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Revealing Vernacular Architecture in Kalimantan's Mosques: A Comparative Study Between The Sabilal Muhtadin Grand Mosque, The Darussalam Grand Mosque, and The Islamic Center Samarinda Mosque

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Abstract

This research aims to conduct a comparative study of mosque architecture in Kalimantan using Paul Oliver's vernacular theory approach. The research focus includes the Sabilal Muhtadin Grand Mosque, the Darussalam Palangka Raya Grand Mosque, and the Samarinda Islamic Center Mosque. These mosques were chosen because each represents unique characteristics of vernacular architecture that adapts to local environmental and cultural conditions. This research method is a combination of literature study and field observation. Data was collected through literature analysis on vernacular theory, mosque documentation studies, and direct observation of architectural characteristics, construction materials, and the integration of cultural elements in the design of these mosques. The research results show that the three mosques display various aspects of vernacular architecture, ranging from the use of local materials such as wood and stone, to the integration of cultural elements such as traditional carvings and decorations. The Banjarmasin Jami Mosque highlights the rich cultural heritage of Banjar with a design that combines local wisdom with Islamic elements. Meanwhile, the Darussalam Grand Mosque in Palangka Raya shows a harmonious integration between vernacular architectural elements and Dayak culture. The Samarinda Islamic Center Mosque adapts a modern design while maintaining the use of local materials, showing a creative response to the natural environment and local culture.

Keywords: Architecture, Mosque, Kalimantan, Vernacular.

Abstrak

Penelitian ini bertujuan untuk melakukan studi komparatif terhadap arsitektur masjid di Kalimantan dengan menggunakan pendekatan teori vernakular Paul Oliver. Fokus penelitian meliputi Masjid Raya Sabilal Muhtadin, Masjid Raya Darussalam Palangka Raya, dan Masjid Islamic Center Samarinda. Masjid-masjid ini dipilih karena masing-masing mewakili karakteristik unik dari arsitektur vernakular yang beradaptasi dengan kondisi lingkungan dan budaya lokal.



Metode penelitian ini merupakan gabungan antara studi pustaka dan observasi lapangan. Data dikumpulkan melalui analisis literatur tentang teori vernakular, studi dokumentasi masjid, dan observasi langsung terhadap karakteristik arsitektur, bahan konstruksi, dan integrasi elemenelemen budaya dalam desain masjid-masjid tersebut. Hasil penelitian menunjukkan bahwa ketiga masjid tersebut menampilkan berbagai aspek arsitektur vernakular, mulai dari penggunaan bahan lokal seperti kayu dan batu, hingga integrasi elemen budaya seperti seni ukir dan dekorasi tradisional. Masjid Jami Banjarmasin menonjolkan kekayaan warisan budaya Banjar dengan desain yang menggabungkan kearifan lokal dengan elemen Islam. Sementara itu, Masiid Raya Darussalam Palangka Raya memperlihatkan integrasi yang harmonis antara elemen arsitektur vernakular dan budaya Dayak. Masjid Islamic Center Samarinda mengadaptasi desain modern dengan mempertahankan penggunaan bahan lokal, menunjukkan respons yang kreatif terhadap lingkungan alam dan budaya lokal.

Kata Kunci: Arsitektur, Masjid, Kalimantan, Vernakular.

INTRODUCTION

Mosque architecture in Indonesia not only reflects Islamic influences, but also the richness of diverse local cultures. Kalimantan, as one of the largest islands in Indonesia, offers various examples of mosque architecture that combines vernacular elements with traditional and modern Islamic designs. This study reveals the vernacular architecture of three iconic mosques in Kalimantan, namely the Sabilal Muhtadin Grand Mosque in South Kalimantan, the Darussalam Grand Mosque in Palangka Raya, and the Islamic Center Mosque in Samarinda. These three mosques were chosen because they represent different periods of construction and show variations in the use of local architectural elements.

The Sabilal Muhtadin Grand Mosque, founded in the 18th century, is one of the oldest mosques in Kalimantan and has rich architecture with local Banjarmasin influences.² This mosque shows the use of local materials such as ironwood as well as unique traditional construction techniques. Meanwhile, the Darussalam Grand Mosque in Palangka Raya, which was built in the mid-20th century, shows the integration of modern design with traditional Dayak elements. On the other hand, the Samarinda Islamic Center Mosque, which is one of the largest and most modern mosques in Indonesia,³ reflects a contemporary architectural style that still maintains the vernacular touch of East Kalimantan.

https://heritage.uinkhas.ac.id/index.php/hrtg/article/view/58.

(2021): no.

² Daniel Alison, Rony Gunawan Sunaryo, and Rully Damayanti, "Permanensi Kawasan Masjid Raya Sabilal Muhtadin Banjarmasin," ATRIUM: Jurnal Arsitektur 9, no. 2 (August 31, 2023): 89–104, https://doi.org/10.21460/atrium.v9i2.215.

