

Harmonization between Javanese House and Modern Architecture

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ABSTRACT

The house not only as a space that facilitate the activities of the occupants as individual beings, but also can be used as an activities room occupants and nearby residents to carry out their social activities. The designer wants to bring back the characteristics of Java House on a residential design, with use of Re-interpretation of the traditional method that begins by constructing an understanding of the home and grounds from the standpoint of contemporary and traditional. In addition, an understanding of the court is also done by describing the court as an open space in the house and contemporary Javanese well with the object of study is taken from the homes of different shapes and sizes. Finally, the understanding of the contemporary idioms used as the basis of the characteristics reinterpret the past.

KEYWORDS: Javanese house, characteristics, modern architecture

INTRODUCTION

First, in the past period concept of Javanese House called *Griya*. As a traditional house, these is meaningful, because not only talking about the use of space for daily use, but able to create spiritual values in order to achieve peace of mind. Interpreting the spatial of house were states that the individual or group to identify themselves as inhabiting (to dwell) that would allow someone to be part of a place and interpret surroundings [1]. Furthermore, not only called *Griya*, Javanese house can also called *omah* and *dalem*. The ordinary people caught that third word as a picture of a building used as a dwelling or a building where the main occupant manage occupied it for activity. Another case when viewed from the perspective of the Javanese, based on the text of *Kawruh Kalang* and *Kawruh Griya* [2], widely '*griya*' refers to the designation of an object building (*griya lumbung* and *griya regol*) to designate the function of the building. *Griya Jawa* is the set of '*griya*' used as a shelter because it likened to a big tree. Having a house, stay, reside and live on it, refers to the having an activity, occupy, dwelling, shelter, protection, organize activities and resting place in which we live on. This activities for the Javanese is to assume that the residence showed with trees as shelter from the rain and sun. This is because the roof of the building has the opportunity to be paired, presupposed and expressed as a hat, a head covering and a head dress [2]. Then, if it is associated with *Griya Jawa*, in addition to the cluster mass compound, it is more important note is the roof of the building. Javanese house architecture is influenced by the culture of the people and therefore contributes to the formation of the building.

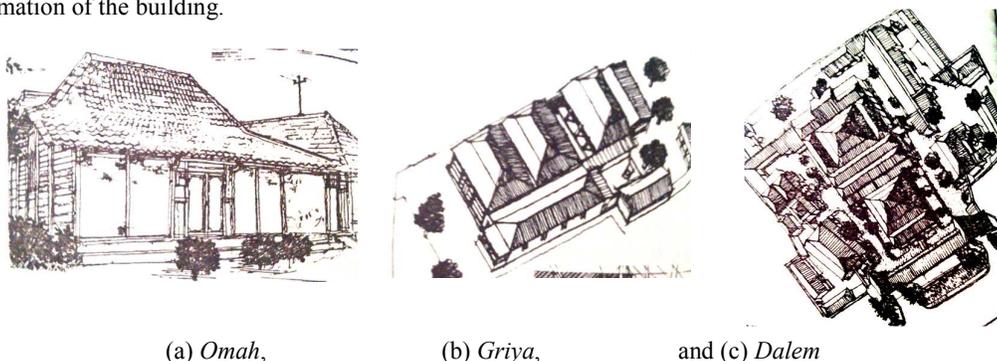


Figure 1. Type of Javanese House

Characteristic of Javanese culture is a tradition and rituals they believe, that is the pattern of balance between man and the natural surroundings are influenced by social factors, cultural and nature itself. Behaviour and human activity emerged as a result of the process of adaptation to these three factors. Any activity to achieve spiritual values expressed in a spatial sphere in which the domestic activity occurs. The house is the right form that is able to accommodate all of the activity. Humans who lives in will expect a well-being, feel the comfort in

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all its activities. Therefore it can be concluded that the Javanese house existentialism in accordance with the concept of life that is trusted and is also associated with the pattern adopted balance. With so general Javanese house building includes several aspects, namely: 1) Site, determining the location of the building in accordance with the calculation the *Neptu*, the house of mass plural, the direction of the axis of cosmic become central to the determination of the orientation of the building, and location of the building; 2) framing/ *pamindhangan*, the pillars, *pananggap* and *pangeret*, structures designed space with the rules of human body size (building occupants); 3) *persungkupan*, created as a consequence of the building roof shape that form a square or rectangle, the composition of the raw space, space available has an large area (with a specific purpose), the physical wall that surrounds the house symbolizes the boundary between the outside and the inside as well as enabling the integration of natural elements into the human environment (could mean that space with high wall shows that the space has a sacred value / high privacy of anyway), the difference in floor height was created to demonstrate the functions and properties of space; 4) *Persolekan*, namely the completion of the element, the existence of the decor decorative motifs such as the use of nature, animals, plants and ornaments colour, which became symbols of belief in God, which are symbolic.

