

# **Art of Woodcarving in Timber Mosques of Peninsular Malaysia and Southern Thailand**

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## **Abstract**

Woodcarving in vernacular timber mosques of Peninsular Malaysia and Southern Thailand is a manifestation of a craftsman's idea into a piece of timber. It is a craft that is generated and nurtured from careful observation by the Malay craftsman towards the surrounding landscape elements particularly of plant forms. The manifestation is always in abstraction, symbolizing the plant feature or geometry into three types of architectural components, namely, structural, elemental and ornament. *Cengal* timber is the favorite hardwood species for carving which is carved either in relief or perforated manner. The significant effect of woodcarving in the mosque is that it enhances beauty and introduces symbolism to the vernacular architecture of the Pattani region. Although the skills of this craft are fast diminishing in the present Malay society, its revival could be generated through informing the public about the beauty of the craft.

## **Introduction**

Woodcarving is a significant craft in the Malay architecture of the former Pattani region stretching from northeastern states of Peninsular Malaysia to southern province of Thailand. Much timber architecture including mosque and house was built with strong architectural principles translated both into building form and method of construction. There are still a few remaining old mosques, some dating back 400 years, serving Muslim rural communities during and after the collapse of the Pattani Empire. The architecture of the timber mosque is different from many modern mosques in aspects such as the small size, timber as the main building material, post and beam method of construction and decorated carved components. A distinctive difference is the carved ornamentation of the

roof or within the building. Carpenters and craftsmen demonstrated high skills of art manifesting their ideas of physical beauty into architecture. This manifestation developed through a long period whereby skills and knowledge of woodcarving was passed through apprenticeship. Generally, the carvings are classified in four types including arabesque flora, simple geometry, cosmos and intricate calligraphy. The abundance of floral species in the tropical biome became a source of inspiration for craftsmen in turning a piece of timber into an arabesque carving. Floral motives dominated the woodcarving in the Malay mosque. Apart from flora, motifs of geometry and calligraphy are also seen in carved components of timber mosques.

A discussion on the characteristics and role of woodcarving in the timber mosque architecture in Peninsular Malaysia and Southern Thailand is presented. The discussion is based on a set of five case studies, three mosques in Peninsular Malaysia and two mosques in Southern Thailand. A step-by-step description on the mosque architecture of the region including its history and the human communities they served, architectural carved components, carving motifs, and rationalization on floral motifs dominating the craft form is presented.

### **Architecture of Vernacular Timber Mosques**

Timber mosque is a nucleus for Malay rural communities of the region stretching from the northeastern states of Peninsular Malaysia to the southern province of Thailand. This is the region of the former Pattani Empire that succumbed to the Thai Kingdom some 100 years ago (see figure 1). The prosperity and richness of wealth and culture of the Pattanis produced high quality architecture, typically of mosque and house. The distinctive character of the vernacular mosques was one designed without domes and instead being dominated by high-pitched roof forms (Kamaruddin, 1997). The roofs were multi-tiered pyramidal formations and were common throughout the Malay Peninsular, Sumatra, Java, Kalimantan, Brunei, the southern Philippines and the former kingdom of Champa in Cambodia (Kamaruddin, 1997).



Figure 1: Location of Timber Mosques in Peninsula Malaysia and Southern Thailand

The discussion on Pattani mosques focuses on five vernacular mosques which were studied and documented by architectural students from Universiti Teknologi Malaysia. The documentation was done from 1976 to 1998 in a program called measured drawings, detailed measurement and historical documentation in the form of reports and working drawings. Three of them are located in villages in the states of Terengganu and Kelantan in the northeastern region of Peninsular Malaysia. The mosques are Masjid Kampong Laut and Masjid Langgar in Kota Bahru town and Masjid Kampong Tuan in Chukai town. The remaining two mosques are Masjid Telok Manok in the district of Narathiwat and Masjid Aur Menajung in the Jambu Yaring district of Southern Thailand. Figure 2 illustrates an example of the timber mosque found in the region. They were built some 170 to 400 years ago and still serve the Muslim rural communities. The

communities are either near the coast of South China Sea or located inland as far as the foothills of the peninsula main range.

