

# Application of Regionalism Architecture in Regent and Mayor Offices in North Sumatra

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## ABSTRACT

North Sumatra Province has a rich diversity of local culture and architecture. There are eight major ethnic groups, each with distinct languages, cultural expressions, and architectural characteristics, namely Malay, Toba, Karo, Simalungun, Mandailing, Angkola, Pakpak, and Nias. This study examines the application of regionalism architectural principles in government buildings, particularly regent and mayor offices in North Sumatra Province. The method used is descriptive qualitative, combining literature review and visual observation of building facades accessed through online sources. The study evaluates the extent to which regent and mayor offices across the 33 regencies and cities in North Sumatra apply key regionalism principles, including the use of local materials, climate adaptation, and the integration of local cultural identity. The analysis is based on facade observation and general architectural information available for each building. The implementation of regionalist architecture can be categorised into three typologies: (1) Application of traditional architectural elements as the main building form, such as roof type, structure, and façade, found in 57% or 19 out of 33 cases; (2) Use of traditional elements only as supplementary features, such as ornaments or surface decoration, found in 15% or 5 cases; and (3) Buildings with no local architectural

references, including 12% (4 cases) adopting colonial architectural influence, and 16% (4 cases) following a modern tropical architectural approach. The findings indicate that most regent and mayor office buildings in North Sumatra Province apply regionalist architectural principles to varying degrees, reflecting ongoing efforts to maintain cultural identity in public architecture.

**Keywords:** Regionalism Architecture, Identity, Traditional Architecture, Local Architecture, North Sumatra

## INTRODUCTION

North Sumatra is one of the provinces in Indonesia, covering an area of approximately 72,891.23 km<sup>2</sup> and consisting of 25 regencies and cities. The province has a highly diverse cultural heritage, including traditional architectural forms that express the identity and cultural values of its communities. There are eight major ethnic groups in North Sumatra, each with distinct languages, cultural traditions, and architectural characteristics: Malay, Toba, Karo, Simalungun, Mandailing, Angkola, Pakpak, and Nias. One approach to preservation is through the integration of regionalist architectural principles into the design of government buildings, such as regent and mayor offices.

Government buildings that incorporate local values not only reinforce regional identity

but also reflect an architectural approach that is responsive to local culture, climate, and geography. However, the development of modern architecture in Indonesia, including in North Sumatra, has shown a tendency to adopt international styles that overlook local values. As a result, regional architectural characteristics in public building design have gradually diminished. (Siregar, 2022). In this context, the application of regionalist architectural principles is essential to support the continuity of local cultural identity in government architecture. (Hidayatun et al., 2014).

Architectural regionalism emphasizes the integration of traditional forms and values with contemporary design strategies, guided by sensitivity to local climate, culture, and available technology. Buildings produced through this approach remain functional while expressing symbolic meaning and contributing to a distinct visual identity. (Dakhi & Ningsi, 2024).

In response to the need to preserve local values, several policies have been introduced to encourage architectural practices rooted in regional culture. The Indonesian government, through Law No. 28 of 2002 and Government Regulation (PP) No. 16 of 2021, mandates that architectural works associated with socio-cultural functions must consider local cultural values alongside contemporary architectural developments. Furthermore, Government Regulation No. 16 of 2021 requires architects to obtain licences based on competency standards that include consideration of local cultural knowledge in design practice. These regulations demonstrate the government's commitment to preserving cultural identity through architecture. Therefore, this study aims to analyse the extent to which regionalist architectural principles are applied in the design of regent offices in North Sumatra, with a focus on material use, climate responsiveness, and cultural expression.

## **LITERATURE REVIEW**

Architectural regionalism is a design approach that responds to regional characteristics, including local culture, climate, and the use of locally sourced materials, while integrating contemporary technologies. As an architectural movement, it seeks to reinterpret and revitalise cultural elements in the built environment rather than merely imitate traditional forms. Through the adaptation and transformation of indigenous architectural expressions using modern construction methods and technologies, architectural regionalism allows buildings to evolve in response to local identity, environmental conditions, and societal change. (Widodo & Agustin, 2023). Climate, as a natural determinant, informs passive design strategies such as building orientation, cross-ventilation, and roof forms that respond to temperature, humidity, and rainfall patterns. Local culture influences spatial organisation, usage patterns, and decorative expressions, establishing symbolic relationships between architecture and its users. Meanwhile, the use of local materials contributes not only to accessibility and efficiency but also to the visual and tactile qualities that reinforce regional architectural identity.

