

Shape and Space Churches on Lake Sentani, Papua's Island

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Abstract

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The architecture of Papua's Lake Sentani region is part of its rich cultural heritage. To comprehend the distinctive artistic and architectural values of the churches in the area, it is necessary to consider both the acculturation of local culture and external influences, which are reflected in the distinctive architectural form of the churches on the island. To comprehend the unique cultural and architectural values of the churches in the area, the architecture is unusual and represents the acculturation of local culture and other influences. This research aims to characterize and examine the architectural features of the churches on the island of Lake Sentani, Papua. Qualitative descriptive methods are employed when gathering data through observation, documentation, literature reviews, and interviews. According to the study's findings, churches on Lake Sentani Island, Papua, have a range of architectural styles, from modern designs influenced by Western architecture to traditional styles influenced by the traditional homes of the area. It is anticipated that this study will advance knowledge of the diversity of Papuan architecture, particularly that of the churches in Papua Lake Sentani.

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1. Introduction

The term "Sentani" was coined by visitors to the Sentani region rather than the locals to describe the region and its inhabitants (Mansoben, 1995; Safar, Asmal, & Radja, 2024). The first documented account of the lake and its inhabitants, "Sentani," dates back to 1893 and was attributed to Pastor Bink, a Dutch church pastor (Wirz, 1928). The indigenous Sentani people, who reside in lakes, islands, the coast, and the mainland, are known for Lake Sentani's breathtaking natural beauty and rich cultural diversity (Salipu, Hasrul, & Utomo, 2020). The reality of cultural variety in Indonesia is undeniable and highly significant (Leki, Setyabudi, & Santoso, 2024; Soni, Karman, & Yanasari, 2024). Architectural style is a term commonly used to communicate emotions and convey meaning through the design of items (Wiyono, Damayanti, Destiarmand, & Sunarya, 2025). The architectural styles constructed and dispersed throughout Indonesia are

derived from traditional architecture, which has been passed down through the generations in terms of form, structure, function, and the variety of ornamentation and construction methods (Ashadi, 2018). Many ancient buildings in Indonesia have been painstakingly maintained (Agusintadewi & Jyoti, 2025). A building is a precious asset representing a nation's pride and identity and providing visible proof of its past life as a cultural legacy (Munandar, 2024). Adding outdoor space to accommodate extra functions is one of the changes to the original building's structural, visual, and spatial features as part of the ongoing makeover (Yusran & Hadinata, 2019). The application of the fundamental ideas of varied building forms and the distinct separation of inner and outdoor spaces are reflected in changes in building design (Pynkyawati, Tresna, Fajari, & Pratama, 2021). Architecture, which has existed for many generations, is considered traditional (Prasetya, 2007). Anthropology or ethnology that stresses customs and culture as a cultural process is the root of traditional architecture as a time frame, according to Yoseph Prijotomo in Prasetya (2007). The Papua region is one of Indonesia's many traditional structures, each with unique features in appearance, spatial design, structure, and material use that help define the region's identity (Hasrul & Ikaputra, 2023). One of the most fascinating facets of civilization to admire is architecture, particularly church architecture. The lowercase letter "g" in the word "church" refers to two things: first, the actual structure of a place of worship where members congregate, meet, and unite with God and other believers, as well as to buildings and homes where Christian communities perform ritualistic worship (Pinem, 2016). When constructing a church, several factors are considered, including liturgical, theological, spiritual, and personal-communal dimensions (Basri, 2017). According to Indrianto (2013), the church's primary roles in daily life are testimony (marturia), ministry (diakonia), and fellowship (koinonia). More than just a place of worship, the churches on Lake Sentani Island serve as the hub of the community, a symbol of identity, and a reminder of the past. In addition to being a site of prayer and worship, the church also acts as a center for cultural and social activities that unite the community. Despite the island's cultural and architectural significance, there is a dearth of comprehensive research on the architectural characteristics of the churches on Lake Sentani. This study attempts to fill the knowledge gap by analyzing the form and architectural style of churches dispersed across tiny islands in Lake Sentani.

Since the start of the Common Era, local culture and external influences have continued to evolve, particularly during the Reformation, which altered Protestant church architecture (Abrianti & Salura, 2019). This is reflected in the architecture of the church on Lake Sentani Island. Churches in this region used natural materials like wood and thatched roofs at first, but steel and concrete were used by modern influences to alter their designs, a symbol of cultural acculturation (Hutagalung, 2024). Basilicas, cathedrals, and Gothic churches are examples of how local culture and history have shaped church architecture around the world, according to local norms (Aditya, Purba, & Martana, 2020). However, many churches in Lake Sentani continue to use traditional features that represent the local community's identity and cultural values, including Papuan wood and sculptures. This study is anticipated to conserve the Sentani area's church history and architectural legacy while shedding light on the distinctiveness of church structures.

