

## Range of Types of Local Element Synthesis Forms and Non-Local on Villa Isola Building in Bandung City

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**Abstract.** The Indies architecture of the 1920s to 1940s in Indonesia was a phenomenon of the formation of Dutch colonial buildings with high architectural value that still survive today. The shape results from combining modern European architecture with Indonesian vernacular architecture. The research uses a range theory approach to the type of architectural synthesis forms, architectural synthesis theory, local and non-local elements theory, architectural synthesis form theory, archetypes theory, and typology theory. The research methodology is carried out with qualitative and quantitative approaches. The qualitative approach is descriptive and interpretative research, where the data is more concerned with interpreting local and non-local architectural elements in the object of study. The quantitative approach is confirmatory to prove it under the research objectives. The results of the study are expected to provide an understanding of the range of types of synthesis forms of local and non-local elements; aspects that affect the range of types of synthesis forms; form, form, and type of architectural synthesis; the range type model of the architectural form on Indies architecture building.

**Keywords:** Range, Type, Form, Synthesis, Architecture, Local, Non-Local

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### INTRODUCTION

Currently, many architectural works do not have local characteristics, characters, and identities, so they do not have an identity under architectural developments. Architectural works that develop also do not have a form that is in harmony between function, form, and meaning due to the impact of globalization that occurs due to the rapid globalization of modern culture and architecture. According to Naisbit (1995), the pressure of stronger external influences will likely give rise to things that smell local. It is believed that globalization always gives rise to paradoxes where advances in communication technology are inevitable, and every country must support the process of globalization.

The influx of information from abroad and understanding architectural styles and material products greatly influences and colors the architectural climate. Hence, the influence of architecture from outside that is so strong will impact the sinking of local architecture. Indies architecture is vital in providing local and non-local characteristics and identities that can be used as a basis for conducting a more in-depth search in this study.

This architecture is also one that contributes to the repertoire of architectural development in the early 1900s (1920 – 1940s).

The process of architectural synthesis in Indies buildings produces

1. new forms of architectural synthesis,
2. the dominance of local forms of architectural synthesis, and
3. predominance of non-local forms of architectural synthesis.

The form of architectural synthesis can be seen from the expression of its scoping elements, namely, roofs, walls, and floors, with various forms influenced by local and non-local elements that refer to the form of Indian regionalism and European modernism. Thus, in the process of synthesis of Indies buildings, there is an understanding of the range or limit of the dominance of synthesis forms that are influenced by local and non-local elements through the expression of the scope of the building.

Indie buildings are architectural works that observers can enjoy from the expression of architectural forms that display the results of climatic adaptation and cultural accommodation. Architectural adaptation to the humid tropical climate in Indonesia is carried out by climatic adaptation manifested through local architecture called tropical architecture. In contrast, architectural adaptation to culture is carried out by cultural adoption from indigenous and immigrant cultures. In non-local aspects with non-local identities (modern elements and technology) manifested through modern Dutch colonial architecture.

Therefore, Indian buildings, through their scope, have the potential to display expressions of local and non-local elements. The term climactic expression in architecture is described as the inherent characteristics of architectural forms that are manifestations in response to climate for buildings to function correctly. *Cultural expression* is defined as everything related to cultural elements, both physical and non-physical, that develop and are still recognized by the local community and create a local identity attached to the architectural form through symbols or signs.

Thus, climatic and cultural expression is something that can mutually reinforce or negate each other, which is displayed through the form of building scope. The ideal form of building coverage can adapt to the climate and simultaneously adopt the local culture. Climate in the tropics is a significant consideration in architectural design. In humid tropical climates, there are 3 (three) tropical design paradigms built based on different

emphasis on architectural language, the appearance of tropical buildings, and assumptions on the fulfillment of the scope function for comfort in the building (Joo-Hwa Bay, 2001).

Indies building architecture is formed from the embodiment of a synthesis of local and non-local elements that still survive today because it has characteristics such as 1. reflecting the architectural style of Indonesian vernacular identity; 2. bringing modern architectural styles to Indonesia which were influenced by modern architecture (Europe) and became the beginning of the development of modern architecture in Indonesia; 3. reflects Indonesia's tropical modern architectural style; 4. reflects the traditionality and modernity of European modern building form types; 5. Bringing modern European architectural styles through the synthesis of local and non-local elements.

