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Research Paper

Sineger Tengah and *Kaca-kaca* as The Deep-Structure of Sundanese Architecture in Pasundan Land, West Java, Indonesia

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Abstract

The remaining relics of Sundanese Architecture in the land of Pasundan, West Java Indonesia is relatively nonexistent. Until now a complete and in-depth research on Sundanese architecture is hard to find. This research raised the issue of the relation between concept of forms and concept of meaning of Sundanese society in the Kampongs Dukuh, Ciherang and Palasah. These three kampongs are kampongs that still practiced the Sundanese customs and could represent Sundanese architecture in the land of Pasundan. The purpose of this study is to uncover and opened all the relationships that are intertwined in architectural forms and architectural meaning of the Sundanese community in three cases of study. This study is descriptive-analytical and interpretative which is based on a combination of typological approach along with structuralism approach in architecture. Through thorough analysis, the research has revealed that the concept of *Sineger-tengah* and *Kaca-kaca* served as a deep-structure that influenced the Sundanese architecture in three cases study. While the benefits obtained are : firstly, the research succeeded in formulating a new reading tool that could be used to read the relationship between form and meaning of Sundanese architecture. Secondly, the research could be used as a reference for the survival strategy of the Sundanese society in the context of the influence of global change. Thirdly, the research could be used as a starting point for the development of new architectural theories in Indonesia in particular, which indirectly could affect the global architectural theories in general

Keywords: *vernacular architecture, tradition, structure*

1. Introduction

Sundanese tribe is one of the tribes in Java Island, Indonesia. Java Island itself is divided into five provinces: West Java, Central Java, East Java and the two special areas of the provincial level namely Jakarta (capital city of Indonesia) and Jogjakarta. In the province of Jogjakarta, until now there is still a royal government system. The royal system which occupying the Ngayojokarto palace is only a symbol. King of Jogja is also appointed as the Governor of a special region (Province) of Jogya[1], [2]. In eastern Java the remnants of the great kingdoms such as Majapahit, the sites and the artifact of its remained could still be found[3]. It is known that the kingdom system in Jogjakarta is the main source of preservation of Javanese culture. This included preservation of Javanese architecture. Until now the existing records and palace buildings are always used as a reference of Javanese architecture[4]. Thus the character of Javanese architecture could be maintained and developed continuously[5]. Architecture have relation with mathematics modelling [6]–[10]. Unlike the architectural conditions in Central Java, in West Java, relatively it is very difficult to find the remains of Sundanese kingdoms[11]. Likewise, the source for Sundanese cultural development is hard to find. Physical architectural relics such as the palace could be said to be nonexistent. Although there was some research from the field of anthropology about Sundanese culture[12]–[17]. But its nature was still partial and only done in some areas in West Java. While a thorough and completed research on Sundanese architecture itself is rare to find. The question that arise is: what is the concept of Sundanese architecture? How did the concept of form and meaning of Sundanese architecture that existed today? This question became an issue that needed to be explored by doing in-depth research.

The purpose of this study is to reveal all the relationships that exist between the concept of form and meaning of Sundanese architecture in the context of change. The expected benefits are : first, the results of the research could fill the new vocabulary that described the shape and meaning of Sundanese architecture completely. Secondly, the results of research could be a new reference for the stake holder of Sundanese architecture. Thirdly, it could be a trigger point for Sundanese architectural studies in other locations or might even be a referenced for an architectural research in other areas of Indonesia.

2. Material and Methods

2.1 Material

The cases study which was chosen refer to the issue of the relation between the concept of form and the meaning of Sundanese architecture in the context of change. Criteria for determining cases study were arranged as follows: first, the research area is an area around the controlled area and is the largest centre of Sunda Kingdom. Namely Pakuan-Pajajaran Kingdom. Secondly, because there is no relics of Sundanese architecture, the cases

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study were determined on the old Sundanese kampongs that still holds the traditional Sundanese tradition and run Sundanese tradition ever since until now. Thirdly, the location of the cases study should represent the Sundanese kampongs in the mountains, coastal areas, as well as these that close to plantations which was affected by the modernization[18] of Dutch plantations. Fourthly, kampongs as a cases study should be a kampong that is formed and grown independently. Fifthly, the number of population in each selected cases study is relatively equal. Based on the criteria above, the Pasundan land area was chosen as an area of study (see Figure 1).