One of the numerous research goals is to identify and describe the architectural forms and styles of the churches on the island in Lake Sentani, which will be addressed in terms of form and space. Purpose, activity, and the kind of inner space order all contribute to the form and space in question (Pinem, 2016). Because it is shaped by

3. Results and Discussion

On February 5, 1855, a German gospel missionary brought Christianity to Mansinam Island as part of the gospel message mission led by W. Ottow Carl and Johann G. Geissler. The two missionaries started the mission by praying, "In the name of God, we step on the Land of Papua." This allowed Guru Daud Pekade to bring the gospel word to the Sentani plains in 1972. It is well recognized that the influence of physical location, customs, and various languages and cultures makes the missionaries' struggle in the Land of Papua extremely difficult. The gospel message's mission in the Land of Papua continues with several other missionaries in various years, all working toward the same objective. They ultimately won over and brought the Sentani people on the island and its environs together because of the prayers and efforts of Guru Daud Pekade and other missionaries (Guru Kakisina and other Gurus) who worked to spread the gospel. In addition, as churches and other places of worship were built and congregations were established, the gospel message's mission grew and expanded. "Chosen to be saved, but we must always give thanks to God for you, brothers, whom the Lord loves, for God from the beginning chose you to be saved in the Spirit that sanctifies you and in the truth that you believe," said Guru Daud Pekade after completing his mission of preaching the gospel on an island. The verse was taken from 2 Thessalonians 2:113-114. For you to experience the glory of Jesus Christ our Lord, he has called you by the gospel we proclaim.

GKI Solafide Atamali on Atamali Island

In 1956, the church was built on Atamali Island. Gospel Teacher Matias Apaseray constructed the church. It is the sole house of worship (Church) constructed on Atamali Island and has a location there. As a result, not many congregations worship at the church, just the residents of Atamali Island. Visitors must take a speedboat or small boat to the Yellow Pier, the closest pier in Kampung Ifar Besar, to reach the Church's site. It takes roughly thirty to forty minutes to get from the pier to Atamali Island. Since Atamali Island is not particularly hilly, the church building was constructed near SD Kampung Atamali and not far from the lake's edge. Pig farmers, fishermen, and others comprise the community's livelihood on Atamali Island. It is well known that Atamali Island's sociocultural life is quite harmonious between those who have never interacted with immigrant communities from beyond the island or are not Sentani natives. The community is also noted for having good interactions and blending in; they treat one another respectfully, especially the instructors from other tribes that work at the Island Elementary School.

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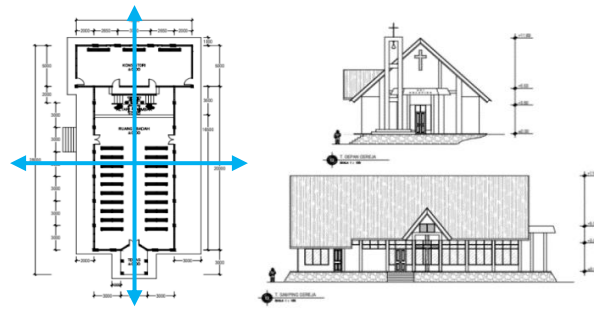


Figure 2. The layout (left) and view (right) of the Solafide Church on Atamali Island in Lake Sentani
(Source: Author, 2024)

The building's dimensions of 28 m by 13 m make it not overly enormous. There is only one story, and the church building is not a very impressive shape. According to church architecture, floor elements with varying heights signify a sacred space. In practice, this means that congregation members who wish to enter the worship room are reminded that the space is sacred (Kesumasari & Anjarwulan, 2021). Terraces, the primary worship space with congregational seating and altar or pulpit components, and a consistory room are among the spaces in the building. When there is an ecclesiastical event or special guests, like members of the Synod or the Classis, visit the Solafide Atamali Congregation, the congregation typically uses the field next to the church and the terrace of the church building as a location for a banquet of love.

GKI Efata Kampung Putali Puyo Besar

Pastor S. Liboran created GKI Efata, which was located on Putali Puyo Besar Island in 1927. Since most people on Putali Puyo Besar Island are Christians, the church building is also the only place of worship on the island. The closest pier, the yellow pier in Kampung Ifar Besar, is where you may get a speedboat or a small boat to journey to the church. Getting from the yellow pier to Puyo Besar Island takes roughly forty-five minutes. The residents of Kampung Puyo Besar work as teachers, civil servants, fishermen, and in other occupations in their everyday lives.

