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## Towards a Compatible Landscape in Malaysia: An Idea, Challenge and Imperatives

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### Abstract

In Malaysia, awareness of the need to enhance quality of life has led to the ecological development as an initiative for a sustainable environment. This paper presents a brief conceptual review of the issues and imperatives involved in determining the value of traditional rural landscape typologies that could enhance urban areas and maintain a cultural link with tradition. The review is based on the theoretical background and concepts of the relevant issues taken from various established references. The method specifically adopts visual analysis and observation in rural and urban areas. It is expected to provide a conceptual framework for analysing a more self-sufficient landscape in future developments.

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*Keywords:* Compatible landscape; traditional landscape; Sustainable Magnitude; self-sufficient landscape

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### 1. Introduction

The urbanization, demographic shifts and industrialization that have emerged over the last 40 years have changed the way of life of the Malay population. Within that period the population has changed from being 75% rural to 75% urban; from being caretakers of the land to becoming condominium owners. This transition has resulted in a loss of cultural identity with the landscape and erosion in the understanding of the landscape to provide food, shelter and medicines with consequent to the negative

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changes in diets, lifestyles, health issues and cultural values. Therefore, the concern about the landscape in Malaysia has never been more vital. While there is concern for quality of life, little apparent attention has been given to landscape. Subsequently, to enhance the quality of life, an initiative to ecologically develop and sustain a livable environment for future development seems crucial.

This conceptual-review paper will focus on the issues and demands of a sustainable cultural-tradition landscape towards developing a more self-sufficient landscape for the future. The review enhances an established landscape theory and presents an alternative vision for future landscapes. The purpose is to set up and integrate the initial idea of regenerating the retrospective approach of the cultural-traditional landscape with the compatible landscape for future.

Essential to the discussion are the identity of the cultural landscape along with sustainable diversity. In addition, the proposed method would adopt visual analysis and observation to collect and compare information about the character of the landscape. The method offers the criteria for creating an inventory and assessment of the current practised of the landscape in Malaysia; specifically in rural and urban areas. Since Malaysia is a developing country and has aspirations of becoming a Garden Nation, as well as to establishing a 'Green Environment' concept; it is anticipated that this review will deliver a conceptual alternative that will suffice to meet the National Landscape Agenda and manifest a comprehensive self-sustaining landscape environment in the country.

### *1.1. The Malay Traditional Landscape in Malaysia*

About three generations ago, the landscape of Malaysia was predominantly agricultural including, rice fields, coconut groves and rubber plantations. Since the early 1970's however, palm oil plantation has become the dominant new look for the traditional landscape of the country. Formerly, rice cultivated fields were to be found in the north-western region of the peninsular, as well as along the foothills in the east coast. Meanwhile, rubber and palm oil cultivated areas were to be mainly found by the foothills scattered along the Malaysian peninsular. Besides these areas, the natural landscape was mainly covered in forest or as coastal areas (Nor Atiah Ismail, 2005). These are the inherited characteristics of a natural and traditional landscape which traditionally was almost self-sufficient for daily living.

Following independence in 1957, Malaysia showed positive growth towards industrialization. As a result, there was a substantial increase in rural-urban migration. This process, together with the rapid increase in the production of palm oil and rubber, had an influence on the reduction of self-sufficiency of food supply. Sustaining a food supply for a large urban population has only been possible by importing food supplies from neighbouring countries (Byrd H., 2008). Apart from that, Julaihi, 2006 also emphasizes the fact that the pattern of settlements in Malaysia can be traced back to the agglomeration of huts in the fruit orchards, the paddy fields 'island houses', tin mining 'kongsis', fisherman's houses along the rivers and also in the peri-urban houses (Julaihi Wahid, 2006). Furthermore, Julaihi highlighted the culture, politics and daily activities of the people as important factors that helped to shape the physical environment of early settlements in Malaysia

While certain rural areas have maintained their traditional appearance, development continues to erode the natural environment. The cultural values embodied in the landscape that have maintained traditions throughout previous generations are under threat. Anthropogenic activities, driven by socio-economic development, have also encroached on the landscape (Abdullah, 2011; Abdullah & Nakagoshi, 2006). Because of this, in some cases Malaysian cultural landscapes have been totally changed and eroded. The only remaining cultural landscape is exemplified by the traditional village; the 'kampong'. A kampong is comprised of several houses with compounds, including other shared community spaces such as religious spaces, schools and food outlets. In particular, the traditional values in regard to natural resource use are still practiced among rural people and especially by the older generation. As a result of development, the

long-standing traditional landscape features of paddy fields, vegetable farms, and orchards are expanding, and are still essential in meeting the demands of socio-economic progress and population growth (Abdullah, 2011). This has impacted on the both pattern of kampong development, as well as on urbanization. However, the significant identity and value of the traditional kampong and its landscape are still not defined. Preservation of the value of cultural landscape could reduce the risk of destroying the 'sense of place' that has evolved through the presence of humans on the landscape over time (Kamarul Bahrain Shuib & Habsah Hashim, 2009). Perhaps, the traditional landscape typologies would make an attempt to be more self-sufficient and reliable for future development or modernisation.

