

CARVING MOTIFS IN TIMBER HOUSES OF KELANTAN AND TERENGGANU: SUSTAINING MALAY ARCHITECTURE IDENTITY

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Abstract

This paper presents an analytical study on the visual forms of motifs of carved components in the houses of Kelantan and Terengganu. Thirteen sets of measured drawings of the components from nine houses in Kelantan and four houses in Terengganu were analyzed. The drawings were obtained from Centre for the Study of Built Environment in the Malay World at the Universiti Teknologi Malaysia. Data from the drawings and feedbacks from two woodcarvers revealed that there were four types of carved components: ventilation panels of wall, door and window, railings, gate panel and stringers. The motifs were flora, geometry, Arabic calligraphy and cosmic features depicted in two and three dimensional compositions either in relief or non-relief forms. Consistency in patterns of motif, particularly flora motifs, results to an establishment of identity to the vernacular architecture of north-eastern region of Peninsular Malaysia. The components were crafted in relation to the house form and architectural elements such as wall, door, window, stair and gate. The significant aspect of the placement of the carvings in the houses is that it enhances the aesthetic of the houses and signifies the architectural identity of the north-eastern states. To sustain the woodcarving as Malay architecture heritage, this paper presents a framework for the existing craftsmen to continue making carved components for urban housing markets. The suggested components are ventilation panels of door, window and wall, door leaves and window railings.



1. INTRODUCTION

Woodcarving is ornamentation to the traditional Malay houses of Kelantan and Terengganu which are located in the north-eastern states of Peninsular Malaysia. The application of carved ornamentation contributes to the identity of the traditional architecture from this region which originated from the architecture of Langkasuka Empire dated as early as 14th century (Farish and Eddin, 2003). Carving motifs of flora, geometry, Arabic calligraphy and cosmic features are depicted on carved panels of doors, walls, railings and ventilation components in different shapes and sizes (Ismail, 2001). Flora, geometry and Islamic calligraphy are the three major types of motifs used by Malay woodcarvers Zulkifli (2000). Motif is referred to as a recurrent or repeated thematic element and closely related to pattern (Ocvirk, 2002). The motifs especially flora were applied as thematic and identifying element to the Malay woodcarving with specific shapes, sizes and compositions.

Several carving techniques including perforation and incision with relief or non-relief carvings also contribute to the distinctive character of the motifs. Apart from these, intricacy and complexity of the carving motifs and its methods of depiction add to the distinctiveness. Wall, door and window ventilation panels, railings, gable end and ceiling panels are types of carved components found within the fabric of the houses and usually characterized by the types of carving motifs used and shaped the panels. Most of these panels were equipped with floral design within the specific carving patterns.

This paper presents an initial finding of the types of carving motifs used on carved components in the traditional timber houses of Kelantan and Terengganu. This descriptive and interpretive study was conducted based on two major research questions: (1) What are the types of carving motif and contents of carved elements found in the traditional timber houses, and (2) What are the uses, styles and pattern of regularity of carving motifs that signify the regional identity?

The aim of this study was to highlight the visual interpretation of the carving motifs which were applied in house components. This study provided a significant pattern of carving motif and its application in the carved components of the timber houses of Kelantan and Terengganu within the context of its configuration and distribution in the building fabric. These timber houses were constructed in the years of 1850s to late 1940s. The pattern of architectural embellishment could serve as a framework which could be considered as part of invaluable Malay heritage and they were indeed of historical and cultural importance. The woodcarving was a traditional art that reflected the local traditions and customs. It should be kept and strengthened particularly in the current exposure to the

threats of rapid changes and developments of the modern architecture.

1.1 Background

Traditional Malay houses are characterised by its physical features. Its legacy reflects on its unique craftsmanship of traditional Malay (Zulkifli and Zakiulfuad, 2005). These buildings are usually built on stilts and originally constructed to respond to the climatic and cultural requirements of the region. Most of them have distinct traditional house forms identified according to the roof shapes (Lim 1987; Raja Bahrin Shah, 1988; Abdul Halim Nasir and Wan Hashim, 1997; Mohamad Tajuddin et al. 2005). They are characterized by gable roof, hipped roof, gambrel roof and pyramidal roof (Lim, 1987). Woodcarving as architectural embellishment differentiates the Malay timber houses from other traditional houses in the South-east Asia region. Generally, the timber houses as well as their carvings are made of a local hardwood species called cengal (*Balanocarpus heimii*) because its abundance from the hill tropical forests and easy to incise (Ismail, 2005).

Woodcarving is one of the most exquisite products of Malay visual art (Farish and Eddin, 2003). It is an ornament that serves as identifying and unifying architectural element between the house form and its building component. As Syed Ahmad Jamal (1994: 56) notes “Carving is used in Malay houses to enhance their beauty with controlled patterns, which are kept within bounds. The design of a building stands out clearly. Thus these carvings play their role as contributors to the overall appearance or as supporting elements for the form”. Grabar (1992) posits that ornament supplies visual order to the thing with which it is associated and considered as an intermediary between art and structure. This is especially evident in the traditional Malay houses. The woodcarvings found in these houses are positioned for specific purposes such as for natural ventilation, safety, screens and aesthetic (Zulkifli, 2000).

A few Malay literatures suggest that woodcarving is described as a traditional craft with meanings and utilitarian uses (Abdul Halim, 1987; Syed Ahmad Jamal, 1994; Salinger, 1994). Related researches on Malay woodcarving include studies on application of carvings on timber mosques focusing on three types of carved components namely, ornamental, elemental and structural (Ismail, 2001), carving motifs with special reference on Malay *kris* (Rosnawati, 2005) and timber species in woodcarving focusing on criteria of selection (Ismail, 2005).

