



Transformation of Gothic to Neo-Gothic Architecture in St. Joseph Gedangan Church Building, Semarang

Aisyah Nuraini ^a *, Fitri Dwi Indarti ^a

^a Department of Architecture, Universitas Muhammadiyah Semarang, Indonesia

* aisyahnuraini363@gmail.com

Abstract. One of the architectural styles that underwent significant evolution was the Gothic style, which later developed into Neo-Gothic or Gothic Revival. These changes are influenced not only by aesthetic factors but also by social, technological, and political advances in various periods. The Neo-Gothic architectural style emerged in the late 18th to early 20th centuries as a revival of Gothic architecture from the medieval era. St. Joseph Gedangan Catholic Church in Semarang is one of the historical buildings registered as a cultural heritage, which carries a Neo-Gothic architectural style with a little Gothic touch. This study uses a qualitative method based on case studies to examine the transformation of architectural styles in St. Joseph Church Gedangan Semarang. This church adopts the Neo-Gothic style, which results from a transformation of the Gothic style that developed in Indonesia. This process of change illustrates how European architectural styles can be adapted to local conditions in Indonesia. St. Joseph Gedangan Church retains the typical elements of Gothic architecture but is adapted to the climate of Semarang City. The materials are available, and the size of the building is more proportional compared to traditional Gothic buildings. This change reflects the advancement of technology as well as the functional needs of church buildings in Indonesia that combine the beauty of classical architecture with modern efficiency.

Keywords: transformation; building style; gothic; neo-gothic; Semarang

I. Introduction

Architecture is a form of cultural expression that develops over time. Architecture in various parts of the world has been influenced by two important factors, namely colonialism and modernization. Colonialism, particularly by European countries in the Asian, African, and American regions, left a deep imprint on local architecture. This colonial period not only introduced new architectural styles but also influenced the transformation of traditional architecture in the colonized regions [1]. Indonesia, as the largest archipelagic country in the world, has long been a crossroads of various cultures and religions [2]. Colonial architecture in Indonesia reflects a blend of Western influences and local contexts, creating a unique architectural identity. Colonial buildings in Indonesia often combine European design elements with local cultural and natural elements, such as the use of local materials and adaptation to the tropical climate, which shows creative adaptation and integration [3].

The influence of colonialism is also evident in religious architecture in various regions that have been colonized. Churches with European architectural styles, for example, often

reflect the dominance of European culture in the regions of Indonesia [1]. One of the architectural styles that underwent great development was the Gothic style, which later developed into the Neo-Gothic style or Gothic Revival. This transformation is influenced not only by aesthetic factors, but also by social, technological, and political developments in various eras. Neo-Gothic architectural style is an architectural style that developed in the late 18th to early 20th centuries as a revival of Gothic architecture that dates back to the Middle Ages. This architecture is often used to describe the beauty and majesty of religious buildings in its way [4].

St. Joseph Gedangan Catholic Church is one of the historical buildings in Semarang that is included in the list of cultural heritage buildings that have a Neo-Gothic architectural style with a slight Gothic influence [5]. The preservation of cultural heritage through architecture is an important aspect of maintaining regional identity [6]. In the Semarang area, there are not many buildings that have Neo-Gothic architectural styles, so the preservation of historical buildings in this style is important. This research aims to find out the transformation of the architectural style in the building of St. Joseph Church Gedangan Semarang.

2. Methods

This study uses a qualitative descriptive approach. Qualitative research is a research method based on the philosophy of positivism, used to research the natural condition of objects where the researcher is the key instrument, sampling of data sources is carried out by selecting research samples, collection techniques by triangulation, data analysis is inductive, and qualitative research results emphasize meaning rather than generalization [7].

The approach used in this study is a case study approach. This type of approach is the type used to investigate and be able to understand an event or problem that occurs by collecting information which is then processed to get solutions so that the problems and topics being researched can be solved [8].

In this study, data collection was carried out by taking literature data and case study objects. The data obtained will be analyzed to obtain the results of the transformation of the building style from the object of the case study.

3. Results and Discussion




3.1. Gothic Architecture







Gothic or Gothic architecture is an architectural style that developed from Roman and Romantic architecture, in the 12th and 15th centuries in Western Europe. The main characteristics of Gothic architecture are the use of high, slender Gothic arches, pointed pillared structures, beautifully colored visuals, and towering building characteristics [9]. This architectural style emerged because the community wanted a change in the shape of the building which was not only concerned with the sturdiness of the building but also paid attention to aesthetic elements. Gothic architecture itself is an evolution of Roman architecture, and there is an emphasis on elements of art and beauty [10].

