## Analysis On The Aesthetics Through Pattern And Motif Of Bamboo In Malays Architecture

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#### ABSTRACT

Malay bamboo architecture can be seen in most of the Northern part of Malaysia. The beauty of these bamboo plants brings a sense of naturality to the environment. Thus, the esthetic values from bamboo is still continued and appreciated days in Malay architecture. This research aims to nurture awareness to the community in preserving the Malay's architectural heritage. Furthermore, its aesthetical value helps architects, interior designers and art students in expanding their creativity for their benefits. Bamboo aesthetic beauty will be able to attract tourists to learn and appreciate Malay's art. Bamboo is an environmental friendly plant which is suitable for architecture. The Malay's aesthetic value in bamboo has not been highlighted since it involves hard work in handling it. The process of handling the raw bamboos has always been in a traditional way which is guite a challenge and also the raw bamboos are not durable for long time. These short comings explain the in popularity of bamboos in modern Malay architecture. This research is a qualitative research in which it encompasses the concept of descriptive design. This concept denotes a documental photography towards the situations and also the materials. The objective of this research focuses on analyzing the application of bamboos in Malay architecture. Secondly the objective is to identify the various patterns and shapes created through arrangement and weave composition by using bamboo. Lastly to conclude the aesthetic values depicted from nature through the usage of bamboo in Malay architecture.

Key Words: Aesthetics, Bamboo, Malay Architecture, Heritage.

#### INTRODUCTION

In human civilization history, house architecture is the second type of architecture existed after worshipping place architecture. The building of huts utilised materials which were easy to be found from nearby. These huts were used as shelter from the heat, rain and wild animals. Malay architecture can also be identified

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depending on the crude materials used. Typically, Malay house or residence will have similarities in term of its position and appearance/outlook. Mohd Nasarudin Ali (2012) depicts the journey of earlier Malay architecture as such:

"The early history of construction in Malaysia is not as great as elsewhere, however, the journey is quite similar. If we were to explain the similarities, construction in Malaysia also started off in the beginning without architects. At that time, we only have carpenters who built their own house. In Rome, rock has become the main material for their building construction while in Malaysia timbers from different types of trees from the tropical forests were used. During that time the wood or timbers were indeed very cheap and easily available".

K.M Wong (1995), states that there is certain barrier using bamboo as crude material as compared to other crude synthetic materials. His opinion is as such:

"Bamboo generally has a low natural durability and it is highly susceptible to attack by wood boring beetles when untreated. It is therefore not favoured in situations where more durable materials such as timber and metal are available. Unsplit, it has relatively low flexibility and the physical attributes such as taper and variation in wall thickness present difficulties in standardization of the material".

Forest resources such as bamboo, rattan, timber, sago palm and other types of timber obtained were used in the construction of the Malay houses. Most of these trees can found in abundance in the forest and by the river. Carpenters will fully utilise the forestry source to build houses, palaces, prayer place and gazebo. The nature is indeed a creation of God and a bounty to humans so that they can best utilise it for their own good. Thus, carpenters back then utilised the surrounding nature in building the villagers' houses, palaces, prayer places as well as gazebos. If observed, the looks and shapes of Malay architecture previously were similar in term of its art. Malay architecture basically has columns and girders made of wood and the walls were made from bamboo weaving, patterned wattle work or tree barks. Meanwhile, the roofs were intertwined, with many windows and wind holes for better ventilation.

In the states of Kedah, the use of bamboo in Malay architecture can still be seen. The art of bamboo decoration is usually used for the wall. Malay architecture put emphasis on the art and aesthetics in constructing a building. A very long period is needed to produce a certain Malay architecture as the art values need to be deeply internalised as to achieve the real meaning of art. In other words, art indeed requires for subtlety, finesse and high skills in producing a product.

## **RELATIONSHIP BETWEEN BAMBOO AND MALAYS**

#### **Bamboo as Basic Needs**

Most of Malays' community used to live in the rural and remote area. In this area, nature resources are the main source for Malays' basic needs. This is due

to the dependency of humanity towards the natural resources and lacking of new technology. Therefore, bamboo is creatively used as ladle, comb, hairpin, fishing rod, light pole and others. Many of Malays' traditional games are made from bamboo. Among these games are galah panjang, meriam buluh (bamboo cannon), kites, chappalom, kick volleyball and so on.