The application of regionalist architectural principles in public government buildings, such as district offices, is essential for creating spaces that are not only functional but also reflective of local character and identity. In the context of North Sumatra, where Batak, Malay, and other ethnic cultures remain deeply embedded in social structures, this approach provides cultural legitimacy in the design of civic architecture. Prijotomo, as cited in (Hidayatun et al., 2014) emphasises that local architectural expressions—such as gonjong roof forms and gorga decorative motifs—may be adapted contextually within contemporary architecture as a means of advancing the discourse of archipelagic (Nusantara) architectural identity.

Furthermore, the regent's office, as a representation of local authority, is expected

to demonstrate a commitment to local cultural values rather than imitate generic global architectural styles. Siregar (2022) notes that the symbolic integration of local architectural elements into the façades and spatial configuration of government buildings in Sumatra can strengthen social cohesion within the community. In practice, the application of architectural regionalism must account for tropical climatic responses, site morphology, and the use of local materials. Consequently, a contextually designed regent's office also functions as an educational medium that communicates cultural meaning to the public who interact with it daily. Through this approach, architecture becomes not merely a visual artefact but a narrative instrument that expresses identity and reinforces local values.

### MATERIALS & METHODS

The research employed a qualitative approach consisting of literature review, visual assessment, documentation, and descriptive analysis of architectural elements of regent and mayor office buildings in relation to regionalist principles, including climate

responsiveness, cultural representation, and material usage. The analysis was based on observations of building façades using publicly accessible sources, including official websites, Google Maps, and secondary documentation. Data collection and preliminary analysis were conducted by architecture students as part of an academic research activity, after which the findings were reviewed and validated through a panel discussion to reach consensus.

### RESULT

This study examines the extent to which regent and mayor offices across 33 regencies and cities in North Sumatra Province apply principles of architectural regionalism, specifically the integration of local materials, climatic adaptation, and cultural expression. These three parameters serve as evaluation criteria to determine the alignment of government building designs with local geographical, social, and cultural contexts. The analysis was carried out through observations of façade characteristics and secondary information obtained from publicly accessible sources for each regent and mayor office.

*Table 1. Identification of Regionalism Implementation in Regent Offices and Mayor Offices.*

No	Name of district/city	Material	Climate	Culture	No	Name of district/city	Material	Climate	Culture
					17	Labuhan Batu	-	✓	-
1	Binjai	-	-	-	18	Padang Sidempuan	✓	✓	✓
2	Deli Serdang	-	✓	-	19	Samosir	✓	✓	✓
3	Tapanuli Selatan	✓	✓	✓	20	Dairi	✓	✓	✓
4	Karo	✓	✓	✓	21	Tebing Tinggi	-	-	-
5	Padang Lawas utara	✓	✓	✓	22	Batu Bara	-	-	-
6	Labuhan Batu Selatan	-	✓	-	23	Sibolga	✓	✓	✓
7	Nias	✓	✓	✓	24	Humbang Hasundutan	✓	✓	✓
8	Nias Selatan	✓	✓	✓	25	Labuhan Batu Utara	-	✓	-
9	Nias Utara	✓	✓	✓	26	Tanjung	-	-	-

						Balai			
10	Nias Barat	✓	✓	✓	27	Langkat	-	✓	✓
11	Gunung Sitoli	✓	✓	✓	28	Pakpak Bharat	✓	✓	✓
12	Asahan	-	✓		29	Simalungun	✓	✓	✓
13	Medan	-	-	-	30	Tapanuli Tengah	✓	✓	✓
14	Tapanuli Utara	-	-	-	31	Toba	✓	✓	✓
15	Mandaling Natal	✓	✓	✓	32	Padang Lawas	✓	✓	✓
16	Serdang Bedagai	-	✓	-	33	PematangSiantar	-	-	-

The application of architectural regionalism in regent and mayor office buildings in North Sumatra can be classified into the following three categories:

**a. Application of traditional architectural elements in the main part of the building.**

The first category consists of buildings where traditional architectural forms are incorporated as dominant visual elements in the primary structure. In this typology, vernacular features such as roof profiles, ornamentation, and façade composition are

placed prominently typically at the building entrance or core massing making them visually identifiable and symbolically significant. Although the degree of expression varies, these buildings remain recognisable due to their resemblance to local vernacular architecture and their placement in visually strategic zones of the façade. A total of 19 out of 33 offices (57%) fall within this category, indicating a strong preference toward the explicit representation of regional cultural identity. The complete list of regencies and municipalities included in this group is presented in Table 1.