The origin of the word "Gothic architecture" does not mean the architectural part of the history of the Goths in France and Germany. The term comes from a derogatory term used in the early 1530s by Giorgio Vasari to describe a culture that was considered rude and barbaric. At the time Vasari writes, Italy had experienced a century of buildings in the vocabulary of classical architecture revived in the Renaissance and seen as new limited evidence of the Golden Age as a learning and improvement of an era. The Renaissance era had come to replace the Gothic era in Europe, overturning the cultural system that, before the advent of printing, focused almost entirely on the Church and considered in retrospect as a period of ignorance and superstition. In 17th-century English usage, "Goth" is equivalent to "destroyer", a savage nation of German descent. Gothic architecture is usually used in buildings such as churches, cathedrals, and monasteries and also in secular buildings such as castles, palaces, city halls, parliaments, universities, museums, and so on [11].

Gothic architecture emerged as church architecture because of its highly developed and important response to religion. The strong concept of divinity in Gothic Architecture makes this architectural style have distinctive elements, such as stained glass and sculptures that depict stories in the Bible [12].

Table I. Characteristics of Gothic Architecture Buildings

Aspects	Characteristics	Visualization
Structure	<p><i>a. Pointed Arch</i></p> <p>The meeting of two pillars that form a pointed-tipped arch.</p>	
	<p><i>b. Clustered Columns</i></p> <p>Pillars (or columns) that look like small pillars are grouped.</p>	
	<p><i>c. Rib Vaults (Kubah Berusuk)</i></p> <p>The ceiling part of the interior looked like it was supported by several curved ribs that met at a single point in the middle.</p>	

Aspects	Characteristics	Visualization
	<p>d. <i>Buttress</i> A supporting wall (or pillar) that appears to protrude outward.</p>	
	<p>e. <i>Flying Buttresses</i> The buttress is separated from the outside of the building and is connected to the main building by an arch.</p>	
Door	The shape of the Gothic door is very distinctive, that is, it is layered and from front to back it is getting smaller, this is intended to protect from rain or a kind of protection from the weather.	
Window	<p>Stained glass windows are a mandatory part and are a characteristic of Gothic buildings.</p> <p>The Rose Window is a round-shaped window that is always on the front façade of a Gothic church.</p>	 
Building Shape	Gothic buildings have a vertical dominance with high and slender proportions. Gothic architecture has its own characteristics where the shape of the building looks magnificent with a pointed roof, the scale used in gothic architecture is a magnificent scale so that the size of the doors and windows will be much larger than the size of humans.	

3.2. Neo-Gothic Architecture

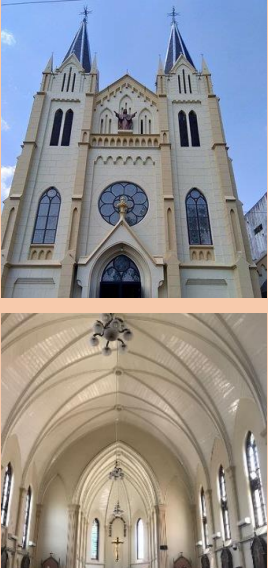
Neo-Gothic architecture, also known as Gothic Revival or Victorian Gothic, is an architectural style that developed in the 19th century. Neo-Gothic architecture is a development of Gothic architecture that developed in Europe in the Middle Ages, namely





around the 12th century. Neo-Gothic architecture was brought by the Dutch government during the colonial era to Indonesia. Dutch colonialism which lasted for a long time certainly made the Dutch government have the desire to carry out worship activities, so the Dutch government built churches as facilities to carry out worship. Most churches in Indonesia that have a neo-Gothic architectural style or Gothic architecture are Catholic churches, such as the Jakarta Cathedral Church, the Sacred Heart Church of Malang, and the Ijen Cathedral Church which was built by the Dutch government at that time [12].

Neo-Gothic architecture itself is an architectural style that depicts religious buildings with their majesty and beauty. This architectural style is commonly used for types of worship buildings in urban-communal areas in the Romanesque era which can present a shady worship atmosphere even though the sound of community activities outside the church is quite noisy [13].