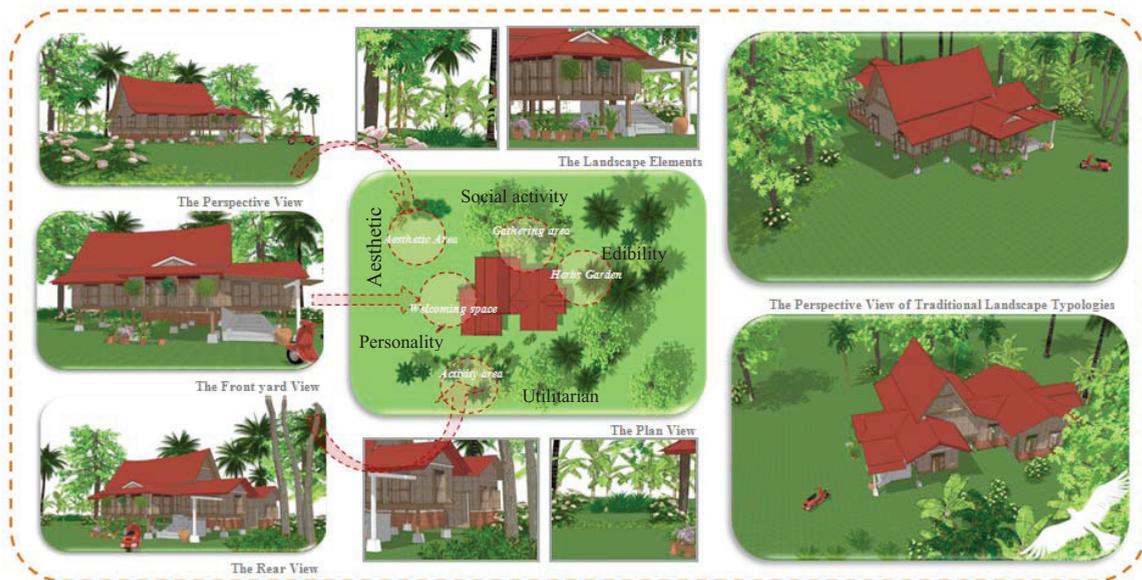


Figure 1 (a) The landscape typologies and attributes of traditional Malay kampong in Malaysia

The above image illustrates the typologies, pattern and character of landscape elements in a Malay traditional landscape. It enhances the needs and importance within the indoor and outdoor spatial living context. Historically, the typologies served the daily needs and demands for living and survival which displayed the origin theory of the man and nature relationship. Moreover, this traditional landscape was also composed of a variety of attributes such as: aesthetic values: landscape personality as an image; utilitarian need for resources and materials; edibility of self-grown food and perhaps fulfilment of a social interaction activity.

### 1.2. The Issues and Challenges for the Future Landscape in Malaysia

The concern over the eroding of traditional cultural landscapes and the new landscapes that are emerging has become a recurring topic at most of recent international scientific conferences and workshops. Landscapes always change because they are the expression of the dynamic interaction between natural and cultural forces in the environment (Antrop, 2005). Unfortunately, the changes are

seen as a threat, a negative evolution, because the current changes are characterized by the loss of the diversity, needs and identity of the existing landscapes.

In Malaysia, the landscape has been transformed by time and the purposes which are influenced by the autonomic rules and industrialisation. To fulfil the national planning agenda, socio-economic demands and political needs, the landscape in Malaysia is being authorized and administrated by the state authority under the supervision of the National Landscape Department and the Landscape Architect Malaysia Institute. However, there is no specific act or law that controls the standard of landscape in Malaysia. Landscape design and planning are generally based on a particular project by a separated entity, developer, client, or local authority.

