

Facade Ornamentation as Resilience Strategy: Case Study of Regional Architectural Elements Application in Indonesian Government Buildings

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Abstract

This research examines the application of facade ornamentation as a resilience strategy in Indonesian government building architecture. The main focus is on how regional architectural elements are integrated into modern building facade designs to create sustainable cultural identity. Through a case study approach of several government buildings across different regions in Indonesia, this research analyzes the effectiveness of ornamentation in bridging tradition and modernity, as well as its ability to adapt to environmental and social changes. The research methodology employs visual theory and analysis. Results show that facade ornamentation, when designed with consideration of local context and sustainable design principles, can enhance building resilience both culturally and environmentally. This research contributes to understanding the role of ornamentation in contemporary Indonesian architecture and offers practical recommendations for designing government buildings that are responsive to local cultural heritage and modern demands.

Keywords: Facade Ornamentation, Architectural Resilience, Government Buildings, Regional Architecture, Cultural Identity

Introduction

Government building architecture in Indonesia plays a vital role in representing national and regional identity. Ornamentation in Nusantara architecture is not merely decorative but contains symbolic meanings representing cultural values, religion, and community philosophy. Its use in modern buildings can become a strategy in preserving cultural heritage [1].

In the era of globalization, the challenge to maintain cultural identity amid modernization is increasing. Facade ornamentation becomes one strategy that can be implemented to bridge tradition and modernity while enhancing building resilience. Globalization impacts

architectural development in Indonesia. Architects are required to create works responsive to the times while remaining rooted in local identity [2].

Resilience in architecture refers to a building's ability to adapt to changes, both physically and culturally. Resilient government buildings must not only withstand natural disasters or climate change but also maintain cultural values relevant to their community. Local wisdom in traditional architecture contains resilience values relevant for application in modern buildings. The use of local materials, natural ventilation systems, and climate adaptation are examples of local wisdom application that can enhance building resilience [3].

"Building facade is an important element that can represent cultural identity. The use of ornaments on facades can become a medium to convey cultural messages and strengthen building character.

Methodology

This research employs a qualitative approach with a case study strategy. This approach is appropriate as it aims to deeply understand how facade ornamentation is applied as a resilience strategy in Indonesian government buildings. Case studies allow researchers to gather rich and detailed information from specific contexts.

Visual Analysis:

- Documentation: Conduct visual documentation through photography. Documentation covers various viewpoints and facade ornamentation details. Visual documentation in qualitative research plays an important role in recording and analyzing visual phenomena [6].
- Identification: Identify types of ornamentation used, including motifs, forms, and materials. Visual semiotics, namely the study of signs, symbols and architecture [7].
- Interpretation: Interpret meanings and philosophies behind the ornamentation based on local cultural context. Understand ornament meanings and philosophies based on local cultural context, history, and community values. "Hermeneutics, namely interpretation of meaning and symbols in cultural context [8].
- Comparative Analysis: Compare ornamentation application across case study buildings. Identify similarities, differences, and uniqueness of each case. Comparative method in architecture can be used to compare elements including aesthetics, function, symbolic meaning, cultural context, historical value, as well as environmental, technological, economic, and religious factors that can influence architectural forms across cultures [9], [10].

Supporting Data:

- Literature Study: Collect data from various sources such as books, journals, articles, webs and official documents relevant to the research topic.
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Results and Discussion

Case Studies

Selection of cases from several government buildings that can be representative, here we use

3 diverse objects from different provinces that are representative to get a comprehensive picture of the application of facade ornamentation as a resilience strategy.

1. West Kalimantan Governor's Office

Visual Documentation: Gevel roof lisplank section (Betang House Architecture), Main Facade/entrance section, Ornaments on walls and between columns. Ornaments on perforated ACP walls with Dayak motifs.

Ornamentation Identification: Dayak Motifs

Meaning Interpretation: Dayak motifs used are in the gevel lisplank area and front and side facades. Ornaments used include plant motifs symbolizing fertility and life, shield motifs symbolizing protection and strength, fern plant motifs on facade ornaments in the form of lattice and as secondary skin made from modern materials carved by machine with brown color.



Figure 1: West Kalimantan Governor's Office Source: Pontianak.tribunnews.com, <https://biroumum.kalbarprov.go.id/>, accessed on 10 28 2024

Resilience: Application of Dayak ornamentation strengthens regional identity and fosters community sense of belonging towards the DPRD building. This contributes to social and cultural resilience.

2. Badung Regent's Office

Visual Documentation: Main attention is on ornaments in the roof lisplank section, carvings on columns and beams, walls, entrance section, and accents very rich with Balinese architectural ornamentation.

Ornamentation Identification: Balinese Architectural Elements

Meaning Interpretation: Balinese ornaments on building facades are not merely decorative but rich in symbolic meanings reflecting philosophy, religion, and Balinese culture. The symbolic meanings contained in these ornaments create spiritual atmosphere, provide protection, and direct positive energy to the building. Balinese ornaments such as *Patra Punggel* (Spiral Motif, coils meaning Life Cycle), *Patra Sari* (Lotus flower motif meaning sacred, beautiful and spiritual enlightenment), *Patra Sampir* (Hanging leaf motif meaning humility, resilient to change), *Kala* (giant motif with eyes and fangs meaning protector from evil spirits and negative energy), *Swastika* (symbol of luck, prosperity and harmony), *Naga*, *Garuda Bird and Lion*.

Resilience: Use of Balinese ornaments according to traditions and culture containing deep meanings, use of local building materials on modern buildings can be a way to preserve cultural heritage and create unique and resilient architectural identity.



