

A Synthesis of Local and Non-local Architectural Concepts on Gedung Sate Building in Bandung, Indonesia

Purnama Salura^{1*}, Bachtiar Fauzy²

¹ Lecturer in Postgraduate Program, Department of Architecture, Catholic University of Parahyangan,
Bandung-Indonesia

² Lecturer in Department of Architecture, Catholic University of Parahyangan, Bandung-Indonesia

ABSTRACT

The objective of this research was to investigate the architectural synthesis created in Gedung Sate building in Bandung. The method used in this research was, firstly, to redefine a case study in detail so that the shape of building as a whole as well as each of its elements can be analyzed. Secondly, to analyze the display of the building shape completely and that of all its architectural elements in detail. The analysis was based on both building-order principles and semiotics. Based on the results of analysis it could be traced what are the local and non-local concepts on which the displays of all shapes and each of the architectural elements of Gedung Sate building are based. The findings of research concluded that, in Gedung Sate building, a synthesis between a local architectural concept, that is, Sundanese architectural concept, and The Dutch-originated architectural concept, is created.

Keywords: architectural display, architectural synthesis, architectural concept.

INTRODUCTION

Globalization that is pervading across countries, including Indonesia, has brought two contradictive sides. On one side, every nation often perceives it as a threat, because the inventions in information technology of internet have made it easier for foreign influences to penetrate any country easily. On the other side, every country may perceive it as an opportunity to survive and to develop a synergy without being affected by foreign influences. And even it may play a role of influencing other country. [1, 2, 3]

In architectural area, the globalization issue inclines to strengthen an “international style” that has been growing since 1970s. [4]. The sophistication of construction technology of developed country is often perceived as very interesting because of its novelty issue. As a consequence, most architectural constructions in developing country have nearly the same shapes and expressions as that of architecture in developed country, whereas they are of different natural and cultural conditions. The marginalization of local architectural constructions will lead to the erosion of local architectural value. The identity attached to local architecture will gradually be extinct. Of course, this problem should be dealt with cautiously [5].

Nevertheless, in Indonesia, there are still some buildings constructed in 1920s and still relatively intact until now. The buildings still have higher architectural value than newly grown modern ones [6]. One of the old buildings is Gedung Sate, situated in Bandung. The building was indeed designed by synthesizing local and non-local concepts. It is the architectural synthesis that causes the building has a survival, sustainable value as well as local expression uniqueness [8]. Thus, the issue of architectural synthesis in Gedung Sate building becomes an important one to be prioritized and studied in-depth in order to make it as a lesson-learned.

Departing from the description above, the current research conducted an investigation on the importance of the role of synthesis in architectural area. This research emphasized an alternative new viewpoint in reading and designing architectural synthesis supplemented by its operational stages.

The benefits and utilities of the research are as follows: Firstly, in-depth understanding of architectural synthesis created in the case of study. Secondly, understanding the methods and stages of reading architectural synthesis in detail. Thirdly, understanding the crucial position of synthesis that prioritizes the proven wisdom of local architectural concept so as to create the survival and sustainability of architecture. And fourthly, understanding the crucial position of architectural synthesis so as to take part in playing a role in increasingly global condition of the world.

MATERIALS AND METHODS

The Case Study

In 1918, Governor General of Netherlands East Indies planed to move the capital of Netherlands East Indies from Batavia city (now Jakarta) to Bandung [9]. Since 1919, the preparation of capital removal firstly began by developing Administrative Governmental Center (*Gouvernements Bedrijven*). Gedung Sate was the

*Corresponding Author: Purnama Salura, Lecturer in Postgraduate Program in Architecture, Catholic University of Parahyangan, Email : purnamasalura@yahoo.com

first public building to be built. The building was designed by a Delfth graduated architect, J. Gerber. Unfortunately, in 1934, the implementation of the removal halted due to the occurrence of world economic recession, called malaise era.

Besides from being the first public building to be constructed, Gedung Sate also the second building to construct by employing reinforced concrete construction and Portland cement in Bandung. At that time, there were several bureaus that proposed their own designs, but J. Gerber's design was considered as the best design that prioritized a synthesis of local and non-local architectures. Untill now, the condition of Gedung Sate is still relatively steady and its strength is still kept better than that of other contemporary public buildings which was constructed at that time. These are the reasons why Gedung Sate was selected as the case study of this research.

Analytical stages

In principle, the analysis conducted was based on a triangle diagram of architectural function-shape-meaning aspects. Although it is realized that under real condition the three aspects above are inseparable, but in this research the analysis was emphasized only on the relationship between shape and meaning aspects [10].