Neo-Gothic architecture has distinctive Gothic elements with some changes. These distinctive elements include stained glass, rose windows, sculptures, carvings on columns, and other elements. The difference is that in neo-Gothic architecture there is no flying buttress like in Gothic architecture because of the different heights of the buildings. In Gothic Architecture, flying buttress is needed as a support for the high wall structure of the building, while in neo-Gothic Architecture flying buttress is not needed because of the lower walls when compared to Gothic architecture [12].

Table 2. Characteristics of Neo-Gothic Architecture Buildings

Aspects	Characteristics	Visualization
Structure	<p>a. Roof The roof of neo-Gothic buildings uses a roof that appears to be triangular with pointed triangular gables, in addition to that the roof of neo-Gothic architecture buildings can also use gables that cross at the ends</p> <p>b. Ribbed Vault Like Gothic buildings, neo-Gothic also uses ribbed vaults, which are curved shapes and made of stone or brick which can also be used as ceilings.</p>	

Aspects	Characteristics	Visualization
Door	Doors in neo-Gothic architecture are usually in the form of pointed arches with molding or carving on the door.	
Window	<p>a. The windows in neo-Gothic architecture and Gothic architecture are generally the same, namely using double-hung windows, bays (oriel windows), stained glass, or diamond-shaped panels.</p> <p>b. A rose window is a circular window with stained glass decorations.</p>	 
Building Shape	Like Gothic architecture, neo-Gothic buildings still retain the impression of verticality, but are more proportional and not as tall as classical Gothic buildings.	

Meanwhile, in terms of ornaments or ornaments, neo-gothic buildings have installed a large number of statues of saints. In addition, decorative ornaments in the Gothic style that have very intricate details were replaced by simpler molding games [14].

Meanwhile, in terms of ornaments or ornaments, neo-gothic buildings have installed a large number of statues of saints. In addition, decorative ornaments in the Gothic style that have very intricate details were replaced by simpler molding games [12].

3.3. Transformation of St. Joseph Church Building Style Gedangan Semarang

St. Joseph's Church often referred to as St. Joseph's Church is a Catholic church located on Jalan Ronggowarsito No. 20, Central Semarang, Semarang City. In addition to being a place of worship for Catholics, this church is also one of the religious and historical tourist


destinations. St. Joseph Gedangan Catholic Church is also one of the historical buildings in Semarang City and is included in the list of cultural heritage buildings [15].



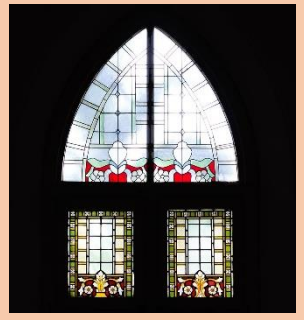

The church was designed by Dutch architect, W.I. van Bakel and built from 1870 to 1875 for 110,000 guilders to meet the needs of the growing Catholic population of Semarang. The church grew extensively over fifty years and was initially dominated by ethnic Europeans and mixed peoples. However, since independence, this church has had a majority of indigenous congregations. The construction of this church only began on October 1, 1870, on land provided by the government, but encountered obstacles when the building collapsed in 1873. Despite this, the Catholic community remained committed to completing the construction and on December 12, 1875, the new church was blessed by Father J. Lijnen. The shape of this building is still original and there has been no change from the beginning of construction until now. The existing renovation is only limited to painting, so this building has its uniqueness in terms of architecture and interior that is thick with Dutch Colonial heritage [15].

Some churches have their architectural styles according to the era in which the building was built, including Romanesque, Romani, Gothic, and neo-Gothic to modern. St. Joseph Gedangan Catholic Church uses a neo-Gothic style with a slight Gothic influence. St. Joseph Catholic Church Gedangan has a church interior decorated with many stained windows and other ornaments [15]. Administratively, this church is part of St. Joseph Parish in the Archdiocese of Semarang. The church faces west and has windows on all sides, as well as five entrances (two on the north side, two on the south side, and one on the west side).

