

ASSESSING AESTHETICS PREFERENCES OF MALAY WOOD CARVED PANELS

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ABSTRACT: Malay wood carvings are seen as man's spontaneous reaction towards his environment when the availability of local material was used to achieve aesthetics value with functional natural ventilation. Thus, a study of wood carvings of the Malay vernacular houses should have equal concern for both issues. This paper assessed the public's aesthetics preferences of twenty wood carved panels. The result of the survey shows that the panels with geometrical, calligraphy and floral motifs received the highest aesthetics preferences. Interestingly, the incisions of panels with more voids were highly preferred for. Similarly, panels with more voids have influenced the function of the natural ventilation better. In addition, the study also suggests that the elements of nature depicted on the panels have contributed higher aesthetics preferences of the public.

Keywords: Aesthetics preferences, natural ventilation, assessing and Malay wood carvings

1. INTRODUCTION

The art of wood carved with ventilation outcome is often synonym to the vernacular architecture of the Malay houses. The carving is considered unique, due to its traditional, cultural, historical and artistic heritages. The design of the panels has not only pictured some decorative motifs with intricate carvings, but also responds to the local climatic conditions. They are natural tools used to ventilate both roof and interior spaces. The devices are articulated with various motifs that stand as an envelope or a roof gable (*tebar layar*) of a house. The decorated craft is carefully secured on the structures or above an opening to regulate air circulation of an indoor space. The ventilation panels would also be appreciated for their visual quality due to the outstanding patterns, forms, layouts and design motifs. The brilliant wood carved ventilation panels as evident today is believed to be manifested by talented, creative and skilled builders [1].

Wood carved ventilation panel is an art work innovated by the Malay artisans, whose skill and talent are inherited for generations. It is the living expressions and traditions passed down to the countless Malay artisans from their ancestors. The knowledge and skills are believed to originate from the architecture of the Langkasuka [2]. This explains that the Malay wood carvings have long historical and cultural standings. The ventilation panel of the vernacular Malay houses has an attractive exterior. One might also experience similar visual impact, when beautiful shadows of the perforated panels are cast on the floor of an interior.

Thus, the study anticipated that types of design motifs together with the amount of voids provided would influence one's aesthetic preferences. The distinctive wood carvings on the natural ventilation panels would clearly describe the masters' knowledge on the disciplines of art, mathematics, nature and religion. Such information are essential in establishing quality artworks, where the motifs of flora, geometric, figurative, cosmic, and calligraphy would be the subjects of interest. Similar motifs are commonly found in the vernacular Malay houses of the northeastern parts of the Peninsula [3]. This paper documents the findings on the visual quality of wood carved ventilation panels, where the public's preferences were measured.

Overview of Malay Wood Carvings

Being the oldest rainforest country in the world, the Peninsula has a high quality of hardwood trees. This explains why timber is widely used in the construction of the vernacular Malay houses and that includes the ventilation panels. Trees like cengal (*Neobalanocarpusheimii*), meranti (*Shorea* spp.), merbau (*Intsiabijuga*) and balau (*Shorea laevis*) are amongst the species used in the making of the ventilation panels. It is observed that the carving of this timeless natural vent can be challenging, since functions and aesthetics have equal importance. Unfortunately, there are only few prominent designs left to be witnessed in the vernacular Malay houses. Some are identified in Kelantan, Terengganu, Perak, Negeri Sembilan and Kedah.

The Malay wood carvings are believed to evolve from as early as the 14th century in the northern part of the Peninsula [3]. Under the era, animism and deities of Hinduism had significantly influenced the local arts and culture. A study has comprehensively explained the philosophical creation of the Malay wood carvings [4]. With the arrival of Islam between the late 13th and early 14th century, more religious expressions were adopted to replace the figurative style of expressions. For instance, the Muslim calligraphy (*khat*) with rich geometrical patterns was introduced to replace the living being motifs [4]. The calligraphy motifs that derived from the Quranic verses are observed to blend well with the cultural and traditional heritages of the locals. Interestingly, nature has always been the source of inspiration. Overall, this suggests that the Malay wood carvings have reached the zenith of maturity under the series of authorities; e.g. Hinduism, Islam and traditional culture.

