

# VISUAL FORMS OF CARVED COMPONENTS IN TRADITIONAL TIMBER HOUSES OF KELANTAN AND TERENGGANU

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**ABSTRACT:** Malay traditional timber houses of Kelantan and Terengganu are normally adorned with decorative carved components which represent excellent carvings in its specified design motif, shape, size and layout. Various carved components with specific features are fabricated according to its placement and configuration in the interior as well as exterior setting of the houses. Woodcarving as an embellishment is a significant unifying architectural element between the house forms and its building components. This paper presents an explorative study of the visual forms and placement of carved components in the vernacular houses of Kelantan and Terengganu which denotes its significant attributes and uses. A set of 13 case studies, nine houses in Kelantan and four houses in Terengganu were referred to as the research base. The methods of investigation include analytical review of measured drawings and reports of the Kelantan and Terengganu timber houses from the Centre for the Study of Built Environment in the Malay World (KALAM) at the Department of Architecture in the Universiti Teknologi Malaysia (UTM) and narrations from the prominent woodcarvers on art and crafts of woodcarving. Apart from these methods, interviews with the allied professionals for scholastic information on art and architecture of the Malay world were also conducted. The analysis of the documents revealed that several types of carved components with distinctive visual forms in two and three dimensional composition were placed in certain orders within the fabrics of the houses. Wall, door and window ventilation panels, railings, gate panel and stringers are types of components characterized by the shape of perforation and incision with relief and/or non-relief carvings. These 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 beautiful ambiance and signifies regional identity to the vernacular architecture of these two states.

Keywords: Woodcarving, traditional timber house, architectural elements, visual forms, carving motifs and visual orders

## **Introduction**

Woodcarving is considered as an integral component to the vernacular Malay houses of Kelantan and Terengganu which are located in the east coast of Peninsular Malaysia. The fabrication of the woodcarving as carved ornament reflects the specific style of Malay architecture which spring from the east coast region. According to Farish and Eddin (2003) the architecture of this region has possibly originated from the Langkasuka as early as 14<sup>th</sup> century. As such, the development of house design in this region has given identity to a vernacular type of architectural forms of its own. The regional identity of this house is enriched by the Malay woodcarving in a beautiful spectrum of ornamentation. From the design aesthetics, Raja Bahrin (1988) and Syed Ahmad Jamal (1994) note that the carvings from Kelantan and Terengganu are the most refined and beautiful of all Malay woodworks in terms of shape and carving techniques which exhibit a degree of beautification not found elsewhere. Carvings from this region are distinctly different from those found in other traditional Malay houses. The carvings were crafted with certain characters, showing their regional identity and often much-admired for its distinctive beauty.

Beauty in the carving form is discernible by the rhythm of curvilinear and rectilinear lines, textures and shapes of motifs, pattern, perforation and depth of incision. Carving techniques and arrangement of motifs faithfully follow shapes and layouts in traditional Malay woodcarving, the most common being perforated panels with relief and non-relief carving in horizontal rectangles. Visually, the forms of motifs and patterns, types of perforation and incisions of the carvings give the distinct characteristics and features of carved panels which are fused with the designated use as house components. These carved panels are produced for decorative as well as functional components. Carvings for the houses are crafted in a variety of forms including wall ventilation panels, door and window panels, wall panels, railings, panels of gable ends, gate panels and stringers. The physical forms are in parallel to the architectural elements and its placement and distribution in the interior and exterior fabrics of the houses. Carving forms were made out as integral components to the Kelantan and Terengganu timber Malay houses with a distinct composition and configuration.

The aim of this paper is to present a preliminary finding of the various forms of carved components in relation to its layout and significant uses in the traditional timber houses of Kelantan and Terengganu. This initial stage of research highlights the visual

description and interpretation of the carvings with the specific features within the context of its placement and configuration in the interior as well as exterior setting of the houses. The focus of this paper is considered as the early version of the preliminary study of the 13 houses from a total of 30 houses. On this basis, the study reveals the physical forms, visual attributes and principles of composition that are apparent in the carved components of the selected houses.

## Method

This study was conducted as explorative and interpretive research, where a significant number of required information was gathered from three sources: (1) measured drawing and reports of timber houses from the Centre for the Study of Built Environment in the Malay World (KALAM) at the Department of Architecture in the Universiti Teknologi Malaysia (UTM), (2) personal communication with two woodcarvers on art and crafts of woodcarving, and (3) informal interview with the professional architect on traditional art and architecture of the Malay house. The data from the KALAM documents was triangulated with information gathered from two woodcarvers and the architect for the data reliability (refer to Figure 1.0). As noted by (Neuman, 2000; Patton, 2002; Berg, 2004) the purpose of triangulation method is to relate the multiple data-collection methods leading to the reliability of data. The information gathered from the experts was needed to substantiate the results obtained from the analytical review.

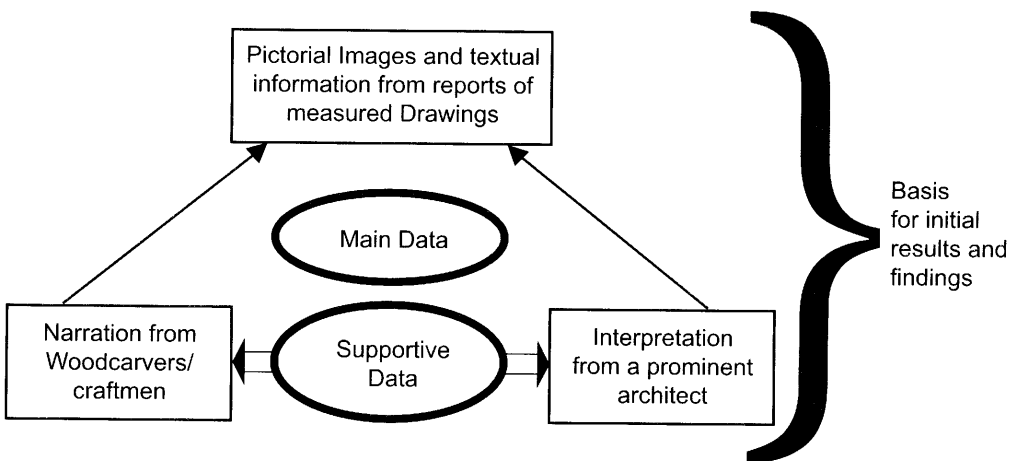


Figure 1: Sources of data in triangulation

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### Analytical Review on Archival Documents

The analytical review was conducted on thirteen prominent Malay timber houses. Nine houses are located in Kelantan and the other four houses are sited in Terengganu. Table 1.0 highlights the information of the selected case studies including the types of architectural forms and year of construction, owners 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, (2) the houses were decorated with excellent carvings which are regional and distinctive in character, (3) the houses provide a good collection of carved components which are relevant for visual analysis purpose.

