ICIMTR 2013

International Conference on Innovation, Management and Technology Research, Malaysia, 22 – 23 September, 2013

Integrating the Malay Traditional Design Elements into Contemporary Design: An Approach towards Sustainable Innovation

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Abstract

The traditional Malay designs have been known to be a reflection of the splendor and beauty of the aesthetical elements or ornamentations adorning them that carry deeper philosophical and sacred meanings. The traditional Malay designs are not merely objects of beauty but also serve as means of creating an environment of peace and tranquility. The elements found in the traditional Malay design can be regarded as a factor of global players, which only have their own identity and cannot be found elsewhere. Thus, the elements of traditional design can play a significant role in establishing local identity for global positioning of the nation. Therefore, integrating these traditional design elements into contemporary design is seen as an approach towards sustaining the nation’s heritage values as genius loci. Hence, this paper seeks to identify and illuminates on some of these Malay traditional elements in Malaysia with particular reference to the North East region states (Kelantan and Terengganu). The paper also illustrates by examples how these elements can be enhanced and sustained by integrating them into contemporary building designs either as direct or adaptive design.

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Keywords: Design elements; Contemporary design; Malay traditional elements; Sustainable innovation

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1. Introduction

Charter (2007) defines sustainable innovation as a process where sustainability consideration (environmental, social, and financial) are integrated into a system from idea generation through to research and development (R&D) and commercialization. This applies to products, services, and technologies as well as new business and organization models. Sustainable innovation can also be explained as a process of generating and validating ideas in a repeatable and more predictable way. As a process, innovation can be systematized to bring unprecedented efficiencies to idea generation, research and problem solving. However, sustainability must take into account a process that is restorative, regenerative, dynamic and efficient as opposed to energy intensive, resource dependent, extractive and disposable methods (Rashid & Amat, 2008). Sustainable innovation is far more than the common perception that it’s only about new technological ideas; aesthetic elements are also some of the area that requires sustainability. This is because they are critical reflection on art, culture and nature (Michael, 1998). They have unique qualities which are not only in terms of their physical makeup but, on how they are perceived. Hence, designers need to be sensitive to those unique qualities so they can enhance and sustain rather than destroying them.

2. Malay Traditional Aesthetic Elements

Aesthetic is commonly known as the study of sensory or sensory-emotional values, sometimes called judgments of sentiment and taste (Zangwill, 2007). It deals with the nature of art, beauty and taste, with the creation and appreciation of beauty. According to Michael (1998), it is a critical reflection on art, culture and nature. Aesthetic judgments may be cultural conditioned to some extent; however, the judgments of aesthetic value clearly rely on our ability to discriminate at a sensory level. The sensory level of an individual depends on the level of the experience gained through tacit knowledge within a cultural setup and environment.

The uniqueness in Malay traditional aesthetic elements has made them masterpiece concepts which cannot be found elsewhere. The abundance of timber in Malaysia makes wood one of the major materials used in traditional Malay crafts and buildings. However, some other materials such as metal, clay, textile etc., are used in Malay traditional crafts manifesting a Malay worldview. Historically, Hinduism had a major influence on the development of culture in the Malay world. The elements of Hindu culture which had a deep and lasting effect on the socio-culture of Malay society encompassed literature, religion and beliefs (Haziyah et al, 2012). Therefore, the early development of handicraft in the Malay world is believed to be influenced by Hindu culture. However, the coming of Islam to the Malay world eroded the influence of Hinduism in the lives of the Malay people (Haziyah et al, 2012). Their faith in Islam had influenced all their activities; particularly, the crafts they produced are guided by Islamic principles. According to Haziyah et al (2012), motifs influenced by Hindu culture such as makara, kala, padma/teratai etc were changed by Malay craftsmen to elements which fulfils Islamic values such as flora motifs, sulur bayur, tanjung etc.

Thus, elements of nature reflect in traditional Malay crafts and the craftsmen are highly artistic and skillful, endured with strength and inspiration to transform the traditional design elements into unique and aesthetically pleasing pieces. The visual aesthetic, shape and techniques used comprise a degree of beautification not found elsewhere. The traditional aesthetic elements are components or
parts which can be isolated and defined in any visual design or work of art. They are the structure of work, and can carry a wide variety of messages. However, functions precede decorative elements in Malay design and more often than not it expresses the intrinsic value of a product. Element includes points, line, form/shape, colour, pattern/motif, texture. This paper will focus specifically on forms and patterns/motifs in Malay traditional aesthetics.