The conservation of vernacular dwellings remains a serious issue. This is because vernacular architecture is the embodiment of common characters, materials and aesthetic value of a particular region (Gokhan, 2002). Thus



sustaining the vernacular houses implies conservation of building embellishments as well. Detail studies on the houses for recording the decorative elements for documentation could ensure their cultural values are protected even though its individual building could not be preserved due to their extinction. The traditional houses exemplify the past, the dwellings that had been built by former generation of the Malay communities. According to Lim (1987), the traditional houses represent the skills and aesthetics of the traditional craftsmen and builders which have been passed down from generations to the following ones. The Malay timber house is a reflection of the Malay's way of living (Raja Bahrin Shah, 1988; Abdul Halim and Wan Hashim, 1997; Mohamad Tajuddin et al. 2005).

In Kelantan and Terengganu, the houses with long roofs such as twelve pillared house, long-roofed house with verandah and bachelor house with *selasar* (an unroofed platform) were the earliest forms built (Abdul Halim and Wan Hashim, 1996). These forms of house were no longer built after the World War II and it was considered as a heritage of traditional Malay architecture (Abdul Halim and Wan Hashim, 1996). They communicate a sense of practical, cultural and social values reflected on the visual aesthetic that has potential development for future reference and adoption. The traditional heritage has been the object of important studies. There is very little work done to document and research the forms, placement and meanings of ornaments in Malay heritage buildings from houses to other old traditional types of buildings (Tajudin, 2006). Literature survey also indicates that there was lack of in-depth research on traditional woodcarvings pertaining to certain language of design qualities in the fabrication of carved components and its placements in the timber houses of Kelantan and Terengganu.

2. METHODS

2.1 Analytical Review on Measured Drawings

Thirteen prominent Malay timber houses were selected for the study. Nine houses were located in Kelantan and the other four houses were located in Terengganu. These timber houses were found in three basic variations including five-ridged roof house, twelve-pillared house and composite house forms. These three groups of traditional residences were constructed in different periods with different architectural characteristics. Each house was beautifully equipped with a compliment of carvings produced by local craftsmen. Table 1 shows the information of the houses including the types of architectural forms and year of construction, patrons and locations of the houses. Several factors determine the selection of the houses which include: (1) the houses represent the type of

dwelling architecture that originated from the east-coast region of Peninsular Malaysia, (2) the houses were decorated with excellent carvings which are regional and distinctive in character, and (3) the houses provide a collection of carved components which are relevant for visual analysis purpose.

Table 1: Timber houses of Kelantan and Terengganu selected for the study

No	Type of House	Year Built	Owner	Location of House
1	Combination of twelve-pillared and five-ridged roof house	1850s	Tuan Mohamad Dobah (Tuan Mohamad Abdullah)	Jalan Post Office Lama, Kota Bharu
2	Combination of twelve-pillared and five-ridged roof house	1880s	Nik Salleh Wan Ahmad	Kampung Pulau Panjang, Kota Bharu, Kelantan
3	Combination of long-roofed and five-ridged roof house	1800s	Wan Mek	Tumpat, Kelantan
4	Five-ridged roof house	1920s	Hassan Mohd Amin	Jalan Pengkalan Chepa, Kota Bharu, Kelantan
5	Five-ridged roof house	1933	Hassan Yusof	Kampung Sireh, Kota Bharu, Kelantan
6	Five-ridged roof house	1937	Wan Hussain Wan Abdul Rahman	Kampung Sireh, Kota Bharu
7	Five-ridged roof house	1900s	Lebai Ali Abdullah	Jalan Pantai Irama, Bachok, Kelantan
8	Twelve-pillared house	1800s	Tok Yakub	Kampung Belongan, Bachok, Kelantan
9	Twelve-pillared house	1920s	Wan Sulong	Jalan Sultanah Zanab, Kota Bharu, Kelantan
10	Twelve-pillared house	1880s	Mariam Mat	Kampung Hiliran Masjid, Kuala Terengganu
11	Twelve-pillared house	1900s	Abdul Rahim Endut	Tanjong, Kuala Terengganu
12	Combination of long-roofed and five-ridged roof house	1914	Dato' Biji Sura (Nik Mohamad bin Hitam)	Duyong Kecil, Kuala Terengganu
13	Twelve-pillared house	1890s	Wan Embong Wan Awang	Pulau Duyung Besar, Kuala Terengganu, Terengganu

A total of 100 carved components from the thirteen houses were reviewed and analyzed by interpreting a set of measured drawings that serve as pictorial data. The drawings consisted of plans, elevations, sections and details. Visual analysis was conducted to identify (1) types of carved components, (2) motifs and composition, and (3) patterns of placements within the house fabric. These measured drawings and detailed reports were produced and documented by the students of architectural program from the Universiti Teknologi Malaysia. Edition and reproduction of a few documented drawings were made to improve its visual quality and accuracy for the purpose of analysis and data display.