**Table 1:** The Kelantan and Terengganu timber houses as the case studies

No	Type of House	Year Built	Owner	Location of House
1	Rumah bumbung perabung lima	1920's	Encik Hassan B. Mohd Amin	Jalan Pengkalan Chepa, Kota Bharu, Kelantan
2	Rumah Bujang Berserambi Dua Beradik	1850's	Tuan Hj. Mohamad Dobah (Tuan Hj. Mohamad Abdullah)	1408, Jln. Post Office Lama, Kota Bharu
3	Rumah Bujang	1800's	Wan Aisyah	Jalan Sultanah Zainab, Kota Bharu
4	Rumah bumbung perabung lima	1920's	Hj. Wan Ahmad Hj. Abdullah	Jalan Post Office Lama, Kota Bharu, Kelantan
5	Rumah bumbung perabung lima	1930's	Hj. Yaakub Mohammad	2623, Kampung Sireh, Kota Bharu
6	Rumah bumbung perabung lima	1937	Wan Hussain Bin Wan Abdul Rahman	4962, Kampung Sireh, Kota Bharu
7	Rumah bumbung perabung lima	1933	Hassan Bin Yusof	4963 Lorong Tukang Perak, Kampung Sireh, Kota Bharu
8	Twelve-pillarded house/ Long-roofed house	1800's	Tok Yakub	Kampung Belongan, Bachok, Kelantan
9	Rumah bujang berserambi dua beradik	1920's	Haji Wan Sulong	Jalan Sultanah Zainab, Kota Bharu, Kelantan

No	Type of House	Year Built	Owner	Location of House
10	Rumah Bujang Berkembar Dua Beradik	1882?	Hjh Mariam Hj. Mat	168, Kampung Hiliran Masjid, Kuala Terengganu
11	Rumah bujang berselasar	1850's	Hj. Awang	Kampung Losong Haji, Su, Kuala Terengganu
12	Rumah bumbung limas	1914	Dato' Biji Sura (Nik Mohamad bin Hitam)	Duyong Kecil, Kota Duyong, Kuala Terengganu
13	Rumah bujang berserambi dua beradik	1800's	Tok Ku Paloh	D62, Paloh Makam Tok Ku, Cabang Tiga, KT, Terengganu

A set of measured drawings which consist of plans and elevations of the thirteen houses including crossed sectional and detail drawings were referred for detailed eddescriptive analysis to identify the types of carved components and determine its physical attributes including visual forms and ordering principles of composition. These measured drawings and the reports were produced and documented by the students of architectural programme from the Universiti Teknologi Malaysia. Editing and reproduction of a few documented drawings were made to improve its visual quality and accuracy for the purpose of analysis and data display. The objects which provide raw materials for visual investigation must be also viewed, understood, or placed in some analytical framework before they can be regarded as data (Emission and Smith, 2000).

### The Interviews

Personal interviews were conducted with the two prominent woodcarvers for obtaining information on art and crafts of woodcarving. The first woodcarver interviewed was Norhaiza Nordin from Kampung Raja in Terengganu and the second one was Muhaimin Hasbullah from Temerloh in Pahang. Apart from these, informal interview was conducted with a professional architect from Terengganu, Raja Datuk Kamarul Bahrin Shah who is well-known for his direct involvement with the preservation of East Coast Malay architecture. Narration and interpretation from the craftsmen and professional architect were needed to support the main data gathered from the KALAM. Their opinions and inferences serve as verification and supplementary information to the analyse the data.

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## Initial Findings And Interpretation

The traditional Malay timber houses represent the significant craftsmanship of the past tradition. 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. Most of the embellishments found in the houses are done by the Malay craftsmen who also built them. The vernacular forms of the timber houses are built to meet specific needs of the users according to their ways of life based on regional cultures and values. Gokhan (2002) defines vernacular architecture as the forms of architecture built for the common people and it is an embodiment of common characters, materials and aesthetic value of a particular region. The Malay timber houses are reflection of the ways of life of the cultures that produce them (Abdul Halim and Wan Hashim, 1997).

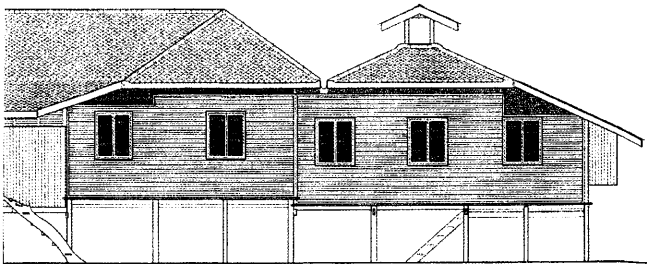
The Kelantan and Terengganu timber houses are considered as vernacular architecture which exhibit distinct regional characteristics. These dwelling architecture which are situated in the east coast of Peninsular Malaysia exhibit distinct regional characteristics with its own identifying building features including carved ornaments. This architecture represents the simple vernacular forms in the use of local materials. Most of the old traditional houses are made of cengal (*Balanocarpus heimii*). Cengal is a heavy hardwood species used for structure of Malay houses and carvings (Lim, 1987; Ismail, 2005). According to Raja Bahrin (1998) the task of constructing the timber houses was a difficult and long process. This is because most of the construction process including the search for the hardwood timber was dependably carried out by the used of manpower.

## House Forms and Layout of Spaces

Raja Bahrin Shah (1988) posits that Kelantan and Terengganu traditional timber houses are appreciated for two reasons. First, its building forms are efficiently designed to suit local climate condition and timber-based construction materials. Second, the embellishments in forms of intricate carvings on various panels are found in integral with the architecture of the houses. *Rumah perabung lima* (five-ridged roof house) and *rumah bujang berserambi/berselasar* (verandah house) were the most common types of houses found in Kelantan and Terengganu. *Rumah perabung lima* is characterized

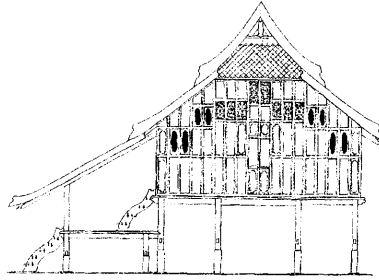
by the hipped roof. Most of timber houses in five- ridged roof type were identified in Kelantan as highlighted in Table 1.0. For example, Hassan house as shown in Figure 1.0 exhibits the timber house form with hipped roof, raised on stilts and with wall made of timber. *Rumah bumbung perabung lima* is a type of house with pyramidal roof and it was the first type of house with the roof form introduced in Kelantan (Abdul Halim and Wan Hashim, 1996).