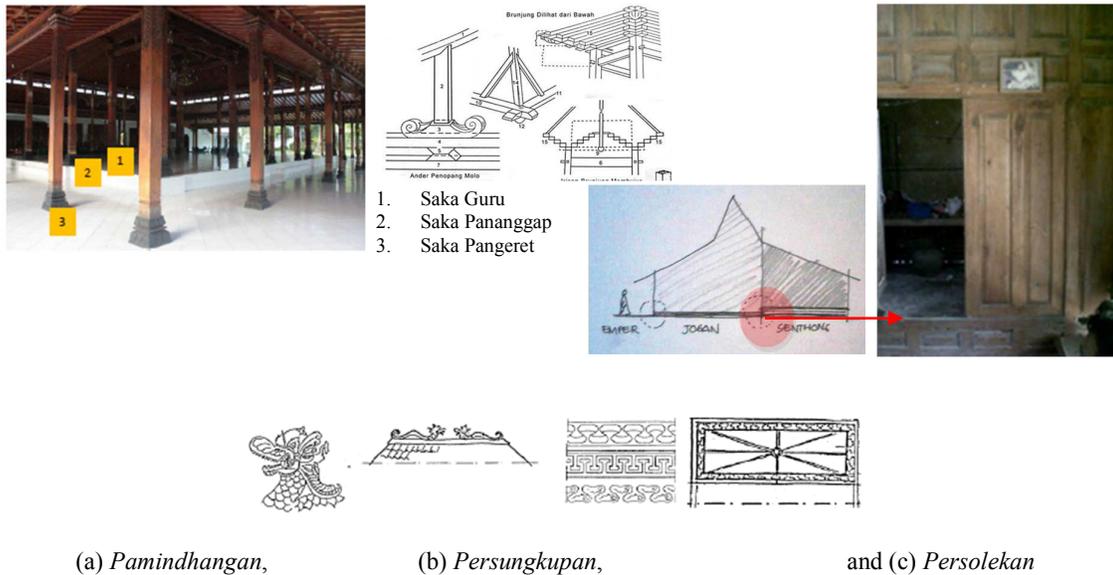


Figure 2. General Aspects of Javanese House

The second element is Javanese house in the contemporary period. As for the change of house meaning in the contemporary period is that *griya* and *omah* (in Javanese) if translated into Indonesian is *griya* = house, *omah* = house [2]. The change of understanding *omah-griya* is heavily influenced by the change of culture [3]. This happens since the advent of colonization by European nations who for centuries lived in Indonesia resulted in the removal of the nobility, restrictions on freedom of movement, as well as the action on the customs and beliefs of the population affects our traditional architecture[4]. Both of these words can give an idea of the general public regarding the building which is used as a living room / shelter or in other words an occupied building occupants to settle down. Another case if we go back to the notion *griya* and *omah* for the Java community in the past, which affects the physical building, these are 1) the use of building material namely in

Table 1. The Use of Building Material

First	Now (in Colonial period)
Wood, bamboo	Cast iron, glass
Adopt to the local climate	the achievement of the principles of health, comfort, and other

Table 2. Changes in the Interpretation of Space

Serat Centhini	Javanese house with the European Influence
<ul style="list-style-type: none"> Many <i>petangan</i> Front of the building is the longitudinal direction It prioritizes the layout, orientation of doors, buildings, etc. 	<ul style="list-style-type: none"> The front face of the building can be performed by placing the wide side of the building on the facade Disregarding the layout and orientation of doors, buildings, etc.

