

LOCAL WISDOM IN JAVA'S ARCHITECTURE (STUDIED IN NATURE, TECHNOLOGY AND HUMANITY)

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ABSTRACT

The 21st century architecture is faced with three major issues: nature, technology and humanity. Java architecture which derived from the philosophy of Java was known by its local wisdom. However, it is not known whether the wisdom is related with the issues of the 21st century or not. For that conducted the study which obtains the position of Java's wisdom when viewed from the three issues: the handling of nature, technology and humanity in architecture. The data was derived from literatures and field study. The method used is criticism and logical argumentation. The final result is the suitability and unsuitability of Java's wisdom with the issue of the 21st century. Java's wisdom actually suits the three issues because they already had their own wisdom which able to handle these issues, but not all writes on literatures.

Keywords: Humanity, Java's Architecture, Local Wisdoms, Nature, Technology

INTRODUCTION

Architecture, as the work of human is always confronted with new challenges according to the times. Currently, human needs the better and the more sustainable live. Rachmawati, 2009, said that the 21st century human is facing five issues: nature, technology, humanity, globalization and economy. She mentioned that the big three challenges in 21st architecture is nature, technology and humanity. These suits with William Mc Donough's theme at Hannover Expo, 1992: humanity, nature & technology in different order. The function of architecture must correspond to the architecture challenges of the 21st century. The function consists of three important problems in nature, technology and humanity issues.

Java Culture has been known for its architecture which has the essence of local wisdom. The local wisdom is the reflection of the philosophy of Javanese. Does local wisdom in Java architecture suit the above three issues? The examination of Java's Architecture in three major functions will show the actual position of Java's architecture in handling the three problems in nature, technology and humanity to gain sustainability for 21st century living.

CONTEXT

Humans are always searching for a way to get a sustainable and a peaceful life. Between nature humans and technology, there should be a harmonious cooperation. All the three issues should result in harmony, in the context of sustainable architecture (Flame-Jasper, 2000). Similar statements was disclosed by Rogers, 2002; Ramon Naz, 2007; Rachmawati, 2009. The context of sustainable architecture is a necessity which cannot be negotiable; it must be implemented by human beings, including the architect. As an effort to get the sustainable architecture, it is important to find a local wisdom which has actually been owned by a society and a test to the theory of functions according to Rachmawati, 2009 which is based on human needs and challenges of the 21st century. Thus the context of this paper is about the sustainable architecture.

REVIEW OF LITERATURE

Rachmawati, 2009, indicates that the appropriate subject matter function of the 21st century is nature conservation function, the technology function and the humanity function. Rachmawati (2010: 350)

said, the function of nature conservation is to make the architecture in harmony with its nature, by building without using materials which are destructive for the nature. The man holds the most important role in shaping and building the environment. In terms of location, architecture should use the local culture as an important part. The handling of the three issues: nature, humans and the local culture requires to be connected.

Rachmawati, 2009, also said that the function of technology for the 21st century is to make architecture using the ecological technologies, and also make the architecture in harmony with the nature. As a tool, technology should promote sensitivity to the ecology. Variety of the technologies used can be varied, from the very sophisticate to the simplest one, from digital to hand made. But the important thing is that the architecture does not destroy the nature. The role of men as the operator is important. In this case, architects who are able to use all his ability and make 'technology' capable of making architecture is useful for both humans and nature.

In function of humanity, actually the architecture is intended to all people, created by using all of human intellectual abilities to meet human needs both as individuals, groups and as a society. Architecture is closely connected to the sensitivity of human culture. Humans also need to prepare the young generation by teaching and developing the human intelligence according to the ecological objectives for the purpose of making architecture in harmony with the nature. Humans should build buildings using the ecological technology for the highest quality of a better and sustainable human life.

The results of all functions can be formulated as a function of making the architecture in harmony with nature, when it is created & deployed using an ecological technology by a cultured man with sensitivity in humanity as an operator. All functions work in holistic, comprehensive, and an integrated work. Everything is linked to the framework of spiritual which direct people to become good human beings, which not all of his desire can be met, which desire should be limited precisely adapted to the conditions and circumstances it the surrounded region.