*Rumah bujang berserambi* was the most common type of house found in Terengganu, for example, *Rumah Tok Ku Paloh* as illustrated in Figure 2.0. One of the dominant features for this type of house is a long single-ridged roof with two gable ends. The two ends of the long roof have curved frames known as *pemeleh* fixed to the roof edge. The term of *pemeleh* is used to refer to the decorative frames for the gable ends of the roof (Abdul Halim and Wan Hashim, 1996). Another distinctive feature found at *rumah bujang berserambi* is convex wall panels fixed on the wall facades of the house. The convex wall panel was made of thick wooden frames in a vertical layout and usually equipped with carved panels within the wall. Convex wall panels have become one of the most noticeable features of *rumah bujang berserambi* where carvings in forms of perforated ventilation panels are normally found here and usually on the upper part of the wall. For example as appeared on the wall facade of rumah ibu found at Rumah Tok Ku Paloh as shown in Figure 2.0. The houses with this type of architecture were the oldest dwelling form identified in Kelantan and Terengganu. Many of them were constructed in the early nineteen century that had reached over a hundred years old. The earliest type of Terengganu traditional Malay house has a high, steeply sloped and single-ridged roof with a ridge cover running the length of the house (Raja Bahrin Shah, 1988).



**Figure 1:** Front elevation of Hassan house

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**Figure 2:** Front elevation of Tok Ku Paloh house

Most of Kelantan and Terengganu traditional Malay houses were equipped with basic areas including *rumah ibu*, *pelantar*, *serambi/selasar* (long verandah) and *dapur* (kitchen). This basic layout of spaces with simple concept of living was evidence in the two types of house form. Both types of house possessed the simple layout of spaces to accommodate the family way of living and needs with *rumah ibu* as the largest and principal area that serves most of household activities such as sleeping, praying or gathering. *Rumah ibu* is the main part or core of the traditional Malay house (Lim, 1987; Abdul Halim and Wan Hashim, 1996). The *serambi* (verandah) is an area situated next to the *rumah ibu* as appeared in *Rumah Tok Ku Paloh*. *Serambi* was also known as *selasar* which means the reception area (Raja Bahrin Shah, 1988). *Serambi* is the transition space between the public and private domains of the house. This is where the *rumah berserambi* (verandah house) differs greatly from the concept of space configuration of *rumah perabung lima*. It is most common for *rumah perabung lima* to be equipped with *pelantar* as entry porch where most of guests are greeted here. The *pelantar* is the transition space that leads up to the core area of the house, *rumah ibu*. It is an important focal point that serves as the principal entrance where stairs is located. Most traditional timber houses of Kelantan and Terengganu have stairs at the front and rear entrances that lead up to *pelantar* or *serambi* and kitchen. The traditional Malay house can be divided into the front and back portions which are centered around the *rumah ibu* and the *dapur* (Lim, 1987)

### Location of the Traditional Houses

Eight of nine Kelantan timber houses were located in Kota Bharu, the capital state of Kelantan. The remaining one house was situated in a district of Bachok which is



located not far from Kota Bharu. All four Terengganu timber houses were located in Kuala Terengganu. The two states of Kelantan and Terengganu are located on the Peninsula's East Coast. Figure 3.0 shows the location of the houses in the two states. Detailed information on the timber houses are shown in Table 1.0.

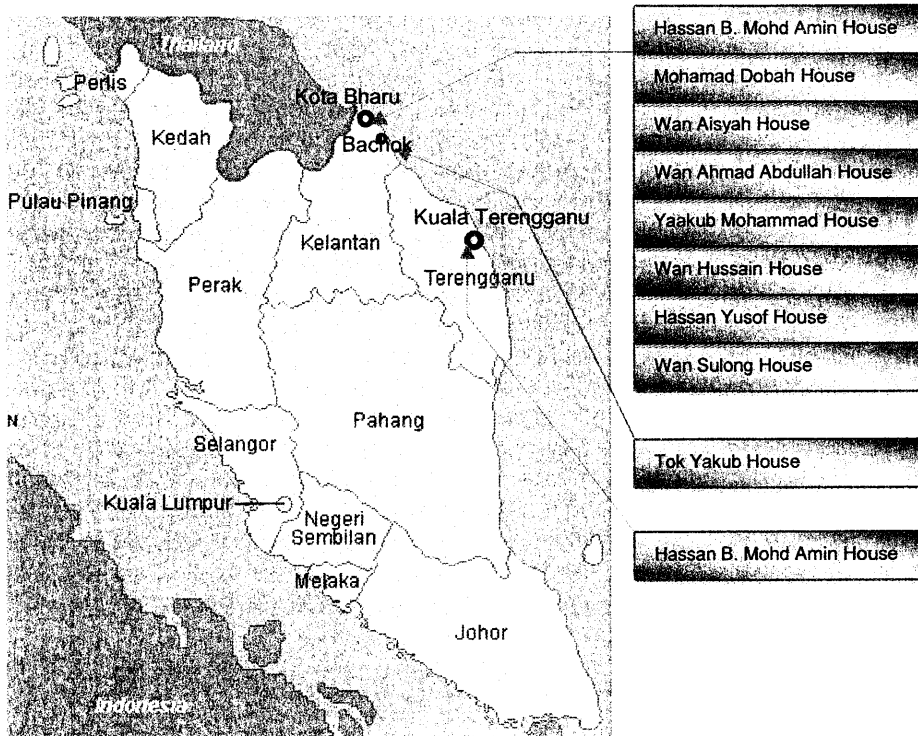


Figure 3: Location of the traditional houses in Peninsular Malaysia

### Architectural Carved Components

The analysis revealed that several forms of woodcarvings with distinctive features were found in the timber houses of Kelantan and Terengganu. The visual forms of the carved components were fabricated with specific carving motifs, types of incision, shapes, sizes and layouts. The distinctive forms of the various carved components are apparent with respect to its placement and layout in the interior as well as exterior fabrics of the timber houses. A variety of carved panels with interesting visual forms and layout were juxtaposed on various components of the house such as walls, doors, windows, railings, stairs, gates and roof. The placements of the carved components

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were fixed within the specific arrangement and significant purpose. The various types of the carved components found in the houses are shown in Table 2.0.