The wall in the parish home underwent a transformation where the side aisle separating the nave was smaller than the Gothic church in general where there was a triforium painting on the upper wall called a semicircular vault and in the form of a pointed arch. This wall is white and made of bricks and undergoes dimensional transformation where the walls are simpler than the Gothic style in general [15]. The ceiling or ceiling of this church building has the shape of a cross-ribbed vault or so-called ribbed dome which shows its skeleton in white. The height is also lower when compared to the Gothic style which is generally high with a dimensional ratio of 1:3 [15]. This church window uses a lined window or clerestory window with a pointed arch window. The use of stained glass or stained glass with various colors that depict religious symbols of Gothic churches, in general, is also applied to the windows of this church.

Table 3. Transformasi Laggam Bangunan Gereja St. Joseph Gedangan Semarang

Aspects	Characteristics	Visualization
Structure	<p>a. Roof</p> <p>The roof of St. Joseph Gedangan Church retains Gothic characteristics in its towering form but has adapted to</p>	

Aspects	Characteristics	Visualization
	<p>materials and functions suitable for Semarang's tropical environment.</p> <p>b. <i>Ribbed Vault</i></p> <p>The ceiling or ceiling of this church building has the shape of a cross-ribbed vault or so-called ribbed dome which shows its skeleton in white.</p>	
Door	<p>The door of the main entrance of this church uses wood with beige paint and there is a ribbed vault arch style on the outer door. The ornaments used on the doors lead to the neo-Gothic style, namely flower ornaments, and this ornamental formation is adopted from Gothic-style windows in general.</p>	
Window	<p>This church window uses a lined window or clerestory window with a pointed arch window. In addition, this window also utilizes stained glass or stained glass with various colors. This form applies the Gothic style to the building.</p>	
Building Shape	<p>St. Joseph Gedangan Church has a structure with a pointed roof and a towering tower, reinforcing the vertical impression and directing the view upwards as a symbol of spirituality. There is a development of the façade shape of neo-Gothic architecture in church buildings by applying the shape of a tower on the façade of the building.</p>	

3.4. Transformation of Gothic to Neo-Gothic Architecture at St. Joseph's Church, Gedangan, Semarang

St. Joseph Gedangan Church in Semarang is an example of the adaptation of Gothic architecture into neo-Gothic. The transformation of the Gothic to neo-Gothic style in this church building can be seen visually from the exterior and interior. This transformation occurred due to the development of technology, building materials, and the need for more functional buildings in the context of Indonesia's tropical climate. Although it has changed, some typical elements of European Gothic architecture in the 12th to 16th centuries are still maintained in St. Joseph Gedangan Church, such as the pointed arch on the windows and

doors of the church, the use of stained glass on the windows, the ribbed vault on the ceiling of the church, and the existence of a towering tower with a pointed end. In addition, there are several changes and simplifications of the building seen in St. Joseph Gedangan church, such as the use of bricks as the building material of the church because European Gothic churches usually use natural stone as the main material. The simplification of the building can also be seen in the exterior. In the building of St. Joseph's church, there are no buttresses or flying buttresses like in Gothic architectural buildings in general. The height of this church undergoes a dimensional transformation where the size is lower than the Gothic style in general. Thus, the building influences the neo-Gothic style.

4. Conclusions

The building of St. Joseph Gedangan Semarang church has a neo-Gothic style. The style owned is a transformation of the Gothic building style that developed in Indonesia. This transformation shows how European architectural styles can adapt to local conditions in Indonesia. St. Joseph Gedangan Church maintains the characteristics of Gothic architecture by adjusting the climate in the Semarang City area, available materials, and a more proportional building scale compared to Gothic buildings in general. The change reflects the development of technology and the functional needs of church buildings in Indonesia that combine the beauty of classical architecture with modern efficiency.

This church still retains some typical Gothic elements, such as windows and doors with pointed arches and the use of stained glass, a tower with pointed ends, and the use of a ceiling with ribbed vaults. By maintaining Gothic characteristics but adapting elements that are more suitable for the tropical environment and the availability of local materials. St. Joseph Gedangan Church is an example of how European architectural heritage can evolve and adapt without losing its historical and artistic identity. This transformation also shows how colonialism not only brought architectural styles but also encouraged design adjustments to be more relevant to local culture and conditions.

