



In general, observations and interviews regarding congregational perceptions indicate that experiencing the sacred in a temporary worship space is not entirely determined by architectural quality, but also by the community's intentions, participation, and collective consciousness. Nevertheless, the observed spatial limitations still create a gap between the ideal liturgical experience and the reality of the temporary worship space.

Furthermore, the following analysis table explains the relationship between liturgical symbolism and the functions recorded in the temporary worship spaces located on the 2nd and 3rd floors of the Pastoral Service Building (GPP). The analysis unit covers five key points: the form or geometry of the worship space; circulation and liturgical processions; the orientation and viewing angles of the congregation toward the qibla; the sanctuary; and lighting elements (Table 1).

Table 1. An Analysis of Liturgical Symbolism in the Pastoral Service Building (GPP) of St. Pius X as a Temporary Place of Worship

No	Analysis Unit	Liturgical Functions	Adaptation of the Pastoral Ministry Building as a Temporary Worship Space	Liturgical Symbols	Congregational Perceptions
1	Shape and Geometry of the Worship Space (Nave - Transept)	To accommodate the assembly of the faithful during the celebration of the Eucharist and to direct the congregation's collective focus toward the altar as the center of the liturgy.	<p>Notions: 1. Sanctuary, 2. Gospel Pulpit, 3. Altar, 4. Choir, 5. Liturgical Service Member, 6. Praying Hall, 7. Restroom, 8. Sacristy (Preparation), 9. AV & Sound Engineer</p>	The linear, elongated layout of the space represents the congregation's journey of faith toward the sacred center. The symmetrical arrangement of the pews reflects the order and unity of the congregation as a symbol of the Body of Christ.	The layout of the space still directs attention toward the altar, but in the rear areas, particularly on the second floor, visibility and viewing angles are limited.
2	Circulation and Processional Spaces (Narthex - Nave - Sanctuary)	Assisting with the procession of the priest, deacon, and altar servers; assisting with the reception of Communion; and facilitating the congregation's transition from the secular space to the sacred space.		The linear circulation symbolizes the congregation's spiritual journey from the secular world toward a sacred encounter with God. The staircase and hallway serve as a symbolic transitional space (narthex).	This movement through the space is part of the liturgical rite, but the flexibility of the zoning boundaries makes the sacred hierarchy feel less distinct than in a permanent church.

Table 1. (continued)

No	Analysis Unit	Liturgical Functions	Adaptation of the Pastoral Ministry Building as a Temporary Worship Space	Liturgical Symbols	Congregational Perceptions
3	Spatial Orientation and Viewpoints of the Congregation (Nave)	To direct the congregation's gaze so that it is focused on the altar and the priest during the liturgical celebration.		<p>The focal point of the Panti Imam is situated within the void space (yellow)</p> <p>The orientation toward the altar signifies the presence of Christ at the center of the Eucharist. The use of an LED screen serves as a visual representation of the liturgical center.</p> <p>The visual series in the congregation area, presented with a sacred atmosphere on the ground floor, aligned with the priest's area (middle image), conveys a more palpable symbolic presence of Christ compared to the congregation area on the second floor (bottom image)</p>	<p>Although the sense of solemnity is somewhat lacking, particularly for congregants seated in the back rows and on the second floor, the LED screen helps those in areas with limited visibility.</p> <p>For some worshippers, the limited view provided by the LED screen still helps maintain a sacred atmosphere, though it feels somewhat two-dimensional.</p>
4	Panti Imam (Sanctuary)	As the most sacred area of the place of worship, it serves as the center of the Eucharistic celebration and the site where the principal rites, such as the consecration and the Eucharistic Prayer, take place.		<p>The small scale and size of the crucifix, complemented by the painting of "The Last Supper," serve as the focal point guiding the congregation toward the altar. The difference in elevation from the congregation area, combined with the lighting design, highlights the sanctuary as the most sacred space, symbolizing the transcendent and immanent relationship between God and humanity as the congregation.</p>	<p>The congregation continues to recognize the sanctuary as the center of worship even without permanent architectural elements. Its sacredness is conveyed more through the painting of The Last Supper as a symbol of God's transcendent encounter with humanity, as well as through the arrangement of the altar and the order of the liturgical celebration.</p>

Notions: 1. Cross with Corpus, 2. Painting "The Last Supper", 3. Statue of Holy Saints, 4. Holy Chalice Storage, 5. Gospel Pulpit, 6. Holy Altar

Table 1. (continued)

No	Analysis Unit	Liturgical Functions	Adaptation of the Pastoral Ministry Building as a Temporary Worship Space	Liturgical Symbols	Congregational Perceptions
5	Elements of Liturgical Lighting (Narthex – Nave – Sanctuary)	Enhancing the visibility of the rituals and creating a solemn atmosphere for the liturgical celebration.		Natural light in the altar area is interpreted as a symbol of the divine presence and a source of grace, while artificial light serves as functional lighting for the congregation.	The contrast in lighting draws attention to the sanctuary, but the artificial lighting (fluorescent lights) that dominates the nave is considered to detract from the contemplative atmosphere.

