Manifestation of Archipelagic Culture: How significant is it within the Negeri Sembilan Malay traditional architecture

Mawar Masri\textsuperscript{a}, Rodzyah Mohd Yunus\textsuperscript{b}, Mohamad Hanif Abdul Wahab\textsuperscript{b}, Shamsidar Ahmad\textsuperscript{b}

\textsuperscript{a} Centre of Postgraduate Studies, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Shah Alam, 40450, Selangor D.E. Malaysia
\textsuperscript{b} Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Shah Alam, 40450, Selangor D.E. Malaysia

Abstract

Interpreting quality of life for the future generations to a certain extent is inexorably influence by the knowledge of cultural and built heritage environment, signifying the people’s way of life, their cultural identity. The qualitative research involved comprehensive historical literature search in identifying extent of cultural influence. This paper aims to present the literature review findings. Archipelagic culture of the Malays, traced back to the prehistory, mainly refers to the maritime Srivijaya kingdom, are inseparably associated with Malay boats (\textit{perahu}) was found manifested significantly in the visual representation of the roof shape, in naming the traditional architectural components and spaces.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers) and eE-Bs (Centre for Environment-Behaviour Studies, Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia).

Keywords: Archipelagic culture; traditional architecture; matrilineal Malay; Srivijaya

\* Corresponding author. Tel.: +6-019-564-8553; fax: +6-03-5544-4353.
E-mail address: mawar_masri@yahoo.com
1. Introduction

The Nara Document of Authenticity 1994, stated, the heritage of all cultures and societies are rooted in the particular forms and means of tangible and intangible expression. The physical (tangible) aspect of built environment is a form of a statement signifying the people’s subsequently communities’ way of life, a manifestation of the unique socio-cultural identity (Masri, 2012; Masri, 2013; Abdul Wahab et al., 2014) and values (Zakaria et al., 2014; El Husseiny & El Husseiny, 2012; Noviarti et al., 2012). Interpreting the “quality of life” in the built environment to a certain extent, is inexorably influenced by the knowledge of cultural and built heritage environment. Cultural aspects of place involved meanings related to the environment (Wan Ismail, 2013).

Malaysia is a Malay country, stemmed from the dynamic maritime civilization of the ancient Malay kingdoms is now a Malay country with a multicultural population. Firm understanding of the civilization (peradaban)’s historical origin, life-views, ancestral custom, cultural values and architectural identity will robustly mould the community’s future generation’s quality of life as they are interconnected and an integral part of architecture. The matrilineal Malay communities of Negeri Sembilan (NS) in Malaysia known to manifest their socio-cultural uniqueness in their traditional built form (Masri et al., 2015a; Masri et al., 2015b).

This paper’ findings are aimed to reassert the authenticity NS Malay architectural identified, in comparison to the Minangkabau traditional house and as a platform for researchers seeking further understanding in reinterpreting quality of life of the Malay Civilization (Peradaban Melayu)’s cultural environment and realm in contemporary Malaysian architecture. As Ishak (2007) emphasized, “Getting it right.” However, the word ‘Malay’ in this paper is interpreted in the broader sense than the Malaysian constitutional definition. The explanation of the meanings in this research context is imperative to avoid statements that may otherwise seem offensive in other Malay Archipelago countries.

1.1. Research background

The aim of this research is to uncover the authenticity of NS Malay traditional architectural language, with Rembau as the research site, based on historical significance explained in Masri et al. (2012). The study was inspired when NS Malay architectural identity booth design was misrepresented by Minangkabau identity (a community from the West Sumatra in Indonesia) at the Shanghai World Expo 2010, following the Rasa Sayang song conflict in October 2007 and the misrepresentation of Tarian Barongan as a Malaysian folk dance in December 2007. Within a scope of a single paper, it is not possible to describe in detail their historical relationships. Avoidance of misconceptions in comprehending will require further readings of Masri (2012; 2013), Masri et al. (2012) and Masri & Ahmad (2012) papers.

1.2. Research limitations

Owing to the parameters set by the Fundamental Research Grant Scheme, where funds are only for site activities within Malaysia, therefore any information and data regarding other countries within the current paper are entirely dependent on the literatures.