### *1.2.1. Understanding the Cultural-Traditional Landscape*

Conceptually, landscapes have a holistic and complex character that bridges both natural and cultural aspects; landscapes are valued in many different ways. Most people experience landscapes in a holistic way and integrate what they perceive immediately with what they know and remember (Tuan Y.F, 1980); (Meinig, 1979). Each traditional landscape expresses a unique sense or spirit of place (genius loci) that helps to define its identity (Antrop, 2000). Antrop (2005) indicates that the characteristics of special places and monuments become symbolic values and act as landmarks that allow orientation in space and time (Coeterier, 2002; Holtorf, 1998; Lynch, 1973 in Antrop 2005). Moreover, Antrop (2005) added that perceived landscapes also contribute to local and national identity (Sooväli et al., 2003 in Antrop, 2005) which are shaped by ideology and politics (Olwig, 2002). These landscapes are the source of an essential knowledge with regard to sustainable development that enhances the inspiration for making better future landscapes for the environment and society.

On the other hand, the natural and cultural aspects of landscapes are receiving an increase in attention from various sectors including planners, policy makers, educators and researchers (Klijn & Vos, 2000). Through general observation, it is evident that changes in landscapes become extremely devastating and that many heritage values and resources become irreversibly lost. In the second half of the 20th century, rapid changes in landscape increased in an unprecedented manner (Antrop, 2000). As a result, many high rise buildings and structures such as apartments, offices and housing are superimposed upon traditional landscapes that are considerably disrupted and lose their identity. However, although many new landscapes are being created and characterized by functional purpose, they are lacking in any specific identity, as indicated by Antrop M. (2004); the result is the formation if an irregular landscape composition without any specific characteristics to present and signify traditional identity.

### *1.2.2. Rapid Urbanisation and Demographic Planning*

The current urbanization and the demographic in Malaysia are out of balance. In tandem with Malaysia's rapid development, the proportion of urban dwellers increased from 62.0% in 2000 to 71.0% in 2010. This imbalance causes the urbanization and density issues to become crucial in order to serve the population demands. Moreover, residential spaces are mainly being designed for indoor activities without consideration for the need for green areas or outdoor spaces. These have neglected the conceptual approach of an ideal ratio between living area and green space. Based on the 1970's settlements in Malaysia, the government has adopted various mutations and interpretations of Ebenezer Howard's models in planning urban communities. However, because of variables such as the ever-changing facets of growth supported by new technology and resource management, the realization of garden cities, as originally envisioned by Howard is in considerable doubt (Ahmad et. al., 2004). In addition, the current settlements and residential designs are influenced by contemporary design trends and based on client preference.

### 1.2.3. *Climate Change and Peak Oil Reinforcement*

The impact of global issues has left observable effects on the environment. Global issues have increased the intensity risk of unpredictable weather changes which affects local activity, spatial planning and usage, resources and materials and, have also even perhaps altered the existing range of plants and animals and caused trees to flower earlier in the season.. Scientists have predicted that global temperatures will continue to rise for decades due to greenhouse emissions produced by human activity.

Additionally, the oil and gas which served as the main energy sources in Malaysia are becoming depleted. The Malaysian government is reinforcing the concept of renewable energy (RE) in its 9th Malaysian Plan (9MP) in order to serve the environmental objectives for both land production and utilization. The oil and gas depletion issues will affect the usage and function of land thus interrupting economic growth in agriculture and creating concerns for society.

## 2. **The Landscape Theory**

In the early settlements before 600BC, human initiated the development of their surroundings by considering several factors such as safety, food resources and daily activities. The interaction between man and nature was developed to meet the necessities of life. This attitude has civilized the culture of human settlement and the expanding environment.

The functions of gardens in general can be aesthetic, ecological, environmental and economic. Landscape architects, who traditionally design outdoor spaces incorporating plant materials, have developed their own design theories as to the aesthetic and psychological benefits provided by plants (Thayer and Atwood, 1978; Tsalikidis 1999). Perhaps, the many published works of landscape architects and urban designers such as Garret Eckbo (1950), Robert Zion (1968), Kevin Lynch (1971), and Gary Robinette (1972) attempt to apply the relationship between human response and plants.

### 2.1. *Theory of the Man and Nature Relationship*

Currently, an instrumental value system dominates the environmental perception which represents the expression of the contemporary and modern landscape. It is unlikely to be highlighted by the Gutkind Theory in his I-IT (I-Tho shows a mutual (direct) relationship between man and nature.) and I-Tho (I-It means a reflections/ estrangements between man and nature, where both integrate to support each other to survive.) theory of a mutual relationship between man and nature. The theory reflects the importance of a relationship that supports each component to survive and sustain successfully. Ian McHarg (1969) contributed an established method for evaluating landscape through an overlaying technique mapping. McHarg spelled out the need for urban planners to consider an environmentally conscious approach to land use, and provide a balance development between ecological needs and human preferences.