3) The use of engineering building (construction)

Characteristics and forms of residential space as cultural material produced by humans can be used as a benchmark development of human civilization and culture are alive at the time. Shelter which was originally set up with a very simple then as time goes by the more complex formations created. This is in line with the development of human civilization, ranging from the search form on the natural curvature, to create buildings with intricate shapes and filled with symbols. Architectural results created an imaginative work that is owned or in other words that the space in residences are occupied not only a place for daily life but also to hold the imagination [5]. It can be concluded that from the standpoint of architectural culture (residential) in the contemporary period: 1) the spiritual element in the selection of the location, extent of land or buildings are not valid, 2) the balance between society, namely the traditional Javanese life, among people who live in the community has five determining factors are gender, age, privacy, kinship, and confidence, while in the life of Java now has a lot of changes occurred due to the mobility of living is higher (people prefer to rent rather than own), 3) residence just as living space or a place for rest, 4) in terms of form, the residence in the past distinguished between the appearance and shape, face and style (and so forth) so that in the face of residence Java from the look right and left, front and rear will be different. This occurs because of the influence of the cosmos trust by the public earlier, while that happened today is the difference in the look of the building from any side occurs as a result of the process of creativity of the designers of residential buildings.

The third element is defining the court. The court defined as open space that does not have a visual barrier such as a wall, which is in the tradition of Javanese house (in particular), the court is usually a clearing in front of the house. Open space limit that prevents visual and physical relationship is minimized in order to allow intensive relations with the outside world [6]. As a counterweight to openness, the hall must confirm that the orientation of the space centre is still identifiable. The nature of this action is expansive reach him. The colouring area below this test were named court.

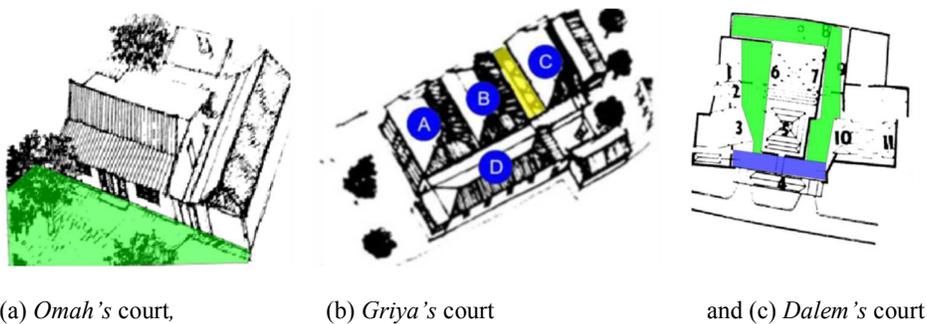


Figure 3. Court in the Javanese House

The fourth element is contemporary architecture. Basically a contemporary architectural work of art is a form of expression of time, and therefore required an understanding of the determinants and causes of forming the contemporary architecture [7]. One is through technological systems become an integral part of the Western, which is crucial technological systems as well as the production process. With technology, enabling them to create new forms of architecture. Technological advances made by architects and designers can easily explore their designs. In contrast, the development of world architecture Eastern strongly associated with the past with the development that is still acceptable. Matters related to the past, for example the Eastern whose still believe in the existence of spiritual discourse, ancient myths, and so are the roots of the culture of the East. Including in Indonesia, architectural background with their views on the cosmological determine the development of architecture in Indonesia, especially Java. Over time, the influence of Colonialism entered the Western brings new insights to the Eastern through the principle of rationality. Moreover, the existence of modern thinking, new technology, new materials, methods and processes be continually evolving architecture. Specifically, in a contemporary architecture that developed in Indonesia to answer the demands of modern or contemporary fortified with consideration towards the understanding of traditions, local or regionalism. Taking into account the consideration of climate on the selection of materials, structural systems, construction of buildings. Search geometrical shape of the building cannot be separated from tradition so that the building has an image of the locality, as well as the consideration of socio-cultural. Related to the above, the present is expressed in several indicators, which is the influence of the Europeans in the 20th century, including: symmetrical, asymmetrical, abstract, functional, geometrical figures, economic and decorative, plug and play, detailing, workmanship, hygiene, open and closed zones, dynamic, non-formal symbolic, expressively, contrast, a-historical, innovation-reinterpretation, form follows function and as an expression of ideas, rational, non-symbolic.