2.2. Interview with Woodcarvers

Personal interviews were conducted with two well-known woodcarvers including Norhaiza Nordin from Kampung Raja and Wan Mustapha Wan Su from Besut, both were in Terengganu. The purpose of the interviews was to obtain their verification on the installation of carvings in the traditional Malay architecture in general and application of motifs in particular including reasons of selecting the motifs. As such a set of standardized open-ended interview questions was solicited to each woodcarver in the same order but without restraining them from offering the required information. The interview questions were categorised in relation to the research questions pertaining to visual attributes of woodcarvings including: (1) What are the principal forms of woodcarving found in the traditional Malay houses? (2) What are the types and contents of carving composition and motifs depictions found in woodcarving and why they are applied? and 3) What are the types of carving techniques and qualities that contribute to distinct characteristics of woodcarving? When asked about the most dominant type of carving applied in the house, the woodcarvers gave consensus affirmation that ventilation panels were the most predominant forms of woodcarving found in the traditional Malay house. Wan Mustafa briefly stated, “Because the house’s owner had the intention to get a plenty of air.... There was no air conditioner in the houses, no electrical fans. They relied on the natural ventilation. So it was not enough if only through windows. They need to design a different way of getting the natural air. Those types of carving were needed”.

The woodcarvers seem to have fairly common responses whilst affirming each other’s opinions on the reasons of floral depiction. Responses from the transcripts suggest that the preference of plant motif was mainly influenced by the Islamic religious teaching which prohibits the use of figural motif. Inasmuch, the craftsman’s fondness to plants in their surroundings because they were attracted to the properties of plants such as taste, physical beauty, scent and medicinal values. Within the woodcarvers’ responses on the aspect of the carving qualities, there was also a recognised confirmation to the interview questions about “What is the significance of carvings which are equipped with several overlapping forms?”. The interview results suggest that overlapping form in the carving contributes to its three-dimensional composition in varied degree of complexity which reflects woodcarver’s skillfulness. As such, the overlapped carvings were placed at specific place such as on the upper section of a front wall.

The interviews were carried out to substantiate the results obtained from the analytical review on the measured drawings. Inasmuch, narrative information was triangulated with the measured drawing that serves as the main data. In short, the

open-ended interview was another qualitative measurement which was adopted to improve the validity of the measurement (Patton, 2003) of the document review and supported by the literatures of Malay woodcarving and traditional houses.

3. FINDINGS AND DISCUSSION

3.1. Types of Carved Components

The analysis revealed that a collection of 12 types of architectural carved components, namely ventilation panels of window, door and wall, railings of verandah and staircase, wall panels, leaves of door and gate, roof eaves, brackets and gable end panels as highlighted in Table 2. It appears that there is a certain pattern of distribution of different types of carved components in each house. The findings indicate that the carved components in forms of wall and door ventilation panels were the most widely found in the timber houses. They were produced in relation to the architectural elements and the house forms. The carved components were fabricated with specific visual attributes: (1) carving motif and pattern, (2) types of perforation and incision, (3) shape of panel, and (4) size and layout.

3.2 Distribution of the Carved Components in the Houses

The placements of the carved components with distinctive forms were fixed within the fabric of the houses according to their specific arrangements and purposes. In terms of pattern of distribution of carved components in the houses, the ventilation panels fitted on top of walls that have various design forms were major carved components found in the houses. The wall ventilation panels with perforation were found in two principal forms: (1) single rectangular panel, and (2) continuous horizontal panel. Perforation in carving is a fully piercing technique done on a piece of wooden panel leaving a cut-through section (Norhaiza, 2008; Ismail, 2002). It appears that the carved components in forms of ventilation panels were widely found on walls at *rumah ibu* (core house). It is the core area of the traditional house and usually located at the centre of the house. Rumah ibu is the largest and principal area of the traditional Malay house that serves most of household activities such as receiving house guests, sleeping, praying and gathering (Lim, 1987; Abdul Halim and Wan Hashim, 1996).

Wan Sulong's house from Kota Bharu, Kelantan is one of the examples of the traditional house that exhibits the placement of various carved panels including a series of single rectangular panels (window, door and wall ventilation panels), a continuous horizontal panel (wall ventilation panel) and gable end panels as illustrated in Figure 1. These carved panels were fitted as integral components



to the house's façade and they were equipped with different designs of motifs. The carving attributes of the single rectangular panels gave the front façade (façade of rumah ibu) of the house its defining character. This facade exhibits the repetition of several rectangular ventilation panels in staggered configuration which were positioned on the upper section of the wall. A set of two gable end panels were fitted above the continuous wall ventilation panel. They were positioned at the base of the gable ends of the house. The distinct character of the placements of the various carvings is perhaps an important identifying feature for the twelve-pillared house.

Table 2: Types of carved component found in the selected timber houses

No.	Name of house	Types of Carved Component											
		Window ventilation panel (WVP)	Door ventilation panel (DVP)	Wall ventilation panel (PWVP)	Window railing (RP1)	Railing at serambi/Sorong (RP2)	Railing at Staircase (RP3)	Wall panel (WP)	Door leaf (DP)	Gate leaf (GP)	Roof eave panel (REP)	Ceiling panel (CP)	Gable end panel (GEP)
1	Mohamad Dobah	0	0	✓	0	0	0	0	0		0	0	✓
2	Nik Salleh Wan Ahmad	0	0	✓	0	0	0	0	0	0	0	0	✓
3	Wan Mek	0	0	✓	0	0	0	0	0	0	0	0	✓
4	Wan Sulong	✓	✓	✓	0	0	0	✓	0	0	0	0	✓
5	Hassan Mohd Amin	✓	✓	✓	0	0	0	0	0	0	✓	0	0
6	Hassan Yusof	0	✓	✓	0	0	0	0	0	0	0	0	0
7	Wan Hussain Wan Abdul Rahman	0	✓	✓	0	0	0	0	0	0	0	0	0
8	Lebai Ali Abdullah	✓	✓	✓	0	0	0	0	0	0	0	0	0
9	Tok Yakub	0	✓	✓	0	0	0	✓	0	0	0	0	0
10	MariamMat	0	✓	✓	0	✓	0	0	0	0	0	0	0
11	Abdul Rahim Endut	✓	✓	✓	0	✓	0	0	0	0	0	✓	0
12	Dato' Biji Sura	✓	✓	0	✓	✓	✓	✓	✓	✓	0	0	0
13	Wan Embong Wan Ahmad	✓	✓	✓	✓	✓	0	0	0	0	0	0	0