¹ Ahmad Zainuri, "Integrasi Islam Dan Budaya Lokal Dalam Seni Arsitektur Masjid Kuno Di Jawa: Sebuah Umum," Heritage Tinjauan

³ Yuda Ega Pratama, "Pengembangan Daya Tarik Wisata Masjid Islamic Center Sebagai Objek Wisata Unggulan Kota Samarinda, Kalimantan Timur" (bachelor, Sekolah Tinggi Pariwisata Ambarrukmo (STIPRAM) Yogyakarta, 2018), https://stipram.ac.id/.

This comparative study will analyze how these three mosques integrate vernacular elements in their architecture and how this reflects local cultural identity. Through a vernacular approach, this research will highlight the importance of local context in mosque architectural design and how each mosque functions as a representation of the society and culture in which they exist. Thus, this research not only contributes to the understanding of Islamic architecture in Kalimantan, but also enriches discussions about the sustainability and preservation of cultural heritage through vernacular architecture.

Researchers found four previous studies that had significance that was relevant to this research. The first is an article written by Ega Putri Febriani, I Wayan Srijaya and Zuraidah, with the title "Pola Keletakan Masjid di Kalimantan Bagian Selatan". This research concludes that there are similar layout patterns in mosques in southern Kalimantan, namely the Sultan Suriansyah Mosque, the Kyai Gede Mosque, and the Banua Lawas Heritage Mosque. The similarity is that it is built with a river. The role of rivers is very important not only in religious worship, but also in economic activities, government and the daily lives of the people.⁴ Second, is an article written by Fairuz Satwiko, Maria Immaculata Ririk Winandari and Julindiani Iskandar, with the title "Mosque Typology in Indonesia Based on Vernacular Architecture". This research draws conclusions from the four mosques studied, namely the Grand Mosque of West Sumatra, the Sunan Ampel Mosque, the Grand Mosque of Central Java, and the K.H. Hasyim Asyari Grand Mosque. The four of them applied vernacular architecture on the roof and walls. The Grand Mosque of West Sumatra was built following the local architecture, namely Rumah Gadang. The Sunan Ampel Mosque uses the roof of the Joglo House as its roof. The Central Java Grand Mosque applies a Tajug roof and Middle Eastern architecture on one part of its roof. While the Grand Mosque of K.H. Hasyim Asy'ari applied Betawi traditional concepts originating from the Bapang House on his roof.⁵

The third previous research, written by Indri Astrina Fitria Indrarani Wirakusumah, with the title "The Dynamics of Meaning in Mosque Architecture: A Case Study of Old and Modern Mosques in West Jawa Indonesia". This research concludes that the Islamic religion does not clearly state any specific requirements for building a mosque, but there is a religious dogmatic dialectic in the construction process. Even though it is bound by religious dogma, it produces various forms of mosque architecture in Central Java. So it still pivots on three relationships,

⁴ Ega Putri Febriani, I Wayan Srijaya, and Zuraidah Zuraidah, "Pola Keletakkan Masjid di Kalimantan Bagian Selatan," *Humanis* 27, no. 2 (May 29, 2023): 207, https://doi.org/10.24843/JH.2023.v27.i02.p09.

⁵ Fairuz Satwiko, Maria Immaculata Ririk Winandari, and Julindiani Iskandar, "Mosque Typology in Indonesia Based on Vernacular Architecture," *Sinektika: Jurnal Arsitektur* 20, no. 1 (January 28, 2023): 48–55, https://doi.org/10.23917/sinektika.v20i1.19540.

namely function-form-meaning.⁶ The fourth research is entitled "Examining the History and Cultural Values of Exixtence Angke Mosque Jakarta" written by Melina Supriyanti, Nurul Haniifah, and Jumardi. This research concludes that the Angke Jakarta Mosque combines elements of various ethnicities, making it a symbol of unity. Each ornament has characteristics from Java, Bali, Arabia, China and the Netherlands. Because of its uniqueness, the Special Capital Region Government of Jakarta designated it as a Cultural Heritage in 2017.⁷

The novelty of this research compared to the previous research that the author conveyed above lies in three things, namely different locations and contexts, specific vernacular approaches, and comparative studies. This research focuses on three mosques in Kalimantan, thus complementing studies of mosque architecture outside Sumatra, Java and Jakarta. This research uses vernacular theory to analyze local adaptations in mosque architecture. Then, this research is a comparative study, comparing the Sabilal Muhtadin Grand Mosque, the Darussalam Grand Mosque, and the Samarinda Islamic Center Mosque. This research seeks to reveal variations in the application of vernacular architecture in three different provinces, each of which has a unique cultural and historical context.

METHOD

This research uses a mixed method approach that combines library research and field research to obtain a comprehensive understanding of vernacular architecture in three mosques in Kalimantan. This approach was chosen to allow in-depth analysis through secondary data and field confirmation to validate and contextualize the findings. This method provides a comprehensive framework for understanding and comparing architectural elements and local cultural adaptations in the Sabilal Muhtadin Grand Mosque, Darussalam Grand Mosque, and Samarinda Islamic Center Mosque.