2.1 Malay Traditional Aesthetic Forms Found in Traditional Malay Architecture

Forms are three-dimensional composition or object within a three-dimensional composition. It can also be explained as the specific shape or quality an artistic expression takes. Form can either be geometric (man-made) or organic (natural). It may be created by combining two or more shapes and can be enhanced by tone, texture and color. It can be illustrated or constructed. The Malay traditional aesthetic forms are combination of lines, curves and geometrical shapes. Some of the Malay traditional aesthetic forms are illustrated below.

i. **Bendul:** Bendul is a Malay word for a specially designed wooden beam (Fig. 1). This beam (bendul) is one of the elements of the Malay traditional house that serve to secure the structural framework of the house. Without it, the pillars of the house would not be stable. In Kelantan, bendul is the frame at the outer end of the floor. It is made to encircle the house, and served to separate the different portions of the house such as the veranda, the main house, the passage way and the kitchen (Wan & Abdul, 2011). Fig. 1 shows the image and the sectional shape of bendul.

![Fig. 1. Image and sectional view of bendul wooden frame](image)

ii. **Sulur Bayung:** Sulur means the branch of a locally found creeping plant, the root that grows from the main trunk of a tree or a piece of metal wire. According to Abdullah (1990), sulur bayung refers to a decorative element on the roof. Has explained by Abdul Rahman (2000), sulur means the shoots of ivy like plant while bayung is termed as a kind of decoration representing the long beans type of plant. The carvings are found on the four corners of a hip roof; they are either made of ceramic or cement plaster (Fig. 2). Has described by Abdullah (1978), this type of decoration in traditional Malay architecture looks like an image of a dragon, but according to craftsman in Kelantan the protruding element at the hip roof is called ekor itek (ducks tail).

![Fig. 2. Images of ekor itek and sulur bayung crept at the hip roof](image)
iii. **Gunungan:** Gunungan is one of the ancient legacies in Malaysia. Similar to the Balis, ancient Malays held on to religious and cultural traditions of Hinduism. Therefore, the tops of their doors are designed with *gunungan* (having motifs of their god’s image), which is similar to the Bali. However, in line with the development of Islam, the concept of *gunungan* was still maintained but the gods shaped image motifs were removed and replaced with flora elements (Fig. 3a). Thus, the concept (shape) has been widely used at the top of the doors and entrance gate of ancient houses and mosques (Fig. 3b). Hence, this can also be used in contemporary houses without the need to change or adapt the concept as they reflect the significance of local identity.

![Fig. 3. (a) Gunungan with flora motif; (b) Doors with gunungan shape](image)

iv. **Tunjuk Langit:** In terms of functionality, *tunjuk langit* has no role except for establishing identity. It is widely available in Terengganu and Kelantan. There are two significant forms of *tunjuk langit*; straight vertical shape (*jenis batang*) and pumpkin-shaped (*jenis bulat*). *Jenis Batang* is a type of *tunjuk langit* formed using a piece of timber in an upright position at the tip of the gable end (Fig. 4a), while *Jenis Bulat* is commonly used on hip or pyramid type of roof. They are positioned at the middle and top of the roof and most are made of carved timber or cement (Fig 4b).

v. **Tiang Gantung:** According to Rashid & Amat (2008), other names for *tiang gantung* are *buah butung, saka bentung, tiag bunting*. Yaakub (1996) defines *tiang gantung* as hanging column while Halim (1985) describes it as hanging column constructed on the bottom of the gable end of the roof (Fig. 5). It has a round shape looking very similar to bees’ nest (Rashid & Amat, 2008). Also Utaberta et al, (2012) described it as a wood measuring about 60cm to 100cm mounted on the roof. It is a badge or symbol of a construction formwork, just like a gravestone on the tomb. Halim (1985) refers to it as a symbol of power and might of the house and its owner. It is commonly believed that if this form of decoration falls, it indicates bad omen to the occupant of the house (Rashid & Amat, 2008). Therefore, to avert the bad omen, a gathering or a special ceremony must be held to reposition the fallen *tiang gantung* to its original place.
2.2 Malay Traditional Aesthetic Patterns/Motifs

A pattern in general can be defined as a discernible regularity in the world or in a manmade design. As such, the elements of a pattern repeat in a predictable manner. In art and architecture, a pattern can be achieved by combining and repeating decorations or visual motifs to form patterns designed to have a chosen effect on the viewer. The inspiration for motif compositions in art of Malay is from five plant sources which include leaf, stalk, flower, fruit and tendrils. According to Haziyah et al. (2012), leaf compositions are usually composed from the odd numbers of one, three, five, and so on depending on the surface of the carving. The patterns usually comprise leaves splits into two, three and five.

Stalk as one of the important motifs used is the basis of pattern structure. It is outlined to ensure that it balanced before complimenting the design with flowers, leaves and tendrils (Haziyah et al, 2012). The motifs used are usually from plants which are vital in Malay society; having aesthetic, medicinal and nutritional values. Examples are sesayap leaf, telinga kera, telipot, kerak nasi, etc. These motifs are commonly used in Metalwork (Fig. 6a), Pottery (Fig. 6b), but mostly used in wood carving (Fig. 6c).