As a result of human work, the architecture also has the understanding of local wisdom. The original Java house is the representative of human intelligence and Java's wisdom in architecture. Santoso, 2009: 3, mention the understanding of local wisdom as a positive human behavior in dealing with the nature and the surrounding environment, which can be sourced from religious values, customs, advice ancestors or culture that is built up scientifically in a community of people. The local wisdom can be understood as the local idea which is wise, full of wisdom, and good-valued, which is embedded and followed by the members of the community.

METHODS

The research is qualitative, which make it able to critic the data of Java architecture which are derived from the literature and field study. So, what's needed is a method which is able to describe something through the power of analysis and rhetoric. The method used is the method of logical argumentation (Groat & Wang 2002: 303) and the method of criticism (Attoe, 1978: 1-10) The Java's wisdoms critics in the three issues (nature preservation, technology and humanity) are done using the method of criticism and the logical argumentation. The study is including a local wisdom from literature and the field study.

FINDINGS

The statements, stories, and philosophies are derived from many literatures by Herusatoto, 2003, 1984, Ciptoprawiro, 2000, Ronald, 2005, Suseno, 2003, Prijotomo, 2006. The philosophy of Javanese life which includes the numinous nature and relation to society, nature and the supernatural, centers of power and human ego is connected with statements, words or stories that exist in the Java community, as follows:

- 1) Communities learn that nature can be a threat, but also provides benefits and tranquility the whole nature of human life depends on. Natural magic or supernatural power is also a part of human life and is implemented on Java in the form of 'salvation'. Javanese thought that the original nature is the haunted place, so they must reduce that horrible (Suseno, 2003:129).

- 2) *Sangkan paraning dumadi* is known as the origin and the destination of all that is created. The human understand who created the nature and the purpose of life is God. God is the origin and the destination for humans. God is there and absolute, the universe is the manifestation of God, the universe and man is a unity that is usually called the unity of the cosmos, and all are interconnected therein.
- 3) *Trisila* contains three characters that means people conscious to always devote themselves to the Almighty God; believe in true spirit or the messengers; loyal and always carries the command. *Trisila* indicates the emphasis of trust on human's life. This rule is in between the man's relationship with God and the apostle.
- 4) *Pancasila* which contains five character means: people should be thankful for whatever they are having; do not want the property of others, are grateful to God; always keep his own words; strong against all odds; and patient. The ultimate personality can be achieved when the human is carrying out the first four nature. *Pancasila* characters emphasize the rules of a good attitude to the Javanese. All of which would make a virtuous man.
- 5) *Ojo dumeh* means to not just because he is powerful, smart, strong, stout, rich and win, he can prevail over anything to do the deed which might be not good. *Ojo aji mumpung* means to not just because he is strong and handsome, clever, powerful, wealthy, and win, then he could not restrain himself of becoming greedy. Do not use the power to do some disgraceful actions. Do not have personality arrogant because of having the wealth, power; cleverness; courage and some abilities. On the other hand human must be patient, restraint themselves, not being haste; and be careful. Its better if people have the three good characters *deduga*, *watara* and *reringa* which means considering everything before acting, being decent and always considering the good measures which could be done; thinking about what is done to correct the implementation, being careful not to do something before your heart sure of what will be done. Advice for people to not do bad things when he was in power, and making a relation between human beings and the humanity which make a good human relationship. Man must be careful, patient and be able to control himself.
- 6) The story of *Ajisaka* with his two loyal servants who eventually kill each other because both are obedient to the *Ajisaka*'s words but do not trust each other. This is a story about the beginning of Java's tribe. Some versions are called with the beginning of Java letters. *Ciptoprawiro* (2000:15) using the first five letters in the alphabet of Java 'HANACARAKA' as an indication that there is an absolute universe, the One God, the universe and the man is in an interconnected unity of the cosmos and all therein. For the Javanese philosophy, man plays in a relationship. They always use their ability to sense the unity of thinking - feeling – and willing. Stories about *Ajisaka* also point to the matter of humanity and trust that must be possessed by all humans. It also contains advice that nature and man is united, so that should not hurt each other.
- 7) *Saiyeg saiko praya* means people should move together in order to achieve mutual interest/ goal. Although it also discusses the relationship between humans, the statement of *saiyeg Saiko proyo* has the feel of mutual cooperation, and the togetherness toward the goal.
- 8) *Mangan ora mangan kumpul* means that no matter if there is no food, people will still gather with each other, to show some spirit of the mutual cooperation and social solidarity.
- 9) 'The one who does the action will reap the reward' means those who plant, will reap the rewards in accordance with the effort done. If people do something bad for the nature, technology and humanity, they will reap the results in bad thing anyway.
- 10) *Kawruh Kalang & Kawruh Griya* is a knowledge which tells how to cut down a tree, considering the quality, size guidelines, and placement of buildings, building timing, and completion of construction as an ideal place to live. *Kawruh Griya* and *Kalang Kawruh* give details to the procedure for constructing houses, the selection of natural materials used such as wood in the construction of architecture.

