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Seminar on Service Seminar on Service Service Settlement The role of local knowledge in built environment

Articles

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: Preface

The Faculty of Engineering, Department of Architecture University of Indonesia is pleased to present this publication, the Proceedings of International Seminar on "Vernacular Settlements: The Role of Local Knowledge in Built Environment", Depok 3-4 August 1999.

Vernacular settlements contain valuable lessons on sustainable environments, in which the built and the natural mix perfectly. Such environments have their own identity as the results of unique social and cultural process upon the land and buildings. In each of such environment the ecological balance becomes a primary concern, which determines the local building tradition. Yet, the urban world of today has often opposed to this type of settlement. Building science and technology have become exclusively a discipline, which often ignores or even excludes social and cultural values of urbanised fragmented societies. Consequently, local knowledge on building is decreasing and the vanishing of certain vernacular settlement becomes evidence.

In the age of global challenge, the local societies of the Pacific Rims countries, especially those at the Asia including Indonesia, have faced this impact. Urban coastal cities of this part of the world have increasingly bearing western outlook to replace the "outmoded" image of the prior colours. Inefficiently, over consumption, and individualism are increasingly taking over the low consumption type of development exemplified by the local vernacular settlements. Proven or tested knowledge has taken over the conventional, mostly traditional, local knowledge in the building process.

This seminar challenges those, who are concerned with various issues of vernacular settlements, to exchange critical views by presenting their studies. We are launching a discourse by presenting several sub-themes and are looking forward to other constructive suggestions.

We would like to express our thanks and appreciation to all presenters, participants, the members of scientific committee and sponsors as well as all of our colleagues for their invaluable contributions in this seminar.

We wish all participants will find this seminar intellectually engaging and looking forward to meeting you all again in our future seminars.

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ON VERNACULAR SETTLEMENT

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ABSTRACT. Vernacular settlements persist in the era of rapid social, economic, and technological change. They constitute the major part of the habitation scheme in the developing countries. Despite their existence attracts scholar's attention and becomes object of studies, the term vernacular has suffered from inferiority as opposed to high-style development scheme, as they are often associated with anonymity, primitive, and poor. Perhaps scholars of vernacular studies had over romanticized the physical reality and overlooked hidden aspects of such phenomena. This opens the opportunity of selling vernacular image in tourism industry and thus creates problems of contexts and meanings in cultural tradition.

This paper discusses the problems around vernacular settlements within various social and physical contexts. It attempts to clarifies proper conceptual framework occurred in vernacular settlement discourse and thus provides a different picture in viewing this most ancient type of communal living. In doing so it needs to look at this phenomena from both outside and inside. Outsider's view often implies prior concept in analyzing the subject, while insider's view reveals the expectation of community. Based on observation in several vernacular settlements, many members of younger generation there are ready to change toward different models of living, while the older tends to live in the memory of the past. These attitudes have to some extent caused some vernacular settlements degenerating. Consequently some valuable local orally transmitted knowledge will fade away and soon extinct. As change is inevitable in the information age, an inclusive view would have provided proper actions to develop such settlements.

INTRODUCTION

Vernacular settlement is perhaps the most enduring type of human living. It still covers major part of the human settlements despite expanding transformation of modern settlement in the urbanizing world. Yet it is not until the half of this century that this type of settlement has been admired and thus increasingly studied by scholars

TRADITIONAL ESTUARY SETTLEMENT OF SUNGSANG AREA SOUTH SUMATERA

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ABSTRACT. Estuary settlement is one type of traditional settlements of South Sumatera province. At present, these settlements can be seen in some estuary river areas at the eastern part of the region, such as Sungsang, Upang and Sungai Lumpur. The estuary settlement of Sungsang is the most interesting one. The pattern and construction system of Sungsang villages and those of the other estuary settlements in South Sumatera are quite similar. The settlements are built on the water and they are supported by thousands of timber poles. Since they are inhabited by fishermen, the river has an important role in social life of its inhabitants.

At the moment, the people still builds their houses on the water. The existence of the unique traditional estuary settlements proves that modernization so far does not give any effect to their existence. However, there is a need to preserve the settlement form and to improve the quality of life of the people who lives there.

The objective of this paper is to reveal the fact that many things can be learned and developed from the traditional estuary settlement of South Sumatera region for nowadays social demands. A study to identify characteristics of traditional estuary settlement in this region is indispensable to the creation of basic information required for further development plan. The study takes place in Sungsang area, concerning philosophy and physical form of the settlements.

INTRODUCTION

Sungsang village, which is known as a fishermen settlement is located at Musi River estuary area, about 100 km from Palembang, the capital city of South Sumatera province. This village can only be reached by river using speedboat or other water vehicles. Musi River, strongly influenced by water tides is the main orientation of all the settlements and has significant meanings to the people.