2. Literature reviews

Almost all literatures regarding any of the Malay communities in the Malay Civilization (Peninsula Malay, Batak, Minangkabau, Javanese, Bugis, Tagalog etc.), primarily related to history and culture, the readers will be required to understand this civilization from the prehistoric time (Hall, 1966; Idrus, 1996; Ishak, 2007; Masri et al., 2015a) before the Sunda Shelf (Sundaland) was sunken. Hall stated that these areas were not merely cultural appendages of India or China but have their own strongly marked individuality. He seriously warned against the tendency to overstress the part played by imported cultures and to under-rate the importance of the indigenous one of the area. Hall even deprecated the use of terms such as ‘Little China’, ‘Indo-China’, ‘Further India’ and ‘Greater India’. Current scenario equating the Ancient Spice Routes to Maritime Silk Routes had materialized despite Hall’s
caution. This claim has overshadowed Ancient Spices Route, the maritime routes used by the Malay merchants. Refer to Figure 2.

Authenticity judgement, perceiving the quality of life, therefore, necessitated the deliberations presented. The misconceptions deliberated supported the importance of this paper to the future community and cultural sustainability of the NS Malay in Malaysia.

2.1. The definition of ‘Malay’, ‘Malay Archipelago’, ‘Nusantara’ and ‘Malay Civilization’

The term Malay, intriguingly, may potentially be understood rather a bit differently between the present countries in the Malay Archipelago. In order to avoid confusion, clarification of this paper’s contextual definition is essential. Ishak (2007) clarified that Malay as the name of race entered the European vocabulary in referring to the people of Southeast Asia because the Malays of the Malay Peninsula were the first people of the Malay World as well as Southeast Asia to be met by the Europeans (Portuguese) when they arrived by sea. However, most literature definitely associates the Malay people with the group (rumpun) or family of people with Malayo-Polynesian or Austronesia spoken language. Their vast realm are referred to as the Malay Civilization region or the Malay World by Malaysian historians shown in Figure 1. The Malay racial family is very large and each group within the family is known by its own ethnic name or sub-culture, such as Achenese, Chamorro, Dayak, Banjar, Javanese, Batak, Toraja, Sulu, Ifugao, Maori, Merina, etc. and Malay is one too (Ishak, 2007; Idrus, 1996). The terms Malay, Malayan, Indonesian, Austronesian, and Malayo-Polynesian, according to Ishak was found to often been used interchangeably by writers and scholars alike to refer to the people of this particular civilization.

![Fig.1. Malay cultural realm](source)

Ishak equates the Malay Archipelago with Nusantara which covers the present countries of Indonesia, Malaysia, Brunei, The Philippines, the islands of South China Sea, Singapore and that part of the Malay Peninsula that now forms part of Thailand as well as some areas including islands in the far south of Myanmar – making up almost the whole historical and ancestral home of the Malays. Solheim (cited in Ishak, 2007) and Hussein (cited in Mohd Balwi, 2005) advocates that the Malay Archipelago were the Malay homeland (tanahair). Waterson’s definition of Indonesian archipelago only proved that any study associated with Malay culture is more useful to approach it geographically instead of the present national boundaries. According to Ishak, Nusantara means ‘the land between two oceans’. In modern term coined in Indonesia, has been interpreted as ‘Our Island Home’. Apparently, Nusantara
also carries the notion of oneness, ‘one land and one people’ equating to serumpun, means a cluster, or one family that refers to the race.

In conclusion, this paper defined the terms Malays as the large racial family within the Nusantara. Malay Civilization in this paper refers to the scholarly Malayo-Polynesian or Austronesian Civilization, equates the entire Malay World.

