

‘academic’ and ‘kampungan’ Jengki Architectural Typologies in the Cities of Surabaya and Malang

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Abstract

Jengki architecture is an architectural style in Indonesia that emerged as a form of rebellion against colonial architectural styles. Jengki is the name for an architectural design style that developed in Indonesia which has a unique name. In his time, Jengki became a shaper of post-independence design aesthetic values. This research will be carried out with residential houses that have the Jengki style, in the cities of Surabaya and Malang. This is because the cities of Surabaya and Malang cannot be separated from the spread of Jengki architecture, which can be said to have the potential to be preserved. The research method used is a qualitative descriptive method. The results of this research can be seen in the Jengki typology categories of "kampungan" and "academic", and the arrangement of Jengki architectural characteristics in objects.

Keywords: Qualitative descriptive, Jengki Typology, Post-independence

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INTRODUCTION

Architecture is a cultural product, as it is the result of human thought that reflects the relationship between users, the social context, and the existing environmental setting (Tamimi, Fatimah, & Hadi, 2021). Jengki architecture is an original architectural creation by Indonesian architects. One of its dominant characteristics is the use of gable roofs and the application of concrete in various structural elements. Architectural components such as overhangs and columns often display dynamic form variations. The building façades typically feature rough and varied textures with asymmetrical compositions. Another common characteristic found in Jengki architecture is the use of karawang or ventilation blocks (rooster). However, in Jengki architecture, this element evolves beyond its functional role and becomes a medium for creative expression. The use of karawang is no longer perceived solely as a functional element, but also as a means to introduce a new architectural aesthetic (Wibowo, 2011). The declining existence of Jengki-style houses and the threat of their disappearance from our visual landscape is concerning. It is hoped that Jengki-style houses can be restored to their once-prominent position in Indonesian architecture, and more than that, serve as a catalyst for reviving a uniquely Indonesian residential architectural style (Widayat, 2006).

In certain areas of Malang and Surabaya, rows of houses featuring the Jengki architectural style create a strong image of “old” neighborhoods, deeply associated with a Dutch colonial atmosphere. For each individual, a physical environment contributes to the formation of a mental image through the relationship between one environment and another. This image serves as a representation or “gambaran” of a place—even though the assessment of an area’s image, particularly its architectural character, often tends to be more subjective than objective (Darmawan, 2019).

An architectural style (*langgam*) functions as a reference or guideline in architectural design, and such styles continue to evolve over time. In Indonesia, architectural development began during the colonial period, largely shaped by Dutch architects, resulting in a strong influence of European architectural styles. European influence became evident with the introduction of modern architecture in Indonesia, which was then flourishing globally (Malang, n.d.).

The transitional period between modern and postmodern architecture (Garthva & Wijaya, 2006), coinciding with the end of Dutch colonial rule, became the catalyst for the emergence of a distinctly Indonesian architectural identity: Jengki architecture. This transitional phase took place between the 1950s and 1960s. The term Jengki was popularized in the 1900s by Josef Prijotomo, who stated that Jengki referred to individuals from New England (Andriani & Roosandriantini, 2023). Jengki became a distinctive design style in Indonesia that defined the post-independence aesthetic. However, today, Jengki-style homes are no longer popular among the general public, in contrast to the modern, minimalist, and colonial-style homes which remain in high demand (Susilo, 2009). The presence of Jengki architecture has nearly vanished, despite not yet being fully recognized as an evolving architectural movement (Hapsari, Rakhmawati, & Yusriant, 2021).

The Jengki architectural style introduced forms never seen in traditional Indonesian architecture. One of its key driving forces was a strong sense of nationalism, which inspired the desire

to liberate architecture from colonial influences. This led to an anti-neocolonial attitude during President Soekarno's era, which rejected all forms of Western cultural influence (Mutaqin, Junaidy, & Wibisono, 2022). Jengki architecture stands in contrast to Indische architecture, as Jengki emerged as a post-colonial expression, whereas Indische architecture was a product of colonial influence. Jengki architecture typically features asymmetrical forms, playful planes, and curved lines, while Indische architecture emphasizes geometric shapes dominated by horizontal and vertical elements (Putra, 2015).