References

- [1] A. L. Hilmy and Y. A. Respati, "Evolusi Arsitektur Keagamaan di Indonesia : Integrasi Tradisi Lokal , Pengaruh Kolonial, dan Modernisasi," *Integritas Terbuka*, vol. 3, no. 1, pp. 75–86, 2024.
- [2] P. Bellwod, *Prehistory of the Indo-Malaysian Archipelago*, 3rd ed. Canberra: ANU Press, 2007. [Online]. Available: http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEMBETUNGAN_TERPUSAT_STRATEGI_MELESTARI
- [3] D. Wihardianto and S. Sudaryono, "Arsitektur Kolonial Belanda Di Indonesia Dalam Konteks Sejarah Filsafat Dan Filsafat Ilmu," *Langkau Betang J. Arsit.*, vol. 7, no. 1, pp. 42–56, 2020, doi: 10.26418/lantang.v7i1.35500.

- [4] P. J. Jewa and S. P. Martana, "BENTUK, FUNGSI DAN MAKNA PADA ARSITEKTUR NEO GOTHIC Studi Kasus: Gereja Katedral Santo Petrus di Bandung," *J. Arsit. Arch.*, pp. 79–85, 2021, [Online]. Available: <https://journal.inten.ac.id/index.php/archicentre/article/view/98>
- [5] F. Soelistyo and H. Sutanto, "The Impact of Neo-Gothic Interior Style Towards the Acoustic Quality At St. Joseph'S Catholic Church Gedangan Semarang," *J. RISA*, vol. 07, no. 01, pp. 100–116, 2023, [Online]. Available: www.journal.unpar.ac.id
- [6] H. D. Ardian, A. Dafrina, D. Andriani, and Y. Novianti, "Identifikasi Karakteristik Arsitektur Regionalisme pada Fasad Gedung Kantor DPRK Lhokseumawe," *Teras J. J. Tek. Sipil*, vol. 14, no. 1, p. 237, 2024, doi: 10.29103/tj.v14i1.1066.
- [7] D. Adityaningrum, T. S. Pitana, and W. Setyaningsih, "Arsitektur Jawa pada Wujud Bentuk dan Ruang Masjid Agung Surakarta," *Sinektika J. Arsit.*, vol. 17, no. 1, pp. 54–60, 2020, doi: 10.23917/sinektika.v17i1.10864.
- [8] J. W. Creswell, *Qualitative Inquiry & Research Design*. New Delhi: Sage Publications, Inc, 2007. doi: 10.1111/1467-9299.00177.
- [9] J. R. Norman, "Penerapan Konsep Arsitektur Gotik Pada Novigrad, the Witcher Inspired Theme Park Di Situ Cileunca," *e-Proceeding Inst. Teknol. Nas. Bandung*, vol. 3, no. 2, pp. 265–276, 2023.
- [10] B. Richard and J. Roosandriantini, "the Application of Gothic Architecture in the Catholic Church of the Birth of the Virgin Mary in Surabaya," *Arsit. Univ. Pandanaran J.*, vol. 2, no. 1, pp. 62–71, 2022, doi: 10.54325/arsip.v2i1.17.
- [11] A. Stanislaus Lumunon and L. Betteng, "Implementasi Arsitektur Gothik Pada Bangunan Di Daerah Tropis lembab," *Media Matrasain*, vol. 10, no. 2, pp. 38–51, 2013.
- [12] S. Milleni and C. Sudianto Aly, "Neo-Gotik Architectural Elements on Pouk Lahai Roi Chruch Jakarta," *Ris. Arsit.*, vol. 7, no. 03, pp. 299–316, 2023, doi: 10.26593/risa.v7i03.7001.299-316.
- [13] D. Monica, E. Basri, and M. M. Faza, "Analisa Elemen Arsitektur Gereja Katedral Study Kasus : Gereja Katedral di Daerah Jawa Bagian Barat," *Archimane*, vol. 3, no. 1, pp. 51–60, 2025, doi: 10.59810/archimane/v3i1.108.
- [14] D. A. W. Laksana and B. A. P. Adiwibawa, "Identifikasi Dan Kategori Ragam Hias Bangunan Cagar Budaya Gaya Neo-Gotik," *Gestalt*, vol. 1, no. 1, pp. 25–38, 2019, doi: 10.33005/gestalt.v1i1.18.
- [15] A. A. Dewanti, "Studi Gaya Interior pada Bangunan Gereja Kolonial di Semarang (Gereja SPM Ratu Rosario Suci Katedral Semarang Sejak)," Universitas Katolik Soegijapranata, 2020.