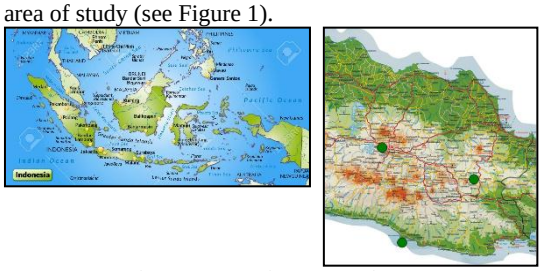


Fig.1: Maps of Indonesia(Left), Maps of Pasundan Land, West Java (Right)

Pasundan land once a growing area and the centre of the Pajajaran kingdom. In this Pasundan land, then selected three kampongs as cases study. First, kampong of Hamlet in South Garut was selected because whose inhabitants still hold Sundanese customs firmly. Second, kampong Palasah which is located on the north of Majalengka was selected because the kampong could be categorized as coastal kampong. Third, Ciherang kampong was chosen because it is a self-grown kampong around the plantation area that was formerly managed by the Dutch (see figure 2-4). The number of houses in the three kampongs selected as cases study is relatively equal. The number of houses in each kampong is about 50 to 65 houses. The livelihood in the three kampongs selected were farming. In the three kampong: there were residential areas, areas of rice fields, and sacred cemeteries.

2.2 Methods

This research is a descriptive-analytical and interpretive study, which is based on structuralism approached and empirical evidence obtained from the three cases study. The approach used to read architectural forms is the elaboration of an architectural typological approach[17], [19]–[24].

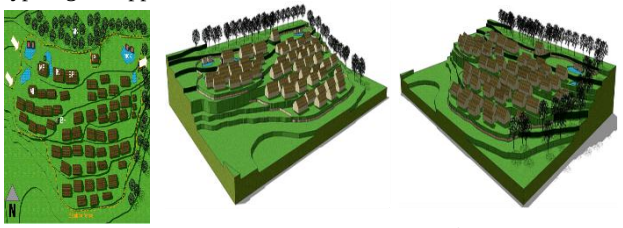


Fig.2: Plan and two Perspective Sketches of Kampung



Fig.3: Plan and two Perspective Sketches of Kampung Ciherang

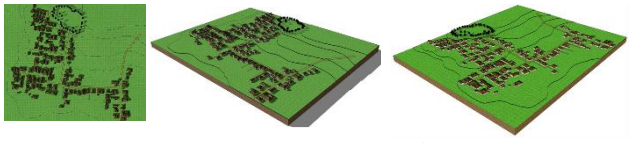


Fig.4: Plan and two Perspective Sketches of Kampung Palasah

The approach to reading architectural meaning is a combination of architectural structuralist approach with *Patempatan* Sunda approach (Sundanese concept of place)[25]–[27] Based on these two approaches, a theoretical framework is developed to understand the relationship between the concept of form and the concept of meaning. This approach is then applied to analyse the three cases study. Departing from the theoretical framework that is built, on the aspect of architectural form, all containers were carefully recorded. Then the concept of placement were analysed. In the aspect of architectural meaning, all existing activities were carefully recorded. Then did the analysis to get the underlying concept from its activities. Based on the results of the recording, the steps taken are to reveal the Sundanese architectural concepts on the level of surface-structure. These concepts are analysed in-depth to find their level of deep-structure concept. Based on this concept, changed that occurr on the concept of form and meaning of Sundanese architecture in three cases study could be revealed.

3. Results and Discussion

3.1 Theoretical Framework as a Tool of Reading

The series of theoretical studies conducted, have succeeded in producing an analytical framework that could be used to trace the relationship that exists between the concept of architectural form and the concept of architectural meaning of Sundanese society (see figure 5).

3.2 Surface-Structure and Deep-Structure of Sundanese Architecture in Study Cases

The framework as a reading tool consists of 6(six) layers of search which were then applied to the cases study. The layers of search were organized as follows:

The First layer: is a recorded of activities in the three kampongs. In the aspect of architectural meaning, the step taken is to record all the activities of the residents in three cases study toward : God, Nature, Society and Individuals. While in the aspect of the architectural form, it is recorded the entire container of activities of the four categories of activities undertaken by the residents.