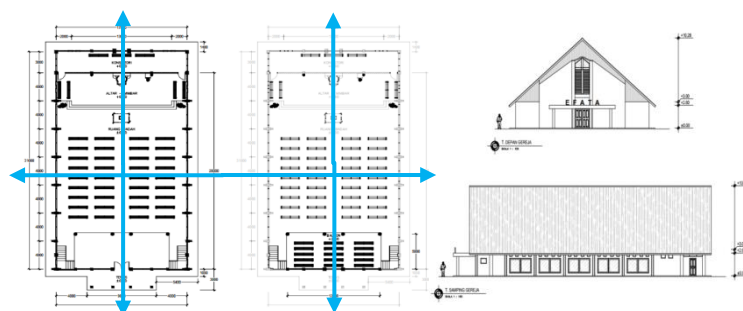


Figure 3. The layout (left) and view (right) of GKI Efata Kampung Putali Puyo Besar on the island in Lake Sentani
(Source: Author, 2024)

The GKI Efata building has two stories in size and is 31 m by 17 m. The church building's outside and interior are shaped like rectangles and are straightforward. The

GKI Efata building features a vast roof slope angle of 45 degrees and a symmetrical building design, as evidenced by the repetition of the same shape on the left and right sides, both physically and on the building plan. Cream is the color that dominates the building at GKI Efata. Window ornaments, ventilation, building columns, and bell tower top ornaments comprise the GKI Efata building's ornamentation. The structure includes a terrace, a consistory room, and the main worship hall with congregational seats and an altar or pulpit. During church activities, the congregation typically gathers on the church building's terrace and the field adjacent to the church to socialize.



Figure 4. The GKI Efata Church appears in the Putali Puyo Besar Village on an island in Lake Sentani.
(Source: Author, 2024)

Situated in the middle of the island, the Efata Church edifice has a symmetrical layout. The church shares borders with residential areas to the north and south, traditional dwellings to the west, and residential areas to the east.



Figure 5. Layout of the GKI Efata Building from Kampung Putali Puyo Besar
(Source: Google Maps, 2024)

GPdI Wabisauw on Pugi Island

In 1951, GPdI Wabisauw was constructed on Pugi Island. Guru Daud Pekade constructed the church. The GPdI Wabisauw Church and the Mansim Congregational Adventist Church are known houses of worship on Pugi Island. Every house of worship is situated near the island's base. Visitors must take a speedboat or small boat from Kampung Ifar Besar's yellow dock to reach the site of the house of worship building. It takes roughly half an hour to reach Pugi Island from the Yellow Pier.

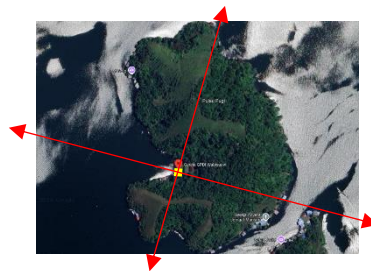


Figure 6. GPdI Wabisaw Building Layout on Pugi Island
(Source: Google Maps, 2024)

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The GPdI Wabisauw building on Pugi Island features a symmetrical design in its layout. The structure is situated on the island's edge. The church is surrounded by residential areas to the north and south, residential areas to the east, and Lake Sentani to the west.

Architectural Characteristics of GPdI Wabisauw

Every place of worship has unique architectural features that can be interpreted as a response to the cultural and geographic context of the area. Buildings often have a simple yet practical shape, with a high roof to ensure adequate air circulation in the space and a building shape that is not too huge. Zinc is used for roof coverings, and bricks and wood from nearby trees are used for windows, main doors, and roof trusses. It is well recognized that using locally produced materials highlights the building's relationship to the surrounding environment while also demonstrating the community's efforts to preserve its culture. The church's roof is a gable roof since it is quick, easy, and straightforward to construct. The shape of a typical Papuan home influenced the church's oblique roof design. Only two sloping sides, supported by triangular walls, make up the gable roof construction. Some walls are supported by iron, light steel, and wood. In order to prevent the room from becoming overheated, the gable roof is also designed to produce much airflow.



Figure 7. The form of GPdI Wabisauw's Pugi Island façade
(Source: Author, 2024)

When viewed from the outside, the façade of GPdI Wabisauw on Pugi Island appears to be a typical residential structure due to its relatively straightforward design. In the aforementioned simplicity, religious symbols like crosses are nonetheless prominently displayed on the church room pulpit. A strong religious identity in society is known to be reflected in the cross.

Spaces in the Church

The altar is the focal point of worship activities and the primary focus of the congregation's attention in the linear interior design of GPdI Wabisauw on Pugi Island. The congregational space is typically set up to provide unobstructed visual access to the altar and to the congregation, fostering an environment that encourages active participation in worship. Additionally, this linear structure is designed to provide clear vision and sound for all congregations.