2.2. Archipelagic culture: the dynamism of the Malay civilization

Malaysian archaeologist stated based on recent proofs that the Malay population had existed since 55,000 and 65,000 years ago. The statement is supported by Zainuddin (2011)’s recent research data using the mitochondrial DNA, subsequently proved that the people on both land, Malay Peninsula and Sumatera, share common ancestry with Orang Asli'. Therefore, the notion of the migration of the Malays from Yunnan is now no longer tenable, agreed by Ishak (2007), Oppenheimer (1998 cited in Thomas, 2011) and Wan Teh (1997 cited by Mohd Balwi, 2005). Intriguingly, the Sundaland second super flooding coincide with Plato’s description of the fabled Lost Atlantis in 360 B.C, which sank into the ocean some 9,000 years before his time, the world’s first civilization (Ishak, 2007). In awe, Oppenheimer advances the same view (Ishak, 2007). Ishak stated, around 5,000 B.C. the Malays were already living a vibrant maritime civilization in the Malay Archipelago. Even though the people were distributed within the Malay World, their talent and skills in the ocean or maritime navigational field had enabled them to meet through trading and merantau mobility (Idrus, 1996). More importantly, enabled them to dynamically exchanged experiences, knowledge and cultures. The Malays viewed the seas as connecting channel instead rather than as a divisional factor. This dynamism culture called their homeland as ‘tanahair’, which means ‘land-and-sea’ ('tanah-dan-air') in the Malay language, is what Ismail Hussein (1966, cited in Idrus, 1996) name as Maritime Culture or Archipelagic Culture. Their definition of ‘continental’ is entirely different from the conventional perspective. It is a misconception to think that Archipelagic Culture is associated with only maritime activities for daily survival. Srikandi (2015) highlighted that not only were they skilled in sailing but proved to be innovative farmers. As Coedes (cited in Hall, 1966) stated: “not ‘wild men’ but communities with a relatively high civilization of their own”. Offensively, Rofli and Khoo (2009) regarded the culture of the Southeast Asia (and Malays) as the benign process of the ‘Indianization’, much to be criticized. Hall stated “The art and architecture which blossomed so gorgeously in Angkor, pagan, Central Java and the old kingdom of Champa are strangely different from that of
Hindu and Buddhist India. For the real key to its understanding, one has to study the indigenous cultures of the peoples who produced it. All of them, it must be realized, have developed on markedly individualistic lines”. By referring to the Hinduism influences by using the so-called ‘Hinduized’, indicates the existence of the great mass of the people who already had for long, ‘peradaban’ (civilizational) cultures. These massive mass of the people was for long either untouched by Indian culture or in absorbing it changed it by bringing it into line with indigenous ideas and practices. Thus, the structure of society was mostly unaffected by Indian influences. The caste system, which is fundamental to Hinduism, has had notably little influence, and woman has largely maintained the high place accorded her before the earliest impact of Indian culture, a far higher one than she has ever occupied in India during the recorded history. Moreover, after the introduction of Hinduism and Buddhism, “the religious ideas and practices of earlier times persisted with immense vitality, and in coming to terms with them both religions were profoundly changed [by the Malays]” (Hall, 1966). Thus, the civilization that had developed widely in the Southeast Asia was without cities as we know them, believe to be without writings, originated at an extremely early date. Even without the urbanized and literate brand of civilization “the quality of life for the prehistoric Southeast Asian villagers was probably no worse and perhaps much better than that of his Chinese, Sumerian or Egyptian urbanized counterpart” (Bellwood, 1979 cited in Ishak, 2007).

Idrus and Ishak acknowledged Srivijaya (Seri Wijaya) as the first kingdom mainly responsible for spreading the Malay culture founded on the ocean trading and maritime strength, also as the first kingdom to exercise sovereignty (kemaharajaan) in the Malay archipelago. At its peak, was the most outstanding maritime empire in Southeast Asia history, unrivalled (Masri et al. 2012). Palembang, the capital city, was considered the greatest commercial port in Southeast Asia, primarily its seaman and their ships, had already been seen over 200 years of development (Hall, 1966) before the 6th century. Negeri Sembilan was under the sovereignty of Srivijaya, for about six and a half century (Masri et. al. 2012). Malacca kingdom on the other hand according to Kling (1987 cited in Idrus, 1996) is the founder, the reinforcer that spread the second generation Malay culture after Srivijaya.