Literature research involves collecting and analyzing literature relevant to mosque architecture, vernacular theory, and Kalimantan history and culture. These sources include books, journal articles, conference papers, and architectural documents. Literature research aims to build a strong theoretical framework and provide the historical and cultural context underlying mosque design. In addition, literature analysis helps identify vernacular architectural

⁶ Indri Astrina Fitria Indrarani Wirakusumah, "The Dynamics of Meaning in Mosque Architecture: A Case Study of Old and Modern Mosques in West Java Indonesia," *ARTEKS: Jurnal Teknik Arsitektur* 7, no. 1 (April 1, 2022): 143–54, https://doi.org/10.30822/arteks.v7i1.1457.

⁷ Melina Supriyanti and Nurul Haniifah, "Examining the History and Cultural Values of Existence Angke Mosque Jakarta" 6 (2022), https://ejournal.unibabwi.ac.id/index.php/santhet/article/download/1353/1107/.

elements that are commonly applied in the local context and how these elements have been adapted in the design of the mosques studied.

Field research involved direct observation and documentation of the architecture of the three selected mosques. Field observations were carried out by visiting each mosque to observe and document architectural elements such as building materials, construction techniques, ornaments and spatial layout. In addition, interviews with mosque administrators were conducted to gain insight into the cultural and historical context of mosque construction. This field research is important to verify the findings from literature research and understand how vernacular elements are applied in practice.

After data from library and field research was collected, analysis was carried out using a qualitative and comparative approach. Qualitative data from field observations and interviews were analyzed to identify main themes and emerging patterns related to the application of vernacular architecture. Data interpretation focuses on how vernacular elements reflect local cultural identity and contribute to the function and meaning of mosques in the context of Kalimantan society.

RESULTS AND DISCUSSION

Grand Mosque

Mosques are places of worship for Muslims, which are used to carry out the five daily prayers, Friday prayers, and various other religious activities such as recitations, lectures, and religious education.⁸ Etymologically, the word "mosque" comes from Arabic "sajada) which means prostration, reflects its main function as a place where Muslims prostrate themselves to Allah⁹. Mosques also function as community centers where Muslims gather to strengthen social relations¹⁰, organizing religious events¹¹, as well as carrying out charity¹² and

⁸ Muhammad Triadi Triadi et al., "Pengelolaan Masjid Dalam Meningkatkan Aktivitas Keagamaan Di Masjid Nurul Iman Desa Sei Sentosa Labuhanbatu," *Tadbir: Jurnal Manajemen Dakwah* 9, no. 1 (March 31, 2024): 95–108, https://doi.org/10.15575/tadbir.v9i1.33955.

⁹ Miftahul Ulum, "Pendekatan Studi Islam: Sejarah Awal Perkenalan Islam Dengan Tasawuf," *Al-Mada: Jurnal Agama, Sosial, Dan Budaya* 3, no. 2 (July 2, 2020): 203–17, https://doi.org/10.31538/almada.v3i2.632.

¹⁰ Umi Rizki Badrul Mubin et al., "Memulihkan Fungsi Masjid Sebagai Sumber Perekonomian," *Jurnal Review Pendidikan Dan Pengajaran (JRPP)* 6, no. 3 (September 28, 2023): 1166–74, https://doi.org/10.31004/jrpp.v6i3.24835.

¹¹ Endang Sri Maruti, Muhammad Hanif, and Muhammad Rifai, "Implementasi Literasi Agama Untuk Meningkatkan Keterampilan Sosial Pada Siswa Sekolah Dasar," *Al-Mada: Jurnal Agama, Sosial, Dan Budaya* 6, no. 1 (January 4, 2023): 125–33, https://doi.org/10.31538/almada.v6i1.2833.

¹² Afif Syaiful Mahmudin, "Membangun Inklusivitas Keberagamaan Antara Masyarakat Dengan Penyandang Tuna Daksa Melalui Bimbingan Fikih Ibadah Di 'Rumah Kasih Sayang' Desa Krebet Jambon Ponorogo," *Al-Mada: Jurnal Agama, Sosial, Dan Budaya* 3, no. 1 (February 8, 2020): 14–38, https://doi.org/10.31538/almada.v3i1.359.

social activities ¹³. Mosque architectural designs typically include elements such as the *mihrab* (the niche leading to the Kaaba in Mecca), the *manarah* (the minaret for the call to prayer), and the dome, which have their own spiritual and aesthetic symbolism.

In Indonesia, mosques have various classifications based on their size, function and status in the community. The Grand Mosque is usually the largest and main mosque in a province, often used for large provincial events and accommodating thousands of worshipers. ¹⁴ A *Jami* Mosque is a mosque used for Friday prayers and generally serves a larger community in a city or district area, often being the center of daily and weekly religious activities. ¹⁵ Meanwhile, ordinary mosques or local mosques are mosques that serve local communities for the five daily prayers, are usually smaller in size and do not have a large status or role on a provincial or district scale. ¹⁶

The Sabilal Muhtadin Grand Mosque

The Sabilal Muhtadin Grand Mosque, taken from the name of the book by Shaykh Muhammad Arsyad Al-Banjari, Sabilal Muhtadin, was founded in the 18th century, precisely in 1777-1778 by Sultan Tahmidullah II, sultan of the Banjar Sultanate. This mosque was built on the banks of the Martapura River, which at that time was the main transportation and trade route in South Kalimantan. This strategic location not only facilitates access for the community but also strengthens the role of the mosque as a center for religious and social activities.¹⁷