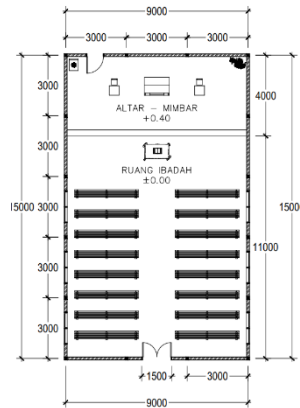


Figure 8. The layout of GPdI Wabisauw on Pugi Island
(Source: Author, 2024)

Local elements including wood, walls, flooring, and ceilings dominate the church's interior, creating a cozy and natural ambiance. The congregation is kept cool and comfortable despite the brilliant ambiance created by the enormous windows on the building's side that let in natural light. Without sacrificing the solemnity of the religious ambiance, this natural lighting highlights the interior design's simplicity while still being useful. Due to the building's lack of a ceiling, natural light can also enter indirectly from the top. In order to guide the view upward and provide the feeling of a limitless expanse, the church's ceiling is designed high and open. Additionally, the congregation typically needs a space to congregate outside of worship activities in church structures. These extra areas, which can be utilized for church meetings, meetings, or other social gatherings, are typically constructed on the side or rear of the main building. The extra space is adaptable, nevertheless, and given the congregation's current state, it is situated in an open space surrounding the church so people may take in Lake Sentani's natural splendor.

GKI Patmos Kwadeware on Kwadeware Island

Matias Apaseray constructed the church structure on Kwadeware Island in 1951. Kwadeware Island is home to two places of worship: the GPdI Baithesda Congregation and the GKI Patmos Kwadeware Church. The center of the island is where all of the houses of worship are situated. Visitors can take a speed or small boat from Kampung Ifar Besar's yellow pier to Kwadeware Island, where the house of worship building is located. Going to Kwadeware Island from the Yellow Pier takes roughly fourteen minutes. However, taking the route from Yellow Pier to Pantouw Pier takes half an hour. In order to reach there even more quickly, tourists typically use the water route from Yellow Pier or Pantouw Pier.

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Figure 9. The Layout Design of the GKI Patmos Building in Kwadeware Island
(Source: Google Maps, 2024)

The church edifice is symmetrically shaped and situated in the island's center. The building is reported to have dwellings next to it on both sides. The well-planned design of the church building on Kwadeware Island's hilltop can also subtly convey a picturesque view to tourists. While the view from outside Lake Sentani into the island can also indirectly reveal the GKI Patmos Church building at the top of the hill, the church building view Lake Sentani and several islands inside the lake. It is also known that the church building's orientation has been constant from the start; in fact, based on the building's placement, it is known that there are no guidelines for deciding the building's orientation. Church structures only consider accessibility and adapt to the local context to facilitate worship.

Architectural Characteristics of GKI Patmos Kwadeware

Despite being larger than GPdI Wabisauw, the GKI Patmos Kwadeware Church is still straightforward and operational. A high roof that improves air circulation and lowers the interior temperature is one example of the architecture's comfort-focused design. In symbolic terms, the lofty roof represents God's majesty. The brick walls appear strong, organic, and capable of absorbing sound, which results in the best possible acoustics. Additionally, bricks contribute to a steady room temperature by absorbing heat throughout the day and gradually releasing it at night. Although they can raise the temperature inside, zinc roofs are preferred for their cost, longevity, and simplicity of installation. In order to get around this, the church has a roof that slopes 45 degrees to let hot air escape, as well as massive vents and natural ventilation at the top of the structure. To lessen the heat, some churches paint their roofs a vibrant color or install insulation.

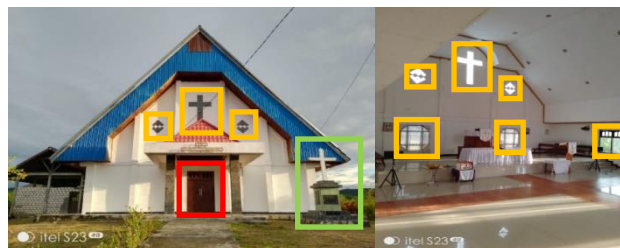


Figure 10. The architectural elements of GKI Patmos Kwadeware on Kwadeware Island.
(Source: Author, 2024)

Additionally, church buildings have additional architectural features like doors, windows, and monuments. Large buildings' windows, which have many panes of glass and are intended to be directly connected to ventilation, let natural light into the space and foster a cheery, bright atmosphere. Additionally, the windows can serve as frames for

views of Mount Cyclops and Lake Sentani that link the internal area with the surrounding landscape. Like the church windows, the main door is big and constructed of local wood. Using these natural materials, the church building blends in with the surrounding terrain and has a more local feel. The cross-shaped monument is situated in front of the church structure. Additionally, the monument is not overly big. The dimensions of GKI Patmos Kwadeware are 25 m by 18 m. The interior and exterior have a straightforward rectangular form. The church building's symmetrical pattern is evident from the left and right sides' repetition of the same shape, which is seen in both the layout and the actual structure. The front of the single-story GKI Patmos Kwadeware building faces east, and it is oriented from east to west. The building has a prominent hue, which is milk. It is well known that the church edifice lacks a bell tower. The main worship chamber, the terrace area, the altars-pulpits, and the consistories are among the other areas of the edifice.