In the first analysis, the case study was break-downed in a three-dimension way based on its elements. That is, the elements relating to land (floor, functional space), the elements relating to horizontal contexts (wall, building enclosure and structural supporting construction), the elements relating to vertical contexts (roof) [11, 12]. This breakdown should be conducted to determine in detail what is the relationship among all building elements, and also to know which are structural element, room forming element, and building ornamentation.

In the second analysis, an interpretation of all building shapes untill the details of building ornaments was made. The stages of the analysis are as follows: firstly, the interpretation of building shape expression as viewed from a distance of three times of the building height or width. Secondly, the interpretation of building shape expression as viewed from a distance of the building height or width. Thirdly, the interpretation of building structure and construction. The three stages on interpretation are based on both building order principles [13] and semiotics in architecture [14]. The building order principles consist of balance order and orientation. Meanwhile, semiotics revealed the meaning on which all shapes of building and all building elements, whether the existing meanings are based on causal principles (index), reference principle (icon), or convention principle (symbol).

It is based on this in-depth investigation that what synthesis of local-nonlocal architectural concepts that is created in Gedung Sate could be revealed.

RESULTS AND DISCUSSION

The Interpretation of Overall Shape Expression

The core of balance order is the existence of balance relation in the composition between parts and the whole of a building. This order consists of principles: axis, datum, repetition, and rhythm. Meanwhile, the core of orientation order is the application of hierarchy in a building. This order consists of principles of: top-down hierarchy, front-back, and far-near. Based on the results of analysis of both balance order and orientation order, the substance and nature of elements and the composition of building structure are interpreted.

Analysis of Balance Order

The clarity of Axis, see figure 01 (a): The composition of existing building elements is the composition of symmetry and vertical axis at the center that consists of entrance mass, lobby, and three stacks roof. The horizontal axis in the building inclines to be at the middle of building walls. The composition of building on the horizontal axis is that the building becomes smaller upward as marked by two separate roof covers (note that there is a shield roof ending on two underside roofs). Other horizontal axis is at the top wall opening as marked by roof that is cut by a lobby mass at the center. The roof that is provided with only an ending in the left-right end expresses that the roof is as if going through (penetrating) the lobby mass.

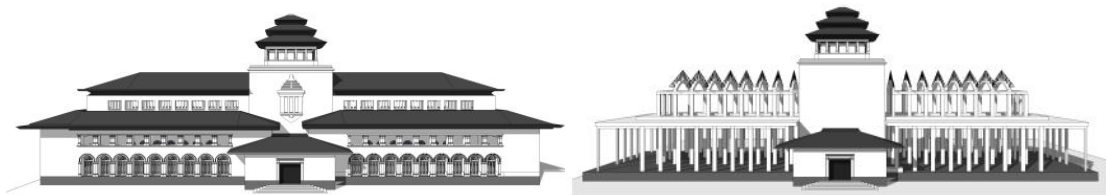


Fig. 01 (a): Front View of Gedung Sate, (b): Structure and construction of Gedung Sate [15]

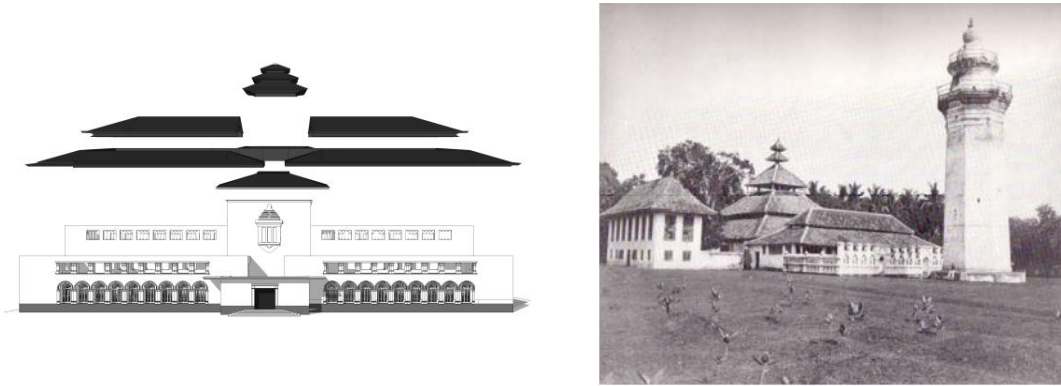


Fig. 02 (a): Separation of Roof and Walls, (b) A Traditional Sundanese Building *Bale Nyungcung* [15]