The glory of wood carvings was first detected in the Malay Royal palaces of Malacca during the era of Sultan Mansur Shah, while in Perak, it was during the era of Sultan Iskandar Zulkarnain [5]. The carvings were beautiful with fine artworks that indicate one's power and status in a society [5, 6]. Again, nature and the environment has always been the subjects of interest. More various components of a plant would represent the common images depicted on the wood carving of the vernacular ventilation panels. They are highly related to scented flowers like bunga tunjung (*Mimusops elangi*), bunga chempaka (*Michelia champaka*), bunga

bakawali (*Epiphyllum oxypetalum*), bunga matahari (*Helianthus annuus*), bunga tikam seladang (*Vallaris glabra*), bunga ketumbit, bunga ketamguri (*Sidarhom bifolia*) or bunga teratai (*Nelumbium nucifera*) [3,5,7]. In general, many agree that the elements of nature together with geometrical motifs have a high influence on the development of the Malay wood carved ventilation panels [3, 5, 8].

Tebuk Tembus Technique

The wood carvings of the vernacular Malay houses might be appreciated for several reasons; e.g. ventilation, day lighting and visual satisfaction. These are amongst the basic qualities that are illustrated in the wood carved panels of the locals. As for the ventilation concern, the masters provided an effective natural system by considering the local climatic environment. The design of the local's genius has panels perforated for maximum indoor air circulation. So far, the local's *tebuk tembus* technique (e.g. the act of punching or piercing patterns onto a wood) would be the best technique to produce an effective air vent. Besides that, the number of voids/hollows provided would also contribute to quality visual impact. This discussion further suggests that the ventilation panels using the *Tebuk Tembus* incision is unique and was well-executed.

Ismail provides detailed explanations on the technique of incision practiced in the traditional Malay houses [3]. The technique contributes effective natural ventilation and day lighting solution [3]. Examples of several ventilation panels using the *Tebuk Tembus* incision are shown in **Figure (1)**. In relation to a vernacular housing typology, a ventilation panel has an architectural importance. This might depend on how the *tebuk tembus* panel was placed or positioned amongst the components in a house. When a ventilation panel is attached to an envelope, it would have structural and visual implications. Otherwise, it is only a piece of decorated architectural element placed above a door or a window component for air vent or lighting purposes.

There are certain tradition and culture that one needs to observe when placing a *tebuk tembus* panel [7]. In his work, Abd Aziz also explains the identity of the *Tebuk Tembus* taking the Kelantan's vernacular house. It is found that the technique is more popular and favourable among the master builders in the north eastern coast of the Peninsula. There are reviews indicating that Kelantan and Terengganu received high attention in the studies of the Malay wood carvings. The works of several prominent researchers have supported the idea [3, 7, 9, 10, 11]. However, more issues on the Malay wood carved ventilation panels should be rigorously researched, so that this intelligent cultural heritage is protected.

Why Assess Malay Wood Carvings?

Perhaps, several individuals might be interested to know the significance of the study. They would be groups of researcher, local authority, professionals in the built environment disciplines or Non - Governmental Association, who would want to contribute ideas in the future research or to develop the insights in establishing a relevant policy or act. The aim of the study was to determine the public's aesthetics preferences for Malay wood carvings. Thus, there are four reasons to determine the aesthetics preferences: i) to assist the

protection of the intangible heritage of the vernacular ventilation panels ii) to ensure that the appropriate regard is given to the works of the master builders, iii) to evoke awareness on the importance of vernacular ventilation devices among the relevant authorities/agencies and iv) to encourage more international cooperation and assistance for potential preservation and conservation of the national heritage.



Fig (1) Perforated panels contributed good visual impact when shadows casting on a floor



Fig (2) Perforated carvings allow airflow and filter daylight in internal space

Aims and objectives

The aim of the paper is to determine the public's aesthetics preferences for perforated carving panels. Thus, the objectives of the paper are to determine the types of carving panels and conduct a visual assessment survey to define respondents' aesthetics preferences for carving types.

2. METHODS

A total of 159 carving panels were collected during a primary (e.g. inventory activity) and secondary data (e.g. reports and research papers) collections. They were convenient samples collected from the traditional Malay buildings varied from different states in the Peninsula. The carving devices were recorded using visual documentation; e.g. photographs that were digitized and catalogued. The visual documentation was the surrogates used in the development of the photographic questionnaire survey. Photographs are accepted to be reliable surrogates when measuring people's perception or preferences for a landscape scene [12]. Before embarking the survey, experts from the design-based discipline were asked to select and classify a set of photographs into flora (Fig 3), geometric (Fig 4), calligraphy and fauna/figurative motifs. The practice would reduce bias and increase validity of the results. Twenty

(20) images were selected from a pool of coloured photographs (100) to represent four (4) classes of design motifs. The experts selected and classified the photographs into seven (7) design parameters; e.g. floral, geometric, calligraphy, figurative (Fig 5) and combined motifs. The aesthetic preferences of the public were assessed using photographic survey. The contents of the survey consisted of the followings: i) demographic information and ii) aesthetic preferences of the respondents, where agreement/disagreement statements were paired with 5 point Likert-scale.