In addition, the Kaplans' study on natural experiences found that nearby nature, which defines everyday places such as backyards, as having virtually as much restorative power as nature (Krinke, 2005). This theory has been embraced in the Malay traditional landscape which comprises of herb or kitchen gardens located in backyards. These have been planted to support basic needs of daily living. Furthermore, Kaplan et al. (1972), Thayer and Atwood (1978), Wohlwill (1968) found that environments where plants grow are rated as being more pleasurable than similar urban or built landscapes without plants. Perhaps, there is also an indication that knowledge of existing nature plays an important role in engaging with the residents (S. Kaplan, 1988). Calvin et al., (1970) determines that man cannot exist independently and must cherish the relationship binding him with the rest. This relationship is expressed usually by the landscape in which we live. Therefore, these established references show various notable

studies about landscape which emphasize the preferences and relationship between spatial natural areas and their benefit for everyday living.

Nevertheless, Nassauer (1997), Mathieu et al., (2007) added to the theories of Selman P. (2002) on the role of a small vegetated space for a single dwelling does contribute in creating a substantial impact on the surroundings and is environmentally beneficial to ecological health. Moreover, the vegetated space can also be a valuable tool to detect and monitor urban landscape biodiversity and cultural changing (Acar et al., 2007). The literature on the role of landscape aids the understanding of man and nature together as a cultural and theoretical component and is useful in maintaining the purpose of developing compatible landscape typologies for future development.

## 2.2. *The Landscape Value*

Generally, a structured method in analyzing and evaluating landscape in an integrated framework on land use management is still absence (Cooper and Murray, 1992). Since 1979, the challenge in landscape is to develop a quantitative assessment method for valuing impact on landscape and the elements of an overall composition (Buhyoff and Riesenmann, 1979). In 1969, McHarg, a geologist and landscape architect published a theory proposing that landscape architecture is an instrument of environmentalism and helps to shape national policy on the environment (McHarg, 1981). As an extension of the McHarg techniques, Bishop and Hulse (1994) invented an application for landscape assessment through mapped data and geographic information systems (GISs).

Eugene Odum and Howard T. Odum's (1967) attempt at measuring the biomass index for quantifying flows of energy in ecosystems has resulted in an ecological footprint (EF) calculation being made by Mathis Wackernagel and William Rees (1992) (Begum, Pereira, Jaafar, & Al-Amin (2009)). This has provided a concept and quantifiable data for the demands of landscape and humans on nature using the biosphere's ability to regenerate resources and services. The importance of delivering an empirical value for the environment has initiated a subset of the ecological footprint, known as, the carbon footprint (CF). As an extension of EF, CF has a more comprehensive Life Cycle Assessment (LCA). It enables the holistic assessment of environmental resources and services to serve eco-balance development.

Based on the National Census of 2010, the total population of Malaysia is 28.3 million, compared with 23.3 million in 2000. With the total area of 329,847 km<sup>2</sup>, the Malaysia population density stood at 0.86 peoples per ha in 2010 compared with 0.71 people per ha in 2000. This conflicts with an ideal spatial allocation per person which requires 0.304 ha of land to support the current rate of consumption and life style from the agriculture, forestry and built-up sectors. This figure is lower than the one calculated by the NFA (1.13 gha/cap) (Begum, Pereira, Jaafar, & Al-Amin, 2009). Furthermore, the use of EF for land use planning in Malaysia is relatively limited. Therefore, an evaluation of landscape would be a reliable way to draw attention to the importance of green areas would, in turn, aid in the initiation of greater attention and involvement from various sectors including, public participation with a view to preserving nature and inheritance of landscape awareness.

## 3. **Towards a Compatible Landscape in Malaysia**

Today's research on topics that concern landscape is vague being imposed by the government and are ineffectual. The importance of landscape is mainly to enhance the aesthetic impact rather than of highlighting landscape's importance and function in serving the balance of the ecological cycle and the natural resources in demands. In Malaysia, the current practice of a simplistic application of planning, social, economic and environmental theories produces towns and cities that lack identity. The human scale and sense of unity of the traditional settlements creates an urban composition that is unique and

readily recognizable, and assists in creating a clear sense of place. The facilities provided also reflect the government response to the individual and public needs of a sustainable and livable city (Sulaiman & Shamsuddin). There is a rich discourse between the public realm, with individual territorial needs in a complex and compact existence, which create a townscape character that displays a rich, harmonious ethnic composition that can inform designer in creating future places.