Bamboo shoots can be eaten and prepared for pickles before it is cooked. Among these types of bamboo are 'oil bamboo' (bambusa vulgaris) or known as 'aro bamboo', gading or temalang. Steve-Sendra, Chele, Moreno-Cuesta, Portales-Mananos, Ana, Magal-Royo and Teresa (2012) writes, bamboo is a source of food and an alternative medicine. Since ancient times, bamboo has been food sources for the peoples of the East and for animals. Bamboo leaves contain a high nutritional value which is a favourite food of elephants, a food source for grazing. In human diets, the tender shoots are used in certain species and seeds. In India, the people eat the stems of some bamboo flowers. Other than that, in the field of natural medicine, bamboo is useful for bones and skin.

Hean-Chooi Ong, Simon Chua and Pozi Milow (2010) notes in their study that, the young natives are uninterested to learn and use certain traditional edible plants because of changes in culture, personal preferences, the tedious process of preparing certain food items, changes in habitat causing certain edible plants to be unavailable or less available. It is important not only to record such native knowledge and conduct further studies but also to take steps to conserve the genetic diversity of edible plants before they are lost to human kind forever. A living collection or gene bank can serve further scientific studies on edible plants with potential for wider usage, pest and disease resistance, ability to grow and produce in different weather and soil conditions.

## Bamboo as a Symbol In Malays' Literature

Malays are bestowed with a unique relationship between the nature and also the literature. This relationship between these two elements can be seen in many Malays' literature forms; pantun, gurindam, poetry, songs, seloka, hikayat, simile, idioms and a lot more. This shows that Malays are unique as the tradition is defined by its culture, belief, values, manners and religion.

Most of Malays' community accept and practice literature in their communication consciously and unconsciously. Malay is said to have the intelligence in exploiting ones' emotional through its literature. For an instance, this sayings "melentur buluh biarlah daripada rebungnya", a direct translation would mean "bending a bamboo is possible using its shoot rather than the bamboo". It is known that bamboo is very firm in its texture but the shoot is flexible. Thus, it is easier to shape the plants according to our needs. This reflects on the human's life in which bamboo is the grown up human being while shoot is the children. It proves that children can be educated at the early age so that they will be a better person in the future.

A. Aziz Deraman (2005) explains that bamboo plays an importance aspect in Malays' life. A lot of bamboo's influence can be seen in 'pantun Melayu' which

TeSSHI 2014 / eProceedings usually relates to the religious knowledge;

> Baik-baik membelah buluh, Dalam buluh ada ulat, Baik-baik mengkaji tubuh, Dalam tubuh ada sifat.

Baik-baik membuang ulat, Dalam ulat ada sengat, Baik-baik mengkaji sifat, Dalam sifat ada zat.

## Bamboo as Motives In Malays Arts

This part will explain the bamboo's motive in textile industry. Manipulation of a motive into arts emerges from a sharp observation based on intellectual viewpoints. According to Plato, motive design on artefacts developed from a tedious and long process of copying, creating another creation is a natural behaviour of a craftsman. These arts usually symbolise the communication between the craftsman and the audience (Zakaria Ali, 2013).

Observation on songket's motive is famous with the bamboo's shoots. There are a lot of interpretation of shoots in which relate to fertility and also inner strength. Motive design of bamboo and songket has been identified by Haziyah Hussin (2006) as a trend due to the time. Design on shoots motive changes and she has recorded the change from 1960 until 1980 on Batik's design.

#### **Bamboo as Materials of Constructions**

Bamboo is an environmental friendly material which is suitable for any building constructions. The aspect of environmental friendly is referring to the structure and process of construction which is responsible for environment. This will positively affect to lessen the risk of earth pollution such as air, land and wind.

As Pablo van der Lugt, Joost Vogtländer & Han Brezet (2009) reveals that due to the high growing speed of bamboo, plantations are expected to be proficient in sequestration of carbon dioxide (CO2). During their growth, plants convert CO2 through photosynthesis into plant carbohydrates, and emit oxygen in the process. The carbon makes up approximately half of the biomass (dry weight) of the renewable raw material. There is an on-going discussion about the question whether the carbon sequestration capacity of bamboo is larger than that of fastgrowing softwood trees. As a result of these features, at an environmental level (Planet), bamboo materials are expected to be environmentally friendly.

Bamboo in architecture should be highlighted and paid attention on. Not only that, it is an environmental friendly products but it also elasticity and durability bring benefits to the property's owners. For an instance, during an earthquake in West

Java, Indonesia, many of bamboo houses in Naga Villagewere unaffected by the strong impact. However, most of the concrete houses were destroyed completely.