The fifth element is about contemporary tradition. The sense of tradition and modernity not only refer to a concept and standard identity in a showcase of traditional architecture and modern architecture, but also more focused on the nature or characteristics traditionality and more dominant contemporary architecture inherent in the formation of architecture. Nature or all features of traditionality is a kind of syncretism, eclecticism, mysticism, symbolism, adherence to tradition and history, the observance of legitimacy, forms born of logic materials and weak spirit of innovation in architecture [8]. While the indicator showing the modernity is the spirit of innovation and reinterpretation, rational, a-historical, anti-symbols, shapes born from certain ideas, and form follows function. In the discussion of architectural, contemporary architecture has been linked to the time and spatial context. Each of the new rules are certainly in line with what had been believed. Speaking of the time, the question is what is happening today with considering the possibilities that will occur in the future. Similarly, all the room's spatial and social conditions that are generally going on where we are (at present). From some exposure of tradition and contemporary architecture to be able to conclude several indicators that show the present, then some of the indicators that can be used to produce architecture that represents the past are: symmetrical-asymmetrical, abstract, functional, and decorative.

And the last element is reinterpreting tradition. Reinterpreting tradition to be one approach for architect effort to maintain the relationship between form and meaning through understanding of the traditional elements which then performs a representational system modifications that have been passed. Based on the difficulty of the effort to restore the values of architectural traditions of the past through the representation of the meanings contained therein. The approach carried out by the refresh of how buildings are created with local values and history. The formal device is not discarded, but with a transformation by means. A reinterpretation of tradition is the process of combining the previous iconography with designer aesthetics. Use of a tradition that is used in this strategy is more abstract since the designer is carried out by a modern idiom that implies the use of the past. In essence, the reinterpretation of tradition is re-interpreting of the values contained in the traditional architecture. From the study of traditionality and contemporary reinterpretation of tradition to the need for a contemporary idiom that is symmetrical-asymmetrical, abstract, functional, and decorative.

MATERIALS AND METHODS

Reinterpretation emphasis on architectural reinterpreting activities Javanese house in order to maintain the relationship between form and meaning through understanding traditional elements[9]. Then performed a representational system modifications that have been passed. Based on the difficulty of the effort to restore the values of architectural traditions of the past through the representation of the meanings contained therein. How this is done in an effort to bring traditional elements in residential buildings. For now-clicking the tradition in a design then re-interpretation of some aspects need to be considered, for example:

Table 3. The Measurement items and Method of Javanese House

Design Aspect	Concept
Site	Re-configure the elements of the architectural traditional space with a more modern concept of balance
Roof	Roof element is the part that tends to be a means of symbolization
Space	Interpret material from a room divider that is often performed to obtain the quality of a particular space
Construction	Interpret the concept of architecture construction with technology and material
Decorative	Interpret the decorative concept has consequences to changing the meaning or symbolism
The Environment	Interpret the perception of the environment is an attitude or architectural response to the environment in balancing sustainability of life
Symbolic	Interpret values evolve. Traditional architecture be an interesting way to present new facade in architectural design
Economic	Create a new understanding of economic concepts of a building requires special techniques and appreciation. Degree of difficulty can be a real dilemma faced compared with the aesthetic problem.

The approach carried out by the refresh how the building was created with the locality and historical value. The formal device is not discarded, but with a new transformation. Such ideas may appear in an architecture that combines tectonic tradition with contemporaneity consciousness. Therefore a work should be able to create a tradition that has a value of authenticity and quality. Authenticity defined as something more than just the quality of sustainability in the cultural stratification. More precisely as an existential experience, which can not be separated from the locality lasting value and a traditional identity.

Design Method

The use of a reinterpretation of tradition methods allows one to perform the perception that past history may resurrect in contemporary buildings, both tangible and intangible. The person's perception comes through what they see, and feel of an architectural masterpiece. Any form of architecture tangible and intangible, traditional elements is modified in order to restore the values of the architectural traditions of the past through the representation of the meanings contained therein. Done by the reinvigoration of locality and historical value with

no formal dispose of the device which is then transformed, of course, by using contemporary idioms that have been determined them symmetrical-asymmetrical, abstract, functional, and decorative. The process is then combined with the aesthetics of the designer, which is derived from the results of the exploration. To that end, some devices (tangible and intangible) architectural used in this method are: site, space, construction, decorative and outer space.