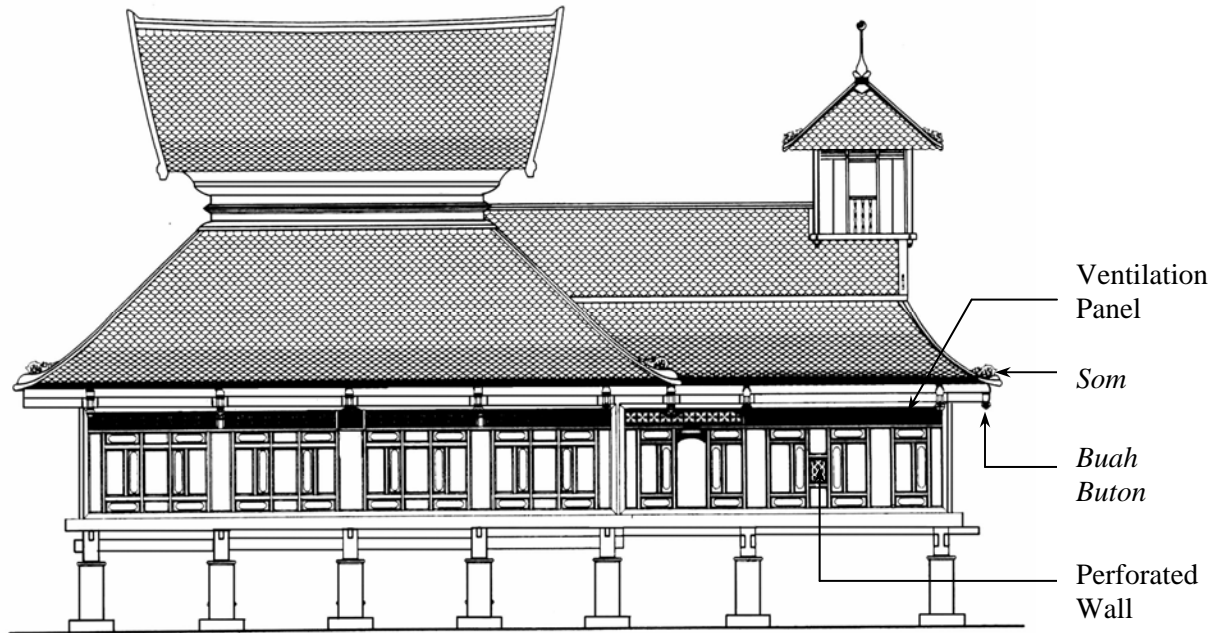


Figure 2: Elevation of Masjid Telok Manok illustrating the woodcarving components.

*Building Materials:* All of the mosques are built from heavy hardwood species called *cengal* (*Balanocarpus heimii*) constructed in post and beam system. The system utilized complex tenon and motise joints that require no metal fasteners to join the timber members. A major proportion of structural, elemental and decorative components of the mosque were made from *cengal*; a timber species well known for its durability and resistance to effect of moisture and attacks from fungus and termites. To minimize the effect of moisture and to gain maximum effect of airflow, the buildings were constructed on stilts. When they were originally built, the stilts were all made from *cengal* posts and planted into the ground on buried stone footings. Concrete pedestals or footing replacement are used when the stilt condition deteriorated. Although *cengal* is a heavy hardwood species, its texture and grain are fine and flexible for carving purpose. Simple traditional hand tools such as chisels, axe, *ceter* (a small hoe), plane, jig saw and drill are

used to cut, incise or shave the timber boards for carving. The roofs of the Pattani mosques are made from small, light clay tiles called *Singgora* tiles laid on timber battens. The multi-tiered pitch roofs with the brown clay tiles dominate the landscape of the rural Malay communities throughout the region. Rainwater is drained quickly into timber or metal gutters and collected in square concrete receptacles or large clay urns for ablution, usually located at the mosque entrance.