**Table 2:** Carved components found in the selected timber houses

No	Name of house	Types of Carved Components found in the Timber Houses												
		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)	Stringer (S)	Gate leaf (GP)	Roof eave (REP)	Bracket (BP)	Gable end (GEP)
1	Hassan Mohd Amin	1	1	1	0	0	0	0	0	0	0	1	0	0
2	Mohamad Dobah	0	0	8	0	0	0	0	0	0	0	0	0	0
3	Wan Aisyah	0	0	3	0	0	0	0	0	0	0	0	1	0
4	Wan Ahmad Abdullah	0	1	2	0	0	0	0	0	0	0	0	0	0
5	Yaakub Mohammad	0	2	1	0	0	0	0	0	1	0	0	0	0
6	Wan Hussain Wan Abdul Rahman	0	1	1	0	0	0	0	0	1	0	0	0	0
7	Hassan Yusof	0	2	1	0	0	0	0	0	1	0	0	0	0
8	Tok Yakub	0	1	1	0	0	0	1	0	0	0	0	0	0
9	Hjh MariamMat	0	2	2	0	1	0	0	0	0	0	0	0	0
10	Kampong Lososng	0	0	3	0	0	0	0	0	2	0	0	0	0
11	Dato' Biji Sura	2	6	0	1	3	1	1	1	0	3	0	0	0
12	Wan Sulong	1	1	1	0	0	0	1	0	0	0	0	0	2
13	Tok Ku Paloh 1	0	0	3	0	0	0	0	0	2	0	0	0	0
	<b>TOTAL</b>	<b>4</b>	<b>17</b>	<b>27</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>

### Patten of Distribution in the Houses

The analyses signified a certain pattern of distribution of carved components in each house and its compositional motifs in relation to the architectural elements and the house form (see Table 1.0). It appears that the carved components were widely found on walls at rumah ibu. Most of them are in forms of ventilation panels fitted on the upper sections of walls as well as on top of doors and windows. From the analytical review of the reports and measured drawings, the timber houses from both states exhibited distinctive carvings with excellent features which differ from those found in

traditional houses of other states in Peninsular Malaysia. A large quantity of carvings with high levels of artistry and technique could be found in Kelantan and Terengganu (Syed Ahmad Jamal, 1994).

**Table 3:** Layout of carved components and types of motifs

No	Name of House	Area of placement	Carved components	Types of Motifs							
				Flora	Calligraphy	Geometry	Fauna	Cosmos	Abstract	Combination	
1	Yaakub,	Main bedroom's door	DVP1								✓
		Above rear door (kitchen)	DVP2	✓							
		External walls ( <i>rumah ibu</i> )	PWVP1	✓							
		Doorway to kitchen	DP1		✓						
		Stairs at front and rear verandah	S1							✓	
2	Mohamad Dobah	Rumah Ibu (front and rear wall)	PWVP1	✓							
		Rumah Ibu (front and rear wall)	PWVP2	✓							
		Rumah Ibu (front and rear wall)	PWVP3	✓							
		Rumah Ibu (front and rear wall)	PWVP4	✓							
		Rumah Ibu (front and rear wall)	PWVP5	✓							
		Rumah Ibu (front and rear wall)	PWVP6	✓							
		Rumah Ibu (front and rear wall)	PWVP7			✓					
		Rumah Ibu (front and rear wall)	PWVP8	✓							
3	Hassan Mohd Amin	Above window at guest area (male)	WVP1	✓							
		Bedroom 's front door	DVP1								✓
		Wall at Guest area (male)	PWVP1	✓							
		Roof eaves at front façade	REP1								✓
4	Wan Aisyah	Wall at Serambi lelaki	PWVP1	✓							
		Wall at Serambi lelaki	PWVP2			✓					
		Walls at Serambi perempuan	PWVP3	✓							
		Doors at Serambi lelaki	BP1								✓
5	Wan Ahmad Abdullah	Main bedroom's front door	DVP1	✓							
		Walls at Ruang tamu and ruang tengah	PWVP1	✓							
		External walls next to anjung	PWVP2								✓

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No	Name of House	Area of placement	Carved components	Types of Motifs							
				Flora	Calligraphy	Geometry	Fauna	Cosmos	Abstract	Combination	
6	Wan Hussain	Main bedroom's front wall	DVP1	✓							
		External walls next to the guest area	PWVP1	✓							
		Front verandah	S1						✓		
7	Hassan Bin Yusof	Main bedroom's front door	DVP1								✓
		External walls next to Rumah Ibu	PWVP1	✓							
		<i>Serambi hadapan</i>	S1						✓		
8	Tok Yakub	Main bedroom's door	DVP1	✓							
		External and side walls (rumah ibu)	PWVP1			✓					
		Next to front door at front façade	WP1	✓							
9	Mariam Mat	Above door next to rumah ibu	DVP1	✓							
		Above door next to rumah ibu	DVP2	✓							
		Front and external wall next to the rumah ibu	PWVP1	✓							
		Front and external wall next to the rumah ibu	PWVP2			✓					
		<i>Selasar</i>	RP1	✓							
		Front stair	S1							✓	
		Stair leading up to rumah ibu	S2							✓	
		Roof beam at front façade of <i>rumah bujang</i>	CC1							✓	
10	Kampung Losong	exterior walls (rumah ibu and main bedroom)	PWVP1	✓							
		exterior walls (rumah ibu and main bedroom)	PWVP2	✓							
		exterior walls (rumah ibu and main bedroom)	PWVP3	✓							
11	Wan Sulong	Exterior wall of <i>serambi</i> and main bedroom	WP1	✓							
		Exterior wall of <i>serambi</i> and main bedroom.	PWVP1								✓
		Front wall of <i>serambi</i> and main bedroom.	WVP1	✓							
		Doorways between bedrooms and <i>serambi</i>	DVP1								✓
		Gable end panels at front and rear facade	GEP1	✓							
		Gable end panels at front and rear facade	GEP2	✓							