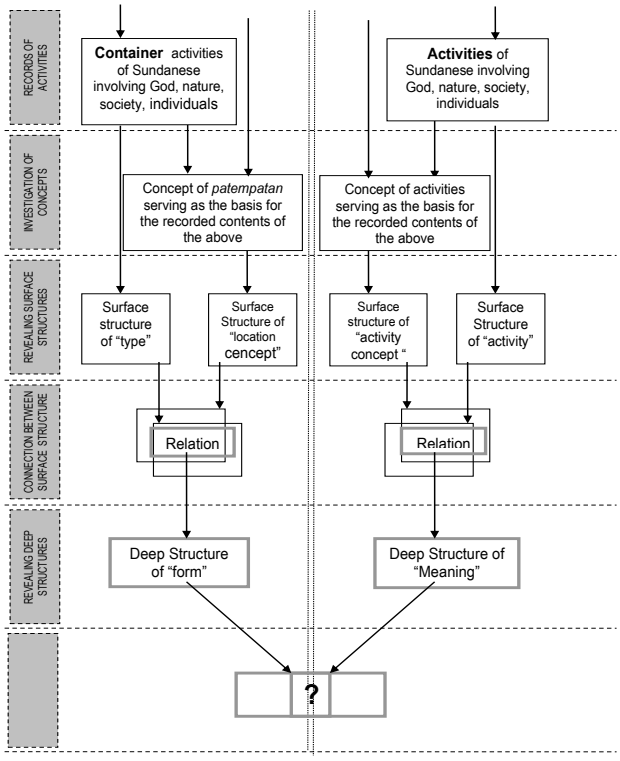


Fig.5: Analytical Framework

The second layer: is a searched for concepts that underlie all activities and containers of these activities. On the aspect of meaning, the concepts underlying all the activities that have been recorded were traced thoroughly. Concepts which is obtained, based on carefully search results. There were four concepts : First and Second, the concept of *Nadran* and *Uga* underlying ritual activities and production-reproduction activities. Both of these concepts were closely related. *Uga* means prophecy that has been passed down by the ancestors. So keeping the existence of the ancestors became very important. It is manifested in the form of a sacred graves. While *nadran* is a concept of having to respect the ancestors by always coming to at certain times to visit the ancestral graves to pray for the ancestors who had passed away. Third and fourth, *Pamali* and *Sineger-tengah* concept that underlie socialization activities and daily routine activities. *Pamali* is understood as something that should not be broken, which is passed from the ancestors through the parents. This concept tended to be dogmatic. If not obeyed, consequencese were not immediate but could occur in the future. While the concept of the *sineger-tengah* is understood as "always in the middle". In life, one should not be excessive or deficient. The life appeal is central. This concept has no more sanction as a reference or action. On the aspect of form, the concept underlying all the containers were recorded. There are four concepts : First, the concept of *lemah-cai* is understood as a place of birth or hometown. A kampong for residence should always contained two elements, namely *lemah* (land) that is suitable for habitation and *cai* (water) to support the land and its people. Secondly, the *luhur-handap* concept which means above-below. The residents in kampongs Dukuh and Ciherang still adhered to this conception, from the arrangement of kampongs to the arrangements of physical containers. While in the community of kampong Palasah this concept is only used as a reference arrangement of physical containers. Third and fourthly, the concept of *wadah-eusi* and the concept of *kaca-kaca*. This concept is understood by the three communities in each case study that in each *wadah* (place) would always contained *eusi* (essence/content) of certain supra-natural power. The concept of *kaca-kaca* is understood as a boundary in a broad sense. It could mean the boundary between the height of the place, the material differences, and it could also mean something that is placed as a symbol of two different areas. The concept of *kaca-kaca* is more viewed as a way of looking at the creation of a physical container. How to connect two different materials or two materials together in a house is more important than its materials.