Discussions

Temporary Worship Spaces as the Product of Spatial and Liturgical Negotiation

The temporary worship space in the St. Pius X Pastoral Service Building (GPP) is not a space created spontaneously without a concept, but rather the result of a spatial negotiation process that emerged between the building's physical limitations and the requirements of Catholic liturgical celebrations. In this context, the construction committee and the liturgy team served as key actors in translating liturgical principles into an adaptive spatial configuration. The reorganization efforts were undertaken not only to fulfill the functional aspects of worship but also to preserve the fundamental symbolic structure of the Catholic Church, even under non-permanent conditions.

The reconfiguration of the GPP space demonstrates an awareness of the importance of the altar's orientation as the liturgical center. The placement of the altar on the southern side of the building, directly facing the elongated congregation area, indicates an effort to maintain the hierarchical relationship between the sanctuary and the congregation. Although the geometric proportions of the space, with a width-to-length ratio of 1:4, are not ideal, the longitudinal orientation created through the arrangement of the congregation's seating and the central aisle allows liturgical celebrations to proceed with a relatively intact sequence of rites. This aligns with the conceptual view that the liturgical meaning of a church space is not solely determined by permanent architectural forms, but by spatial relationships that consistently support the order of liturgical celebration [14], [15].

This flexibility in zoning also affects perceptions of the hierarchy of sacredness within the space. For some congregants, the absence of permanent elements such as an apse, a fixed tabernacle, or liturgical artworks makes the boundary between sacred and profane spaces feel more fluid. Within a semiotic framework, this condition indicates that liturgical symbols in temporary spaces tend to be conventional and contextual, rather than established symbols that have been strongly internalized as in permanent churches. Barthes's semiotics helps explain this condition as a process of meaning production that remains at the denotative level and has not yet fully reached the deeper connotative layer.

From the perspective of contemporary religious architecture, this situation indicates a paradigm shift from sacredness tied to fixed forms toward sacredness constructed through practice and intention. The temporary worship space at GPP Santo Pius X serves as an example of how the meaning of sacredness is not entirely lost when permanent architectural elements are removed, but rather is renegotiated through spatial arrangements, rituals, and congregational participation. From a hermeneutic perspective, the experiences of the congregation and the priest are key to bridging these symbolic limitations. Interview results indicate that some congregants interpret the temporary worship space as a symbol of the journey of faith, sacrifice, and communal solidarity. This interpretation does not stem solely from the physical form of the space but from a collective narrative built through repeated liturgical experiences. Thus, sacred meaning is not produced solely by architecture but also by the social and religious practices that take place within it.

Liturgical Processions as Shapers of the Symbolic Structure of Space

One of the key findings of this study is the role of liturgical processions, which serve as ritual elements in constructing the symbolic structure of temporary worship spaces. In the Catholic Church, processions—whether the priest's entrance procession, the offertory procession, or the communion procession—are rites that affirm the congregation's journey, both from the profane space to the sacred space and the merging into a single sacred ritual within a dynamic hierarchy of spaces [16]. In the case of the worship space at GPP Santo Pius X, the liturgical procession route is deliberately formed through the central aisle connecting the transitional area (the staircase and vestibule) to the altar.

From a semiotic perspective, this procession route can be interpreted as an index guiding the congregation's experience of the spatial hierarchy [17]. Although not supported by permanent sacred architectural elements such as a conventional main church door or narthex, the collective movement toward the altar nonetheless constructs a symbolic meaning of the journey of faith. This reinforces the view that liturgy is performative, in which the meaning of space emerges through ritual actions performed repeatedly.

The limited dimensions and proportions of the space, as well as the multi-story nature of the building, result in a procession route that is not entirely linear or continuous for the entire congregation. Congregants on the second floor experience the procession visually, rather than physically. This situation indicates a fragmentation of the liturgical experience, in which some members are directly involved in the ritual of movement, while others experience it indirectly. This fragmentation is one of the spatial consequences of the use of adaptive space that needs to be considered in the discourse on temporary churches.

The Symbolic Meaning of the Altar and the Shift in Visual Orientation

From the semiotic perspective proposed by Charles Sanders Peirce, the sacred value of a visually altar-oriented worship space is understood not merely as an inherent quality of the building, but as the result of a triadic relationship between the representamen (spatial and visual elements), the object (liturgical and theological meanings), and the interpretant (the meaning formed through the experiences of the priest and the congregation). Within this context, the adaptation of the temporary worship space at GPP can be understood as a process of forming sacred

meaning through spatial configuration, liturgical arrangements, and community engagement, rather than merely a repurposing of the building. The elongated geometric form of the GPP space, with a width-to-length ratio of 1:4, indicates typological limitations when compared to permanent churches that were designed from the outset as sacred spaces. Nevertheless, through the arrangement of symmetrical seating, the creation of a processional aisle, and the emphasis on orientation toward the altar, this non-ritual space is reconstructed to resemble the basic structure of a nave in a Catholic church. Within Peirce's framework, this configuration functions as an icon [18], a sign that resembles its object, in this case the typology of a Catholic worship space familiar to the congregation.