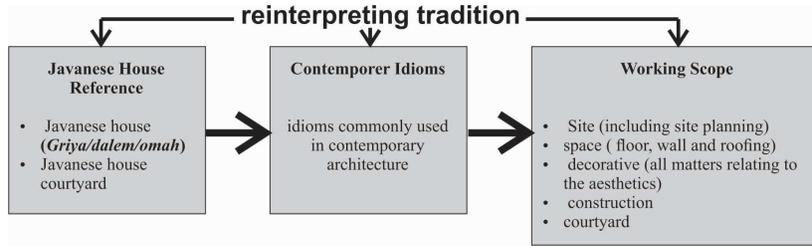


Figure 11. Process to Reinterpreting Tradition

RUSULTS AND DISCUSSION

It has been described previously that the use of a reinterpretation of tradition needed to modernize the Javanese house several substances that favor: first, the Javanese house in the past, the concept of design as well as in the future development. The second is the house from the standpoint of contemporary as well as associated with contemporary idioms applicable. The third is on the court that is as open space and the space is public. The substance is used as a prefix to reinterpret the tradition of the concept of Javanese house updated by using some contemporary idiom [9] which must still consider the design criteria, which are:

Table 4. Reinterpretation of the tradition of some aspects of the draft

Criteria	Details
Provides a shared space that serves as a space for interaction between the occupants of the house with others	<ul style="list-style-type: none"> The nature of public space should have the impression of an open, without walls, so easy to reach The court at least be able to facilitate the need for space for the activities of local people Public Zone should be given a specific marker to be easily recognized.
Easier for others to access the shared space	<ul style="list-style-type: none"> The entrance should be easily seen.
Criteria	Details
Bring back the traditional architecture through expressions and their meanings	<ul style="list-style-type: none"> Java symbols should be displayed, for example: roof construction using <i>empyak</i> and <i>balungan</i>, some of the side walls are made of woven bamboo, and plants used
The design of the building is integrated with the surrounding environment	<ul style="list-style-type: none"> The design of the building were not impressed luxury Selection of materials, use of fences, crops and orientation of the building blend with the surrounding environment
Utilize recycled materials in an effort to preserve the natural	<ul style="list-style-type: none"> Optimizing the use of materials derived from recycled
Split the two functions, namely as a home and common room	<ul style="list-style-type: none"> Domestic activities must be separate from the crowd Domestic activities must be performed in space