The third layer : is a disclosured of the surface-structures. Analysis on the aspects of meaning in all three cases study succeeded in revealing the surface-structures of the activity and the surface-structures of the activity-concept. Surface-structures of activities are : Ritual activities, Production-reproduction activities, Socialization activities, Daily routine activities. While the underlying concepts are : *Nadran, Uga, Pamali* and *Sineger-tengah*. Analysis on the aspect of the form in the three cases study succeeded in revealing the surface-structure of container-type and surface-structure of the concept which is underlying the container-type. The surface-structures of type are : Kampong type, Home Type, Type of Mosque. While the surface structure of the concept of container-type are concepts : *Lemah-cai, Luhur-Handap, Wadah-eusi, Kaca-kaca*

The fourth layer : is a relational searched between the surface-structures that has been revealed. In the aspect of meaning the surface structure of the activity is confronted with the surface structure of concept-activity to obtain the relation between the two. In the aspect of form, the surface structure of type is confronted with surface structure of the concept-type in order to obtain the relation between the two.

The Fifth layer : is a deep-structure analysis. After conducting a series of in-depth analyzed, this research succeeded in uncovering deep-structure in each aspect of form and in the aspect of meaning. Deep-structure is the deepest essence underlying of the aspects of the form and the aspects of meaning in the three cases study. Deep-structure in the aspect of form of is: *kaca-kaca*. While in the aspect of the meaning, its deep-structure is : *sineger-tengah.*

The sixth layer : is confronted the two deep-structures that have been discovered and then analyzed the relation between the two. The analysis succeeded in revealing that the concept of *kaca-kaca* and the concept of *sineger-tengah* has mutually supportive attachments. The life of the Sundanese in all three cases study is always based on the *sineger-tengah* concept. This concept mean to place ourselves no more and no less in life. The concept of *Sineger-tengah* could be regarded as a boundary that must always be maintained and manifested in Sundanese architecture in all three cases study. While it is known that boundary itself is the very essence of the concept of *kaca-kaca*. Thus, the concept of *sineger-tengah* and the concept of *kaca-kaca* is a unity that could not be separated.

The *sineger-tengah* concept has a very dynamic relationship between weakness and strength. The ambiguous meaning of this behavior on the one hand could be seen as an act that do not seem to have an attitude of choice. On the other hand could also be seen as a force that allowed the Sundanese society to survive and not easily carried away by the influx of influences that come from outside. The strong influence of the *sineger-tengah* concept fostered earthy behaviour on Sundanese society in three cases study. This behavior was manifested in a very pragmatic physical form. The existing house form is relatively similar because there is a tendency to not wanting to be more than others. And the house has relatively no decorative elements.

The concept of *kaca-kaca* could be interpreted as a boundary which is the beginning to start something as well as distinguished two things like inside-outside, above-below. The boundaries were always presented in the entire physical scale of the Sundanese society in the three cases study.

The concept emphasized that the boundary on this physical form must always be present, giving effect to the vocabularry of the basic form of Sundanese society in the three cases study. The basic shape of the circle is not found in the three cases study. This is understandable because the basic form of a circle is a continuous line and has no boundary. While the boundary is a deep-structure Sundanese architecture. This could be distinguished by a rectangular base shape that always has a boundary. The boundary is a point (fault) between two pairs of horizontal and vertical lines that were always connected. The concept of *Sineger-tengah* and the concept of *kaca-kaca* that formed the physical foundations of Sundanese concepts in three cases study, in their manifestations give rise to the pattern of three. This is why the basic shape of the house of Sundanese architecture is always rectangular. Houses with square planes were not present at all in the three cases study. All activities in the house always started from the middle area of the *tengah imah* (centre of the house as boundary) then progressed to the right and left (*pameget*/male area and *istri*/female area). These three areas of activities were relatively equivalent in value, which is logically always give birth to an elongated basic form.

4. Conclusion

Based on the results of the discussion of the concepts of architectural form and the concepts of architectural meaning in three cases study, this research concluded that:

Firstly, research has revealed, that although the concepts of existing surface-structures is relatively varied, but the three Sundanese architecture of the cases study still have the same deep-structures which were the concepts of the *sineger-tengah* and the concept of *kaca-kaca*.

Secondly, research has formulated a new reading framework that could read the underlying concept of architectural form and meaning in three cases study. This framework is believed could be used to read architectural concepts in other areas of Indonesia

that have relatively similar characters to the character of the cases study.

Thirdly, the results of this research could be used as an input that would enriched theoretical and empirical knowledge of architecture. This research also enriched the architectural survival strategy of Sundanese society in three cases study in facing the context of global change.

Fourthly, the results of this research could be used as a starting point for continuous elaboration in order to produce new local architectural theories in Indonesia.

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