Fig (3) Carving panels with floral motif



Fig (4) Carving panels with geometrical motif



Fig (5) Figurative motif of *Kepala Cicak*

3. RESULTS

This section describes the survey results; e.g. the demographic information and the aesthetics preferences of the respondents based on the types of carving panels; e.g. openings or wall panels.

Demographic Information

A total of 150 respondents had participated in the survey with less male (45.3%) participations as compared to the female (54.7%). The age of the respondents ranged between 16 to 83 years old, where the average age was at 31 years old. The majority of the respondents had a degree qualification (46%) having earnings ranged between RM 200 to 3001 and below RM 4000. Thus, the results suggest that the respondents had a robust kind of demographic characteristics.

Aesthetics Preferences

The descriptive analyses of frequencies and percentages were used to determine the public's preferences for the carving panels. The results were categorised into two categories: openings and wall panels. **Table (1)** and **(2)** summarise the results of the survey using 5-point Likert scale to establish the number of votes; e.g. strongly agree (5), agree (4), natural/neutral (3), disagree (2) and strongly disagree (1). Percentages and frequencies indicate the preferences for each carving type.

Openings

The carvings with geometrical motif received the highest preferences (113; 75%), followed by floral (105; 70%), combination of flora and figurative (105; 70%), combination of flora and calligraphy (100; 67%), carvings with a large area of void/ more void (98; 65%) and finally, patterns with a small area of voids/ less void (87; 58%) (**Table 1**). The finding suggests that carvings with geometric and floral motifs were highly preferred for opening panels. In general, the result establishes that the geometrical motif was the most preferred, while the carving panels with less amount of voids were less preferred for.

Table (1) shows public's preferences for carving motifs on openings

		Ventilation Panels above Openings					
		Design Motifs					
	Geo	Flo	Flo+Fig	Flo+Call	High voids	Low voids	
<i>Fre</i>	113	105	105	100	98	87	
<i>%</i>	75	70	70	67	65	58	

n = 150

Notes: Fre = Frequency; % = Percentage; Geo = Geometric; Flo = Flora; Fig = Figurative; Call = Calligraphy; Gril = Grilled

Wall Panel

Table (2) shows that the calligraphy motif received the highest preferences (113:75%), followed by the combination of flora with calligraphy (107:71%), patterns with large area of voids or more voids (107:71%) and finally, the flora (104:69%). On the other hand, carvings with geometrical (89:59%) and figurative (89:59%) motifs received moderate preferences. The least preferred carving motif was the combined geometrical with grilled pattern (69:46%). In summary, the results suggest that the calligraphy and floral motifs with high perforation received the highest aesthetics preferences.

The overall results indicate that the carved panels with a floral motif are highly preferred, disregarding their function and placement in a house. In addition, the amount of voids incised would also support the visual impact of the panels.

Table (2) shows public’s preferences for carving motifs on wall panels.

Ventilation Panels Part of Housing Envelope							
Design Motifs							
	Call	Flo+Call	High Voids	Flo	Geo	Fig	Geo+Gril
Fre	113	107	107	104	89	89	69
%	75	71	71	69	59	59	46

n = 150

Notes: Fre = Frequency; % = Percentage; Geo = Geometric; Flo = Flora; Fig = Figurative; Call = Calligraphy; Gril = Grilled

4. CONCLUSIONS

This paper documents a study on a visual assessment of carving panels of the Malay traditional houses. Reviews of journals, proceedings and books indicate the absence of an explicit research in the area of the public's aesthetics preferences or perceptions that calls for more research to be conducted. The result suggests that carvings with floral motif were popular for both openings and wall panels. Furthermore, the result of visual assessment also indicates that similar motifs had been aesthetically accepted. Perhaps, there are possibilities to introduce such carving motifs to the contemporary architecture that has high concerns for natural ventilation. The perforated panels are an invaluable approach used to address ventilation and daylighting issues of the Malay traditional house. The study on visual assessment, paired with empirical study on the performance of wood carvings as an environmental device might be the basis for further research. Hence, more explorations should be conducted to preserve the aesthetic heritage of the wood carving panels, which at the same time provides effective natural ventilation.

5. ACKNOWLEDGMENT

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