## PURPOSE OF THE STUDY

The study involved only states in Northern Peninsular Malaysia those are Kedah. Selection of studies is based on observations of bamboo art in architectural design of current buildings. This research hopes to inspire other researchers to study the aesthetic of bamboo in the Malay art that refers to architecture in the whole of Malaysia. With the hope that this study will reveal more aesthetic value of bamboo weaving in the architecture of the Malay community in Malaysia. Indirectly this will uphold the heritage of the Malays and support to the conservation of the arts values of Malay architecture. This study is undertaken to:

- 1. To identify the difference of pattern of bamboo used on the wall of Malay architecture in the state of Kedah, Malaysia.
- 2. To identify types of motif in the Malay architecture through design weaving composition.
- 3. To identify the aesthetics value depicted from nature through the usage of bamboo in Malay architecture.

## METHODOLOGY

This study has used the qualitative method. This method is a descriptive research design. This study will document existing situation and materials. For example in making connection of aesthetical relationship in bamboo research in Malay architecture. This is to analyse the differences in the appearance of the bamboo use applied on the wall of Malay architecture.

This study also relies on previous studies to explain on types of motifs used in this study. This study will also be associated with theory of aesthetics value. Aesthetics theory used in this study is based on theory of a Greek philosopher, Aristotle.

## FINDINGS AND DISCUSSION



## Table 1 Tree's Kitchen Restaurant at Sungai Petani, Kedah.

PATTERN	MOTIF	AESTHETIC PRINCIPLE				
		Mimesis	Action	Narrative	Catharsis	
Weavings on the wall with floral motifs ranging from fractions of cloves. Hailing from Kelantan and inspired by En. Ku Daud.	Cengkeb Beranak Weave (Kelerai Cengkeb Beranak)	Å	Å	V	V	

## Table 2 Toilet Fish Farm at Kilim Goepark Langkawi, Kedah.



PATTERN	MOTIF	AESTHETIC PRINCIPLE				
		Mimesis	Action	Narrative	Catharsis	
This wall weaving has patterns almost similar to eel bones. This type of pattern originates from Terengganu.	Vertical Weave (Kelerai Tulang Belut)	A	V	ł	V	

#### Table 3 Pondok A.M Bawamuhaiyaddeen Kebun Rahsia, Kedah.



## Table 4 Dataran Ikan Bakar Sungai Petani, Kedah.



PATTERN	MOTIF	AESTHETIC PRINCIPLE			
		Mimesis	Action	Narrative	Catharsis
This particular weaving is called as "be very careful" weaving by its weaver as extreme precautions were taken while weaving it. If there is any mistake or mishap, the whole weaving can be numed.	Be very careful (Keletai Berhati)	V	Å	V	V

#### CONCLUSION

Of late, the use of bamboo in Malay architecture has been decreasing. It results from lacking of durability of the bamboo plant to heat and rain. Thus, carpenter chooses to apply certain element of the bamboo plant in architecture which is the walls. Though there are many other new technologies in architecture, however bamboo plant has not been forgotten by the Malays. Bamboo plant is traditionally attached to Malay's life and will be forever cherished. So, it is unreasonable for modern Malays to forget the valuable treasures. Each one of us should put efforts to sustain these valuable treasures so that it will be preserved as Malays' identity. Other than that, aesthetic values of bamboo plant in architecture able to attract foreigners to appreciate our architectural heritage and eventually promote Malaysia to the world. This could be seen as the opportunity and chance for Malaysia to clarify the relationship between human beings and the surroundings in architecture. For God has sent us this world as a valuable gift for us to cherish and think. Thus, these are the hands that will illustrate the appreciation towards God through architecture.

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# TeSSHI 2014 / eProceedings **REFERENCES**

- A. Aziz Deraman. (2005). Masyarakat dan Kebudayaan Malaysia. Dewan Bahasa dan Pustaka.
- Haziyah Hussin. (2006). Motif Alam Dalam Batik Dan Songket Melayu, Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Hean-Chooi Ong, Simon Chua and Pozi Milow. (2011). Traditional knowledge of edible plants among the Temuan Villagers in Kampung Jeram Kedah, Negeri Sembilan, Malaysia Academic Journals, 6(4), 694-697.
- Mohd Nasarudin Ali. (2012). 3K Kontraktor Binaan Dinamik (2 ed.). Selangor: IBS BUKU SDN. BHD.
- Pablo van der Lugt, Joost Vogtländer, & Brezet, H. (2009). Bamboo, a Sustainable Solution for Western Europe Design Cases, LCAs and Land- use. 30.
- Steve-Sendra, Chele, Moreno-Cuesta, Portales-Mananos, Ana, Magal-Royo
  & Teresa. (2012). Bamboo, from traditional crafts to contemporary design and architecture. Elsevier (51), 777-781.
- Wong, K. M. (1995). The Bamboos of Peninsular Malaysia: Forest Research Institute Malaysia (FRIM) in collaboration with Forest Research Centre, Forestry Department, Sabah, Malaysia.

Zakaria Ali. (2013). Estetik, Perak: Paksi Press.