01. Roof of void space at the center of room
02. Walls of void space at the center of working room
03. Roof of second floor office room
04. Walls of second and first floors office
05. Floor of one fifth height of wall (element 4)
06. Stairs on building entrance
07. Building entrance wall
08. Roof of Building entrance
09. Walls of void space
10. Ornament attaching to the wall
11. Structural frame above lobby
12. First Roof above lobby space
13. Second Roof above lobby space
14. Third Roof above lobby space

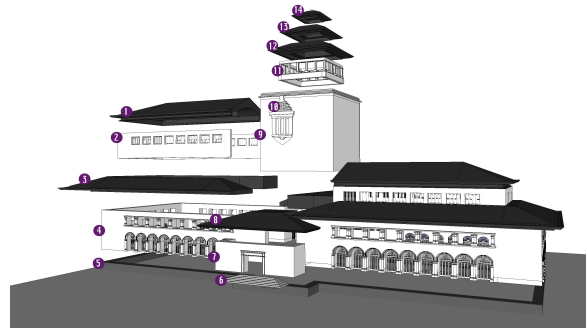


Fig. 03: Break down of Gedung Sate Building Elements

Binding intactness (datum): It can be seen that the whole mass parts (right-left bottom building, entrance, right-left top building) are bound by middle mass (lobby) marked by the three-stack roof.

Repetition-rhythm consistence: The whole roof mass is of a shield form (repetition with different rhythm). Whereas in white plain walls there is also repetition, that is, a subtractive type which is uniform around the building. The displayed rhythm is similar. The character of the wall similarity can be found on front and back views of the building.

Based on the analysis above it can be interpreted that: firstly, given its symmetrical composition, the building inclines to be apparently formal. It indicates that the building is a public building that needs a formal expression. Secondly, the presence of garden in front of the building (of the same width as that of building and length five times as the building height), makes possible for the building to be viewed for a far distance. A far viewing distance showed a monumental expression of the building. Thirdly, the openings on the white plain wall look like a subtractive treatment on a massive wall. The arch-shaped subtractive type is given by pillar ornaments that look as if they are only ornamentation rather than wall support. Likewise, the composition of building's front view is formal-monumental-massive-heavy. Although the total width of wall in mass composition is larger than that of roof, but the roof played as a the dominant element in the building from a far distance. The reason is that because there are seven roof elements of different allocations and variations. It is these allocations and variations that predominantly fulfill the composition. From a distance view, an observer would be more interested to remember the shape of the building's roof rather than the building's wall.

Analysis of Orientation Order

Center and right-left hierarchy: Entrance mass becomes very central because it is at the center of the building composition. In addition, the entrance mass becomes an eye-catcher because it has a different opening than other ones on its right-left wall. The orientation of entrance side is very clear. Therefore, the center of building is having a higher value than its right and left sides. It is reasonable to interpret that in this part there is an entrance and an orientation lobby that bind the activities in the building.

Top-down hierarchy: The center of the building, bottom-up, comprises entrance mass, middle mass in a form of massive wall with ornament, and open mass with a three stacks roof. The interpretation of building

substance and nature is as follows : The center of building is having a higher value than the left and rights sides of the building. In the center of building : the uppermost part (open mass with a three stacks roof) is a part with a landmark of building to environment scale. The wall-closed middle part is a signifier of building to a quite near scale. This part is signified by the existence of ornaments.

Analysis of the synthesis of local and nonlocal signs

Each elements of the building may become a sign with a certain meaning. Based on the result of analysis above, there are two main parts that provide signs. First, the roof part is an element that predominantly provides a sign of all existing sign compositions. Second, the wall part which is the marker element of activities in the building. The roof element comprises three parts: First, a three stacks roof is a sign of higher value than other roofs. This part can be categorized as an iconic sign. The three stacks roof with ornament above it actually refers to a *bale-nyungcung* shape, that is, a traditional public building existing in *Tatar Sunda* (Sundanese Land) region. See Figure 02 (a) (b). The ornament above the three stacks roof is a pillar with a decoration of five circles above it that looks like a *sate* (barbecued meat) skewers with five *sates*. In the time before independence era, people called the building as a building with a *sate* skewer above it, and then it is well known as *gedung sate* (*Sate* building). Initially, architect J Gerber wanted to convey a message that symbolizes the total cost that the Government of Netherlands E. Indies expended, that is, 5 million *gulden* (5 *sates* in one skewer). The type of symbolic sign that the designer wanted cannot in fact be recognized by public observers. Other roofs are an indexical sign, that is, the cover of the top of space below. The wall element: massive wall with an arch-shaped opening looks from a distance as an iconic sign of the wall that is not originated from local, tropical area. The wall resembles the palaces in hot-dry climate Middle-East.