Empirical findings indicate that such iconographic similarities do not fully ensure the continuity of liturgical meaning, particularly in the rear and second-floor areas where viewing angles are limited. The use of LED television screens as a visual aid serves as a significant adaptive strategy. These screens function as an index [19], [20], causally connecting the congregation to the liturgical events taking place at the altar. However, the presence of this visual index simultaneously marks the existence of a semiotic tension: the congregation's focus shifts in part from the physical presence of the altar to a two-dimensional visual representation, thereby creating a symbolic distance between the ideal liturgical space and the actual spatial conditions.

Spatial Geometry, Visual Media, and Liturgical Experience

The limitations of the GPP's spatial geometry and dimensions have direct implications for the visual comfort and liturgical experience of the congregation. The elongated space with dual-level capacity (first and second floors) results in a fragmentation of the visual experience, where not all congregants have a direct line of sight to the altar. Visual media in the form of LED screens serve as an adaptive solution, yet simultaneously create an ambiguity in the experience: on one hand, they enhance the legibility of the liturgy; on the other, they have the potential to diminish the intensity of the sacred experience rooted in direct presence.

Implications for Contemporary Religious Architecture in Indonesia

Temporary worship spaces in contemporary worship space planning cannot be understood merely as substitutes, but rather as a field of negotiation of

meaning between physical constraints, liturgical demands, and the congregants' experience. In the context of contemporary religious architecture in Indonesia, this situation reflects the need for a more adaptive and reflective design approach, particularly in situations involving renovation, emergencies, or resource constraints. Theoretically, this study asserts that the sacredness of space is relational and performative, not essential. Through Peirce's semiotic framework, enriched by Barthes's connotative reading and a hermeneutic approach to the congregants' experience, non-ritual spaces can be reconstructed into meaningful ritual spaces, despite symbolic and spatial limitations. This contribution expands the discourse on religious architecture from a mere study of typology and aesthetics toward an understanding of space as a living system of signs that is continuously negotiated by the faith community.

Conclusion

The spatial and visual elements of the temporary worship space in the Pastoral Service Building (GPP) are capable of adaptively representing Catholic liturgical symbolism, although they are not entirely equivalent to a permanent worship space. The elongated shape of the space, the orientation of the altar, the arrangement of the procession route, the establishment of liturgical zones, and the lighting design ensure that the basic structure of the Eucharistic celebration remains functionally intact. Within a semiotic framework, these elements function as liturgical signs that can be read and interpreted by the congregation, even though they are temporary and contextual.

The main differences between temporary worship spaces and permanent churches lie in visual quality, the continuity of the view toward the altar, the sacred atmosphere, and the symbolic depth of the space. The congregation and the priest perceive that the limitations of the space's geometry, line of sight, lighting, and the absence of permanent symbols affect the intensity of the contemplative experience. Nevertheless, the liturgical experience is still fostered through the intent of worship, the active participation of the congregation, and the collective consciousness of the church community.

The use of GPP as a temporary worship space demonstrates that non-ritual spaces can be adapted into ritual spaces through the arrangement of key liturgical elements. This adaptation is not merely technical or functional, but also symbolic, in which the space is reinterpreted as a system of liturgical signs.

However, the findings reveal a gap between the ideal liturgical orientation and the actual spatial conditions, particularly when visual aids such as LED screens begin to replace the direct visual presence of the altar as the sacred center.

The flexibility of space in the context of temporary worship has clear limits. Spatial adaptation remains effective as long as the fundamental principles of liturgy—namely, altar orientation, the structure of the procession, visual legibility, and the hierarchy of sacredness—can be maintained both spatially and symbolically. When limitations in the form and dimensions of the space cause a shift in symbolic focus, the quality of the sacred experience tends to diminish. Thus, spatial flexibility is not an unlimited condition, but rather the result of a negotiation between physical constraints and the symbolic needs of the liturgy.

Theoretically, this study contributes to the discourse on contemporary religious architecture by asserting that the sacredness of worship spaces is relational and performative, rather than being determined solely by the typology of permanent buildings. A semiotic approach and a hermeneutic interpretation of the congregants' experiences enrich our understanding of how liturgical meaning is produced within temporary worship spaces. Practically, these findings can serve as a reference for architects and pastoral planners in designing strategies for adapting temporary worship spaces that maintain the symbolic quality and spiritual experience of the congregation.

This study is limited to a single case study using a qualitative approach; therefore, the findings are not intended to be broadly generalized. Further research could be conducted by exploring the limits of flexibility in non-sacred spaces that can be adapted into worship spaces, by examining the relationship between spatial geometry, the formation of liturgical zoning, and the symbolic experiences of the congregation. Comparative studies across building typologies are expected to enrich our understanding of the sacredness of space in contemporary religious architectural practice.

AI Use Declaration

The authors used Grammarly and DeepL Translator for translation and language editing to improve clarity and readability. All content was reviewed and approved by the authors, who take full responsibility for the final manuscript.

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