The village has a very interesting characteristic since it is situated on the small island at the estuary. The area and all of the physical form of the villages, houses as well as market and other social facilities are built on the water. Therefore all of the social

activities of the people take place over the water. Some rivers that flow across this village use by the society as a circulation to the sea by using sampan.

Originally, the fisherman settlement inhabited by the Sungsang people (Melayu). At present, Sungsang village has developed and become the center of surrounding villages. The inhabitants are not only the Sungsang people but also other ethnic groups, such as Bugis and Jawa.

THE PHYSICAL FORM

The basic elements of the settlement

The basic elements of the Sungsang estuary settlement are the following: The Houses (Spaces) and The Circulation paths.

Houses and other spaces/forms such as Masjid and Balai-balai are considered as the basic elements of the settlement. Basically houses are used as residence, but some are also used for commercial purposes. Most of the houses are located on waters and create layers of houses along the waterline and they are connected one another with a kind of platform made of wood. The physical distance between houses is narrow so that the look like individual houses on stilts on the whole forms a town with group of poles on water.

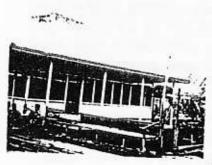
Masjid and Balai-balai usually are located somewhere along the linear sequence and have their importance articulated by their size and form. "Batang", a public lavatory, is built put out the water and need the mediating space to link with the path.



Fig.1. Vernacular Houses



Fig.2. Shop Houses



l-ıg.3. Masjid & Bakii-balai

The Circulation Path is one of the components of the settlement pattern. It can be conceived as the perceptual thread that links the spaces of the settlement. The path configuration influences or is influenced by the organizational pattern of the spaces it links. The parallel configuration of the path reinforced a spatial organization of the settlement and sets of those parallel paths create a grid configuration of the settlement.

This circulation paths is 4m wide for major road, and 1-3m wide for the connection / local. The wide path shows that the path also functions as a workplace and a place for social interaction. Originally all paths of movement always have a starting point, ship-mooring post is the important starting point in Sungsang settlements circulation system.



Fig. 5. Ship-Mooring Post and The Major Route



Fig.6. Secondary Path leading to lesser spaces



Fig. 7. River flows across the village

b. The Settlement Pattern

Since houses must be easily access, the house are be linked through a separate and distinct linear space. The circulation paths pass by spaces they link, so that the integrity of each space is maintained and the configuration of the path is flexible, and mediating spaces can be used to link the path with the spaces.

Therefore, the linear organization of the Sungsang estuary settlements consists of repetitive houses, spaces that are alike in form and size. The form that are functionally or symbolically important to the organization, such as Masjid and Balai-balai, occur somewhere along this linear sequence and have their important articulated by their form.

Waters is the physical orientation of the Sungsang settlement, and the linear organization of the settlement is the result from the arrangement of a series of houses along a sea line. A straight waterfront path is the primary organizing element for a series of spaces and is serving as a barrier to separate the settlement from waters, as the macro environment.

The linear form is inherently flexible and can respond readily to various conditions of its site. Their forms act as organizing element to which a variety of forms are attached or it is segmented to respect to the conditions of its site.

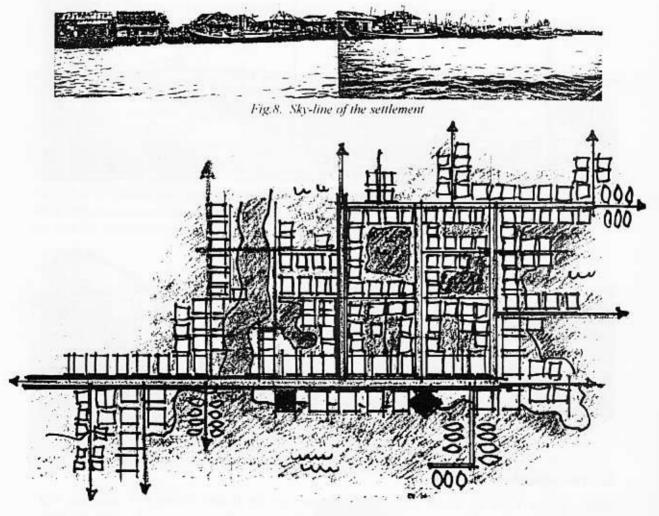


Fig.9. The Settlement Pattern

c. The House Form

In general, the vernacular houses are similar in form and they appear very elementary. All dwellings are basically identical and have the size about 4m width and 6m length. Although the house forms are almost similar, but they can be differentiated into two types, *The Original Vernacular House* and *The Common House*.

The Original Vernacular House is clearly characterized by its gabbled thatch roof. Its main element is a structure of *Nibung* wood, which stands on stilts. Thousands of Nibung timber functions as bearing poles of the settlements. The length of the poles is up to 5m from the sea or riverbed, and during the flood, the stilts are seen only about 1 m above the water. The walls and floor are also made of wood and the thatched roof is made of *Nipah* leaves or shrubs knitted with rattan rope.