No	Name of House	Area of placement	Carved components	Types of Motifs							
				Flora	Calligraphy	Geometry	Fauna	Cosmos	Abstract	Combination	
12	Tok Ku Paloh 1	Rear and front external walls of <i>rumah ibu</i>	PWVP1	✓							
		Rear and front external walls of <i>rumah ibu</i>	PWVP2	✓							
		Rear and front external walls of <i>rumah ibu</i>	PWVP3	✓							
		Stair leading to <i>pelantar</i>	S1							✓	
		Stair leading to <i>rumah ibu</i>	S2							✓	
13	Tok Ku Paloh 2	Railing at <i>Selasar</i>	RP1	✓							
		Stair leading to <i>rumah ibu</i> from <i>selasar</i>	RiP1	✓							
		Stair leading to <i>rumah ibu</i> from <i>selasar</i>	S1							✓	
14	Dato' Biji Sura (Nik Mohamad bin Hitam)	Side Gates and gates at <i>sorong bawah</i>	GP1	✓							
		Main entrance gates	GP2	✓							
		Side gates	GP3	✓							
		<i>Serambi</i> (verandah) and window railing ( <i>sorong depan</i> )	RP1								✓
		Railing at <i>sorong bawah</i>	RP2								✓
		Railing at <i>Lumbor</i>	RP3								✓
		Railing of staircase linking to <i>lumbor</i>	RP4								✓
		Front house and <i>rumah bujang</i>	DVP1								✓
		Front house and <i>rumah bujang</i>	DVP2								✓
		Doors of <i>Rumah depan</i> (front house), <i>rumah tengah</i> and second bedroom	DVP3								✓
		Above doors of main bedroom	DVP4		✓						
		Above doors of <i>rumah depan</i>	DVP5		✓						
		Above doors of <i>rumah tengah</i> and <i>bujang</i>	DVP6		✓						
		Windows at <i>Sorong depan</i> , <i>rumah depan</i>	WVP1								✓
		Windows at <i>Sorong depan</i> , <i>rumah depan</i>	WVP2								✓
Wall of <i>main bedroom</i>	IWP1								✓		
Doors of <i>main bedroom</i>	IDP1		✓								

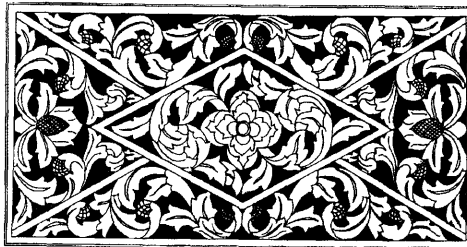
### Physical Form and Basic Features of the Carved Components

It appears that carved component in the form of perforated ventilation panel fitted on wall was the predominant type. The woodcarvings are positioned for specific purposes

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such as for natural ventilation, safety, screens and aesthetic (Zulkifli, 2000). Carvings on ventilation panels were mainly relief or non-relief manipulated on wooden panels and mostly in perforation. In woodcarving, perforation is a fully piercing technique done on a piece of wooden panel leaving a cut-through section (Norhaiza, 2008; Ismail, 2002). At a closer look one can appreciate the solids and voids in the panels. The solids and voids represent the perforated and non-perforated sections on the panels which could be achieved by the piercing techniques. The quality of openness and solidness is reflected by the size of perforation done on the wooden panels according to the shapes of motifs and pattern.

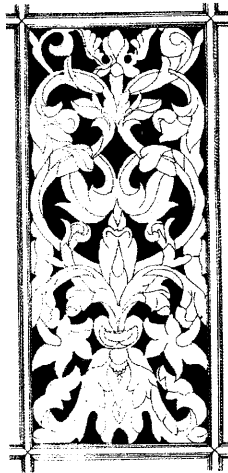
Perforated wall ventilation panel was found in two principle variants. The first type of panels was fabricated as a single perforated panel in rectangular layout as shown in Figure 4. Single panel means a carving done on a piece of wooden plank/board (Norhaiza, 2008). All elements of carving are crafted within the surface of the plank/board with the specific size and shape. This type of panel was commonly seen on the external walls of rumah bujang berserambi, for example, Mohamad Dobah house. At the main façade of this house, repetition of several rectangular ventilation panels with various designs of motifs was apparent on the wall of *rumah ibu*. These carved components were placed within the thick wooden panels known as *dinding papan Kembung* (convex wall panels). The shapes and dimensions of the carved ventilation panels blend in the plane surfaces of thick wooden panels with harmonious relationship. The juxtaposition of the carved panels with contrasting features on the upper part of the wall façade break the monotonous arrangement and verticality of the wooden frames. It appears that the carved panels were not only fabricated to facilitate in natural ventilation but also provide visual interest as apparent in the panel (Figure 4).



**Figure 4:** Single ventilation panel in rectangular layout at wall of Mohamad Dobah house

Various parts of plant including flower, leaves, flower buds and shoots were depicted as carving motifs for this panel. The floral motifs possibly of *daun sayap* (a wing-like leaf) also known as *daun Melayu/daun Langkasuka* were composed in a complementary with the central motif of possibly *bunga ketumbit*. The carving motifs of plant elements are arranged within the geometrical frames in five different domains. The central motif is encircled with the frame in diamond lozenge shape which is embedded within the rectangular panel. This panel exhibits a successful combination of floral patterns with geometrical outlines.

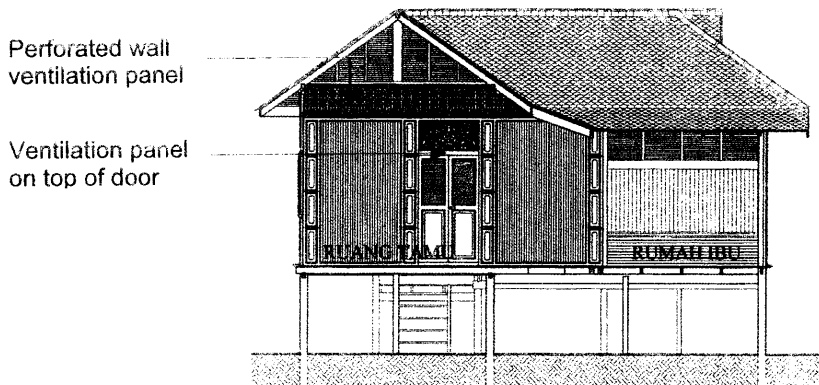
On the other houses with the same type of dwelling architecture, there are also examples of single perforated panels which have different carving features. One of these is the Tok Ku Paloh house located in Kuala Terengganu which was built in the nineteenth century/over one hundred years ago. The ventilation panels at this house were equipped with a vertical arrangement of floral motifs within the vertical rectangular shapes and layout that dominate the upper part of the wall façade of rumah ibu. Figure 5 illustrates a single panel with a type of carving composed of plant motif possibly *bayam peraksi*. Several plant elements including branches, leaves, leave shoots, buds and flowers flow in a rhythmic movement and intertwining characteristic encircled with vertical rectangular frame.