*Spatial Organization:* Vernacular Malay mosques in the region are relatively small as compared to mosques of Ottoman or Mughul Empire. Masjid Kampong Laut is the largest with 342m<sup>2</sup> floor area and Masjid Aur Menajung is the smallest with 47m<sup>2</sup> floor area. They can accommodate a congregation of 50 to 400 people. Generally, the spaces in the mosques comprise a main prayer hall, *mihrab*, attic (only in Masjid Kampong Laut), *serambi* (verandah), entrance hall, and ablution space. A minaret exists at Masjid Telok Manok as an extension of the roof covering the *mihrab*, and in Masjid Kampong Laut as a 25-meter tall structure linked by a resting space to the main prayer hall. The longest span of the floor and roof beams is 5.1m long in Masjid Kampong Laut. This long span is possible using thick cengal beams, some measuring more than 75x230mm. Before the presence of electricity and mechanical ventilation systems, the builders took full advantage on the natural airflow of the tropical climate. The hot, humid tropical climate demands plenty of ventilation in a building. Thus craftsmen installed many perforated components such as ventilation panels (top hung) over door and window, perforated walls, louvered window leaves, perforated gables and tiered roofs (similar to jack roofs) with perforated panels. Many of the ventilation panels, walls and door leaves are carved in simple geometric patterns, or with complex floral or calligraphic forms.

### **Carved Building Components**

The carved building components can be categorized into three types, namely, structural, elemental and ornamental. The structural components include *pemeleh* (bargeboard), *tunjuk langit* (king post), cross beam, stringer of stairs and brace. The *pemeleh* is the most significant of Pattani's building components that differentiates the vernacular architecture of this regional area from other states in Peninsular Malaysia. However, this component

is also commonly found in traditional houses in Terengganu. Only Masjid Langgar and Masjid Aur Menajung have *pemelehs* which emphasize the gable and roof ridges. A simple motif of barking deer is applied on two pairs of *pemelehs* at Masjid Langgar's three-tiered roof, located on the uppermost tier. This exterior component handsomely extends the profile of the building towards the sky, creating a focal point in the rural settlement. At Masjid Aur Menajung, it was slightly different where every tiered roof ends with two pairs of *pemelehs*, one at the front elevation and the other at the back elevation (see Figure 3).

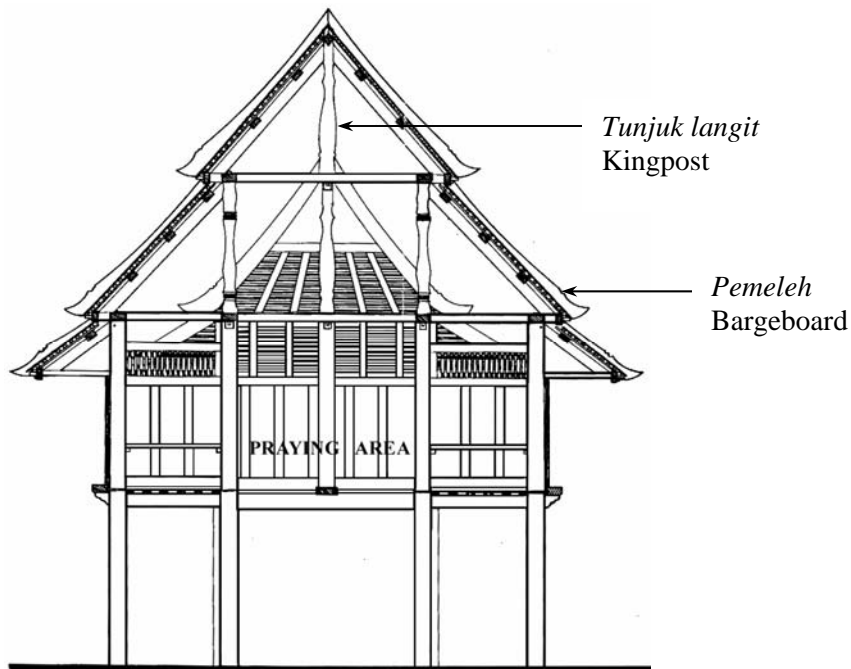


Figure 3: Section of Masjid Aur Menajung illustrating the carved components

The three pairs of *pemelehs* dominate the mosque front façade which also constitute a link between the mosque with surrounding houses which have similar characteristics. The façade is made from two large boards and trimmed to a finger-like form and attached to end of the roof joist.