On the other house from Kelantan like Hassan's house with the different type of dwelling architecture (Figure 2), there are also examples of ventilation panels which have different carving features. This house which was built in early nineteenth century also exhibited a series of roof eave panels (decorative band in horizontal layout) that dominated the roof ridge border at the front

façade of the middle section of the house. This carved panel was the least noticeable feature found at the roof section and this type of carving was only found at this house. Most of carvings are found at the centre of the main façade of the house suggesting an establishment as a focal point at the front elevation. This is probably to reflect the importance of the placement of intricate carvings and its value for focal attraction and welcoming gesture.

Most of the ventilation panels in continuous horizontal layout were widely found on top of internal and/or external walls. For example, the wall ventilation panel fitted at the top of interior wall of Abdul Rahim's house in Kuala Terengganu, Terengganu stretch from left to right ends in continuous form (Figure 3). This panel was fitted directly above a bedroom door facing the rumah ibu of the house. A pair of ceiling panels was also found in this area. Railing panels were another type of carvings positioned at the *serambi* (verandah) areas located on the left and right sides of the rumah ibu. The placements of the panels were probably to distinguish rumah ibu from other spaces in the house.

Another mode of carving placement reflects the complex spatial layout of dwelling unit, for example Biji Sura's house (Figure 4). This type of house with composite architectural form and abundance of carvings was usually signified as residence of wealthy persons such as Biji Sura, a distinguished judge at Syariah court, Kuala Terengganu. The finding indicates that Biji Sura's house has been at the forefront in the adornment of various carved components including window and door ventilation panels, door and gate leaves, railings and wall panel. Apparently, window ventilation panel was the most repeated carvings in this house which was found in rumah ibu and *sorong* (additional space for guest reception). Window railings were also found in these areas which were at the upper level of the house. The placements of the repeated panels as regulated visual unit in pleasing order denote the importance of rumah ibu and sorong for social meeting spaces. Carved railing panels at the rear staircase and carved leaves of entrance gate were fitted as exterior components.

Consistency in the architectural forms of carved components especially those in forms of ventilation panels and its patterns of motif, particularly flora motifs, results to the establishment of identity to the vernacular house architecture of north-eastern region of Peninsular Malaysia. It is often seen that these carved components with the certain degree of visual complexity were usually placed on top of walls, windows and doors above the eye level of the viewer to give a greater impact to the carving whilst serving its practical function. Similarly, the railing panels especially fitted at full-length windows give visual impact at different eye level although it is normally adorned with less complex



carving. Apparently, the placement of these carved panels on the main façades of the houses represents a certain mode of ornamentation for the earlier type of Kelantan and Terengganu dwelling architecture which had reached over seventy to a hundred years old. The design of the houses stands out clearly with the carved panels as complementary elements to the house overall form. The placement of carved panels on the walls especially at Rumah Ibu probably denotes the importance of space utilization of this particular area of the house. The form of carvings was kept within certain dimensions and configurations in relation to the shapes of the wall and together they form the image of regional house architecture. It clearly reflects the craftsman's adherence to the specific style of Malay architecture. This scenario suggests the craftsmen's keen interest in preserving and protecting the pre-eminence of crafts tradition through the passage of time.

3.3. Types of Motifs Used in the Carved Components

As shown in Table 3 that the largest percentage of the carved components (55 %) were depicted with floral motifs either in relief or non-relief form and with perforated or non-perforated carvings. The carved components were walls and ventilation panels above doors and windows, railings at verandah and window, wall panels and gable end panels. It was found that 27 from 55 components are equipped with mixed-motif composition. This is suggestive indication that traditional craftsmen had strong preference for plant-based motifs.

Geometry was another type of carving motif found in lesser quantity which forms only 14% of carved components. Panels with the geometry motif usually give a sense of visual intricacy and its formation requires a high degree of accuracy and consistency. This is perhaps the main reason that made the motif less popular. The analysis also found that only 4% of the panels were depicted with motif of Arabic calligraphy in perforated form, and all of them were door ventilation panels. This motif which was unique and complex in character was apparently the least applied due to its complexity which require extra skillfulness to form the Arabic scripts.

Table 3: Percentage for the types of carving motifs

No.	Types of motif	Carved Components	Quantity (%)
1	Flora	Wall ventilation panel (PWVP) Railing at serambi/Sorong (RP), Window railing (WRP), Wall ventilation panel (PWVP) (S), window ventilation panel (WVP), Gable end (GEP), Door ventilation panel (DVP), wall panel (WP)	55 (55%)

2	Combination	Wall ventilation panel (PWVP) (S), Door and window ventilation panel (DVP), railing, gate and wall panels	27 (27%)
3	Geometry	Ventilation panels above walls (PWVP), railing panels	14 (14%)
4	Calligraphy	Door ventilation panel (DVP)	4 (4%)

3.3.1 Floral Motifs and Its Compositional Characters

The motifs of flora are considered as the most prominent and recurrent decorative patterns found in Malay woodcarvings (Ismail, 2002). The study found that floral motifs of specific plants with its elements including flowers, flower buds, leaves, tendrils, fruits, and shoots were the most popular design pattern employed in the carvings of Kelantan and Terengganu timber houses. They were arranged to form one complete carving with a certain degree of complexity and intricacy. Figure 5 is an example of a carved ventilation panel fitted on a wall of rumah ibu at Mohamad Dobah's house. This perforated panel was equipped with floral elements in naturalistic feature including a central piece of a full-boomed flower that serves as a focal point. The design of motif in a wood carving is usually illustrated as growing plant emerges from a single point which serves as an origin (Rosnawati 2005; Wan Mustapha, 2009). This point of origin was usually hidden behind a flower, leaf or a flower vase. These elements were usually positioned at a centre and surrounded by the complementary motifs of other plant elements like branches, leaves and stems in meandering characters.