Figure 2: Badung Regent Office Source: (<https://www.google.com/Badung Regent Office>) accessed on 10 28 2024

3. Padang Governor's Office

Visual Documentation: Main focus lies on distinctive architectural elements namely the tiered Gonjong roof with Minangkabau carved ornamentation, walls with geometric and floral carvings, columns adorned with Minang ornamental carvings, and entrance gates applying Rumah Gadang architectural elements. Use of carved lisplank and ventilation with typical Minangkabau motifs also become important accents on building facades.

Ornamentation Identification: Traditional Minangkabau Architectural Elements

Meaning Interpretation: Minangkabau ornamentation on facades has deep philosophical meanings, Gonjong Roof (Bagonjong) pointed shape vertical connection with God, Curved shape of buffalo horns as symbol of people's victory, several carved ornamental varieties (Pucuk Rabuang, Kaluak Paku, Siriah Gadang, etc. with their own meanings), Yellow, black, red colors also have special meanings and become traditional colors.

Resilience: Material adaptation Combination of concrete, steel with wood for decorative elements. Gonjong roof functions optimally for rainwater drainage is resilience to climate. Maintaining Minangkabau architectural identity in modern context and becoming area landmark which is cultural resilience.



Figure 3: Padang Governor Office Source: (<https://www.google.com/west sumatra governor office>), accessed on 10 28 2024

Comparative Analysis

<i>Analysis Aspect</i>	<i>West Kalimantan Governor Office</i>	<i>Badung Regent Office (Bali)</i>	<i>Padang Governor Office (West Sumatra)</i>
<i>Roof</i>	Stacked roof Malay tradition, Carved lisplank with Dayak-Malay motifs, Symbol of cultural unity	Tiered overlapping roof (Meru), Lisplank with Balinese carved ornaments, Symbol of spiritual levels	Tiered Gonjong roof, Lisplank with Minang carvings, Symbol of connection with God

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<i>Main Ornamentation</i>	Hornbill Bird Motif, Dayak Carvings (Fern), Gourd Shoot Motif, Malay Tendrils	Patra Punggel (spiral motif), Patra Sari (lotus motif), Patra Sampir (leaf motif), Kala (giant motif), Swastika	Pucuak Rabuang (bamboo shoot motif), Kaluak Paku (spiral motif), Siriah Gadang (betel motif), Itiak Pulang Patang, Bada Mudiak
<i>Symbolic Meaning</i>	Togetherness, Majesty (Hornbill Bird), Sustainable life, Strength & unity, Cultural harmonization	Life cycle, Sanctity & enlightenment, Humility, Protection, Harmony	Growth & sustainability, Leadership & deliberation, Honor & brotherhood, Order, Resilience
<i>Basic Philosophy</i>	Shared Space, Dayak-Malay Unity, River & Forest Philosophy	Tri Hita Karana, Macrocosm-microcosm balance, Kaja-Kelod Orientation	Adat Basandi Syarak, Syarak Basandi Kitabullah, Matrilineal system
<i>Climate Resilience</i>	High roof adapting to rain, Modern stilts, Cross ventilation	High sloped roof for rain, Wide eaves, Ornamental ventilation	Gonjong roof for rainwater, Wide overhang, Natural ventilation system
<i>Material Resilience</i>	Modern materials, Concrete steel, wood as ornament, Climate-resistant tropical roof structure	Modern materials, Concrete, Exposed brick, Paras stone, Wood	Modern-traditional materials, Concrete and steel, Wood for ornaments, Modern structure adaptation
<i>Entrance Elements</i>	Modern-traditional gateway, Dayak-Malay carvings, Geometric motifs	Candi Bentar, Kori Agung, Kala carvings	Gateway adaptation of Rumah Gadang, Geometric carvings, Flora-fauna motifs
<i>Dominant Colors</i>	White (purity), Yellow (ethnic), Brown (wood/nature)	Brick red, White Paras Stone, Earth/wood brown color	Yellow (greatness), Black (leadership), Red (courage)
<i>Modern Adaptation</i>	Modern structure and material system, secondary skin facade with ACP material	Modern structure system, modern & traditional materials, traditional tropical roof for shading and natural ventilation, exposed brick walls & paras stone as traditional elements	Modern construction system, Modern materials and ornamental elements from wood carvings
<i>Contribution to Identity</i>	Symbol of cultural acculturation, Multi-ethnic representation, Provincial landmark	Strengthening Balinese identity, Reflection of Hindu-Balinese culture, Cultural landmark	Strengthening Minang identity, Reflection of custom and Islam, City landmark

Table 1 : Comparative Analysis
Source : Author analysis 2024

Conclusion

Each building reflects its local geographical conditions: West Kalimantan Governor's Office adapts to river climate & mixed culture, Badung Regent Office, with tropical climate adaptation & Hindu culture, Padang Governor Office represents adaptation of Minang-Islamic culture.

Different resilience approaches: West Kalimantan focuses on multi-cultural & climate adaptation incorporating ornament as facade elements, Badung Regent Office focuses on spiritual-material harmony including ornament application on buildings reflecting culture and religion, Padang Governor Office focuses on Minang traditional buildings with ornamental elements as complementary only on building accents and entrance which are elements of Minang traditional houses.

All three buildings demonstrate regionalism in government building architecture in attempting to integrate traditional values and modern technology adaptation, creating distinct identity and maintaining symbolic meaning.

The application of facade ornamentation as a resilience strategy in Indonesian government buildings can be effective when designed with consideration of local context and sustainable design principles. Facade ornamentation functions not only as a decorative element but also as a medium for maintaining cultural identity, enhancing aesthetic value, and creating buildings responsive to the environment.

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