As one of the oldest mosques in South Kalimantan, the Sabilal Muhtadin Grand Mosque has a very important role in the lives of the surrounding community. Its main function is as a place of worship for Muslims, with routine activities such as the five daily prayers, Friday prayers, and Eid al-Fitr and Eid al-Adha prayers. Apart from that, this mosque is also a center for religious education, where teaching of the Koran and other Islamic sciences is carried out

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¹³ Zulmaron Zulmaron, Muhammad Noupal, and Sri Aliyah, "Peran Sosial Keagamaan Remaja Masjid Di Kelurahan Pipa Reja Kecamatan Kemuning Palembang," *Jurnal Studi Agama* 1, no. 1 (October 19, 2017): 41–54, https://doi.org/10.19109/jsa.v1i1.1546.

¹⁴ Galang Rahmadhani, "Redesain Masjid Raya Darussalam Di Palangka Raya" (s1, UAJY, 2012), http://e-journal.uajy.ac.id/736/.

¹⁵ Muhammad Azifatul Anwar, Muhammad Faisal, and Muhammad Zaim, "Efektivitas Kegiatan Keagamaan Dalam Perilaku Siswa," *Al-Mada: Jurnal Agama, Sosial, Dan Budaya* 6, no. 1 (January 21, 2023): 170–82, https://doi.org/10.31538/almada.v6i1.3131.

¹⁶ Ismail Suardi Wekke, "Masjid di Papua Barat: Tinjauan Ekspresi Keberagamaan Minoritas Muslim dalam Arsitektur," *el Harakah: Jurnal Budaya Islam* 15, no. 2 (December 30, 2013): 124–49, https://doi.org/10.18860/el.v15i2.2762.

¹⁷ Sri Ulfa Rahayu, "Kitab Sabilal Muhtadin Karya Syaikh Muhammad Arsyad Albanjari," *SHAHIH (Jurnal Kewahyuan Islam)* 5, no. 2 (November 17, 2022): 62–70, https://doi.org/10.51900/shh.v5i2.14685.

for various age groups.¹⁸ The Sabilal Muhtadin Grand Mosque not only functions as a place of worship, but also as a center for social and cultural activities. Various events are often held here such as recitations, religious discussions, celebrations of Islamic holidays, and other social activities involving the wider community. This mosque also plays a role in strengthening social ties and togetherness among the Muslim community in Banjarmasin.¹⁹

The architecture of the Sabilal Muhtadin Grand Mosque reflects a combination of traditional Banjar style and Islamic architectural influences. One of the characteristics that stands out is the use of ironwood, a typical Kalimantan wood which is known to be very strong and durable, as the main construction material. This building has a multi-level roof called an "tumpang roof", which is a characteristic of traditional Banjar architecture. This tumpang roof not only provides a unique aesthetic but also functions to improve air circulation inside the mosque. The Sabilal Muhtadin Grand Mosque is decorated with various ornaments that have aesthetic and symbolic value. One of the main features is the wooden carvings with traditional Banjar motifs that decorate the inside and outside of the mosque. The mihrah and pulpit of this mosque are also decorated with beautiful Arabic calligraphy carvings, depicting verses of the Koran and the names of Allah. These ornaments not only beautify the mosque but also reflect the religious and cultural values of the Banjar people.



Figure 1. Interior of the Sabilal Muhtadin Grand Mosque



Figure 2. The Sabilal Muhtadin Grand Mosque Doors Ornaments

¹⁸ Ainun Cahya, "Masjid Raya Sabilal Muhtadin Sebagai Nilai Religius Yang Dapat Diterapkan Dalam Pendidikan Ips" (OSF, June 11, 2022), https://doi.org/10.31219/osf.io/jbn63.

¹⁹ klikkalsel.com, "Bubur Sabilal Kembali jadi Menu Buka Puasa di Masjid Raya Sabilal Muhtadin," *Klikkalsel.com* (blog), March 4, 2024, https://klikkalsel.com/bubur-sabilal-kembali-jadi-menu-buka-puasa-di-masjid-raya-sabilal-muhtadin/.

Over time, the Sabilal Muhtadin Grand Mosque has undergone several renovations and maintenance to ensure the preservation of this historic building. Conservation efforts are carried out while maintaining the authenticity of the architecture and traditional materials. This maintenance is important not only to maintain the function of the mosque as a place of worship but also as a cultural heritage that has high historical value for the people of Banjarmasin and South Kalimantan in general.²⁰ With a long and rich history, diverse functions, and unique architecture, the Sabilal Muhtadin Grand Mosque is not only a religious symbol but also a cultural pride for the Banjar people. Through its distinctive architecture and central role in social life, this mosque continues to be a silent witness to the development and dynamics of society in South Kalimantan.