DISCUSSION

There are ten findings in the statement, philosophy of life and the legend which underlies Java wisdom and Java architecture. Javanese has lots of guides to be used in living together with human beings, with nature and with God. Javanese thinks of the original nature is the haunted so the region can

destroyed to reduce the horrible. Nature is being merely exploited for human welfare. Whatever will be done to take the prosperity benefits for mans. *Kawruh Griya* and *Kawruh Kalang*, also do not insist on the preservation of nature at the forest where the wood was obtained. They only showed more details to the procedure for constructing houses, the selection of natural materials used such as wood in the construction of architecture. However, by considering the age of the wood, it showed enough attention to the regeneration of the timber. People need the high-quality, the straight and the strong wood, and they did not wait until the timber growth enough. This indicated that Javanese disregard of the nature conservation.

Somewhat different from the meaning of the story content Ajisaka by Cipto Prawiro, which show that the unity between man and nature are supposed to be looked after and should not hurting each other. *Sangkan Paraning dumadi* is an expression which shows that the universe as the manifestation of God and the man is a unity and all are interconnected therein. There are things that are not consistent. There is no connection between each statement, the philosophy or the knowledge. In Java Wisdom includes many local good relations between man, God and other human beings. There are two different sides in handling the nature. There is a point on the union of human nature in the sense of not hurting each-other, and a point on the appropriate utilization of nature as human desires.

Trisila, Pancasila, advised not to arbitrary when he was in a good position and giving advice for people to not do something bad when he was in power. Man must be careful, patient and be able to control himself. The story about Ajisaka also points to the matter of humanity and trust that must be possessed by all humans. Although it also discusses the relationship between humans, the statement *saiyeg Saiko proyo* has the feel of mutual cooperation, and the togetherness toward the goal.

The statement *mangan ora mangan kumpul* showed a spirit of mutual cooperation and social solidarity. It also consists of some recommendation on how to be a good person, to do every job with solidarity in order to achieve the goal, and to show a very high humanity. There is no doubt about the existence of Javanese's humanity.

The statement: 'the one who does the action will reap the reward' can be understood from different perspectives. If people do something bad they will reap the bad result. If people do something good they will reap the good too. If people destroy nature, use destroyed-technology and destroy human, they will reap the results such as earthquakes, landslides, flood, gap between people, and the chaos of life.

Table 1: The Results of Analysis

No	The number of statements / story/ legend	Responses In Issues		
		Nature	Technology	Humanity
1	The original nature is the horrible so that nature is the region that can exploited to give the blessing for mankind	-	-	+
2	sangkan paraning dumadi	+ ◆	-	+ ◆
3	Trisila	-	-	+
4	Pancasila	-	-	+
5	Ojo dumeh, Ojo aji mumpung, Rereh, ririh, dan ngati-ati; prayoga, watara dan reringa	-	-	+
6	The story of Ajisaka	+ ◆	-	+ ◆
7	saiyeg saiko praya	-	-	+
8	Mangan ora mangan kumpul	-	-	+
9	Sapa gawe nganggo, sapa nandur ngundhuh	-	-	+
10	Kawruh Kalang & kawruh Griya	-	+ ◆	-

Notes:

- + : indicates have responses in handle nature problem, technology & humanity
- : indicates not have responses in handle nature problem, technology & humanity
- ◆: indicates have integrated between one and other

From the results, it can be seen that the local wisdom are connecting with some issues related to human relationships with nature and the supernatural. Judging from the handling of natural problems, ideas, and concepts, the existing local wisdom is closely related to the continuity of human welfare. On these circumstances, the nature and the man should not hurt each other. In this case the function of nature conservation should be properly realized. However, in terms of human beings and the supernatural nature, the nature is seen as something haunted. Nature is considered haunted, but the things nature produces can be exploited for the sake of human. This thing led to a dualism conflict in terms of natural conservation. The handling here is more natural to be seen from the humans interest point of view.