## LITERATURE

The city of Bandung has very diverse indies buildings with a complete form of architectural synthesis, including several famous indies architectural works from the Netherlands in 1920-1940, namely Schoemaker and Henri Maclaine Pont, with their Indian architectural concepts. The architectural design of Indies buildings recognizes two concepts (Widyarta, 2007), namely: (1) Schoemaker's concept of Indies architecture about modern tropical architecture and (2) Henri Maclaine Pont's concept of Indies architecture with modern traditional architecture.

In the context of Indis buildings, the word Indis comes from *the Dutch 'Nederlandsch Indie' or Dutch East Indies, which is the name of the Dutch overseas colony which geographically includes a colony in the islands called 'Nederlandsch Oost Indie*. The mention of this indie building refers to the unique characteristics of the building of a certain period and is related to the historical realm. About traditional house building, Parmono Atmadi mentioned that the understanding of traditional architecture is sometimes different.

Some are sufficient based on the shape of the roof and components that are architectural patterns alone, following several rules inherent in traditional architecture (Soekiman, 2011). The range of forms of architectural synthesis in this study deserves to be raised because, in the past, research has never been questioned. It is hoped that this research can determine various types of architectural forms, referring to the classification of form types and function types, which ultimately play a vital role in determining the

characteristics and identity of architecture, especially Indies architecture that has developed and is in several cities located in coastal and inland cities.

Based on phenomena related to the architectural synthesis of Indies buildings, the interesting issues to be studied in this study are: (1). the range of forms of synthesis of local and non-local elements; (2). Local and non-local elements. This study can provide an overview of the dominance of the synthesis of local and non-local elements found in the study case and an understanding of local and non-local elements with characteristics inherent in the architectural form of Indies buildings in the city of Bandung.

The study of the range of forms of synthesis of local and non-local elements in the Villa Isola building in Bandung City is essential and exciting to be studied more deeply because of the problem of the development of Indies architecture, which does not yet have a classification of form types based on ranges in more detail, so this study is expected to fill the gap in determining architectural types based on aspects of building form and function. In addition, it is expected to find deep meaning in each type of building based on its range and dominance under the mixture that occurs from architectural acculturation.

## **METHOD**

### **The Big Picture Research**

The research was conducted with two methods: qualitative and quantitative. Qualitative methods are used to read the climatic-cultural expression of forms of architectural synthesis through contextualization related to local and non-local architectural elements in the study case. Confirmative quantitative methods are used for proof following the research objectives. Local and non-local architectural synthesis forms that express climatic culture will be revealed with the approach of function-form-meaning relationship theory, building architectural typology theory, and dominance theory of local and non-local element form types explained through interpretation on the range of types of local and non-local architectural synthesis forms.

The quantitative method that will be carried out focuses on the existing survey of study cases collected and processed data with Archetypes theory approaches, coding techniques, and scoring techniques on the object of study. Data processed quantitatively are then analyzed with a function-form-meaning relationship theory approach and building architectural typology theory to obtain categorization, form type, and dominance of local

and non-local elements. The big picture of research, as mentioned above, can be seen in Figure 7.