The Darussalam Grand Mosque

The Darussalam Grand Mosque is located in the center of Palangka Raya, Central Kalimantan. This mosque was built in 1984 and inaugurated in 1986, with the aim of becoming a center of religious and social activities for the Muslim community in the city. This mosque is one of the important landmarks in Palangka Raya and has become a symbol of the development of Islam in Central Kalimantan.²¹ Over time, this mosque underwent several renovations to expand and improve its facilities, so that it could accommodate more worshipers and accommodate various activities.

The Darussalam Grand Mosque not only functions as a place of worship, but also as an educational and social center. This mosque often holds educational activities such as Al-Qur'an reading courses, Arabic language classes, and religious training. Apart from that, this mosque is also a place to carry out various social activities such as distribution of zakat, compensation to the poor and other humanitarian assistance.²²

The architecture of the Darussalam Grand Mosque is a combination of modern design and traditional elements. This mosque building has a majestic appearance with a large dome in the center which is the characteristic of the mosque. The dome is covered in a striking green color, symbolizing fertility and prosperity. At the front, there is a tall tower which is also equipped with a small dome, which is used to make the call to prayer, a viewing tower for all

²⁰ Alison, Sunaryo, and Damayanti, "Permanensi Kawasan Masjid Raya Sabilal Muhtadin Banjarmasin."

²¹ Budianor Budianor, "Masjid Sebagai Pusat Dakwah Islam (Studi Tentang Aktivitas Dakwah Islam Di Masjid Raya Darussalam Palangka Raya)" (Disertasi, Palangka Raya, IAIN Palangka Raya, 2016), http://digilib.iain-palangkaraya.ac.id/id/eprint/503.

Beni Prakoso and Harles Anwar, "Merespon Covid-19: Manajemen Dakwah Masjid Raya Darussalam Palangkaraya Masa Pandemi," 2021.

parts of the city of Palangka Raya, and star observation and activities to determine the beginning of the Hijri month.



Figure 3. Exterior view of the Darussalam Grand Mosque



Figure 4. Inside view of the Darussalam Grand Mosque Tower

The interior of the mosque is decorated with various beautiful ornaments and reflects Islamic values. The mihrab and pulpit in this mosque are designed with Arabic calligraphy carvings displaying verses from the holy Koran. The mosque's ceiling is decorated with intricate geometric patterns and Islamic motifs, creating a solemn atmosphere and conducive to worship activities. The mosque floor is covered with thick carpet which provides comfort for the congregation when performing prayers. The Darussalam Grand Mosque is also equipped with various supporting facilities for the comfort of the congregation. In the mosque area there is a spacious and clean ablution area, a multi-purpose room for educational and social activities, as well as a library which provides various Islamic literature. Apart from that, there is also a large parking area to accommodate the vehicles of worshipers who come to the mosque.



Figure 5. Inside view of the Darussalam Grand Mosque

To ensure the preservation and continuity of the function of the Darussalam Grand Mosque, conservation and development efforts continue to be carried out. Regular renovation and maintenance is carried out to maintain the beauty and cleanliness of the building. In addition, various community development programs and religious activities continue to be held to strengthen the role of mosques as centers of spiritual and social activities. With a rich history, diverse functions, and beautiful architecture, the Darussalam Grand Mosque in Palangka Raya

has become a symbol of religion and pride for the people of Central Kalimantan. Through various religious, educational and social activities, this mosque continues to play an important role in fostering and strengthening Muslim community ties in the region.

The Samarinda Islamic Center Mosque

The Samarinda Islamic Center Mosque, or often called the Baitul Muttaqien Mosque, is one of the largest and most magnificent mosques in East Kalimantan and even in Indonesia. Construction of this mosque began in 2001 and was completed in 2008, at the initiative of the East Kalimantan Provincial Government. This mosque was built on approximately 10 hectares of land on the banks of the Mahakam River, providing beautiful views and a calm atmosphere for worshipers. The inauguration of this mosque was carried out in 2008, making it the center of religious and social activities in Samarinda.²³

As one of the largest mosques in Indonesia, the Samarinda Islamic Center Mosque has the main function as a place of worship for Muslims. This mosque can accommodate up to 40,000 worshipers, making it the main place for Friday prayers, five daily prayers, as well as Eid al-Fitr and Eid al-Adha prayers. Apart from that, this mosque is also a place where various religious activities take place, such as recitation of the Koran, and religious lectures which are attended by thousands of worshipers from various regions. The Samarinda Islamic Center Mosque not only functions as a place of worship, but also as an educational and social center. In this mosque complex there are various educational facilities such as Islamic schools, madrasas, and Al-Qur'an study centers. Apart from that, this mosque also holds various social activities such as distribution of zakat, assistance to the poor, and free health programs.

The architecture of the Samarinda Islamic Center Mosque is a combination of Middle Eastern style and local Indonesian architecture. This mosque has seven towers, with the main tower being 99 meters high which symbolizes Asmaul Husna (99 names of Allah). The main dome of this mosque is very large and is surrounded by several smaller domes, which gives it a majestic and iconic appearance. The exterior design of the mosque is dominated by white and gold, reflecting the purity and splendor of Islam. The interior of the Samarinda Islamic Center Mosque is decorated with various beautiful ornaments and reflects Islamic values. The mihrab and pulpit in this mosque are designed with Arabic calligraphy carvings displaying verses from

²³ Diajeng Laily Hidayati and Ida Suryani Wijaya, "Islamic Expressions On The Culprits Of Islamic Centers In East Kalimantan," *KOMUNIKA: Jurnal Dakwah Dan Komunikasi* 13, no. 1 (2019): 1–13.