Technology was being mentioned only in the Kawruh Kalang & Kawruh Griya. Nevertheless, the technology was not being involved in the nature preservation. Connection with human may be seen only in the system of measurement called "*Petungan*" which order to human blessing, but not in humanity. According to the humanity, almost all of Java's wise statement shows a very close human relationship, which is good and full of tolerance. Nevertheless, the humanitarian functions in accordance with the challenges of the 21th century, is caring, and giving sympathy directly to human groups that need a help of humanity. In the Java wisdom, this function can be seen in the statement *saiyeg Saiko Praya* which indicate the presence of spirit of mutual cooperation, to realize a common desire. Meanwhile, the statement *mangan ora mangan kumpul* also indicates the tolerance and harmony between human beings. Basically, all depends on the human themselves. This is in accordance with the Javanese philosophy of life which shows that man is the center of everything. To obtain the safety and the welfare in conducting human life, people have to be able to control themselves. Thus, the result shows that the Java's wisdom paid attention to the humanity issues.

All statements from Java's wisdom consists the issue of 21st century: handling in nature, ecological technology and humanity. But unfortunately all statements stand have not integration between them. So, the integration of nature preservation, ecological technology and the humanity were not suits the Java's wisdom from the literature.

The data on the field was different with the result analysis from literature. The data was taken from an original house in Solo, Java, which some people from different generation occupied. Some people are still living at the house which was owned by their father had been interviewed. The building was still original. Their lives are still very natural. In everyday life, the rice is taken from the plants planted by themselves, as well as the vegetables. The packaging of the food is still using banana leaves. Traditional foods are made from the original material gathered from the surrounding villages. It can be seen that their life is close to nature.

The major material of house in Solo was wood. In order to build that house, the workers are divided into two: the no paid, and the paid worker. The non-paid worker came from the family and some surrounding neighbors who only work on Sunday or in holiday. The building construction can be moved elsewhere. Moving the building can be done together by a lot of people. Some people were paid, and the payments can lead to help their economic issue. It is the implementation of statement *saiyeg saeko proyo*. This is a good side of humanity with a very good integration between hand-made technology and humanity. The community of life is still very helpful and full of trust between each other. Very helpful communities make their house safety. Besides that, *Kentongan*, the traditional system is still implemented to help security.

From this can be seen that look associated with handling the problem of nature, technology and humanity. The population is still a strong believer that life should be sincere, and they need to work hard to be able to live. People recognize the need of nature conservation because the village was almost changed into a town. Some fields with paddy are changed into houses belong to the developer, or changed into a government facilities. The green plants are changed into 'concrete plants'. Actually, people there are still concerned with the preservation of the environment and want to live naturally. They wish to retain the ownership of their land. But they lose from the government political will or benefit opportunity the modern people.

Thus, for some people that lived in original house of Solo, the concept of living that promoted the humanity and protects the environment is very strong. So, if checked in the field, the human desire to

preserve nature is very strong. Humanity problems were handled well, the simple technology used is ecologically and humanely good.

CONCLUSIONS

The result that conducted from the literatures shows that the issues of humanity have been paid attention in the Java's wisdom. Nature preservation get enough attention, but not for the technology. Technology intentioned not involved the nature preservation, only in human welfare, not humanity. So, the integration of nature preservation, ecological technology and the humanity were not suits the Java's wisdom. The field study shows that nature conservation and humanitarian issues have become the attention of the community. The integration of nature conservation, ecological technology and humanity seems to suit with Java's wisdom well. However, this research has showed the existence of Java's wisdom to overcome the three problems of the 21st century which was the nature conservation, ecological technology and humanity.

The results gained from the data literature analysis mentioned that the Java wisdom was not suit, the result from data fields mentioned that Java's wisdom suits the integration of nature preservation, ecological technology and humanity. It probably showed that the Java architecture had the Java wisdom that integrated nature, technology and humanity. But not all write on literatures. Actually, the desire to have a sustainable living in the world without nature, technology and humanity problems seems to not be difficult for Javanese, because they already had their own wisdom which able to overcome the problem, nevertheless unwritten.

The new problem is arrived, because the modern humans prefer to neglect the local wisdom from their ancestor. They move to modern culture which they think is better even though the local wisdom had proven a better solution to overcome the problem in 21st century and to gain the sustainable living.

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