**Figure 5:** Single ventilation panel in vertical rectangular layout found at Tok Ku Paloh house

## VISUAL FORMS OF CARVED COMPONENTS IN TRADITIONAL TIMBER HOUSES OF KELANTAN AND TERENGGANU

Continuous horizontal layout is the second type of perforated ventilation panels which were fitted on top of wall between the roof end and upper part of a door. It is apparent that carvings with perforation serve as fenestrations that allow ventilation and natural lighting into the houses. Fenestrations on walls are not only helpful for the ventilation but also useful in space beautification (Lim, 1987). The fine and intricate patterns on the wall fenestration, for instance, creates a sense of visual interest. Such prototype of carved component was also found in several houses in Kelantan including Hassan, Yaakub, Wan Aisyah, Wan Hussin and Wan Ahmad. For example, Hassan house was adorned with perforated wall ventilation panel in horizontal layout fitted on the upper part of side wall that separate rumah ibu from bedroom as shown in Figure 6. This panel allows the natural circulation of air into the building apart from serving as decorative element. This elongated piece of carved component with intricate motif of flora enhances the indoor setting, which concentrate at the main areas of the house while helping in cooling the interior spaces. The wall with beautiful carvings was positioned to separate between the public and private areas. Perhaps, the placement of the carved panels on top of the bedroom's door was to indicate the point of entry to a private space. It is apparent that the size and position of the carved panels create a symmetrical silhouette within the wall of the bedroom, and the intricacy of the panel adds detail and variety as well as focal point to the spatial experience of the rumah ibu.



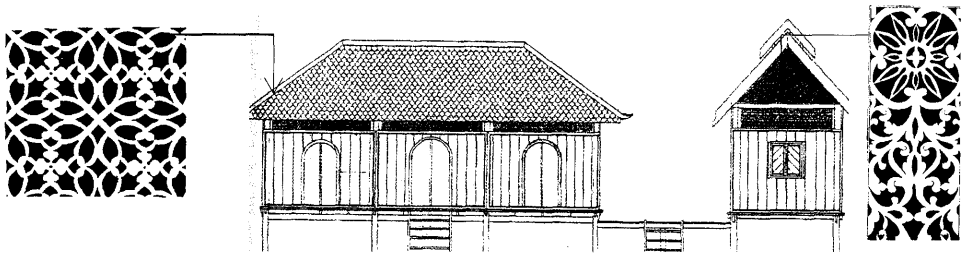
**Figure 6:** Carved ventilation panels fitted above the bedroom's door of Hassan Yusof house

Carved panel in continuous horizontal layout was mostly found in houses with *bumbung perabung lima* type of dwelling architecture. Most of the panels were fixed on top of external wall and side walls that separate one space from the other. Many houses



especially those located in Kelantan exhibit the continuous horizontal panels with floral or geometry motifs. For example, perforated wall ventilation panels fitted on the upper part of the front walls of *serambi lelaki* (male guest area) and *serambi perempuan* (female guest area) at Wan Aisyah house as shown in Figure 7. It appears that the panel found at the *serambi lelaki* was adorned with geometric motifs whereas the panel found at the *serambi perempuan* represents stylised floral motifs. Both panels were fabricated with non-relief motifs in repeated pattern and the distinction in the depiction of motifs between the two panels seems to reflect the designation of separate spaces for male and female visitors. Apart from that the panels with different carving motifs were produced in harmony with the distinctive forms of the two spaces.

Most of the carved components found in this house are wall ventilation panels expressed in perforated techniques without relief. The perforated section on the wall panel allows daylight into the building and at the same time directing a cluster of soft and beautiful light rays on the wall and floor surfaces creating a sense of visual interest. At night their silhouettes from indoor light add another level of beauty. This ambiance of beauty enhances the indoor setting of the house and the outline of the floral carving in horizontal band along the upper part of the external wall can also be viewed from the outside creates a sense of visual beauty. Apart from beauty, the wall fenestrations serves as screen for reduction of glare from excessive amount of day lighting while ventilate the indoor spaces including guest areas for male and female visitors. Perhaps the embellishments were meant to enhance the wall components and beautify the front façade of the house. The placement of the perforated wall ventilation panels on the front façade suggests that it has specific reasons. The front façade of traditional Malay house is commonly positioned along the sun path (Raja Bahrin Shah, 1988).



**Figure 7:** Front elevation of Wan Aisyah house with the placement of carved panels

## VISUAL FORMS OF CARVED COMPONENTS IN TRADITIONAL TIMBER HOUSES OF KELANTAN AND TERENGGANU

Carved ventilation panels fitted on top of door is another form of carved component that dominate the Kelantan and Terengganu timber houses. This perforated panels which were normally fitted directly below the continuous horizontal panels was apparently the other predominant type of carvings found in abundance from the timber houses. There are a few houses which have the carved ventilation panels fixed above doors, for example, Biji Sura house from Pulau Duyong. This house which was more than eighty years of age possesses a wealth of carvings. Ventilation panels on top of doors and windows were the most dominant type of carved components found in the house. Figure 8 illustrates an example of door ventilation panel found in the area of rumah ibu. This panel exhibits a composition of various stylised plant elements probably of *kekacang* in mixed pattern within a horizontal rectangular layout.