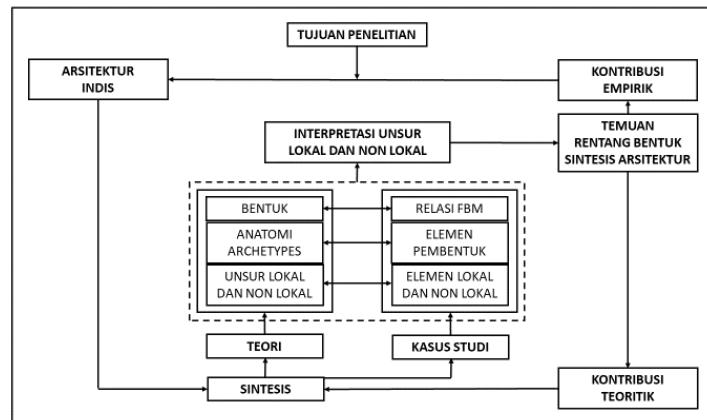


Figure 7. Research Framework Diagram

## Conceptual Framework

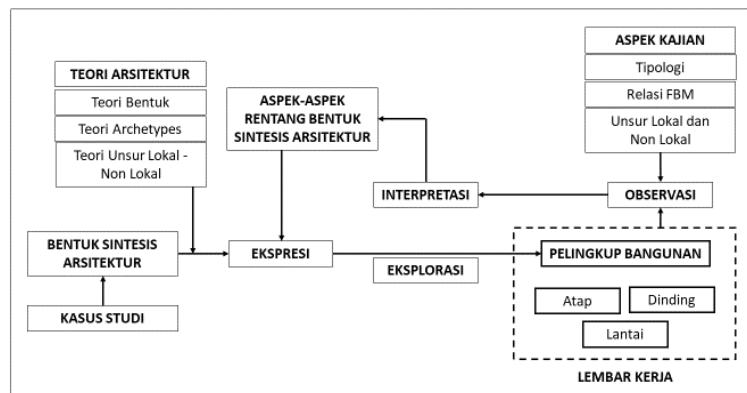


Figure 8. Conceptual Framework Diagram

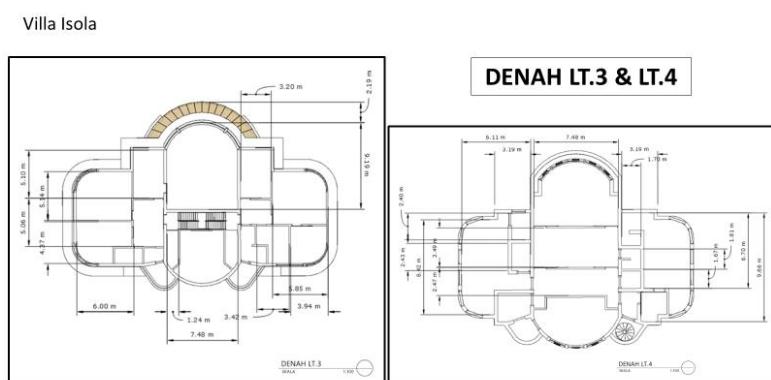
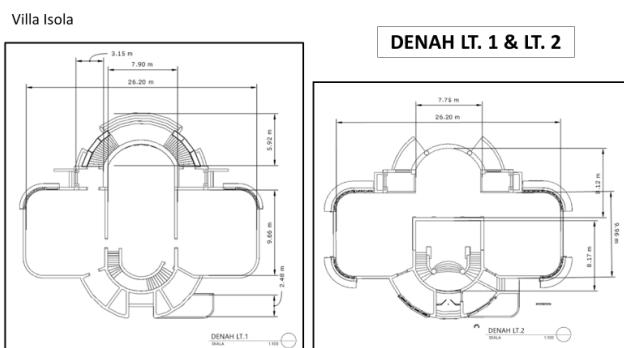
## Study Case Selection

The selected study case is an Indies building with characteristics according to the research objectives. The selection of Indies buildings in the city of Bandung is very relevant to the city of Bandung, which has a very representative city architectural identity and was once dubbed *as the city of flowers (Paris van Java)* with its *Garden City* concept and in the Dutch colonial period was planned as the capital of the Republic of Indonesia. The criteria for selecting study cases in this study are:

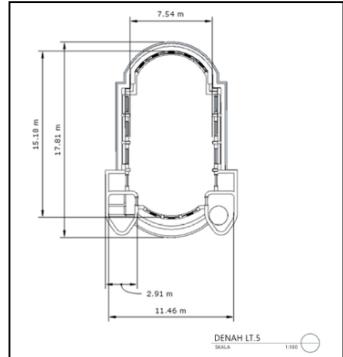
1. Indies buildings built in the era of 1920-1940.
2. Indies buildings were chosen based on architects' work in 1920-1940.
3. Indies buildings that have a type of scope that expresses cultural and climatic elements.
4. The Indies building was selected as a 'grade A' heritage building.

Based on the abovementioned criteria, the study case chosen is the Villa Isola building in Bandung.