²⁴ Rasmilawanti Rustam, "Megahnya Masjid Islamic Center Samarinda, Terbesar Kedua di Asia Tenggara," detiksulsel, accessed July 2, 2024, https://www.detik.com/sulsel/wisata/d-6439439/megahnya-masjid-islamic-center-samarinda-terbesar-kedua-di-asia-tenggara.

the holy Koran. The mosque's ceiling is decorated with intricate geometric patterns and Islamic motifs, creating a solemn atmosphere and conducive to worship activities. The mosque floor is covered with thick carpet which provides comfort for the congregation when performing prayers.



Figure 6. Exterior view of the Samarinda Islamic Center Mosque



Figure 7. Main Hall of the Samarinda Islamic Center Mosque

The Samarinda Islamic Center Mosque is also equipped with various supporting facilities for the comfort of the congregation. In the mosque complex there is a spacious and clean ablution area, a multi-purpose room for educational and social activities, as well as a library which provides various Islamic literature. Apart from that, there is also a large parking area to accommodate the vehicles of worshipers who come to the mosque. These facilities ensure that the mosque can serve the various needs of the congregation well.



Figure 8. The author is in the Samarinda Islamic Center Mosque Yard

To ensure the preservation and sustainability of the function of the Samarinda Islamic Center Mosque, conservation and development efforts continue to be carried out. Regular renovation and maintenance is carried out to maintain the beauty and cleanliness of the building. In addition, various community development programs and religious activities continue to be held to strengthen the role of mosques as centers of spiritual and social activities. In this way,

the Samarinda Islamic Center Mosque is not only a comfortable place of worship, but also an active and dynamic community center for the people of Samarinda. Through its rich history, diverse functions and magnificent architecture, the Samarinda Islamic Center Mosque has become a symbol of religion and pride for the people of East Kalimantan. Through various religious, educational and social activities, this mosque continues to play an important role in fostering and strengthening Muslim community ties in the region.

Vernacular Theory

The term "vernacular" refers to everything that originates from and is developed by local communities, reflecting local culture, traditions and environmental conditions.²⁵ In an architectural context, vernacular architecture is a building style that uses traditional construction materials and techniques available in the area, and reflects local cultural values and identity. This style develops organically from generation to generation and often does not involve formal planning or significant external influence, thus reflecting local wisdom in dealing with local climate, geography and society.²⁶

Vernacular theory in architecture first emerged as a response to modernism which ignored local context and cultural traditions in building design. In the mid-20th century, architects and researchers began to highlight the importance of considering local wisdom, traditional building materials, and construction techniques that have developed naturally in an area. They argue that architecture rooted in local traditions is not only more suited to local environmental and climatic conditions, but is also able to create a strong and sustainable cultural identity.²⁷ One of the pioneers in this thinking was the architect and theorist Bernard Rudofsky, who in his book "Architecture Without Architects", published in 1964, explained the beauty and efficiency of traditional architecture that developed without the professional intervention of architects.²⁸

Since then, vernacular theory has continued to develop and be integrated into contemporary architectural practice as part of a broader movement for sustainability and cultural preservation. Architects and urban planners are beginning to explore ways to combine

²⁵ Zubair Butudoka, "Aspek Kebudayaan Dan Kontinuitas Dalam Arsitektur Vernakular," RUANG: JURNAL ARSITEKTUR 17, no. 1 Maret (March 1, 2023): 46–53, https://jurnalruang.arsitektur.fatek.untad.ac.id/index.php/JURNALRUANG/article/view/19/15.

²⁶ Chaesar Widi and Luthfi Prayogi, "Penerapan Arsitektur Neo-Vernakular pada Bangunan Buday dan Hiburan," *Jurnal Arsitektur ZONASI* 3, no. 3 (October 20, 2020): 282–90, https://doi.org/10.17509/jaz.v3i3.23761.

²⁷ Ikhwanuddin, Menggali Pemikiran Posmodernisme dalam Arsitektur (Yogyakarta: UGM PRESS, 2018).

²⁸ Bernard Rudofsky, Architecture Without Architects: A Short Introduction to Non-Pedigreed Architecture (Albuquerque: University of New Mexico Press, 1987), 30.

traditional techniques and styles with modern technology, producing designs that respect cultural heritage while meeting the needs of the times.²⁹ In many countries, conservation and revitalization efforts of vernacular buildings have also increased, where old structures are preserved or restored to retain their original character.