2.3. The misconceptions

Masri (2012) had listed four misconceptions that are significant to NS Malay architectural identity. However, the “Misconception No. 3: The upward curve of the Negeri Sembilan roof is the visual analogy of the buffalo horns” is the significant contribution that causes the NS Malay traditional house to be called Minangkabau House. The finding was supported by the survey results presented by Masri as demonstrated in Figure 3. The survey was executed within an education institutional most related to the built environment with 232 respondents. The actual visual analogy identified by Idrus (1996) is ‘Kajang Perahu’ not the Buffalo Horns (Tanduk Kerbau) as articulated by many recent literatures.
2.4. Boat-shaped roofs: reclaim association symbolizing cultural identity

Malaysian historian, Ishak referred to Malay in Nusantara houses with curved roofs such as Minangkabau and Toradja houses as the boat-shaped roof, signifying the apparent association with the sea, hence archipelagic culture. In contrast with recent European researchers, who started to name these roof forms as ‘saddle-back roof’. Commendably, an early nineteenth-century researcher, Vroklage has a similar conclusion in naming the curve roof as ‘ship roof’ as in his point of view, better signifies the ‘true’ meaning. Hence, the statement showed acknowledgment of the significant association. Vroklage in fact, wrote that the curve roofs with their pointed ends symbolized the boats of the bearer’s culture (Waterson, 2009). Waterson’s opinion of Vroklage article in 1936 titled “The ship in the Megalithic Cultures of Southeast Asia and South Seas” as dubious should be criticized. In fact, Raikhan et al. (2014) believed that cultural identity preservation in contemporary society was measured as the highest achievement of civilization.

2.5. ‘Merantau’: the wandering spirit of the Nusantara Malays

The close association between the NS Malays in Malaysia and Minangkabau-Malays in Sumatra, Indonesia had necessitates the researcher to understand certain cultural behaviour worth mentioning is the wandering spirit, called merantau, in Malaysia and Indonesia (Masri & Ahmad, 2012) particularly associated with the Minangkabau-Malays culture. The confusion in comprehending the ‘merantau’ mobility originated from written English translation. Many works of literature translated it as ‘migration’ which in the Minangkabau-Malay context was and is termed as merantau Cino (Chinese merantau). Migration seems to be associated with the Chinese, where the entire nuclear family makes the move, deliberately. Deliberately migrating is clearly not the spirit of merantau. Translated words do not truly carry the correct meaning. The best is to present Wang Gung-wu accounts of merantau described by a Minangkabau-Malay, as “to leave one’s home, one’s relatives, one’s home village or country either temporarily, for a very long time or forever” and that the Minangkabau merantau “to work hard, seek knowledge and skills, gain experience so that success would add greatly to one’s security and happiness and that of relatives and the home village too”. However, in the traditional Malay community of the past was strictly a male way of life. Only when the male has chosen to settle down in the new locality where his merantau had taken him, would his womenfolk follow. Or, normally the male would be a bachelor, and he would marry into the local community. In the olden days, and it is still very much so today, the Malay merantau strictly within his own Malay world – which was in any case, a very vast world.

2.6. The Negeri Sembilan Malay traditional architecture

![Diagram of Malay traditional architecture](image)

Fig. 4. (a) One side extension; (b) extension on both ends of serambi; (c) anjung extension with serambi only extended at its pangkal; (d) showing the space named Langkan
The deliberations highlighted are only those useful in understanding the manifestation of archipelagic culture in the NS Malay traditional architecture. The NS traditional houses are known for their unique roof shape, where the roofs ridge-line has a ‘slight upwards curve’ (lentik) on both gable ends particularly the roof above the space called rumah tengah (‘middle house’), also known as rumah ibu (‘mother house’) in other parts of Malay Peninsula. The rumah tengah functions as the main family living area or the central area of the house. The serambi functions mainly as the reception and entertaining area. If the serambi space is extended on both ends, then the shape of the extended roof’s ridge-line shape will also be lentik on both gable ends. These enlarged spaces of the serambi do not classify as additional of another one or two serambi but merely an enlargement of the original spaces. The given names to the extended space act as hierarchical zoning of the long rectangular space. The pangkal signify the “crowning” zone of serambi space whereas hujung signify the ‘end’ (or “tail”) zone of the serambi space. Usually these zoning also dictate the seating arrangement hierarchy in accordance with their matrilineal custom social structure, rather intentionally to inculcate respect (Shaffee & Said, 2013), which will not be elaborated in this paper. Refer also to Figure 4 (a) and (b). The extension perpendicularly to the serambi, named anjung, considered as a separate space from serambi. Anjung is illustrated in Figure 4(c).