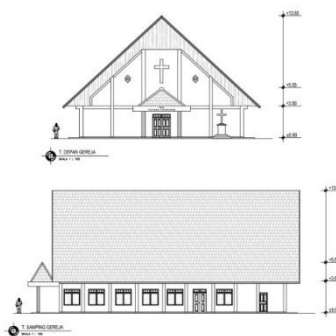


Figure 11. The facade design of GKI Patmos Kwadeware on Kwadeware Island
(Source: Author, 2024)

As a house of worship for Christians, the façade shape of GKI Patmos Kwadeware on Kwadeware Island is typically created with a simple or simple design similar to the shape of other church buildings in general, but remembering to retain the cross adornment. The sign or symbol of a huge cross is transformed into a usable ventilation. It is well recognized that a strong religious identity in society is reflected in the cross.

Spaces in the Church

The church altar serves as the focal point of worship activities and the primary focus of the congregation's attention in GKI Patmos' linear spatial arrangement. The linear design was created so that everyone in the congregation could see and hear it clearly. There are two primary rooms at GKI Patmos Kwadeware: the consistory room and the congregational worship room. On Sundays and other significant holidays, congregations congregate in the congregation's worship area, which is situated in the front of the church, next to the main door. Additionally, additional church-related activities might be held in the congregation's worship space. On Sundays and other significant holidays, the consistory chamber, which is in the back, serves as a location for the pastor or assembly to get ready before worship.

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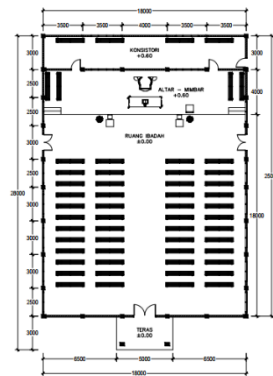


Figure 12. The layout of GKI Patmos Kwadeware on Kwadeware Island

(Source: Author, 2024)

Local The GKI Patmos Kwadeware Church's interior is primarily composed of locally sourced wood for the ceiling, floor, and walls, giving it a cozy and organic feel. Six swing casement windows on the building's sides allow air circulation and optimize natural light. Most vents are fixed and solely provide lights, while others are designed to blend in with the windows. This window's use represents a relationship with nature, which reflects God's presence. The high ceiling reinforces the holy ambiance by creating the illusion of space and pointing the eye skyward. Along with the central area, the church features several adaptable spaces around the building for social events and congregational gatherings, promoting peaceful contact while taking in the splendor of Lake Sentani.

GIDI Jemaat Shallom Kwadeware/Dondai on Serebeperom Island

Constructed by Gospel Teacher Matias Apaseray, this church has been the place of worship on Serebeperom Island since 1954. This church only serves locals to keep the congregation small due to its unique location on Serebeperom Island. Visitors must take a speedboat or small boat from Kwadeware Village's Patouw dock to the church, and the trip to Serebeperom Island takes ten to fifteen minutes. GKI Patmos is in the center of the island, whereas Shallom Kwadeware/Dondai Church is at the end of Serebeperom Island. The GIDI church was constructed on a hill next to GKI Patmos. Most people who live on Serebeperom Island are employed as livestock breeders, fishermen, and in other occupations. This is recognized as being identical to the inhabitants of the neighboring islands. This island's social life is excellent, marked by peaceful relationships between locals and respect for one another, even when it comes to immigration from other countries. Community life is tightly entwined here by fostering a strong sense of solidarity.



Figure 13. The Layout Design of the GIDI Jemaat Shallom Kwadeware/Dondai on Kwadeware Island

(Source: Google Maps, 2024)

The symmetrical GIDI church structure on Serebeperom Island is situated on the island's edge, with a direct view of Lake Sentani on the east and north sides. The western and southern portions of the building are next to residential areas. The church is about the same size as GPdI Wabisauw, with basic measurements of 8 m by 15 m. This simple, one-story chapel was built with functionality rather than elegance. A storage room frequently utilized as a consistory room to get pastors and assemblies ready before the service begins is located inside, along with a primary worship space with rows of seats for the congregation and an altar as the focal point for worship activities. Before or after worship, the community frequently congregates on the front yard and church terrace to socialize, talk, and exchange tales, fostering a sense of familiarity. In addition to being a place of worship, the church is a harmonious part of Serebeperom Island's natural and social environment because of the beautiful flora surrounding it, which gives the building a beautiful aspect.