Motif is the main element in any piece of woodcarving (Wan Mustafa, 2009). Motif of a specific plant with its various elements represents the natural growth and movement of life in living plant (Rosnawati, 2005; Norhaiza, 2008). This suggests a manifestation of craftsman's perception of the beauty in nature into the art form. Several types of plants such as *ketumbit*, *ketam guri*, *bayam peraksi* (all are weeds grown in house yards) and *kekacang* (climbing legume) are generally represented as focal objects in the carving composition. The traditional craftsmen used two methods of floral motif depiction: (1) close imitation of natural plants from immediate surroundings, and (2) transformation of the plant motifs that barely resemble their real-life image. The woodcarvers have responded to the pristine beauty of a natural plant by preserving it in forms of woodcarving with the best way whenever they can. The name for the floral motif was usually derived from the original plants. However, some motifs are without name because its depiction is based on the woodcarvers' imagination (Norhaiza, 2008; Wan Mustapha, 2009).

Apart from motif, the specific arrangement of compositional elements in



meandering or spiraling pattern, locally known as *awan larat* (meandering cloud), also contributed to the individual character of the carved components found in the houses. The name of *awan larat* was initially derived from a moving cloud (Ahmad Jamal, 1994; Wan Mustapha, 2009). This pattern usually represents a harmonious relationship between the elements of motifs in a specific arrangement according to the shape and size of the panel. The form of *awan larat* is usually controlled within a clearly defined space. For example, tips of the leaves in the carving (see Figure 5) are purposely folded up or curled inward to avoid touching the adjacent leaves and these elements flow within the specified space. This form of carving with gentle movements of the leaves and other plant elements has become one of distinct features in Malay woodcarving. Every flow of the carving elements has compositional meaning (Wan Mustapha, 2009). Variations in composition were achieved through the different arrangement of the elements of motifs either as border, central placement or a combination of these that creates an overall pattern. For example, as apparent in the ventilation panels shown in Figures 6a and 6b where spirals become dominant elements featured in meandering character. Spiral is a compositional device used in the formation of *awan larat* (Wan Mustafa, 2009). The depiction of similar type of a plant motif of probably a climbing legume with vivid variations in composition signifies the craftsmen ingenuity and creativity. Beauty is indeed portrayed in both panels by its elegant and gentle movements of the spiral elements within the different layouts of *awan larat*.

Meandered or spiraled pattern carvings with relief or non-relief floral motif in naturalistic and stylized feature was mostly prevalent on ventilation panels found on the upper part of walls, above windows and doors of Kelantan and Terengganu houses. This suggests that the significant aspect of the placement of the carved components with *awan larat* pattern in the timber houses is that it signifies regional identity to the vernacular architecture of these two states whilst embellishing the buildings. *Awan larat* represents an identity of carvings from Terengganu and Kelantan (Norhaiza, 2008; Wan Mustapha, 2009).

Awan larat is probably a Malay model adopted by the woodcarvers since the nineteenth century or perhaps much earlier times. Its origin into Malay carving is unknown. Similarly, its widespread popularity in this region was also unknown. However after the woodcarvers had accustomed to the meandering pattern, they endured it highly. *Awan larat* has been the most popular design pattern employed in Malay art (Farish and Eddin, 2003). For example, this pattern was recognized and applied in a wide version as apparent in the panels shown in Figures 5, 6a and 6b. A relatively minor change in the shape and flow

of the spirals permitted a radical change in the appearance of the pattern. This type of pattern has probably provided the Malay woodcarvers with both an anchor in tradition and a device for innovation. The meandering pattern serves as a design framework in the fabrication of woodcarving and it has indeed been applied by the past and existing craftsmen in their carving works. This scenario suggests the craftsmen's keen interest in preserving and protecting the pre-eminence of crafts tradition.

Differences in carving techniques also give distinctive character to the carved components. Carvings were normally fabricated with several carving techniques: (1) perforated or non-perforated, (2) relief or non-relief, and (3) overlapped or non-overlapped. The application of these techniques leads to the formation of either two-dimensional or three-dimensional carving. It appears that carved ventilation panels in a single rectangular layout were commonly found in a three-dimensional format that contributed to high visual intricacy and complexity. For example, the ventilation panel fitted to the wall of Wan Mek's house was a three-dimensional form (Figure 7). This perforated panel portrays a delicate and complex arrangement of relief floral motif, possibly, *bakawali* (*Epiphyllum oxypetalum*; a cactus) in intertwined character with quadruple overlaps. In this panel, complexity was reflected by high relief plant motif that has flowing elements in curvy lines to cross over or under each other in delicate movement. The complex arrangement of elements gives almost a three-dimensional look reflects the essence of the natural plant. Fabrication of complex carving with overlapped technique requires a high level of carving skill and the more overlaps the more difficult to produce (Norhaiza, 2008; Wan Mustapha, 2009). The proficiency in shaping woodcraft with the skilful use of the media offers the craftsman a means of artistic expression (Jackson and Day, 2005).