This study focuses on residential houses in Surabaya and Malang that exhibit the Jengki architectural style. These two cities are closely tied to the spread of Jengki architecture and are considered to have potential for architectural preservation. Based on preliminary surveys conducted in Surabaya and Malang, several buildings were identified with strong Jengki characteristics. The aim of this research is to explore whether the physical manifestations of Jengki architecture in Surabaya and Malang share similarities or exhibit differences. While numerous studies have been conducted on Jengki architecture, research that investigates its development through the lens of “academic” versus “kampungan” categories remains unexplored. These categories may be observed in the facade elements—distinguished by either orderly composition or chaotic, unrefined execution.

State of the Art in this study is based on several previous research works related to Jengki architecture as follows:

Tabel 1. Previous Studies Related to Jengki Architecture

No	Research Title	Research Focus	Main Findings
1	Analysis of the Influence of Architectural Construction and Structural Forms on the Interior of Jengki Houses (Pamungkas & Priyanto, 2021)	The relationship between architectural construction and structure with interior spatial quality in Jengki-style houses	The unique structural and construction forms of Jengki architecture significantly affect the interior layout and spatial character, contributing to a distinctive post-colonial architectural identity.
2	Typology and Morphology of Jengki House Architecture in Malang and Lawang (Setyabudi, Antariksa, & Nugroho, 2012)	Analysis of architectural typologies and morphological characteristics of Jengki houses in Malang and Lawang.	Identified consistent physical characteristics in Jengki-style houses, including asymmetrical forms, sharp angles, and dynamic rooflines. The study categorizes architectural variations while emphasizing the regional adaptation of the Jengki style in East Java.
3	A Geometric Study on the Facades of Jengki Houses in Malang (Susilo, Pramono, & Suharjanto, 2012)	Examination of geometric patterns and principles applied to the façades of Jengki-style houses.	The study reveals that the facades of Jengki houses often apply non-orthogonal geometry, with inclined angles, irregular shapes, and dynamic visual compositions, reflecting a break from colonial symmetry and a move toward modern, expressive forms.
4	Elements of Jengki Architecture in the Exterior of the Indis Building: Wisma Kilang Balikpapan (Putra, 2015)	Identification and analysis of Jengki architectural elements applied to the exterior of a colonial (Indis) building.	The study shows that certain Jengki elements—such as tilted roofs, sharp angles, and non-symmetrical façades—were adapted into the exterior of the Indis-style Wisma Kilang building. This indicates a transitional style blending colonial and post-independence Indonesian architectural identities.

Source: Author, 2024

Based on the previous studies on Jengki architecture mentioned above, the novelty of this research lies in the typological categorization of Jengki architecture into "academic" and "kampungan" types in the cities of Surabaya and Malang. The focus of this research is on the exterior aspects,

specifically on the use of architectural elements found in Jengki-style houses, which allows for the identification and comparison of Jengki house typologies in Surabaya and Malang.

RESEARCH METHOD

The method used in this study is qualitative descriptive, with data collection employing random sampling based on the characteristic features of Jengki architecture found in Surabaya and Malang. This research will examine the typology of Jengki architectural forms in several selected objects in Surabaya and Malang, aiming to categorize the Jengki typology into either “academic” or “kampungan.” The typological classification is formulated by analyzing architectural elements such as the roof, walls, terrace, rooster (gable ornament), material combinations, basic form, window frame shapes, and window placement. This typology serves as an approach to identify and analyze the architectural elements present in the selected objects related to the Jengki architectural style.

Data Collection Method

The data collection method in this study involves systematically searching for and organizing observation notes and interviews to enhance the researcher’s understanding of the case and to present findings to others (Muhadjir, 2000) . Data collection techniques include gathering both secondary and primary data. Secondary data consist of historical literature such as narratives, archives, journals, and books, as well as architectural forms from the same period, enriched by information from key informants. Additionally, documentation of Jengki architectural objects in Surabaya and Malang, specifically related to their exterior features, was conducted.