Architectural Characteristics of GIDI Jemaat Shallom Kwadeware/Dondai

On Serebeperom Island, the GIDI Church of the Shallom Kwadeware/Dondai Church honors local knowledge through its straightforward and practical construction. In addition to providing natural ventilation within the building, the high gable roof is intended to protect from tropical weather. The enormous cross over the main door is the focal point of the straightforward façade design. This cross makes a powerful religious statement to anyone who enters the church grounds and represents the sacrifice of Jesus Christ, which is central to the Christian faith. Along with the cross decoration, the beige and blue minimalist façade design embodies the Christian principles of peace and simplicity. The large main door represents the church's willingness to welcome anyone who wants to worship, and the blue fence and straightforward entrance give it a distinctive look that blends with the natural surroundings. The arrangement inside the church has been created with functionality in mind. The altar, which serves as the focal point of worship activities, and congregational seating are features of the primary worship space. Natural light is let in, and good air circulation is produced via the windows and wall ventilation. The storage space that doubles as a consistory increases preparation efficiency for worship.

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Figure 14. The facade design of the GIDI Jemaat Shallom Kwadeware/Dondai on Kwadeware Island
(Source: Author, 2024)

In order to foster stronger social bonds amongst congregations, the church's terrace and front yard are frequently used as meeting spots before and after services. The church's exterior is adorned with ornamental plants that create a lovely and peaceful environment with the natural world. In addition to being a place of worship, the GIDI Church of the Shallom Kwadeware/Dondai Jemaat is a communal hub that fosters social and spiritual bonds between its congregants thanks to its design, which emphasizes functionality and simplicity.

Spaces in Church

This church's area has a somber yet serene feel about it. Its stark white walls provide a broad impact and stand for innocence and heart purity. Green and pink ceramic floors create a tranquil and fresh atmosphere, reminiscent of an expansive meadow. As a representation of God's majesty, the upward-sloping roof with adequate illumination represents the vast and limitless sky. The tall stage is the focal point of this area. This platform represents a sacred and lofty location where believers encounter God. God's message was spoken from the pulpit on stage, which became the focal point of attention. The pulpit's warm, natural wood gives it a solid, ageless appearance, as though the message of God's word will always be relevant. A depiction of God's word, or sermon, is shown on a projection screen behind the rostrum, demonstrating that everyone can receive God's truth through various media. The congregation's well-organized chairs facing the pulpit create a formal yet cozy ambiance. A brotherhood of believers who are joined with the body of Christ in His Church might be represented by the arrangement of the congregation's altar-oriented chairs (Sari & Setyaprana, 2007). A musical instrument used to accompany praise is located next to the rostrum. Natural lighting and adequate ventilation are provided via the windows on the room's sides.

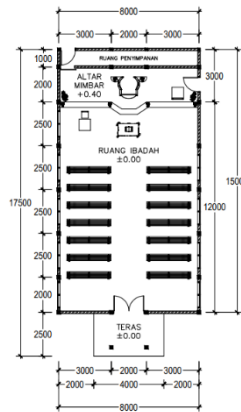


Figure 15. The layout of GIDI Jemaat Shallom Kwadeware/Dondai on Kwadeware Island
(Source: Author, 2024)

In addition to being a storage place, the area behind the altar is frequently used as a meeting space for discussing issues about church operations. This area represents where church leaders convene to make crucial choices impacting the congregation's future. The congregation can converse and engage on the terrace in front of the church. This terrace symbolizes an open area where everyone can feel appreciated and welcomed. The altar is the primary focal point of this church's overall centralization pattern structure. This design represents how everyone worships God together. Every component of the space, including the colors, materials, and arrangement, has a symbolic value associated with Christian teachings. This church's interior design acts as a place of worship and a platform for spreading spiritual teachings and fostering a strong sense of community.

Gereja Advent Jemaat Pioneer Hobong on Ifale Island

Guru Daud Pekade constructed the Pioneer Hobong Congregational Adventist Church in 1958, and it now stands solidly on a hill on Ifale Island. Three church structures exist on Ifale Island itself, and each has its own worship and educational system. Like other nearby churches, this one has a limited congregation because it caters exclusively to the local population. From the Yellow dock in Kampung Ifar Besar, travelers must take a speedboat or small boat to Ifale Island, ten to fifteen minutes away across the lake waters, to go to this church.