## Case Studies

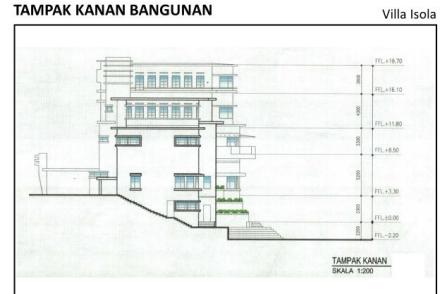


Villa Isola



DENAH LT.5

TAMPAK KANAN BANGUNAN



TAMPAK BELAKANG BANGUNAN



Villa Isola

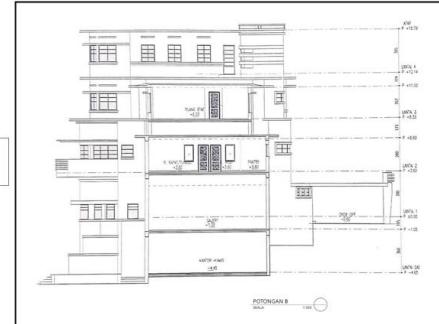
TAMPAK DEPAN BANGUNAN



TAMPAK KIRI BANGUNAN



POTONGAN BANGUNAN



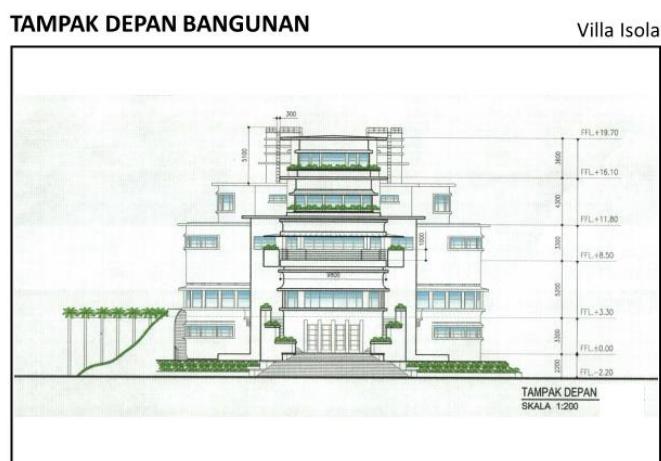
Villa Isola

POTONGAN BANGUNAN



## DISCUSSION

In the architectural drawing of the Villa Isola building below, it is found that the flat roof is supported by a massive wall curved out (*convex*) with a symmetrical wall and window arrangement pattern. The existing structure in the Villa Isola building is a wall structure with construction using poles, steel beams, and concrete. The construction of the roof frame uses a steel frame. Massive walls with window openings of steel construction.



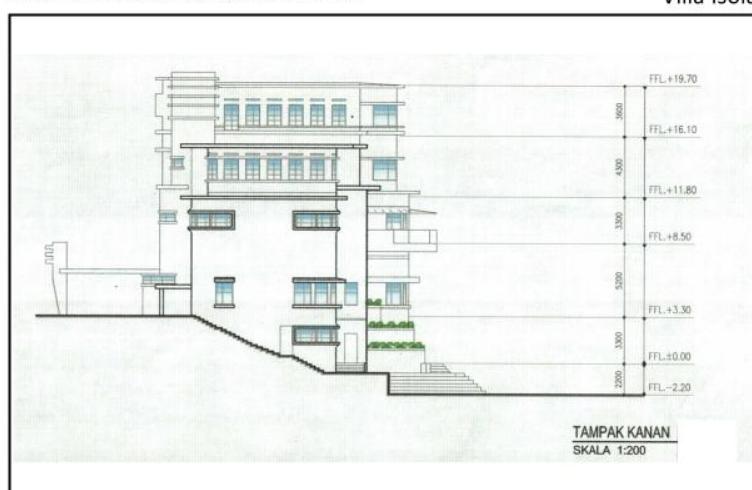
## TAMPAK BELAKANG BANGUNAN

## Villa Isola



### TAMPAK KANAN BANGUNAN

## Villa Isola



### TAMPAK KIRI BANGUNAN

## Villa Isola



## CONCLUSION

In line with the study's objectives, this conclusion section contains the disclosure of all forms of architectural synthesis in each element of the scope of the building. Local and non-local elements that occur in the study case. This conclusion also explores aspects of the range of types of architectural synthesis forms and how local and non-local elements influence the forms and types of architectural synthesis forms. The architectural synthesis produces three types of architectural formations: new form types, form types dominated by local elements, and form types dominated by non-local elements.

In the case of the study, the range of types of architectural synthesis forms can be understood from the limits of the range of dominance of types of synthesis forms influenced by local and non-local elements. In the case of the study, the conception of the types of architectural synthesis forms carried out is on the dominant architectural elements in the composition of buildings that refer to local and non-local forms. Observation of the expression of buildings results in interpretations of synthesis form types and dominance of local and non-local elements.

Based on theoretical studies related to study cases, namely form theory, typology theory, function-form-meaning relationship theory, and composition theory (the ordering principles), the synthesis conception carried out is:

1. Identify the basic form types of building scope elements,
2. Taking local iconic marks applied in the composition of building scoping elements,
3. Classify the types of forms of architectural synthesis into local and non-local elements.

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