Design Application

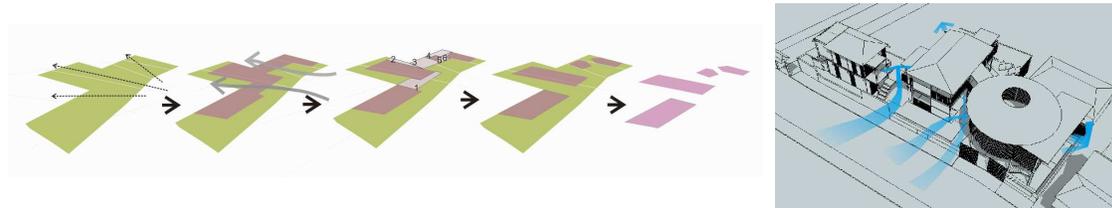


Figure 4. Air Circulation on Building



Figure 5. Building Orientation

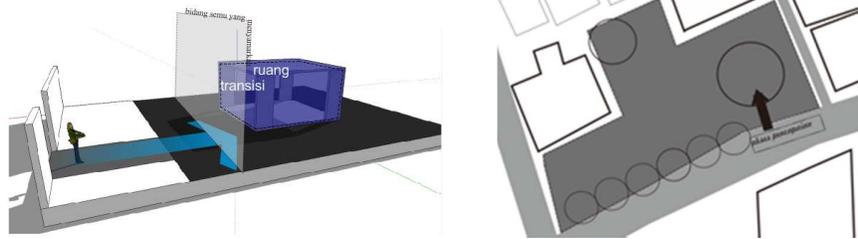


Figure 6. Building Entrance

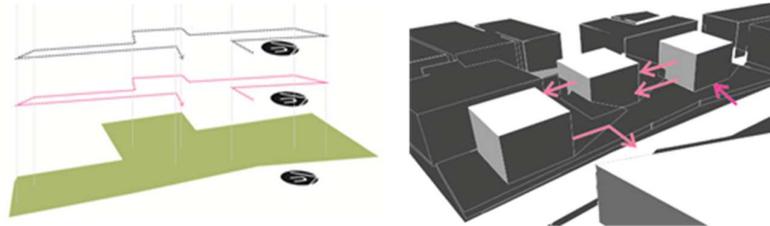


Figure 7. Building Linier Circulation

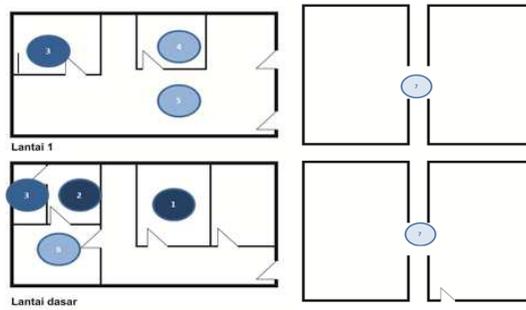


Figure 8. Building Layout



Figure 9. Plant as a component forming the outer space



Figure 9. Framing as Building Aesthetic

CONCLUSION

The tendency of society to an individualistic nature as well as the rise of a work of architecture that does not represent the local architecture/traditional currently a background in modernize the Javanese house, it can be concluded that traditional architecture is restored through the symbols of Java, both tangible and intangible; building design integrated with the surrounding environment. For example, by giving the impression that is not fancy, and the choice of materials, use of fences, crops and orientation of the buildings that blend with the surroundings; optimizing the use of recycled materials; whereas for the design of houses, that domestic activity in it should be separate from the crowd and certainly put in space.

In the reinterpreting Java house design concepts, both in general and specifically. In general design concept with regard to the needs of residents and their relationship with themselves, those around them and nature. For example, because the house is identical to the Java shared space, the building should provide a space that can be utilized together (including social events). While the concept particularly related to the use of a reinterpretation of tradition. Therefore, from some aspects such as the design of the tread, space, decorative, and the court use contemporary idiom that is capable of imaging. Traditional tangible and intangible building character still used to indicate locality in the design of residential architecture of this. Does not rule out the possibility also to give new forms that have been modified.

Through a statement on dialog “*Sebuah Pencarian Bersama, Perbincangan Pemikiran Arsitektur bersama Eko Prawoto*” is 'House should be integrated with the surrounding environment'. That is when we insert the house in an environment, the presence of the house can be a spirit to its surroundings are exemplified through the fence, the park, where trees, choice of materials, the orientation of the building can be fused with its surroundings. From that dialogue, confirms that the house should be able to contribute to the surroundings. The presence of this concept can give a new meaning, not only for the occupants in it but also for the surrounding residents. And how society in defining the shape, engineering, construction systems, building elements of materials and the use of ornament as an aesthetic part of forming this house.

REFERENCES

1. Schulz, Norberg, 1985. At Santosa, Revianto Budi, 2000. Omah: Membaca Makna Rumah Jawa.
2. Prijotomo, Josef. 1999. Griya dan Omah. Penelusuran Makna dan Signifikasi di Arsitektur Jawa.27(1):30-36
3. Suparlan, 1986. At Hidayatun, Maria.I., 1999. Pendopo Dalam Era Modernisasi: Bentuk, Fungsi dan Makna Pendopo pada Arsitektur Tradisional Jawa dalam Perubahan Kebudayaan. 27(1):37-47
4. Frick, Heinz, 1997. Strategi Arsitektur 1: Pola Struktural dan Teknik Bangunan di Indonesia, Suatu Pendekatan Arsitektur Indonesia melalui Pattern Language secara Konstruktif dengan Contoh Arsitektur Jawa Tengah. Jogjakarta: [Kanisius], Indonesia. 1997.
5. Kartono, Lukito.J., 2005. Konsep Ruang Tradisional Jawa dalam Konteks Budaya, 3(2): 124-136
6. Santosa, Revianto Budi, 2000. Omah: Membaca Makna Rumah Jawa. Jogjakarta: [Yayasan Bentang Budaya], Indonesia. 2000: [77].
7. Jadhav, Rajratna, 2004. Gast, Peter; Klaus. Modern Traditions Contemporary Architecture in India. [Birkhauser Verlag Ag], Berlin. 2007:[7-10].
8. Mokhammad Syaom, Barliana. *Metoda Perancangan Arsitektur*.
9. Lim, William SWL; Tan, Hock, Beng. The New Asian Architecture: Vernacular Traditions and Contemporary Style. [Periplus Editions], 1998.