The next important structural component with simple carving is the *tunjuk langit* (kingpost). It is an important structural member of the roof, supporting the load of roof by holding ridge beam and rafters, as many as 8 rafters in Masjid Kampong Laut, and distributing the load to the tie beams. The lower end usually has a carved component called a *buah buton*. This is an ornamental piece to cover the tenon and motise joint of

the *tunjuk langit* to the tie beam. Among the five mosques, Masjid Kampong Laut has the largest *tunjuk langit* and *buah buton* measuring 230x230mm symbolizing an image of the Langkasuka Empire. Masjid Telok Manok has three king posts, joining the three-tiered roof to the tie beam one above another. They are beautifully carved with a lotus blossom motif and their ends have *buah butons* using a similar motif. The king posts and *buah butons* greatly enhance the beauty of the mosque interior. Apart from the *tunjuk langit* as a structural member distributing the roof load to the tie beams, braces or brackets are also structural components supporting the tie beam load to the post. In Masjid Kampong Laut braces are elaborately carved in shallow relief with lotus blossoms as centerpiece and framed by leaves of a different plant in an intricate arabesque.

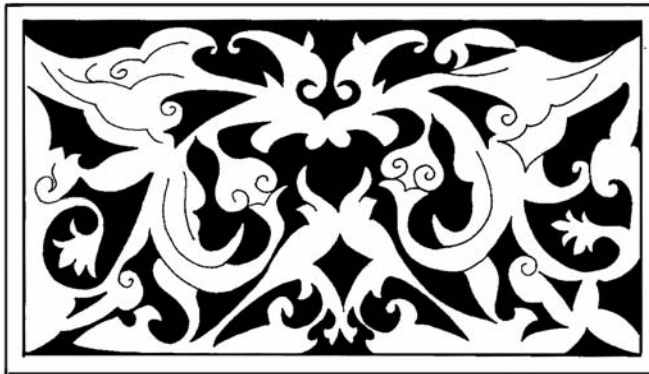


Figure 4: Floral motif on ventilation panels at door and wall of Masjid Telok Manok

There are at least five carvings in the mosques classified as elemental components. These components include ventilation panels of door or window, door or window leaf, walls, railings and *mimbar*. Ventilation panels are the conspicuous carving components that characterize the architecture of this region. Figure 4 illustrates a typical example of perforated timber board used as a ventilation panel. They are part of the

fenestration allowing air and light into the building. The perforated timber boards are placed on top of doors, windows or walls allowing circulation of air and light into the building. Masjid Telok Manok has the most number of ventilation panels located continuously around the building located above the walls, windows and doors. A mixture of geometrical and floral motifs is carved in perforated forms. Swastika and octagons are geometric forms found on panel and door leafs representing beauty and balance. In the octagonal carving, an abstract motif of the *tanjung* (*Mimusops elengi*) flower is inserted into the center of the timber panel. This flower is small with strong scent that Malays use as a perfume in water for bathing. Floral motif of a weed called *ketumbit* is abundantly carved on the ventilation panels along both sides of the mosque. The carvings transform tender leaves of *ketumbit* into an arabesque form both in relief and perforated styles. A panel is laid besides the other resulting in a repetitive layout that makes it difficult to identify where the motif starts or ends. Possibly, this is a deliberate play of the Malay craftsmen to create beauty and order in the mosque architecture. The perforations not only allow air to flow into the building but also permit light to illuminate the interior which is often dark because the interior is covered by the pyramidal roof and also because of the dark hue of the timber walls and the underside of roof. The late afternoon sun may often cast intricate shadows on the praying space when light passes through the carved panels. This phenomena adds beauty to the interior setting of the mosque. At night, the scene would be reversed when light from lamps passes through the perforations casting the silhouette of the carved panels. Silhouettes of arabesque and geometry forms can be clearly seen from outside especially in the absence of light from other surrounding buildings. Thus the perforated woodcarvings give a special character to the mosque architecture.