**Figure 8:** Ventilation panel in rectangular layout fitted on top of doors at Biji Sura house Mohamad Dobah house

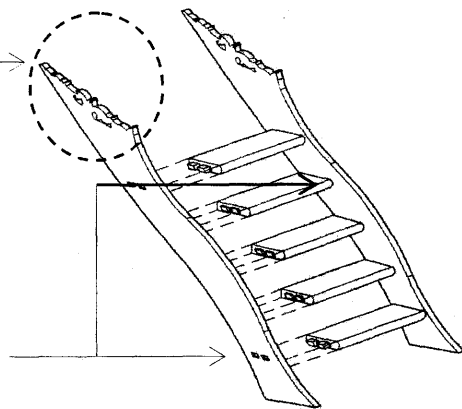
The next type of carved component found at the external fabric of the Kelantan and Terengganu timber houses is in a form of double panels, for example, stringers at front and rear stairs from Yakub house (see Figure 9). These carved stringers were fabricated as a set of two structural elements exactly alike with carvings of similar in nature. It is another type of building component placed at a point of ascending onto a house which is characterized by a clear contrast in carving form. There are three types of carved building components, namely, structural, elemental and ornamental (Ismail, 2001). Stringer of stairs is one example of structural carved components. The timber stairs that was marked as a point of entrance to this house is a straight bay with several treads supported by stringers and without any hand-rails. The stringers took form possibly as an abstract representation and placed on both sides of the stairs. The top end of the stringer comprises perforated carving with different type of incision perhaps to represent the head of the stairs. It appears that the stairs with carved stringers are found at *pelantar hadapan* (front varandah) linking to rumah ibu and *pelantar belakang* (rear varandah) linking to the kitchen of the house. The stairs with carved components

suggest its degree of importance in relation to its main function as transitional element to facilitate the vertical movement. Similar decorative treatment was given to both front and rear stairs suggests that these circulation elements are equally important in terms of usage. Perhaps, the front stairs is reserved for male visitors and female visitors use the rear stairs as entrance to the house. As such, one important aspect of the placement of the carved stringers at the *pelantar* was meant to serve as welcoming features.



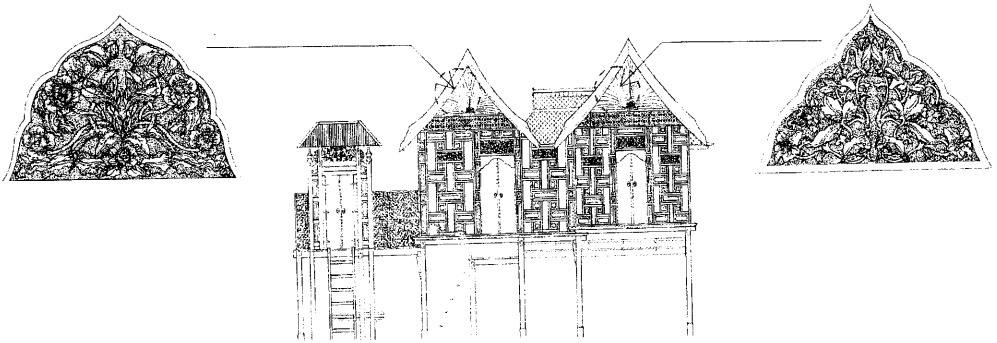
Detail of *Kepala Tangga* in abstract representation.

The two carved stringers are crafted in exactly alike with similar types of carvings. The top end of the panel comprises perforated carving perhaps to represent *kepala tangga* (the head of the stairs).



**Figure 9:** Carve stringers at the stairs of Yakub house

Different types of carving which are considered as the least dominant components including brackets, walls, door leaves, roof eaves and gable end panels were also found at a few houses. For example, Wan Sulong house exhibits a set of two panels which were fitted at both front and rear gable ends of the house. These panels with floral carving motifs were positioned at the base of the gable ends as shown in the Figure 10. The delicate carved panels were probably fitted to accentuate the central base of the gable ends from which the spreading of elements in ray pattern begins. Obviously, one can see that these two carved panels were almost similar in design forms which were located at different position. Both carved panels are the least noticeable features found at the roof ridge border and this type of ornament was only found at this house.



**Figure 10:** Carve panels at the gable ends of Rumah Wan Sulong

## Discussion

This study identifies woodcarving as one of key components that contributed to the exclusivity and distinctiveness of traditional expression in its visual forms produced for the two types of prominent houses within the specified period. Carved components particularly in the form of ventilation panels, as this study has shown, reflected several considerations, including principal motifs, visual orders, regional identity and qualities of craftsmanship. This type of ornaments could be regarded as the legible manifestation of artistic tradition that was guided by those parameters determined by the craftsmen who produced the craft.

Flora is predominantly the most popular type of motif as appeared in the carved components found in the Kelantan and terengganu timber houses (see Table 3.0). According to Norhaiza (2008), the Malay woodcarvers prefer to use creeping plants and flower producing plants because they were suitable for woodcarving. Various plant elements such as flower, leaves, tendrils, stems and branches were formed into delicate shapes according to the woodcarver's creativity based on natural inspiration. Besides, the floral motif was acceptable in the Malay art because according to Othman (1995) Islam permits the use of non-figurative elements in the artistic work. As such, the production of woodcarvings reflected greatly on the woodcarvers' cultural influences that shape their artistic expressions. Likewise, their intuitive sense is equally important in shaping the woodcarvings. This is manifested through the choice of several types of plants such as *ketumbit*, *ketam guri*, *bayam peraksi* and *kekacang* as decorative elements utilised in the carved components. Perhaps the plant motif such as *ketam guri* (a weed with bright yellow flowers) was favored by the woodcarvers due to its

flowers in vivid and striking colour. Full-bloomed flowers especially those in bright colours are eye-catching living things which have become central object in the carving composition.

Spiral was another part of a plant that was depicted as principal motif. The motif of spiral was found in many forms of carved panels with different types of pattern and carving layout. Spiral was depicted in distinctive feature that governs the compositional elements of the carved components as apparent in the panel shown in Figure 8. Spiral is a reflection of craftsmen observation of nature where spiral as a principle of growth in many plants such as found in creepers. A careful study of the carved panels also reveals the composition of several types of plant motifs on a single piece of carve component as evident in the ventilation panel from Mohamad Dobah house (see Figure 4). This type of carving with combined motifs was probably based on the artistic preference, reflecting the creative expression by the woodcarvers. The fundamental characteristics of the floral motifs were retained and allowing certain modifications to ensure the carving is a dynamic craft that demands ingenuity and creativity. This suggests why most carvings from the houses of Kelantan and Terengganu carried intricate floral patterns and has become typical Malay designs originated from this region.

Carving motifs was not limited to the creation of the carved components with floral elements alone. It also includes other types of motifs such as geometry and calligraphy which were produced through artistic skills. Zulkifli (2000) posits that floral, geometry and calligraphy are the three major types of motifs used by Malay woodcarvers. The calligraphy motif possesses aesthetic values and conveys Islamic messages. "Calligraphic elements depict the form of Arabic characters, verses from the Quran and local Arabic writing called 'Jawi'. This motif was widely used in mosques, *madrasahs* and houses particularly in Kelantan and Terenggan (Abdul Halim Nasir, 1987)". Reviewing the motifs used in the houses ornamentation, it is apparent that the woodcarvers from both states preferred non-figurative motifs such as floral and geometry as apparent in wall ventilation panels at Wan Aisyah house (see Figure 7). The figural designs were never depicted on any carved component from the houses either in isolation or in complementary with the other two kinds of motifs.