Apart from the complex and intricate pattern, the carvings were also depicted in a simple and singular flora form. For example, a window ventilation panel found at Lebai Ali's house comprises of a perforated flower-motif carving as a principal element (Figure 8). This stylized plant element is depicted in an uncomplicated relationship signifies the simplicity in the single pattern and the carvings look two-dimensional in composition. A clear-cut silhouette of a flower motif with simple feature is the principal theme for this carving. Perhaps, the application of this type of motif reflects the woodcarver's passionate mind to a particular type of a flower by capturing the essence of its shapes but departing from its naturalistic form. As Wan Mustafa notes, "the main reason was that people of the past were highly attracted to flowers. Even now flowers are still the central of attraction".



3.3.2 A Primary Reason for the Application of the Plant as Motif

Flora is considered by the woodcarvers as the most enduring and influential motif-types in the house ornamentation. Its subsequent influence was widespread till today. A possible reason is that plants of gentle features such as weeds, climbing legumes and fragrance flowers were considered as form of beauty. According to Norhaiza (2008), the Malay woodcarvers prefer to use creeping plants and flower producing plants because of their visual beauty. Motif of flora can be formed and composed in unrestricted fashion for various carved panels with unlimited types of pattern and carving layout according to the artistic and technical skill of craftsmen. Besides, the application of floral motif is permissible by the Islamic teaching. Perhaps this design qualities prevailing in the woodcarvings are reflection of traditional Malay craftsmen's adherence to the ascendancy of traditional craftsmanship anchored by religious beliefs. A common way to secure traditions was to continue the artistic achievements of past glories from olden generations (Farish and Eddin, 2003).

3.3.3. Application of Geometrical Motifs

Non-figurative motif like geometry was also apparent in the window railing (Figure 9a) and wall ventilation panels (Figure 9b) found at Wan Embong's and Nik Salleh's houses, respectively. These perforated panels in non-relief carvings exhibit distinctive features which are characterised in two different layouts and geometrical motifs. Motifs of vertical stripes in repetitive arrangement and geometrical flora in horizontal lines dominate the railing panel. The series of vertical lines and horizontal bands were stretched along the vertical layout forming rhythmic composition of strip and band pattern. In contrast, compositional elements of circles in the wall ventilation panel give a sense of visual consistency. The overlapping circles are repeated rhythmically extending to infinity and absence of focal point or centrality. The repetition of uniformed circles in unvarying composition flow within the horizontal rectangular layout. Most obviously, the geometric pattern uses the similar motif, repeatedly in a predictable order resulting in a sense of harmony. This was agreed by Norhaiza who said, "It is pleasant to look at. It is contrast, once in a while we like to look at it. It has harmony and it is organized".

It seems that the traditional Malay craftsmen used the compositional principles including symmetry, repetition and unity, which provide them with structural guidelines for the design and treatment of visual forms and elements in their carving works. The art of woodcarving certainly serves as an evident of woodcarvers' expression and ways of communicating their thoughts (Norhaiza, 2008; Wan Mustapha, 2009). Many components with floral and geometrical

composition were equipped with balanced design. Balanced composition was created by symmetrical repetition and it was common means of achieving unity in composition. This suggests that the Malay woodcarvers were driven by their passionate interest for symmetry and repetition. Thus, the use of balanced design could also be considered as the artistic tradition of the Malay craftsmen.

3.3.4 Calligraphy as Carving Motifs

Fabrication of carved components for house setting was not limited to the application of carving motif from floral elements and geometries alone. The woodcarvers also applied calligraphy which was normally produced in non-relief and non-overlapped forms. In sharp contrast with geometry, calligraphy motif consists of complex elements that are formed in intertwined character within a specific border. A motif of Arabic calligraphy is normally used in carved components to convey Islamic messages whilst offering aesthetic values. Calligraphic elements usually depict the form of Arabic characters, verses from the Quran and local Arabic writing called *Jawi* (Abdul Halim Nasir, 1987).

A few prominent houses like Biji Sura's residence was adorned with various forms of Arabic calligraphy depicted on several carved panels fitted above doors. For example, the carved ventilation panel found on top of the doors of rumah ibu and bedroom (see Figure 10) represents Quranic verses derived from *surah Yasin* that read as "Peace!-a word (of salutation/greeting) a Lord Most Merciful" in the style of Arabic script called Thuluth. It is enclosed by the embedded semi-circular structural frame as a border. The symmetrical repetition creates a sense of balance and consistency in composition. Apparently, the unique character of the carved component is in the intertwining movement of the calligraphic elements that embrace the non-relief surface of the rectangular panel. In many cases, calligraphic elements were usually found in isolation or in complementary with the floral motifs.

The findings suggest that the natural-inspired ornamentation in the Kelantan and Terengganu houses was culturally and religiously restricted to the plant based-motif. This is evident in the widespread use of the living and imaginative floral motifs in the carved components with an absence of figural representation. Moreover, the form of Arabic calligraphy had been on the Islamic message in the cause of Allah with special emphasis on ethics and moral, as evident in the ventilation panel found in Biji Sura's house. This religious message intertwined with natural elements as an ornamental device. The conveyance of the sacred message in an attractive manner may invite viewer's attention whilst serving as an invoking art piece. The Muslim chose calligraphy in aesthetic expression because it is based on beauty of form and this beautiful form is free from a representation



of any object (Ishtiaq, 1981). Meaning of the specific ornament involves its formal and technical aspects which were influenced by the regional, social and religious variations of the people who created and beheld them (Bear, 1998).