3. Methodology

The research methodology was qualitative. It involved comprehensive historical literature reviews as the strategy in determining research site, extent of historical and cultural association and comparative study of the visual data (such as photographs, sketches, etc.) between the Minangkabau and Negeri Sembilan Malay traditional houses. This paper was among the findings of the literature reviews as shown in Figure 5:

![Methodology Diagram](image_url)

**Fig. 5. This paper's methodology diagramme**

4. Findings

Table 1 and 2 demonstrated the literature findings. In Table 1, are characteristics identified by Coedes (1929 cited in Hall, 1966) and Hall (1966) before Southeast Asia felt the impact of Indian culture. There are more found in the literature but for the purpose of this paper, Table 1 only listed the relevant characteristics.

The unique attributes that denotes the archipelagic lifestyles of the Malay civilizations are their ability to obtain food from the seas or oceans, ability to sail, highly skilled in navigational field (which include astronomy), building various types of ships and boats for different functions including large ships capable of long-distance sea voyages and transporting items for trading and building new settlements. Their innovation enables them to execute sailing
expedition through extensive oceans with the ability to perform return sails between the islands even when the island were out of sight, with magnificent ability to sail in two directions (during the same season or at any season) for trading and explorations (Masri & Ahmad, 2012; Ishak, 2007; Hall, 1966; Thomas, 2011).

Table 1. Characteristics of the Malay civilization at the earliest impact of Indian culture

<table>
<thead>
<tr>
<th>Source</th>
<th>Category</th>
<th>Attributes of the Malay Civilization archipelagic culture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Material side</td>
<td></td>
</tr>
<tr>
<td>Coedes, 1929</td>
<td>(cited in Hall, 1966)</td>
<td>(i) The cultivation of irrigated rice fields</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(ii) The domestication of the ox and buffalo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(iii) A rudimentary use of metal</td>
</tr>
<tr>
<td></td>
<td>Social side</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i)</td>
<td>The importance of woman and, of descent by maternal line</td>
</tr>
<tr>
<td></td>
<td>(ii)</td>
<td>The organization resulted from irrigated cultivation</td>
</tr>
<tr>
<td>Hall, 1966</td>
<td>Other skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i)</td>
<td>High skill in navigation and boat-building</td>
</tr>
<tr>
<td></td>
<td>(ii)</td>
<td>Hardy seafarers with some knowledge of astronomy</td>
</tr>
<tr>
<td></td>
<td>(iii)</td>
<td>Travelled far and wide as merchants</td>
</tr>
<tr>
<td></td>
<td>Main settlement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i)</td>
<td>Mainly in coastal district and along river valleys</td>
</tr>
<tr>
<td></td>
<td>Other settlements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i)</td>
<td>Further inland, and in mountains, were others, in various degree of backwardness</td>
</tr>
</tbody>
</table>

Table 2. Similarities in the terms’ usage

<table>
<thead>
<tr>
<th>Similar terms</th>
<th>Meanings of the terms in Perahu context</th>
<th>Meanings of in the NS Malay traditional house context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kajang perahu</td>
<td>The roof covering the rear/back (buritan or belakang) of the Malay boat (perahu), made from the nipah leaves or mengkuang leaves or bamboo etcetera to protect from the heat or other climatic elements.</td>
<td>The visual representation of the roof’s form and ridge-line shape.</td>
</tr>
<tr>
<td>Tebar layar/Tabir layar</td>
<td>The Malay term used for the ‘flying sails’.</td>
<td>The Malay term used for the gable-end wall or screen.</td>
</tr>
<tr>
<td>Serambi</td>
<td>The space within the perahu (Malay traditional boat) at the front area, mostly known as langkan.</td>
<td>The interior space at the front connected to the main house (rumah tengah rumah ibu), the floor most of the time lower than the main house used as a reception area for the male guest, and during functions etc. Also called selasar (especially in the Riau province).</td>
</tr>
<tr>
<td>Langkan</td>
<td>The space within the perahu (Malay traditional boat) at the front area.</td>
<td>Serambi that is without the walls or only half-height wall. Refer to Figure 4(d).</td>
</tr>
</tbody>
</table>

The most unsettling finding, however, is that recent European researchers overlooked the significance of archipelagic culture to the Nusantara traditional architecture and giving names that are not significant to the Malay culture. With so many distinct similarities between the boats and the architecture, it is an odd revelation to find that interest in the boat symbolism is remarkably lacking when studying the Nusantara region’s traditional architecture in Malaysia.