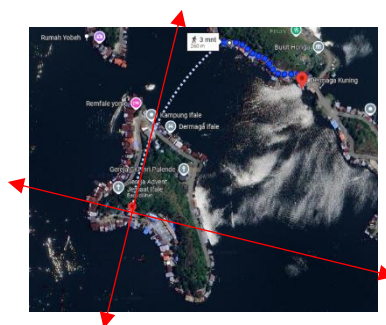


Figure 16. The Layout Design of the Pioneer Hobong Adventist Church Building on Ifale Island
(Source: Author, 2024)

This church building's design prioritizes functionality over elegance, and its basic measurements are roughly 10 m by 19 m. The church, one story and symmetrical in design, is situated on the island's edge. It has a broad view of Lake Sentani stretching over

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its southern side and residential areas visible from the north, east, and west sides. The church's main worship hall has rows of seats for the congregation, an altar that serves as the focal point of worship activities, and a consistory chamber where the pastors and assembly get ready before the service starts. Before or after worship, the congregation frequently congregates on the church terrace and in the courtyard in front of it to socialize, chat, and exchange tales, which helps deepen their bonds. This church's ambiance is always infused with a sense of familiarity and community, reflecting the peaceful social ties among the locals. Like the people on the other islands, the residents of Ifale Island have a straightforward existence as ranchers and fishers, with a great social life that is respectful of and welcoming to immigrants from outside Sentani.

Architecture Characteristics of Gereja Advent Jemaat Pioneer Hobong

The Pioneer Hobong Congregational Adventist Church on Ifale Island features straightforward yet significant architecture that blends Sentani, Papua's local culture, with Christian values. This structure, which is perched atop a hill, has a symmetrical façade and a steep gable roof that gives it a sturdy appearance. The church's primary emblem is the straightforward cross adornment on the front facade, which reminds the congregation of the importance of love, sacrifice, and salvation in Christian doctrine. The church's front porch reinforces the church's position as the hub of community life by providing a place for social interaction both before and after worship. The minimalist façade design represents the Sentani community's simplicity and unity.

Figure 17. The facade design of Advent Christian Church Jemaat Pioneer Hobong on Ifale



Island
(Source: Author, 2024)

The church's high windows and doors on the side provide ideal air circulation and natural illumination, symbolizing the Sentani people's openness and intimate connection to the natural world. The altar is the focal point of the spacious and hallowed main worship space with towering ceilings. This church's general design not only considers the comfort and purpose of worship but also symbolizes the harmony between local values and Christianity, making it more than simply a structure but also a social and spiritual emblem for the neighborhood.

Spaces in Church

This church's area measures 22 m by 10 m and is rectangular. Before entering the main worship space, there is a transitional terrace at the front. In order to create a broad impression and encourage visual engagement amongst congregations during the service, this worship space is intended to be open and partition-free. The congregational chairs are positioned in rows facing the altar in the church's layout. The pulpit serves as the focal point of the liturgy, and the space hierarchy is made clear by the placement of the altar and pulpit at the end of the room.

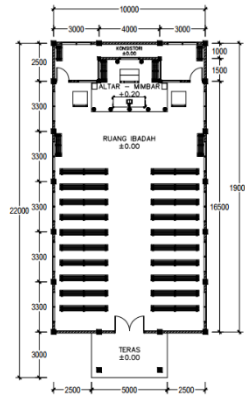


Figure 18. The layout of Advent Christian Church Jemaat Pioneer Hobong on Ifale Island
(Source: Author, 2024)

According to the layout, the altar is positioned somewhat above the chapel floor, indicating a more sacred location and a change in purpose. Church officials or choirs might use the area on the left and right sides of the altar. The well-balanced proportions between the patio and the worship area produce a pleasant image. The window openings on either side of these areas are sufficiently large to provide enough natural lighting and air circulation. This is significant given that Ifale Island's typical hot and muggy atmosphere. In addition to serving as ventilation, these apertures create a visual link between the indoor and outdoor areas. The church's interior demonstrates how indigenous materials predominate, including wood for the chairs, windows, doors, and other components. Without the need for an intricate loudspeaker system, the sound from the rostrum may be easily heard at the back of the room thanks to the high ceiling's support of the room's acoustics.



Figure 18. The interior section of Advent Christian Church Jemaat Pioneer Hobong on Ifale Island
(Source: Author, 2024)

Only a few decorations, including a big cross on the front center wall that creates a strong visual accent, give the church's interior ornaments a minimalist appearance. In contrast to the white iconography on the walls and ceiling, the altar's use of red highlights the space's holiness and creates an intriguing juxtaposition. Overall, the Pioneer Hobong Congregation Adventist Church's layout greatly values functionality and simplicity while accounting for the local congregation's demands and the tropical climate. In addition to supporting worship activities and other events, the large, open worship area comforts the congregation gathering there.

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GKI INRI Pulende on Ifale Island

Established by Pastor Y. Okoka on Ifale Island, Papua, in 1956, GKI INRI Pulende is a historic structure of significant spiritual and architectural significance. Situated on the shores of Lake Sentani, the church is encircled by residential neighborhoods and natural woodlands, resulting in a serene environment that blends well with the surroundings. Using local materials to resist a humid climate, the church's hexagonal plan is designed for balance, ideal lighting, and good air circulation. The church has been facing east since its founding, utilizing the morning sunlight that creates a cozy ambiance in the service space. To foster public appreciation for historical and cultural values, the authenticity of the façade and orientation is preserved. Since the church is only reachable by water, it takes ten to fifteen minutes to get there by boat from Kampung Ifar Besar – going there is a spiritual experience in and of itself. This makes GKI INRI Pulende a fascinating cultural and religious tourism destination and a place of worship.