Data Analysis Method

The data analysis technique involves examining and comparing data from Jengki houses in Surabaya and Malang based on seven characteristic architectural elements of Jengki style. This comparison reveals two categories of Jengki architecture: “kampungan” and “academic.” Objects are identified according to their architectural elements to illustrate the physical manifestations of Jengki architecture.

RESULTS AND DISCUSSION

Several research objects consist of residential houses in Surabaya and Malang that feature the Jengki architectural style. From a typological perspective, their roofs are predominantly gable roofs with additional projecting planes. The building facades have relatively thick fascia boards (lisplank), and the overhangs are supported by triangular wooden brackets. The front walls are vertical rather than slanted, with decorative stone cladding applied to portions of the wall surfaces. The porch canopies either fully or partially cover the terrace area. The combination of colors, materials, and textures is playfully used as ornamentation in several study objects in Surabaya and Malang. Openings, including doors and windows, are generally rectangular, with some trapezoidal shapes featuring window frames. The observations of a residential house located in the Pucang area of Surabaya are as follows:





Figure 1. Jengki Architecture House in the Pucang Area
Source: Author, 2024

Gable roofs are a common feature in residential buildings designed in the *Jengki* architectural style. These houses typically exhibit relatively wide wall surfaces on their facades, which create a strong visual presence. One of the unique characteristics of *Jengki* architecture is the inclination of the front walls, which often form pentagonal shapes rather than traditional rectangular planes. This geometric innovation breaks away from the conventional use of strictly perpendicular and symmetrical lines prevalent in earlier architectural styles. The intentional use of slanted walls and unconventional shapes reflects the *Jengki* style's rejection of rigid orthogonality and classic geometric rules. This design approach represents a shift towards more expressive and dynamic forms, emphasizing creativity and national identity in the post-colonial era. Such anti-orthogonal and anti-geometric tendencies make *Jengki* architecture stand out as an experimental and distinctive architectural movement in Indonesia during the mid-20th century.



Figure 2 The front wall appears slanted (in Malang)
Source: Author, 2024

During the 1950s and 1960s, Indonesian architecture saw the rise of *Jengki* style, which introduced several distinctive and innovative features. One of the most prominent characteristics is the asymmetrical gable roof. Unlike traditional symmetrical roofs, *Jengki* roofs are deliberately designed with one side shifted or extended to create an unbalanced, dynamic form. This intentional asymmetry breaks away from conventional roof designs and reflects a new architectural expression that symbolizes freedom and creativity in the post-independence era.

Another important feature of *Jengki* architecture is the decorative treatment of the fascia boards, known locally as *lisplank*, particularly at the peak of the triangular gable. In many cases, the fascia boards are extended upward beyond the structural limits of the roof, forming a unique ornamental element. This design choice does not serve any functional or structural purpose; rather, it is purely aesthetic. It adds visual interest and character to the building façade, emphasizing the style's playful and expressive nature.

Together, these features highlight *Jengki* architecture's departure from rigid, traditional forms toward a more experimental and nationally inspired architectural language that emerged in Indonesia during the mid-20th century.



Figure 3 Petemon street in Surabaya
Source: Author, 2024



Figure 4 Tawangmangu street in Malang
Source: Author, 2024

The doors and windows in *Jengki* style houses maintain their fundamental functional roles, primarily allowing access and ventilation. A distinctive feature of these openings is the extensive use of glass, which dominates their design and allows ample natural light to enter the interior spaces. The aesthetic appeal of the doors and windows is further enhanced through the creative incorporation of free-form shapes and geometric patterns. These design choices do not only fulfill practical needs but also serve as key visual focal points that contribute to the overall character and identity of the building's façade.

In many *Jengki* residential buildings, windows often exhibit a unique architectural detail: a projecting lintel or an overhanging element above the window frame, sometimes referred to as a “sosoran” or “lebihan.” This feature adds depth and dimension to the façade while reinforcing the playful and dynamic qualities characteristic of the *Jengki* style.

Moreover, windows frequently combine glass panes with metal grilles (*tralis*) for security and decorative purposes. However, there are also instances where windows lack grilles but include operable upper sections designed to improve ventilation. These upper openings allow air circulation without compromising security or privacy, reflecting a thoughtful balance between functional and aesthetic considerations in *Jengki* architecture.