Vernacular theory in architecture observes and assesses several important aspects of buildings and environments built by local communities. This theory emphasizes the use of local ingredients that are naturally available around the area. This includes materials such as wood, stone, clay, and other organic materials often used in traditional construction. The use of local materials not only reduces costs and environmental impacts, but also reflects local wisdom in utilizing natural resources sustainably. Apart from materials, vernacular theory also focuses on construction and design techniques that have developed organically in local communities. These techniques are often influenced by local climatic, geographic and social factors. For example, the roof shape, building orientation, and natural ventilation system are designed to optimize thermal comfort and air circulation within the building. Vernacular theory also looks at cultural and symbolic aspects that are reflected in architectural design, such as ornaments, spatial layout, and building functions that are in accordance with local traditions and customs.³⁰

According to Paul Oliver, a leading expert in the study of vernacular architecture, vernacular theory emphasizes the importance of understanding and appreciating architecture that developed from local needs, materials, and traditions without formal intervention from professional architects. Oliver highlights that vernacular architecture is a direct reflection of people's daily lives, combining ecological, economic and social aspects unique to each community. He argues that vernacular buildings demonstrate a sustainable and adaptive way of life, with designs that naturally respond to local environmental and cultural conditions. Oliver also emphasized that the study of vernacular architecture is not only important for cultural heritage conservation, but also as a source of inspiration for sustainable contemporary architectural solutions.³¹

For this comparative study, the vernacular theory proposed by Paul Oliver seems to be the most suitable. Paul Oliver is known for his emphasis on understanding and respecting

²⁹ Sekar Dyah Kunasti, "Landasan Konseptual Perencanaan Dan Perancangan Museum Khazanah Musik Nasional Di Yogyakarta Dengan Pendekatan Arsitektur Metafora" (s1, UAJY, 2016), http://e-journal.uajy.ac.id/11000/.

³⁰ Ira Mentayani and Putri Rahima Muthia, "Menggali Makna Arsitektur Vernakular: Ranah, Unsur, dan Aspek-Aspek Vernakularitas," in *Temu Ilmiah Ikatan Peneliti Lingkungan Binaan Indonesia 6* (Temu Ilmiah Ikatan Peneliti Lingkungan Binaan Indonesia, 2017), I109–16, https://doi.org/10.32315/ti.6.i109.

³¹ Paul Oliver, "Ethics and Vernacular Architecture," in Ethics and the Built Environment (London: Routledge, 2000).

architecture as it developed from local needs, materials and traditions, without formal intervention from professional architects. Paul Oliver emphasizes the importance of understanding the cultural context and local traditions in vernacular architecture. This is relevant to research on mosques in Kalimantan which have their own unique culture and traditions, as seen in the Sabilal Muhtadin Grand Mosque, the Darussalam Grand Mosque, and the Samarinda Islamic Center Mosque. Oliver's theory encourages the use of locally available materials, which are often used in traditional mosque construction in Indonesia. This research can explore how each mosque uses local materials that are unique to their area, reflecting local wisdom in utilizing natural resources. Oliver emphasized that vernacular architecture is a natural response to local environmental and climatic conditions. This comparative study can explore how the designs of these mosques adapt to the different environmental conditions of Kalimantan. Oliver's theory also recognizes that vernacular buildings reflect the way of life of local people. This research can dig deeper into how these mosques are not only places of worship, but also important social and cultural centers for their local communities. More clearly, it can be seen in the chart below.

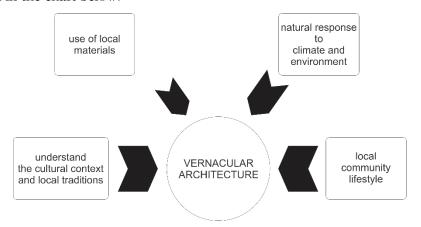


Figure 9. Paul Oliver's Vernacular Theory

Analysis

The Sabilal Muhtadin Grand Mosque can be analyzed through Paul Oliver's vernacular theory by emphasizing aspects of the use of local materials, response to the environment, and integration of cultural traditions in architectural design. This mosque was built taking into account local wisdom, using materials available in the South Kalimantan area. The mosque's majestic dome and towering minaret, for example, reflect the adaptation of classical Islamic architectural design to suit the materials and construction techniques available in the area. This is in line with Oliver's view that vernacular architecture develops from local materials and

traditions without formal intervention from professional architects, creating adaptive and sustainable solutions.

The Sabilal Muhtadin Grand Mosque reflects local wisdom in its architecture by integrating traditional Banjar elements and local materials typical of South Kalimantan. One characteristic that stands out is the use of ironwood in several parts of the mosque structure such as the pillars and roof. Ironwood is famous for its strength and resistance to tropical weather. This mosque also has a terraced overlapping roof, adopting the layered roof style of a traditional Banjar house to reduce the tropical heat from above. This roof style also allows for good air circulation and optimal but not dazzling natural lighting. The interior and exterior decoration of the mosque also depicts local flora and fauna in an intricate but beautiful manner, paired with identical and attractive Islamic motifs.

Apart from that, the Sabilal Muhtadin Grand Mosque also shows how vernacular architecture responds to local environmental conditions. Its location close to the Martapura river reflects the importance of the river in the lives of the people of Banjarmasin, both from an economic and cultural perspective. The mosque's design allows good air circulation and natural lighting to reflect its adaptation to the tropical climate of South Kalimantan. In addition, this mosque functions as a center for social and cultural activities, in accordance with Oliver's view that vernacular buildings reflect the way of life of local people.