### *3.1. Landscape as resources and materials*

The Ninth Malaysia Plan has set out objectives in an endeavour to make the country more self-sufficient. The government has selected 41% the financial allocation to support the sectors of agriculture, both locally and agriculturally based. This Plan includes home-grown products and food production which are part of the landscape. Basically, Malaysia's agricultural figures include land under crops as well as clear land, grassed land and vacant land which was estimated as a total agricultural area of 7,605,000 ha in 1997. This consumption of agricultural land and imported products is increasing and affects the country's EF balance. Therefore, the idea is that regenerating home-grown food as local resources and products will reduce the basic demand for edible food products, specifically for rice and grain.

### *3.2. The landscape serves the ecological and environmental balance*

Plants and trees serve several functions in balancing the environment such as; ecological balance, biomass and carbon and perhaps giving aesthetic value and identity. Paoletti's (1995) research found that edible plants could store more carbon than the ornamental plants. This shows that the traditional plantations, specifically in herbs and medicinal plants are more eco-balanced compared to the ornamental plants. As Malaysia is a tropical country with the various evergreen species, preserving and providing balanced environmental planning is intolerable.

### *3.3. Empirical Landscape Assessment to improve on landscape efficiency*

Since the late 1960's, many researches and debates have been undertaken by architects and researchers to produce an 'objective' and quantitative method for finding a numerical value for the 'subjective' responses to scenery or aesthetic quality. These methods have been developed to act as evaluative tools which represent a standard measurement by different observers to produce a comparable result (Robinson et al., 1976). However the applications are still unfavorable.

Landscape was also been assessed by Orland et al., (1995), who have described a qualitative approach which focuses on evaluating landscape complexity through human perceptions, and quantitative approaches that measure physical characteristics in the field. In addition, Buhyoff and Riesenmann (1979) found evidence for using the landscape dimensions to prepare the evaluation of a specific aesthetic impact, consequences and management action. This shows the efforts and preferences in assessing landscape objectively and quantitatively.

## **4. Conclusion**

Traditionally, members of the rural population were almost self-sufficient by their use of the land immediately around them. Home-grown production, traditional herbs, medications, building materials and other resources were particularly beneficial and useful for everyday living. However, today's scenario of an urban living lifestyle with the intense development reflects the diminished value of natural resources

and their benefits. The landscape seems to lose attention and intention in everyday life. A holistic and integrated view of landscape value, especially in urban area, is absent from the literature, as most studies tend to ignore the environmental function of landscape significance. Hence, an interactive plan in regard to mutual adaptation between man and nature by Ian McHarg has become a good platform for evaluating landscape efficiently. The plan aims to establish the value of the landscape not only for human survival but also towards the ecological balance in the environment.

This paper determines the self-sufficient resources and material, capability of ecological balance and ability in evaluating landscape efficiency as the main conceptual ideas in identifying the compatible Malay traditional landscape typologies in Malaysia. It represents the inheritance character of traditional landscape in maintaining the continuous link of the traditional rural landscape or 'kampong' for future development. It is expected to provide a new understanding in regard to the exact function of nature and landscape potential, through quantitative analysis and to influence current considerations to present landscape as a new mechanism in stabilizing the environmental balance.