Overall, the treatment of doors and windows in *Jengki* houses exemplifies how architectural elements are employed not only for their utilitarian purpose but also as expressive components that define the unique style and cultural context of post-independence Indonesian architecture.



Figure 5. Window Forms in Jengki Architecture in Surabaya
Source: Author, 2024

In the case study located on Langsep Street, Malang, which features the *Jengki* architectural style, the window elements remain functionally consistent with conventional residential architecture. The windows primarily serve their purpose for light and ventilation, with glass used as the dominant material, reflecting the modernist influence that characterizes *Jengki* design.

To enhance the aesthetic quality of the façade, the windows are often fitted with metal grilles (tralis) in combination with glass panes. These elements not only serve a decorative purpose but also provide added security. A distinctive architectural detail observed in these windows is the projecting upper frame, or *sosoran*, which extends outward above the window. This overhang functions as a practical weather protection feature, preventing rainwater from splashing or seeping into the interior spaces. This combination of functionality and ornamental detailing illustrates how *Jengki* architecture integrates modern materials and expressive forms while maintaining sensitivity to local climate conditions. The window design in this context reflects both the stylistic identity and the adaptive strategies typical of post-independence Indonesian architecture.



Figure 6. Window Forms in Jengki Architecture in Malang
Source: Author, 2024

In many residential houses observed in Surabaya, a recurring architectural element is the presence of triangular shapes applied to one of the front windows. To prevent this shape from appearing overly dominant, it is balanced with the use of similar triangular forms in the ventilation openings, as well as the incorporation of slanted forms on the garage door, thereby achieving a sense of visual harmony through repetition and variation of the triangular motif.

Additionally, curved and circular forms are introduced at the rear entrance, strategically designed to draw attention and serve as a visual focal point that contrasts with the angular elements of the front façade. One of the most striking compositional gestures is the deliberate use of an inverted triangle, positioned in contrast to the upright triangular roof form. This inversion creates a sense of instability or tension in the visual language of the building; however, it is precisely this tension that becomes a unique strength of the design. It demonstrates the *Jengki* style's boldness in rejecting strict symmetry and embracing expressive, non-conventional geometry as part of its post-colonial architectural identity.



Figure 7. Triangular Elements on the Roof in Jengki Architecture
Source: Author, 2024

The presence of doors and windows still functions as intended, utilizing glass as the dominant material for both elements. To enhance the aesthetic value, freeform shapes are introduced by incorporating geometric elements, which also serve as focal points of the building. The triangular shape featured on the building's gable is particularly dominant on the façade. In Figure 9, triangular or circular elements are presented on one of the front windows or in the ventilation section (clerestory) on the front façade or gable of the house.



Figure 8. Geometric forms serve as the focal point of the building
Source: Author, 2024

The overhang is supported by triangular wooden brackets and a relatively thick fascia board (lisplank). The front façade wall of the building is vertical, not slanted, and features decorative stone cladding. This stone cladding introduces texture and highlights the use of natural river stone material. The terrace canopy either fully or partially covers the space, and in the first example, the building façade appears plain, without decorative stone elements. However, in some cases, the wall incorporates linear arrangements of ventilation blocks (*rooster*) as openings.



Figure 9. The use of ventilation blocks (*rooster*) arranged linearly on the building façade
Source: Author, 2024

The emergence of the Jengki architectural style can be likened to a flamboyant girl standing out among modest and graceful ones—its "excessiveness" stemming from a bold and unapologetic use of various "ornaments," often to the point of exaggeration. This character reflects a desire for constant display, though achieved with minimal use of traditional ornamentation. However, one of the main shortcomings of Jengki architecture lies in its poor adaptation to climatic conditions, particularly in managing rainwater. The excessive use of gutters (drainage channels) poses maintenance challenges, which over time has contributed to the deterioration of many Jengki-style buildings.