The Darussalam Grand Mosque can be analyzed through Paul Oliver's vernacular theory by highlighting the adaptation of architectural design to suit the local environment, as well as the use of materials and construction techniques that reflect local wisdom. This mosque uses materials that are easily accessible in the Central Kalimantan region, such as local wood and stone, which shows the use of local natural resources. The mosque's architectural design reflects harmony with the tropical environment of Palangka Raya, with features such as natural ventilation and optimal lighting, which is in line with Oliver's view that vernacular architecture must respond effectively to local environmental conditions. Apart from that, if you look at the exterior of the mosque, in both back corner outside the Darussalam Grand Mosque there is a large shield-shaped ornament carved with Dayak motifs in bright yellow. This is a very visible characteristic of the Darussalam Grand Mosque in the city of Palangka Raya. Also in several small corners you can see Dayak motif ornaments that decorate each corner.

In addition, the Darussalam Grand Mosque reflects local traditions and culture in its design and function. This mosque not only functions as a place of worship, but also as a center for social and cultural activities, reflecting the way of life of the people of Palangka Raya. The

ornaments and decorations in the mosque, which may incorporate elements of Dayak art and culture, demonstrate the integration of local culture in the architecture of the mosque. This is in accordance with Oliver's view that vernacular architecture reflects the cultural identity and traditions of local communities.



Figure 10. Figure of The Large Shield-shaped ornament sarved with Dayak motifs in bright yellow

Although the Samarinda Islamic Center mosque adopts a majestic Middle Eastern architectural style with large domes and tall minarets, its design also reflects the use of local materials available in the East Kalimantan region. For example, the use of local stone and wood for decorative and structural elements shows the integration of local wisdom in building construction. This is in line with Oliver's view that vernacular architecture must use materials and techniques that develop naturally in the local area.

Apart from that, the Samarinda Islamic Center Mosque also reflects a response to local environmental and cultural conditions, which is the main principle in Paul Oliver's vernacular theory. Its strategic location on the banks of the Mahakam River takes advantage of beautiful natural views and provides good natural ventilation. The interior design of the mosque, with its rich ornamentation and calligraphy, reflects the strong influence of Islamic culture while respecting local aesthetics. This mosque also functions as a center for social and educational activities, strengthening the community's role in society. This reflects Oliver's view that vernacular buildings function not only as places of residence or worship, but also as centers of social and cultural life for local communities.



Figure 11. The Outside View of The Samarinda Islamic Center Mosque

If the analysis above is contained in the form of a table, it can be seen in the table below.

Table 1. Analysis of Paul Oliver's Vernacular Theory for Three Mosques

No.	Mosque	Location	Analysis Point
1.	The Sabilal Muhtadin	South	Made from local materials, responsive to the
	Grand Mosque	Kalimantan	environment, and integration of Islamic
			traditions with culture in the architecture, seen in the door ornaments, ironwood material, and
			the roof structure of the mosque.
2.	The Darussalam	Center	Made from local materials, construction
	Grand Mosque	Kalimantan	techniques reflect local wisdom, environmental response, integration of Islamic traditions with
			local culture, seen in the shape of the building, the large Dayak shield ornaments on the
			exterior, and the ornaments in the corners of
			the rooms.
3.	The Samarinda	East	Made from local materials, response to local
	Islamic Center	Kalimantan	environment and culture, integration of Islamic
	Mosque		traditions with local culture, seen in building
	_		materials and the position of the mosque
			building

CONCLUSION

This research has investigated the architecture of mosques in Kalimantan, especially the Sabilal Muhtadin Grand Mosque, the Darussalam Grand Mosque in Palangka Raya, and the Islamic Center Mosque in Samarinda, with a comparative study approach that utilizes Paul Oliver's vernacular theory. Through this analysis, it can be concluded that these three mosques show the characteristics of vernacular architecture in different ways, but still reflect local wisdom and a response to the environment and local culture. The Sabilal Muhtadin Grand Mosque with architecture that includes the use of wood and traditional construction techniques, shows how local materials and designs are integrated with distinctive Islamic elements. This mosque not only functions as a place of worship, but also as a center for social activities that strengthen Banjar's cultural identity. In Palangka Raya, the Darussalam Grand Mosque combines vernacular architectural elements with Dayak cultural influences, such as the use of wood and decorations that reflect the richness of local traditions. This shows an effort to maintain local cultural identity while creating a functional and sustainable prayer space. Meanwhile, the Samarinda Islamic Center Mosque displays a more modern adaptation of vernacular architecture with the use of local materials such as stone and wood, as well as a design that accommodates aesthetic demands and complex religious functions. Its strategic location on the banks of the Mahakam River reflects harmonious integration with the surrounding natural environment.

Overall, this research not only provides in-depth insight into the uniqueness of vernacular architecture in the context of mosques in Kalimantan, but also shows how important it is to maintain local cultural heritage while adapting it to the modern era. This study provides a basis for understanding how architecture can become a forum for people's cultural identity and spirituality, as well as their contribution to environmental sustainability and social life.

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