Compositions of the carving motifs on the specific panels were according to specific layouts and regulated by the specific ordering principles. It appears that most of the

carved components were crafted in balance composition, suggesting an inherent visual order. The study has identified several ordering principles including symmetry, rhythm and repetition, variety, focality (visual emphasis), contrast, harmony and unity that governed the visual composition of the carved components. The visual ordering principles are used to construct the relationship among the visual elements of form, the compositional elements, and the intended meaning (Wallschlaeger and Busic-Snyder, 1992). Most of the carved panels found in the timber houses were carved in symmetrical composition. For example, the wall ventilation panel shown in Figure 4 demonstrates the harmonious and balance composition of carving elements with two axes of symmetry. Repetition of motif on left and right of the central axis suggests a sense of balance and symmetry. According to Ocvirk et al (2002) symmetry is achieved by the repetition of identical elements on either side of an imaginary central axis. Hence, symmetry means balance, and balance is a principle of beauty (Zakaria, 1989; Syed Zulflida, 2004). The ventilation panel exhibits a composition of various plant elements including flowers, leaves, flower buds and branches in complimentary relationships enhanced by the rhythmic lines, textures and shapes of motifs gives a sense of variety. Rhythm in the composition reflects on the recurrent repetition of the plant elements with specific movements in harmonious pattern. The repetition of the same motif and pattern on both sides of the panel creates a sense of unity and harmony in composition. Apparently, the unique character of the carved component is in the intertwining movement of those visual elements that embrace the relief surface of the rectangular panel. The study reveals that the craftsmen also favored the repetition of two identical components that strongly marked a symmetrical composition and arrangement as apparent in the stringers of stairs shown in Figure 9. The relationship between the compositional elements, ordering principles and the layout of the carving affects the overall visual form of the carved components.

Most of carved components were fabricated with its appropriate design for practical use in house setting. For example, as seen in many perforated wall ventilation panels which were found in almost all timber houses. It suggests that there were certain types of carved components commonly employed in the dwelling type of architecture from the Peninsula's east coast states. A possibility is that traditional woodcarvings were appreciated and valued for two reasons. First its visual form was blend with the dwelling architecture, beautifully and skillfully crafted to suit the distinctiveness of regional character. Wan Sulong house is one of the examples of the traditional house that exhibits the placement of carved panels as an integral part of the wall component

(see Figure 10). The carved panels were produced with distinct features thus making it easier to identify and describe their attributes that gave the front façade of the house its defining character. This character helps to define the important identifying feature for this particular type of house which is *rumah bujang berserambi*. It seems that the carvings were crafted mainly for appropriateness and blend harmoniously with the house form. "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"(Syed Ahmad Jamal, 1994, pg 57). It is apparent that the form of house like the form of carvings was kept within certain dimensions and together they form the image of regional house architecture. This contributes to the foremost architectural identity that belongs to the states of Terengganu and Kelantan. The beautiful carvings were not only accessory to the houses but it explicated the form of the architectural elements in the most appropriate way resulting in unity. It is one of exemplary traditional ornament that arises through skillfulness and creativity of traditional craftsmen.

Another reason for the traditional woodcarvings to be much-admired and valued was due to the intricacy and complexity of carving on various panels with different shapes and sizes. Intricacy in woodcarving means the quality of having design complexity in the arrangement of carving elements with highly elaborate and sophisticated workmanship. The intricacy and complexity of carving suggest a certain degree of skillfulness and creativity of the traditional craftsmen. It is these skills that could be associated with the techniques and qualities of the carvings that enhance their complexity and intricacy which is apparent in most of the perforated ventilation panels. A closer study of the carved components in the houses revealed a further variation of shapes and forms which are strongly reflected the craftsmanship identity that originated from the two states. In the art of woodcarving, craftsmanship refers to the aptitude, skill or quality workmanship in the use of tools and hardwood timber species especially chengal, red balau, merbau and sena (Ismail, 2005). The proficiency of shaping woodcraft with the skilful use of the media offers the craftsman a means of artistic expression (Jackson and Day, 2005).

Most of the carved components with floral design found in the houses were perforated suggesting intricacy and complexity in fabricating them. For example, the carved panel as illustrated in Figure 5 exhibits complexity of carving with certain techniques

of perforation and incision which creates an intricate overall design. The design qualities in the panel including depiction and composition of floral motifs in high relief and carved with perforation were contributory to visual intricacy and complexity. The carved component which has carving in overlaps character represents the intertwining of the plant motif gives almost a three-dimensional look. According to a craftsman from Temerloh, Pahang, Muhaimin Hasbollah, the complex carvings are usually with intertwining composition, where the most intricate carving has relief motifs in four overlaps. Carving in overlaps gives an expression of space with certain dimension of depth. The level of complexity in the intertwining composition is determined by the degree of overlaps. Visual intricacy in the carved panel was also achieved by the complex arrangement of floral pattern that consists of various plant elements. It appears that carved ventilation panels in single rectangular layout were the most commonly found in three-dimensional format. This accentuates the functional and beautiful aspects of the carved components of the houses thus conferring on design consciousness portrayed by the craftsmen. It is suggestive indication that the carved panels were purposeful products by the craftsmen which reflected their logical intuition based on creative inspiration and skillfulness that paves the way towards the distinctiveness of visual form.

## Conclusion

Different types of carved components that adorned the timber houses of Kelantan and Terengganu display specific carving features which are distinctively different in character. Carvings were only evident on certain components of the house with significant uses either for interior or exterior settings. The most prevalent were perforated ventilation panels fitted on walls of *rumah ibu* which is the core area of the house. Visual composition, beauty and function of the carved components were fused to the architectural elements and in consonance with the house form. It suggests that carvings for house components were not objects crafted in a simple way but inextricably bound up with designated function, artistic qualities and skillfulness possessed by the traditional craftsmen. Functionality is one of the basic principles of Malay aesthetic which emphasises the practical function of an artifact (Zakaria, 1989). The analysis reveals that traditional Malay houses were designed and built with the conscious considerations on the proper layout of the carved components. Its visual forms was crafted and subscribed by the woodcarvers to be seen or used primarily in domestic setting thus creating pleasant ambiance.



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