3.3.5 Mixed Motifs and Its Configuration of Pattern

Apart from motifs of flora, geometry and calligraphy, combination of these motifs are also apparent on different types of carved components including ventilation panels, railing panels, door leaves and gate leaves. For example, the rectangular panels (Figures 11a and 11b) represent a combination of two different types of motif. In Figure 11a, a plant motif in a meandering feature encircles the Arabic calligraphy as a central element. The calligraphy is depicted in a Thuluth script written as *Abu Bakar As-Sidek* who was one of the prophet's companions. The meandering plant is represented in a complete pattern emerges from the top and bottom sources. This motif is portrayed in a naturalistic feature and depicted as a growing plant with an intricate and complex carving. The depiction of calligraphy as a focal element and surrounded by the floral motif creates a sense of variety and contrast.

In essence, the study found that figurative elements either in abstract or real-life image was never applied as carving motif on any type of carved component from the timber houses. This suggests that motifs of flora, geometry and Islamic calligraphy or in combination of these were the principal types of compositional elements in the woodcarvings which adorned the houses from the states of Kelantan and Terengganu. The least used of the four was calligraphy. Relief carving with floral motif was mostly found on single ventilation panels fitted on top of windows, doors and walls either in vertical or horizontal rectangular layout. Application of flora as carving motif was not arbitrary; it represents meaning and conforms to explicit or even implicit rules as evident in many carved components found in the study. The floral motifs perhaps entailed a bigger recognition as local taste as compared to the other types of motifs.

The findings also indicate that *awan larat* has become the recurrent floral pattern in the various forms of carvings fitted as house components. Its consistency in design is one of the earliest examples of the carefully controlled decoration that has become the hallmark of the carvings from Terengganu and Kelantan. Apparently, the panels with this type of floral composition serves as one of carving archetypes originated from this region and imitated by several craftsmen with their individual artistic approach. The differences in the forms of carving composition and the deployment and depiction of motifs reflect the craftsmen's individual translation based on their imagination and creativity. However, their artistic translation and creativities were guided by the traditional concept in the

formation of the carving pattern and composition. According to Wan Mustapha (2009), an ability to apply the traditional concept in carving works is vital apart from having logical thinking and creativity. These are the main criteria to be possessed by the craftsmen in order to produce their art work with novel and aesthetical sense. It appears that the art of carvings produced by the craftsmen of older generation for the thirteen houses indicates a careful balance of craft traditions and innovations shaped by their artistic sensibility and ingenuity.

In short, the recognition and understanding of the carving principles by present and future generations of craftsmen are important. Understanding of the knowledge by the craftsmen is significant because their levels of artistry and technical skill could determine the distinct characteristics and features of woodcarving which are considered as regional identity. Hence the identity could be preserved and the tradition in the making of woodcarving could be practiced by the present and future generations. In order to achieve this and prevent from losing its identity, the traditional creations and knowledge of woodcarving should be restored to the handful of experts and masters of the crafts and should be inherited by the subsequent generation of woodcarvers in a continuous manner.

3.4. Suggested Framework to Sustain Carving

Sustaining Malay architecture identity requires mutual efforts from woodcarvers, architects and housing developers. At present, there are at least six woodcarvers in the Kelantan and Terengganu actively producing carving for wealthy home owners, clubhouses, resorts and hotels (Norhaiza Nordin, 2008; Wan Mustapha, 2009). In other words, the practices of making the craft are still surviving in Malaysia, and could be expanded by producing the carved components for different groups of purchaser who has different levels of purchasing abilities. In the Ninth Malaysia Plan 2006-2010 (2006) the development of culture, arts and heritage-related industries, especially crafts, is given greater emphasis by being promoted as a source of economic growth. This certainly could give opportunities for the carvers who are producing the carved components in villages like in Terengganu and Kelantan. We are suggesting a framework of producing and purchasing of the carved components (Figure 12). This framework recognizes interwoven relationships among the three important groups or domains, namely production and promotion group, supporting group and purchasing group. We view this framework as a valuable tool for building in sustainability effort by drawing attention to the domains themselves, and more importantly, to the interrelationships between them.

Producing the components is the domain of the woodcarvers, and the



Department of Craft and Antiquity Malaysia should consolidate the carvers to form an association that facilitates the marketing of the carvings to housing developers and residences in towns and cities, the purchasing domain. This should happen in the recent trend in the building of modern Malay houses especially in urban areas by continuing the use of traditional carving elements as part and parcel of building components. Currently, there are approximately 2,666,000 (59%) units of houses (detached, semi-detached, terrace and townhouses) in urban areas (Department of Statistic Malaysia, 2005). These houses could be enriched with material traces from its past which has been passed on by tradition and apprenticeship. Notwithstanding addressing the marketing of carvings for housing enterprise, the promotion must also be extended to government and private buildings or monuments (e.g. resorts, clubhouses, hotels, community halls and *masjids*) in equitable levels.