Figure 10. The expressive nature of Jengki architecture
Source: Author, 2024

The geometric forms found in residential houses in both Malang and Surabaya often display shapes such as triangles, circles, and squares, which are incorporated into elements like windows, doors, and ventilation openings composed of *rooster* blocks. The Jengki architectural style, in its approach to design, should take its limitations into account. Studying two-dimensional geometric composition can enhance an architect's ability to create more thoughtful and refined designs in the future.

When observing the general uniformity of the Jengki architectural style in Malang and Surabaya, the similarities can be outlined as follows:

Tabel 2. Comparison of Jengki-Style Residential Houses in Malang and Surabaya

No	Jengki Architectural Features	Residential Houses in Surabaya	Residential Houses in Malang

1 Gable Roof (Atap Pelana)

Most Jengki-style houses use gable roofs that taper toward the rear. The two roof planes do not meet at a ridge and lack a traditional roof ridge line.



Unconventional gable roofs, characterized by height shifts and breaks in the plane, often incorporate ventilation openings to release trapped heat. The roof slope is quite steep, reflecting climate responsiveness (heavy rainfall).



2 Slanted Front Wall

The front wall often forms a pentagonal plane, created by tilting two vertical sides of a conventional flat façade.



The gable roof structure results in a wide front elevation. The slanted wall and pentagon-shaped geometry on the façade emphasize the unique front appearance.





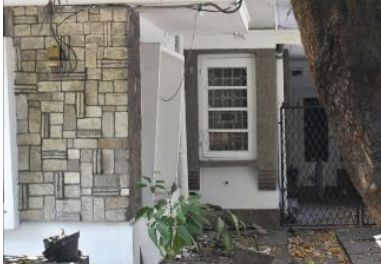
3 Rooster Blocks)

(Ventilation The presence of rooster blocks serves as an adaptation for openings suited to the tropical climate, and also as a new medium of architectural expression. Shapes vary from pentagons, triangles, to irregular forms.

As a tropical climate adaptation, rooster blocks function as natural ventilation openings. They come in various shapes including pentagons, triangles, circles, and trapeziums, contributing to the aesthetic expression of Jengki architecture.



4 Terrace / Veranda	The large roof angle impacts the separation of the terrace. The main building with a gable roof creates a distinct emphasis.	A vital element in tropical architecture, the terrace serves as a reception area, shelter, and accentuates the entrance. Terrace roofs vary in shape for accentuation. Terrace and yard sizes are spacious and harmonious. Concrete terrace roofs are sometimes curved or bent to avoid monotony.
		
5 Basic Form	The basic form of Jengki houses appears slanted from the outside but inside, the spatial layout is cubic, similar to conventional houses.	
		
6 Material Combination	Common materials include natural stone, river stone, and sometimes rough cement finishes applied directly on walls without smoothing.	Natural materials are used to create harmony between architecture and nature, providing texture that appeals to the tactile senses of occupants.

			
7	Window Position	Frame and Window frames are typically placed on the east and west sides of the building, often protruding slightly outward.	The protruding window frames allow sunlight to enter indirectly, preventing direct heat inside rooms and limiting sun exposure mainly to the wall surface.
			

Source: Author, 2024

Based on the analysis and discussion of Jengki-style residential houses in the cities of Malang and Surabaya, there are many similarities related to several defining characteristics of Jengki architecture. These characteristics include the use of gable roofs, slanted front walls, rooster ventilation blocks, terraces/verandas, basic form, material combinations, and window frame shapes and placements. While the houses in Surabaya and Malang share similar forms, there appears to be a distinction within the Jengki architectural category that can be identified as “Kampungan” and “Academic.”

These two categories arise not only from the houses’ locations—whether in suburban or urban areas—but also from the varying architectural elements attached to the residences, which tend to be quite eclectic or “flashy.” The “Kampungan” category leans towards being ostentatious, incorporating many Jengki characteristics that result in a cluttered or irregular façade. On the other hand, the “Academic” Jengki architecture presents a more orderly façade, avoiding the flashy or excessive impression.