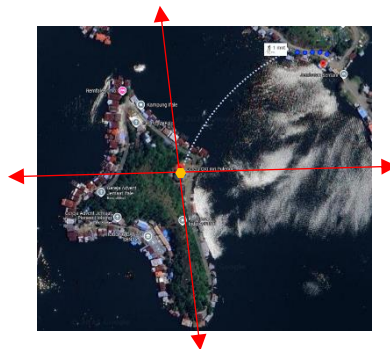


Figure 19. The Layout Section of the GKI INRI Pulende on Ifale Island
(Source: Author, 2024)

All things considered, GKI INRI Pulende on Ifale Island is a concrete illustration of how religious structures can endure and continue to be significant to the local natural and cultural setting, in addition to serving as a symbol of spiritual sustainability for the neighborhood. This church teaches us the value of keeping a rich cultural legacy so that it endures and has significance for future generations, as well as the necessity of preserving harmony between architecture and the environment.

Architecture Characteristics of GKI INRI Pulende on Ifale Island

The architecture of GKI INRI Pulende on Ifale Island blends devotional activities with local values. The structure's nine sides and roof, reminiscent of the Tabi, Tobati, and Enggros tribes' ancient homes, symbolize protection from harsh weather conditions and a closer relationship with God. In addition to using metal elements for resilience to tropical weather, the pyramid-shaped roof's upward climb gives the building a grandiose and sacred appearance. The roof's slope, which is supported by substantial pillars that offer a strong and attractive structure, is intended to prevent rainfall from standing still. Natural light streams through the arched windows on the front façade, giving the chapel a light-filled, reverent feel.

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This area has straightforward but functional architecture. The worship area is bright and cool thanks to the large arched windows surrounding the walls, letting in plenty of natural light. Iron decorations on these windows provide visual appeal while softly dispersing light to lessen glare. This church's design also considers accessibility. All guests, particularly those with limited mobility, can easily navigate the facility thanks to the broad main door and hallway.



Figure 22. The space within GKI INRI Pulende on Ifale Island
(Source: Author, 2024)

A spiral staircase leads to a mezzanine balcony above the main worship hall, offering more seating and a distinctive view throughout the service. This raised balcony highlights the hierarchy of spaces by highlighting the focal point of the worship area below and offering the congregation an alternate viewpoint. The church's interior lighting and ventilation system is designed to accommodate the region's tropical environment, where airflow is crucial. Without artificial cooling, the high ceiling and natural circulation from the windows keep the church's interior comfortable. These design features demonstrate an architectural strategy that blends practical requirements with symbolic meaning to create a warm community engagement and worship environment.

4. Conclusion

The conclusion of this study, which is based on the research findings that have been discussed, affirms that the churches on the small islands in Lake Sentani, Papua, have distinctive architectural features that are the outcome of the acculturation process between indigenous customs and external influences. These churches' architecture is a reflection of both the local communities' attempts to preserve cultural values that have been passed down through the generations and their adaptability to the changing times. Some churches still primarily feature traditional features such as wood and other natural materials modeled after Papuan traditional homes. However, the use of durable materials like steel and concrete and the creation of more functional and geometric building designs were also examples of the modernization brought about by European missionaries.

Because every church has a different building shape and space arrangement, architectural design is influenced by social, cultural, and environmental factors. Since the building's shape is frequently modified to fit the steep, water-enclosed island in Lake Sentani, environmental durability and accessibility are the primary factors considered during construction. The church's physical configuration, which includes seating sections, altar spaces, consistory chambers, and terraces for social gatherings, demonstrates how adaptable the church serves as a hub for community-building social and cultural events and being a place of worship.

Likewise, the church's layout was created with the congregation's requirements and the surrounding environment in mind. The local community uses conventional technology to generate comfort in the worship space, as evidenced by the big windows

and vents that allow for natural circulation, the maximum amount of natural sunlight, and the straightforward yet practical arrangement. Papuan carvings are still used in some churches for cultural identification and artistic expression, enhancing the building's beauty.

This research provides in-depth insight into the importance of churches in Lake Sentani, not only as religious symbols but as tangible manifestations of valuable cultural heritage. The existence of these churches reflects the historical journey, cultural adaptation, and identity of the Sentani people who continue to live in the midst of changing times. The results of this research are expected to encourage efforts to preserve church architecture in Papua and be a valuable reference in the development of broader cultural architecture research. This finding is also expected to contribute to developing cultural tourism and preserving historical heritage in Papua.

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