Labuhan Batu Selatan Regent's Office



Langkat Regent's Office



Karo Regent's Office



Tapanuli Selatan Regent's Office



Pakpak Bharat Regent's Office

**b. The application of traditional architecture as an additional element.**

The second typology consists of buildings that incorporate traditional architectural expression only as supplementary decorative elements. In this category, traditional motifs are applied to the façade as ornaments or symbolic accents rather than forming the primary architectural structure. The type, scale, and placement of these ornaments vary across cases, often resulting in partial rather than holistic representation of regional identity.

Approximately 15% of the analysed cases (5 out of 33) fall into this category. These are the Tebing Tinggi Mayor's Office, the Tanjung Balai Mayor's Office, the Pematang Siantar Mayor's Office, the Padang Lawas Regent's Office, the Batu Bara Regent's Office.

**c. Not applying local architecture.**

The third typology consists of buildings in which traditional architectural expression is absent from the façade. Based on visual assessment, these buildings predominantly

adopt colonial architectural characteristics, reflecting historical influences on architectural development in Indonesia. In addition, some examples demonstrate features of tropical architectural approaches without incorporating regional cultural identity. Approximately 12% of the cases (4 out of 33) fall under the colonial typology, while several others apply a purely tropical approach. These are the Medan City Hall,

Binjai City Hall, North Labuhan Batu Regency Office, Labuhan Batu Office, Asahan Regency Office, and Sedang Bedagai Regency Office.

Meanwhile, the Deli Serdang Regency Office, Simalungun Regency Office, and Sibolga City Hall do not have a local identity, tending to only use a tropical architectural approach.



## DISCUSSION

The findings indicate that a majority of regent and mayor offices in North Sumatra apply principles of architectural regionalism, demonstrating a tendency to incorporate local architectural elements as a means of sustaining cultural identity in the built environment (Hidayatun et al., 2014). This awareness is reflected in the use of vernacular roof forms, ornamentation, and colour schemes, which serve as visual identifiers of regional cultural expression. Given that the assessment of local architectural application was conducted visually by architecture students, the findings suggest that the regent and mayor office buildings demonstrate a degree of architectural identity representative of their respective regions.

This study aligns with findings discussed by Prijotomo, as cited in (Hidayatun et al., 2014) who emphasises that local architectural features—such as gonjong roof forms and gorga decorative motifs—may be contextually reinterpreted within contemporary architectural practice as part of archipelagic architectural identity. Field observations from this study identified the appearance of traditional roof typologies originating from Nias, Karo, Toba, Langkat Malay, and Pakpak architectural traditions. The findings illustrate a transformation in the role and expression of traditional architecture within contemporary public buildings. In many cases, vernacular elements are incorporated into key architectural components to establish a recognisable local identity. As noted by

(Widodo & Agustin, 2023), , architectural regionalism involves the contextual reinterpretation of cultural elements using modern construction technology, enabling adaptation rather than replication. Climate, culture, and material availability remain critical determinants of built form, reinforcing the inseparability of architecture from its environmental and sociocultural context. Climate, as a natural regulating factor, influences passive design considerations such as cross-ventilation, building orientation, and roof morphology adapted to local temperature and rainfall conditions.

## CONCLUSION

This study demonstrates that the application of architectural regionalism in regent and mayor office buildings across North Sumatra remains relatively strong, particularly in the use of vernacular roof forms, façade articulation, and ornamental elements that reflect local cultural identity. Approximately 59% of the examined buildings incorporate traditional architectural features, while a smaller proportion exhibits colonial or tropical modern design approaches with little or no representation of local cultural values. These findings suggest ongoing efforts to preserve cultural identity through the built environment, where regionalist expression functions not only as an aesthetic gesture but also as a mechanism for cultural continuity and symbolic territorial identity. However, the analysis also identified several cases where architectural expressions were primarily influenced by colonial or tropical modern styles without reference to local identity. This trend indicates the presence of additional determining factors—such as political preference, development priorities, regulatory interpretation, or design agency influence—that may affect architectural

decisions in government buildings. Further research is therefore required to investigate the motivations and contextual drivers behind these design choices.

## Declaration by Authors

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