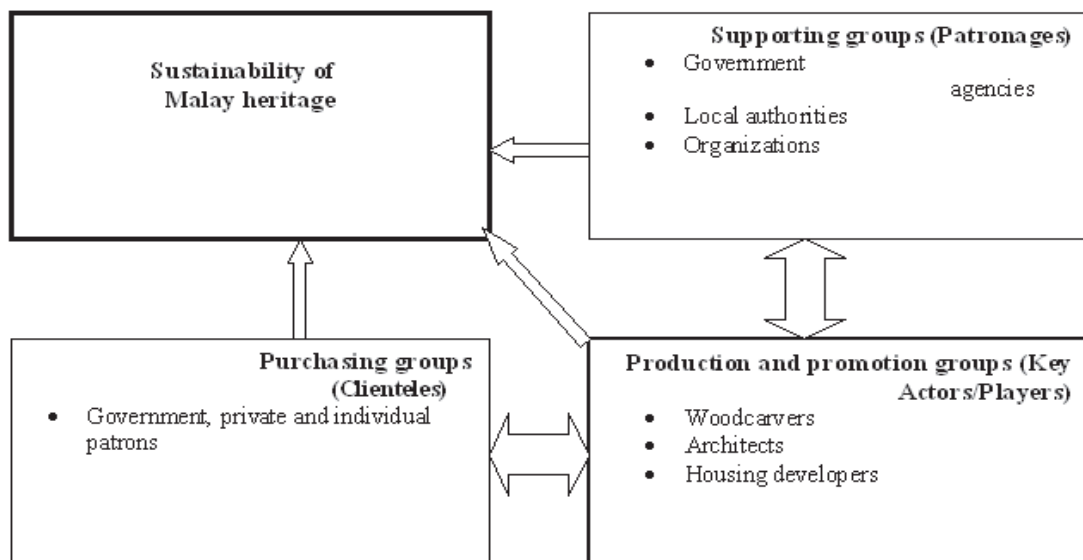


Figure 12: Proposed framework on the sustainability of woodcarving as architectural heritage

In Malaysia, the business of making carving is under small and medium enterprises which is encourages by the government to grow with assistances (Ministry of Housing and Local Government, 2009). The assistances include financial loan from SME Bank Malaysia under the heading of manufacturing-related services with a maximum of US\$1.4 million. This assistance would help the master craftsmen to employ villagers to produce the carvings in their home setting. This type of craft-based industry for the development of economic activities could be supported by the National Physical Plan (NPP) which was introduced by the Ministry of Housing and Local Government (MHLG) in 2005.

Notwithstanding, architects and the association of architect Malaysia known as *Persatuan Akitek Malaysia* should encourage their clientele to use carved

components for door and window leaves, ventilation panels of door, window and wall, window railings, partitions and screens, and carvings for wall decoration. To upgrade the knowledge on heritage value of woodcarving, the association should hold discussion, forum or workshop for their members. The speakers or panelists could be master craftsmen, researchers from local universities and historians. Consequently, this scenario of concerted efforts among the relevant groups would create an environment sustaining of its genuine Malay identity. Likewise, to make it sustainable in tradition, the application of carved components should be geared towards achieving its main objective which is for the promotion of the traditional design and not for the sake of commercialism per se.

4. CONCLUSION

In summary, a variety of carving motifs in the carved components of Kelantan and Terengganu houses displayed distinctive visual features. The carved components were not objects crafted in a simple way but deeply anchored to the traditional principles which have been recognized from older traditions. These works are manifestation of artistic qualities and skillfulness possessed by the traditional craftsmen. Woodcarving is an item which is strong in definition of the character of the vernacular type which should be kept as it is. However the idea of work should evolve and develop instead of remaining as static and homogenous in character. Inasmuch, the advancement and development should be guided and kept within the prescribe framework. This has been practiced by the Malay craftsmen throughout the ages as evident in the woodcarvings produced during the middle nineteenth to early twentieth centuries. Its visual forms were crafted and subscribed by the craftsmen to be seen or used primarily in the domestic setting thus creating pleasant ambiance and in harmony with the regional identity.

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الزخارف المحفورة في المساكن الخشبية في كيلانتان وتيرنجانو الحفاظ على استدامة هوية العمارة الماليزية

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الملخص:

يقدم هذا البحث دراسة تحليلية لاشكال الزخارف المستخدمة في المكونات المشغولة من الخشب للمساكن في كيلانتان وتيرنجانو. ثم تحليل ما مجموعه ثلاثة عشر طقم من الرسومات التي تم رفعها بواسطة مركز (دراسات البيئية المبنية بماليزيا بجامعة ماليزيا التكنولوجية) مكونة من تسعة مساكن في كيلانتان واربعة مساكن في تيرنجانو.

وتحليل البيانات من الرسومات والمعلومات المستقاة من اثنين من حرفيي الخشب المشغول تبين وجود اربعة انواع من المكونات المشغولة من الخشب: انواع التهوية للجدران والابواب والنوافذ والدرازينات والواح ابواب المداخل وكمرات الادراج الخشبية. اما انواع الزخارف فهي نباتية وهندسية والخط الغريب وبعض الظواهر السماوية وقد تم حضرها او تشكيلها بطريقة ثنائية او ثلاثية الابعاد.

ويعتبر انتظام وديمومة اشكال الرموز، وخاصة النباتية، دليلا على وجود هوية محددة للعمارة المحلية في اقليم شمال شرق شبه الجزيرة الماليزية.

وقد تم حضر الزخارف لتناسب شكل المبنى ومكوناته كالجدران والابواب والنوافذ والادراج والمداخل،

ويعد اهم عامل لوضع الزخارف في المنازل هو لتجميلها واعطائها هوية المعمارية للاقليم الشمالي الشرقي.

وبهدف الحفاظ على استدامة الزخارف المحفورة في الخشب كارت معماري ماليزي يقدم هذا البحث اطار علمي يمكن الحرفيين الحاليين من الاستمرار في انتاج المكونات المشغولة من الخشب لاسواق الاسكان الحضري.

والمكونات المقترحة هي الواح التهوية للابواب والنوافذ والجدران وخلف الابواب ودرازينات النوافذ.