Inside the mosque, the *mimbar* demands the most appreciation from the congregation. It is a piece of liturgical furniture from which the *iman* addresses his sermon to the congregation (Yacub Zaki, 1978). Only Masjid Kampong Laut, Masjid Kampong Tuan and Masjid Telok Manok have mimbars highly decorated with carving, especially the *mimbar* of Masjid Kampong Laut. They are placed either adjacent to the *mihrab* or even in the *mihrab* as in Masjid Telok Manok where it is more than a third the size of the praying space. It is furnished with 2 to 4 steps above the floor and with a square canopy. The *mimbar* of Masjid Kampong Laut is profusely decorated with



perforated carvings of floral motifs. The most exceptional panel is the front carved board attached to the canopy. It resembles the form of the headdress worn by Malay women in marriage ceremony. The side and back walls of the *mimbar* are fully furnished with perforated carved panels as part of the structural component of the four posts. Masjid Kampong Tuan has a simpler *mimbar* with the only carving at the crown panel. A small panel of Arabic calligraphy is inscribed at the center of the panel. The *mimbar* of Masjid Telok Manok is bigger than the other two mosques but with much simpler carving. It has a dome on top of the canopy and balustrade railings. Simple geometrical patterns are applied to the walls of the *mimbar*. Apart from the small dome, the canopy is decorated with finials. Symbols of several plants are used in the making of the balustrades and finials including the roundish fruit of *bemban* (*Donax grandis*) and the stalk of durian fruit. These plant species are either forest shrubs or fruit trees commonly found in a village landscape.



Figure 5: Image of soms at Masjid Telok Manok

The third type of carved components found in the Malay traditional mosques are ornaments. *Som* and *buah buton* are ornaments that are carved and attached to the structural members of the building. *Som* is the decorative component located at the ridge end of pyramidal roof (see figure 5). Thus each roof tier has four *soms*. Masjid Langgar has the largest and elaborated *soms* on its first and second roof tiers. The third tier roof is accentuated by a pair of *pemelehs*. From a considerable distance the *soms* and *pemeleh* accentuate the profile of the mosque giving its distinctive vernacular style. Masjid Telok

Manok has the most number of *som*, every ridge end of the mosque and minaret roofs are decorated with flora motif *soms*. At present, the component has been replaced by concrete, replacing the original timber ones after they were decayed by the weather. Another ornament that gives character to the timber mosque is the *buah buton*. As mentioned earlier, it is a decorative component attached to end of *tunjuk langit* jointing tie beam or rafter to tie beam (see Figure 6). The attachment hides the tenon and mortises joint, and therefore is not a structural member of the building. Masjid Telok Manok has the most number of *buah butons*, 18 at the tiebeams and 3 at the end of *tunjuk langits*. All carvings are in lotus blossom motif but each differs in form, resembling the natural form of the flower that shrinks in the morning and gradually opens during the day. The differences in form resulted from the interpretation of several craftsmen as to the flower and how to translate it into carving. Variety of form from similar motif also adds beauty to the mosque architecture. Due to the richness of carving and vernacular form of Masjid Telok Manok, the Tourism Authority of Thailand has classified it as a heritage building in the southern province.