Figure 11. “academic type”



Figure 12. “kampungan type”

Source: Author, 2024

CONCLUSION

The analysis and discussion above show that Jengki-style residential houses possess characteristics and forms that are distinctly different from Colonial architecture. Jengki architecture emerged as a critique of Colonialism. While Colonial architecture predominantly employs geometric horizontal and vertical planes, Jengki architecture is characterized by asymmetrical planes, curved lines, and a more flexible, less rigid form. Over time, Jengki architecture has lost popularity among the general public, but the development of this style should not stop in its own era. The evolution of Jengki style in each city, especially in Malang and Surabaya, presents different nuances—either more chaotic and “kampungan” or neat and “academic.”

The study of Jengki architectural typology leads to the following descriptive findings:

- a. The earliest houses, built between 1953 and the late 1960s, gave a distinctive color to architectural development marked by displaced roofs.
- b. The rectangular floor plan, whether oriented with the longer side at the front or the side, shares a common basic form.
- c. Similar spatial arrangements include a living room at the front, with a transitional space between the living room and family room.
- d. The two categories of Jengki architecture, “kampungan” and “academic,” can be distinguished by the characteristics reflected in the houses: “kampungan” appears cluttered or flashy by including nearly all Jengki characteristics in the design, while “academic” tends to be more orderly.

BIBLIOGRAPHY

- Andriani, C., & Roosandriantini, J. (2023). Estetika Arsitektur Jengki pada Bangunan Rumah Tinggal. *Jurnal Linears*, 96-105.
- Darmawan, I. (2019). Model Peningkatan Tata Lingkungan Masjid Cagar Budaya Sebagai Penguat Identitas dan Citra Kawasan. *Jurnal Arsitektur dan Perencanaan (JUARA)*, 44-61.
- Garthva, A., & Wijaya, B. (2006). Postmodern Architecture: Concepts and Interpretations. *Journal of Architectural Studies*, 45-62.
- Hapsari, O., Rakhmawati, N., & Yusriant. (2021). Project Based Learning Sebagai Metode Pembelajaran Arsitektur Pada Mata Kuliah Teori Arsitektur Jengki. *Jurnal Vitruvian*, 163-170.
- Malang, D. K. (n.d.). Studi Geometri Pada Tampang Rumah Jengki. 11-25.
- Muhadjir, N. (2000). Metodologi Penelitian Kualitatif (4th, ed). Rake Sarasin.
- Mutaqin, F., Junaidy, D., & Wibisono, A. (2022). Indeks Visual Furnitur dan Arsitektur Jengki Berbasis Data Preseden Arsitektur. *Tesa Arsitektur*, 1-16.
- Pamungkas, G., & Priyanto, O. C. (2021). Analisa Pengaruh Bentuk Konstruksi dan Struktur Arsitektur Terhadap Interior Rumah Jengki. *Lintas Ruang: Jurnal Pengetahuan dan Perancangan Desain Interior*, 1-12.
- Putra, H. (2015). Elemen-elemen arsitektur Jengki Pada Eksterior Bangunan Indis Wisma Kilang Balikpapan. *Jurnal Kreatif*, 24-31.
- Setyabudi, I., Antariksa, & Nugroho, A. (2012). Tipologi dan Morfologi Arsitektur Rumah Jengki di Kota Malang dan Lawang. *Arsitektur e-journal*, 32-46.
- Susilo, G. (2009). Arsitektur Jengki: Bergeometri yang Kreatif. *Jurnal Spectra*, 15-23.
- Susilo, G., Pramono, Y., & Suharjanto, D. (2012). Studi Geometri pada Tampang Rumah Jengki di Kota Malang. *Jurnal Spectra*, 11-25.
- Tamimi, N., Fatimah, I., & Hadi, A. (2021). Analisis Sebaran Lokasi Bangunan Kolonial di Kota Bandung menggunakan Getis-Ord Gi* Hot Spot Analysis. *Jurnal JUARA (jurnal Arsitektur dan Perencanaan)*, 39-48.
- Wibowo, A. (2011). Tipologi dan Pelestarian Rumah Jengki Pekajangan Pekalongan (Heritage in Architecture Historial Building Conservation). *Jurnal Ilmiah Arsitektur*, 1-8.
- Widayat, R. (2006). Spirit Dari Rumah Gaya Jengki Ulasan Tentang Bentuk Estetika dan Makna. *Dimensi Interior*, 80-89.