Motif carving technique is usually based on two forms; two dimensional or three dimensional. Two dimensional motifs are usually associated with flat surface which can only be seen from one angle. This type of motifs is commonly used as wall decorations, door-leaf, and louvered screens in traditional Malay buildings. An example of this is tebuk tembus wood carvings and is usually found above the entrance between two different functional spaces. It is also available in the wall for ventilation and natural lighting. The carving often have floral motif of scented flowers (Fig. 7) and is usually positioned higher than eye level. This is intentional so as to prevent direct view into the other space.
However, three-dimensional motif form emphasizes the forms that can be appreciated from all angles (Fig. 8). These motifs are usually found in ceremonial items, agricultural implements, household equipments and row of post (tiang larik) in traditional Malay house.

Apart from carvings motifs, some patterns are also created by arranging pieces of wood in a regular or irregular repeated manner to create a design pattern. An example of this is dinding janda berhias (Fig. 9). Dinding janda berhias is a wall panel, usually made with wooden material. These walls are usually found in the house of high social status in ancient Malay.

iii. Gunungan: Gunungan is one of the ancient legacies in Malaysia. Similar to the Balis, ancient Malays held on to religious and cultural traditions of Hinduism. Therefore, the tops of their doors are design 3. Integrating Aesthetic Elements into Contemporary Design

According to Crossly (2003), the environments that people craft round themselves are rich with information about personalities, values and lifestyles. Traditional Malay aesthetic elements have been known for their intrinsic value and a measure of the rule “golden section” (Fig. 10); this proved the value of its timeless beauty across cultures and time. Therefore, integrating these aesthetic elements into contemporary design is seen as an approach towards sustaining the nation’s heritage values as genius loci. Integrating aesthetic elements into contemporary designs can be achieved in two ways; direct integration and adaptive integration. However, designers need to put into consideration the shape and size proportionately when integrating the elements in order to ensure that the local identity is preserved.
3.1 Direct Integration

Direct integration is the process of introducing the aesthetic elements into contemporary design without modifying the shape, size etc. This approach is used in order to ensure the local identity is preserved. Some elements integrated directly into contemporary design are illustrated by example below:

- **Tebuk tembus** pattern can be integrated directly into contemporary architecture in order to retain and preserve the local identity (Fig. 11).

- **Gunungan** concept can also be used in contemporary door design without modifying the form or shape as shown in Fig. 12 below.

3.2 Adaptive Integration

Adaptive integration involves modifying the original form/design by combining it with other design elements; however, the significant shapes are still maintained. The use of adaptive approach is not to eliminate the original concept but to enhance it. Therefore, this approach can be used to integrate traditional aesthetic elements into contemporary design as illustrated below.

Adaptive Integration into Contemporary Architecture

**Buah butung** is one of the heritage values in traditional Malay house; this can be integrated into contemporary building in order to sustain the heritage values and local identity. Fig. 13 illustrates how **buah butung** was adapted to design a contemporary building, a lamp holder and decorative hanging columns. The concept was still maintained while the form was only enhanced to meet the contemporary taste. While Fig. 14 shows how the shape of **gunungan** was adopted to create an arch of a contemporary building.
Fig. 15 shows an adaptive application of *Tebuk Tembus* motif in contemporary design to create a vent wall for ventilation and lighting. This design was created with Computer Numeric Control (CNC) machine. The motif was also applied on window glass to prevent clear view into the home space (Fig. 15). *Dinding Janda Berhias* wall decorative pattern can also be adapted in contemporary homes (Fig. 16). However, when adapting the design pattern, the ratio must be maintained to ensure the aesthetic is maintained and sustained.

![Fig. 15. Adapted tebuk tembus motif on vent wall and window glass](image)

Fig. 15. Adapted *tebuk tembus* motif on vent wall and window glass

![Fig. 16. Dinding Janda Berhias](image)

Fig. 16. *Dinding Janda Berhias*

- **Adaptive Integration into Contemporary Product Design**

Apart from contemporary architecture, Malay traditional design elements can also be integrated into contemporary product design. Fig. 17 illustrates the adaptive integration of the aesthetic elements into contemporary designs. (a) is a ceremonial staff (mace) with a surface decoration of *tebuk tembus* motif; (b) is a chair with a carved design of *tebuk tebus* motif and (c) is a trophy with an adaptive shape of *ekor itek*.

![Fig. 17. (a) ceremonial staff (mace) decorated with *tebuk tembus* motif; (b) a chair with *tebuk tembus* motifs; (c) a trophy with *ekor itek* shape](image)

Fig. 17. (a) ceremonial staff (mace) decorated with *tebuk tembus* motif; (b) a chair with *tebuk tembus* motifs; (c) a trophy with *ekor itek* shape
4. Conclusion

The Malay traditional design elements are reflections of the beauty of the soul and culture of the Malay society which can be discerned from the arrangement and composition of natural forms, motifs and patterns. The intrinsic value and the measure of golden section rule in the design elements have proved the value of its timeless beauty across cultures and time. Hence, integrating these elements (either directly or adaptively) into contemporary designs is an approach towards sustaining the nation’s heritage values. However, designers need to put in mind the proportionality when integrating these elements in order to ensure that the local identity is preserved and conserved.

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