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### References

- Abdullah, S. A. (2011). The Characteristics of the Cultural Landscape in Malaysia: Concept and Perspective. *Landscape Ecology in Asian Cultures*, 41-53.
- Abdullah, S. A., & Nakagoshi, N. (2006). Changes in landscape spatial pattern in the highly developing state of Selangor, peninsular Malaysia. *Landscape and Urban Planning*, 77(3), 263-275.
- Ahmad, M. H., Hamid, M., Hong, L. F., & Then, J. H. (2004). Defining the Garden City of Kuching.
- Antrop, M. (2000). Background concepts for integrated landscape analysis. *Agriculture, ecosystems & environment*, 77(1-2), 17-28.
- Antrop, M. (2000). Where are the Genii Loci? Landscape-Our Home. *Essays on the Culture of the European Landscape as a Task/Pedroli, B.(ed.)-Stuttgart: Freies Geistesleben, 2000.-Zeist: Indigo, 2000*, 29.
- Antrop, M. (2005). Why landscapes of the past are important for the future. *Landscape and Urban Planning*, 70(1-2), 21-34.
- Begum, R. A., Pereira, J. J., Jaafar, A. H., & Al-Amin, A. Q. (2009). An empirical assessment of ecological footprint calculations for Malaysia. *Resources, Conservation and Recycling*, 53(10), 582-587. doi: 10.1016/j.resconrec.2009.04.009
- Byrd H. (2008). *Energy and Ecology: A view of Malaysia Beyond 2020*: University Science of Malaysia.
- Chen VF. (1998). *The Encyclopedia of Malaysia: Architecture (Vol. 5)*: Archipelago Press.
- Federici, E. (2010). A Kampung is not a Village: Malaysian English, a Linguistic Tapestry. *English, but not quite. Locating linguistic diversity*, 213.
- Ibrahim Ngah and Zulazhar Abd Ghani. (2000). *Penghayatan Kehidupan Desa: Kajian Kes Kampung terpilih di Selangor, Kedah dan Perak*. Pusat Sumber Fakulti Alam Bina, Universiti Teknologi Malaysia.
- Ismail Said. (2001). *Cultural-Ethnic Landscape of Terrace Housing Community in Peninsular Malaysia*. Published *Jurnal Teknologi B*, Universti Teknologi Malaysia, No. 35, 41-53.
- Kamarul Bahrain Shuib, & Habsah Hashim. (2009). *Cultural Landscape Conservation: Understanding Landscape Values Using the Community's Perspective Paper presented at the UMRAN conference 2009 "Healing the World"*, Kulliyah of Architecture and Environmental Design, International Islamic University Malaysia.
- Kaplan, R. (1990). The perception of landscape style: a cross-cultural comparison. *Landscape and Urban Planning*, 19(3), 251-262.
- Kaplan, S. (1988). Perception and landscape: conceptions and misconceptions. *Environmental aesthetics: Theory, research, and application*, 45-55.
- Klijn, J., & Vos, W. (2000). A new identity for landscape ecology in Europe: a research strategy for the next decade. *From landscape ecology to landscape science*. Kluwer Academic Publ., Dordrecht, 149-162.

- Kong, L., & Savage, V. R. (1986). The Malay world in colonial fiction. *Singapore Journal of Tropical Geography*, 7(1), 40-52.
- Krinke, R. (2005). *Contemporary landscapes of contemplation*: Taylor & Francis.
- McHarg, I. L. (1981). Human ecological planning in Pennsylvania. *Landscape Planning*, 8(2), 109-120.
- Meinig, D. W. (1979). The beholding eye: ten versions of the same scene. *The interpretation of ordinary landscapes: Geographical essays*, 33–48.
- Meurk C.D. Swaffield S. (2000). A landscape ecological framework for indigenous regeneration in rural New Zealand - Aotearoa. [Conceptual Journal]. *Landscape and Urban Planning*, 50, 129-144.
- Nohl, W. (2001). Sustainable landscape use and aesthetic perception-preliminary reflections on future landscape aesthetics. *Landscape and Urban Planning*, 54(1-4), 223-237.
- Nor Atiah Ismail. (2005). Responsive Open Spaces in Malay Cultural Landscape :Retrospective of Recreational Spaces. Paper presented at the Ifpra2005- Asian Pacific Congress, Kuala Lumpur, Malaysia.
- Nur Huzeima and Suriati. (2010). Landscape Design for Malay Contemporary House at Desa Wawasan. Paper presented at the ACEBS 2010 Kuching Abstract Ref No: OE 016, Kuching, Sarawak.
- Sani, R. A. (1990). National policies: Their implications on the preservation of heritage, in *Heritage: The Changing World, Our Heritage and Our Future*.
- Selman P. (2002). Barriers and bridges to sustaining cultural landscapes. [Article].
- Smith J. S. (2002). Rural place attachment in Hispanic urban centers. *Geographical Review*, 432-451.
- Olwig, K. (2002). Landscape, nature, and the body politic: from Britain's renaissance to America's new world: *Univ of Wisconsin Pr.*
- Sulaiman, A., & Shamsuddin, S. City architecture from the traditional past—a Malaysian case.
- Tuan Y.F. (1980). Rootedness versus Sense of Place. *Landscape*, 24, 3-8.
- Wackernagel, M., & Rees, W. E. (1996). *Our ecological footprint: reducing human impact on the earth*: New Society Pub.
- Yeang, K. (1987). *The tropical verandah city: Some urban design ideas for Kuala Lumpur*: Longman.