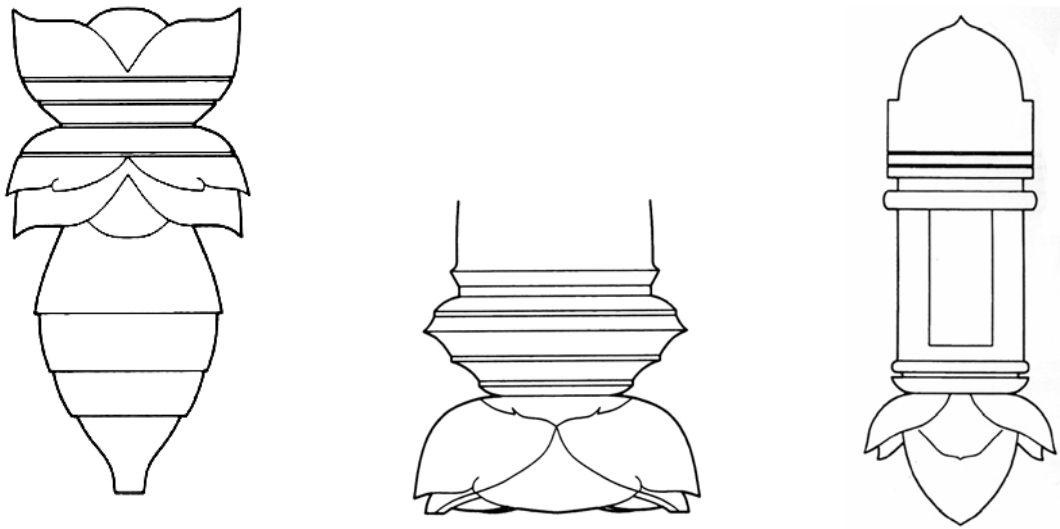


Figure 6: Lotus blossom motif on *buah butons* at Masjid Telok Manok

## Discussion

Woodcarving is an art produced by the Pattani Malay communities which probably flourished during mid-16<sup>th</sup> century (Zakaria, 1994). It is a vigorous art that flourishes on the interaction and incorporation of different ideas and yet at the same time retains a strong Islamic identity. Woodcarving has a tangible beauty derived from a person's imagination and manifested into a piece of timber. Creating beauty in architecture is part of devotional work practiced by Malay craftsmen. The source of much of the woodcarving art is derived from elements of the landscape such as plant and animal, cosmic elements particularly cloud formations, and calligraphy. They seek to relate art to their everyday activities; they do not separate art from life (Nasr, 1993). Thus not only plants become a source of building material in the construction of mosques, but also source of inspiration for the art of woodcarving. By observing the natural characteristics of plants having vivid flowers, climbing using tendrils, twisting stems around a support, creeping along the ground and producing peculiar fruit forms enabled the craftsmen to translate the form and behavior into art forms. Weeds such as *ketumbit* and *getamguri* which grow wild in gardens and creeping *Ipomea pea-caprea* found along the beaches, become dominant motifs in their carvings. Malays from other states such as Melaka, Negeri Sembilan and Perak in Peninsular Malaysia do not use these plants as motifs. Thus motifs from plant species become icons or symbols for Pattani Malay architecture. These motifs are abundantly carved on door leaf and ventilation panels in mosques and houses. They are carved either in relief (shallow or deep) or perforated form or a combination of both on a timber panel. Furthermore, the motifs are usually the background pattern framing a central motif which is more auspicious in status in the belief of the Malay craftsmen. Often the *bakawali* flower is the feature which takes center stage. In the carvings of mosques and houses, more than one floral motif is utilized. *Ketumbit*, *getamguri* and *Ipomea pea-caprea* are the favorite background motifs and *bakawali* flower and pomegranate fruit become the focal motifs. Sometimes, a floral motif becomes an insert among the geometrical carving. For example, the swastika motif on the front door of Masjid Telok Manok is enhanced by four inserts carved with motifs of a flower and leaf of an unknown plant species.

Malay craftsmen always depict the form of flora into carving in an abstract form. For example, the *tanjung* flower is symbolized with four petals although naturally it has five petals. This abstraction shows the ingenuity of the Malays toward craft making including architecture. In addition to the abstraction, order and unity are also applied in the art of woodcarving. To derive order, the flora motif is laid in symmetrical form on at least one axis. This creates balance within a building component and provides unity when similar carved components are repeated and arranged in a row. For example, the ventilation panels that are placed above the doors, windows and walls of Masjid Telok Manok form a visual composition unifying the architecture of the mosque.

The installation of carved building components in the mosques adds simple beauty to the architecture. Analysis on the amount of carving on a single wall elevation of the mosque showed that the carved components occupied less than 15% of the wall space. Most of the wall is made of uncarved timber components. Only a small proportion of carving is needed to enhance the beauty of the mosque architecture. Functionality and utility of woodcarving is not juxtaposed against beauty but complements it. For example, ventilation panels play a functional role in allowing air and light into the building whilst adding beauty with their relief and perforated carvings. The only exception is the mimbar that is elaborately carved and representing itself without associating with other components.

## **Conclusion**

Woodcarving in mosques is an expression of Malay craftsmen which recognizes the amorphous beauty of God's creations and manifests them into morphous forms. The manifestation is a skill developed through the process of observation of the living environment. Observed images are later deduced by the mind into another form, an abstraction from the original. The form is the carved components of the mosque which depicts the motifs of flora, calligraphy, geometry and cosmos. Flora motif dominates the carving on structural, elemental and decorative components denoting the influence of Islamic faith of the Malay craftsmen toward their work of art. The carving is a part of the

mosque's architecture that without it the building may consider as incomplete to be categorized as vernacular architecture of the region.

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