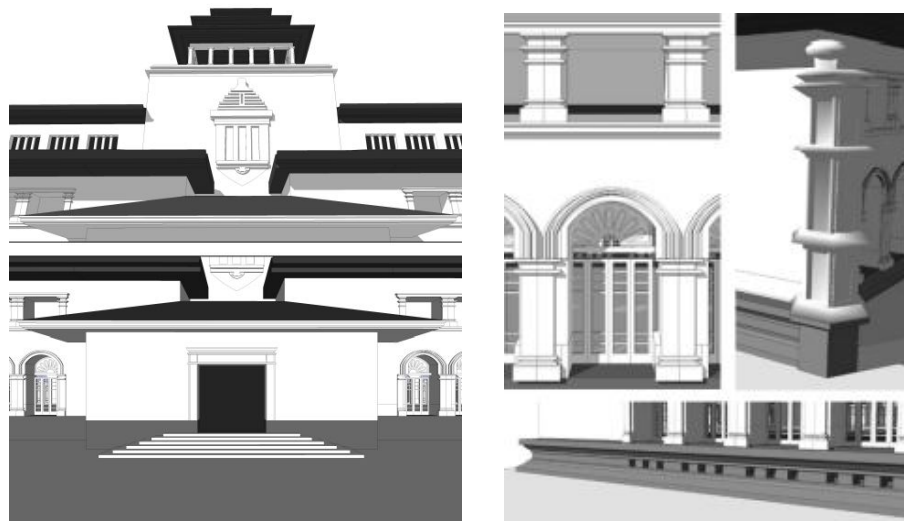


Fig. 04 (a): Area around entrance, (b): Opening detail, wall ending detail, pedestal detail [15]

The Interpretation of the Expression of Shapes around Entrance

All compositions of Entrance view was analyzed by using the method above. The discussion on both balance order and orientation order was not different than that of the whole shape. What was different was the discussion on the synthesis of local and nonlocal signs.

Analysis of the synthesis of local and nonlocal signs

Nearing the entrance area, the predominant sign is a building pedestal. The pedestal is made of stone material commonly employed to build a shrine. In addition, its carved object pattern reminisces about the carved objects on Cangkuang shrine in Leles-Garut, West Java. Whereas the openings, windows, and walls of the building reminisce about the ornaments existing on buildings in The Dutch and palaces in Middle East. The pillars that decorate the opening area are of New Renaissance style.

The Interpretation of Structure and Construction

On figure 01 (a) it can be seen that the roof is apparently supported by a massive wall existing below or well known as a supporting wall system. In reality, see figure 01 (b), it is found that the structure existing in Gedung Sate as a whole is a frame structure system that uses concrete pillars and beams. Whereas all roof

frames uses steel construction. The existing massive wall is only a filling or covering element. It is not a building structure at all. In addition, the New Renaissance-styled pillars existing in the opening subtractive type is as decorative ornaments only.

CONCLUSION

Based on the results of analysis it can be concluded as follows:

Firstly, the principle of synthesis created in the current case of study is the application of local concept (Sunda: Bale nyungcung) to roof. Whereas on the wall, opening, pillar, and ornament elements, nonlocal concept (The Dutch: New Renaissance/Moor) is applied. Likewise, structure and construction system as a whole applies a technological concept originated from The Dutch.

Secondly, an architectural synthesis can be understood in detail by a way of : conducting a redefinition of all elements of the building; and conducting an analysis of the expression of the shape as a whole together with its elements, the expression of the shapes of elements together with the ornaments around entrance and structure and construction systems. The analysis basis used was by disclosing the principles of balance order, orientation order, and semiotics principles-based interpretations.

Thirdly, in order to create a survival that ends up in continuity, a synthesis should always: in one side, include local concepts, that have been proven against natural condition, and cultural icons; on the other side, adapt modern technologies that are suitable to local conditions and always in line with the developments of the times.

Fourthly, under a relatively variable global condition, conducting an architectural synthesis between local proven concepts and matching nonlocal ones becomes a crucial issue. Thus, architectures of a region/nation would continuously have a specific identity that is not easily affected by the influences of any outside architectural concept.

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