5. Discussion and analysis

Literatures findings showed that the manifestation of archipelagic culture were not merely on the terms used to name the building components and the roof shape’s visual representations, but also in naming and hierarchical order of the interior spaces. It is not a coincidence that the central space within the Malay traditional house, the rumah
"tengah ('middle house'), also known as rumah ibu in other parts of Malay Peninsula. ‘Ibu’ means ‘mother’ signifies the social aspect of the archipelagic culture as shown in Table 2 being manifested in the traditional design as also deliberated in Section 2.6. Subsequently, this manifestation is also in the zoning by allocating areas specifically as the female domain with allocated female entrance. Their spaces created out of social and its symbolic meanings as reflections of the inhabitant’s world view, life values, and quality. Even so, it must be noted that buffalos are still mainly associated with the Negeri Sembilan Malays in many other ways until today. Hall stated that the Malays were excellent woodworkers. The similarities in the name of the interior spaces and building components and elements clearly implied that shipbuilders also built their houses. It is not surprising that the terms are still being used by the Malays in Malaysia even in referring to contemporary building. Consequently, the woodcarvings decorative elements forms part of the manifestation, as Michael (1998 cited in Shuaib & Enoch, 2014) stated, critical reflection on art, culture and nature.

The merantau in historical events of Malay Civilization apparently should not at all equate ‘migration’ whereas befitting the ancient Malay proverb, “Di mana bumi dipijak, di situ langit dijunjung.” The Malay must respect and be loyal (akur) to the rulers and sovereignty (kedaulatan) of the place where the merantau had taken him and should not conquer (menjajah) in order to gain knowledge, skills and success. The perspective that there is, in fact, an existence of another continent of ‘land-and-sea’, The Malay Continent should logically be considered by Malay World scholars. Refer to Figure 1(b).

Misconceptions highlighted by the previous study, demonstrated weak understanding of the association between archipelagic culture and NS Malay traditional residential architecture. The particular connections between NS and Minangkabau had caused many researches centred more on the Minangkabau association, thus overlooked the NS connection with Siak, a district within the mainland Riau in the Eastern Sumatra. Notably the Lontik roof of Riau is also the visual representation of the Lancang (traditional boat) (Idrus, 1996). More importantly these clarifications are not meant to deny the Minangkabau influence. In fact, it is expected this knowledge would enhance their significance to the evolvement of the Negeri Sembilan Malay traditional architectural identity and community’s unique cultural environment.

6. Conclusion and recommendations

Authenticity judgment in this research requires knowledge of the Malay Civilization history, local customs’ historical roots that should not stop at Malacca kingdom, with the wider context when referring to Malays. The value in this paper is the Malay Civilization characteristics are listed within the discussion of NS Malay traditional architecture. The extent of historical review should form the strategy in determining research site. Association between perahu and traditional houses should be a factor in determining authenticity. Subsequently, ruled out the traditional ‘Limas’ roof Malay traditional houses in the context of Negeri Sembilan as not authentic, a much later styles to Rembau. The boat-shaped roof being called saddle-back roof are indicators enough to suggest that the quality of life should be contextual, with consideration of the inhabitants customs and culture that is mainly denoted by the spiritual or religious belief. Therefore, further research into the manifestation of socio-cultural values within the spatial design of the NS Malay community is the key to their interpretation of the quality of life.

Acknowledgements

The authors would like to thank the Ministry of Education Malaysia for the Fundamental Research Grant Scheme (600-RMI/ST/FRGS 5/3/Fst (281/2010)); also for the current research scholarship related to sustainable home environment. Special thanks to Mohd Arof Ishak from the Malaysian Historical Society.

References


---

i Orang Asli includes orang Jakun who are also called orang Bukit or orang Sakai by the locals which is the Biduanda suku (clan). Others that are also included as Orang Asli are the Senoi and Seman people (Nik Abdul Rahman et al., 2011, pg. 72).

ii The results of the survey were discussed in Masri (2012 & 2013).