The internal arrangement of the dwelling is simple and usually separated into two parts, the living space and the bedroom. An additional part in the backside is functioned as a kitchen and small lavatory.

During past development, some traditional houses have been modified in form and materials (the common houses). Nowadays using the timber is more common than using bamboo and Nibung wood as materials for Floor and Wall. Some of the houses are made of timber and even painted and roof tile and zinc plate is used.

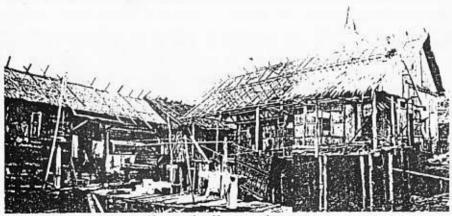


Fig. 10. Vernacular House under construction



Fig.11, the poles

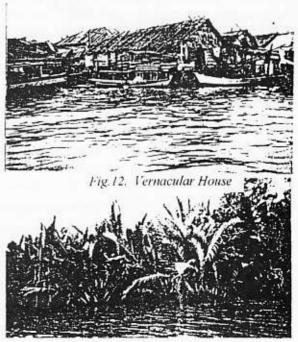


Fig. 13. Nipah Trees

THE DETERMINING AND MODIFYING FACTORS

The Settlement is created for a complex set of purposes. The Settlement pattern explains the close relationship between the physical factors - such as climate, location, materials, construction technology, and the socio-cultural factors - such as economics, and defense.

a. Socio-cultural factors

Socio-cultural and economic factors have a strong influence on the aesthetic and appearance of dwelling than other factors. The socio-cultural factors that affected the physical form of the Sungsang settlement will be analyzed below.

The existence of Sungsang shows that since the ancient times this area has long been functioned as a major fisherman settlement. Since most of the inhabitant is fisherman, the influence of their culture is clearly reflected on the settlement form. The dwelling types were adapted to their way of life and the tradition to live on the river is concerned with aspects of economic life. They tend to face their workplace at the sea, and tools to catch fishes are found in their dwellings.

The physical distance between houses, and tradition to live in the clusters of closed family group, are reflecting the social character of society members, particularly in fulfilling their basic needs. The tight form of the settlement indicates the importance of defense for this society.

The vernacular house has a simple appearance. The plain physical appearance of this dwelling shows that houses are lack of esthetical pretension, they only responded to the site and microclimate. Its spatial arrangement is more functional rather than symbolic, expressing the life condition of the inhabitants. The limited space in the dwelling shows that for this culture the house is a shelter and not a place for productive activities.

The simple internal arrangement of the dwelling, and the lack of interior decoration and furniture, expresses that the dwelling is inhabited by egalitarian society who admires honesty and peaceful life. Cultural learning process of Sungsang community is daily mother. They learn from their family, mostly their mother who always stay at home (the house belongs to the woman). The size and position of kitchen and dining room in the interior shows that the woman has the high privilege in the house.

b. Construction, materials, and technology

The construction of dwelling appears elementary, however, they were built by the inhabitants and using their technological ability and resources. It implies that any member of the group is capable of building his own dwelling despite the scarcity of socio-economic life and the lack of technological ability. Open-ended quality is another characteristic of its construction technology that enables the dwelling to accept changes.

In the traditional house, the construction problem is basically one of spanning space while limiting the mass of the building. Structurally, the roof should be as light as possible and the dead weight of the structure should be kept to a minimum. This construction technology and the use of materials show that the dwellings are responding to the constraints imposed by the nature.

The Sungsang Vernacular House has a very simple roof supported by columns that are jointed rigidly to the stilts, so that the building acts as a rigid frame. The roof frame consists of trusses made by timbers that are tied together. Overhangs are not used in order to avoid the uplift in the strong winds, which is quite common in the area. Rigid joint and other methods have to be used in respond to the lateral forces such as the wind and wave.

The simplicity of construction technology can be seen in simple construction poles and the on site material used. The pole is piled into the ground randomly and the piling is stopped as it reaches hard soil. Generally, the stilts are fairly short live, so that the pile should be replaced periodically. Before the old pile is totally decayed, the new pile is piled but the old pile is still remain left. This process continues so as to make in disorder arrangement group of piles.

CONCLUSION

The traditional estuary settlement of Sungsang which have an organized pattern and express unique tradition of their inhabitant are cultural products that can be developed as an interesting place for tourist destinations. In addition, this unique estuary settlement is located in the water transportation route between the city of Palembang to some islands that have been developed as regional tourist destinations, such as Bangka, Belitung, Batam, Bintan, even Singapore. In the present condition, however, the potentials of this settlement have not been explored.



Constraints for developing the settlement that located in the remote area are rather discouraging. Changes in environmental conditions, the lack of natural resources and environmental utilities, have a direct influence on the development of the Sungsang settlements become a tourist destination / transit area.

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