

Available online at www.sciencedirect.com



Procedia Social and Behavioral Sciences

Procedia - Social and Behavioral Sciences 50 (2012) 238-253

AcE-Bs 2012 Bangkok ASEAN Conference on Environment-Behaviour Studies, Bangkok, Thailand, 16-18 July 2012

Urban Landscape Factors That Influenced the Character of George Town, Penang Unesco World Heritage Site

Shuhana Shamsuddin^a, Ahmad Bashri Sulaiman^a & Rohayah Che Amat^{b*}

^a Department of Civil Engineering (Built Environment), Razak School of UTM in Engineering & ^bAdvance Technology, Universiti Teknologi Malaysia International Campus Jalan Semarak, 54100 Kuala Lumpur. ^bFaculty of Built Environment, Universiti Teknologi Malaysia (UTM), Skudai 83300 Johor, Malaysia.

Abstract

The increasing intervention from high rise construction and new developments within the historic urban fabric is threatening the existing character and the Outstanding Universal Value of World Heritage Site List. This paper propagates that through the identification of factors that influence the character of the historic urban landscape of George Town world heritage sites, we are able to understand the relationship between the landscape components and its importance to the historic characters of the sites. The methodology of this paper is based on written descriptions and site visual observation. The outcome of this paper reveals the significance of tangible and intangible factors that influence the urban landscape character of the site studied.

© 2012 Published by Elsevier Ltd. Selection and peer-review under responsibility of the Centre for Environment-Behaviour Studies (cE-Bs), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia Open access under CC BY-NC-ND license.

Keywords:Historic urban landscape; character; world heritage site; tangible; tangible factors

1. Introduction

A UNESCO World Heritage Sites (WHS) is a site that includes natural features (forest, mountains, etc.) and man-made elements (monuments, buildings, cities, etc.). The site, which is on the list maintained by UNESCO World Heritage Committee, should represent the Outstanding Universal Value (OUV) of

Corresponding author : Tel : +019-6175557 . fax : +03-61735000 Email address : c.rohayah@yahoo.co.uk

1877-0428 © 2012 Published by Elsevier Ltd. Selection and peer-review under responsibility of the Centre for Environment- Behaviour Studies (cE-Bs). Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia Open access under CC BY-NC-ND license. doi:10.1016/j.sbspro.2012.08.031 common heritage of humanity and country. The values of the site must be universal and outstanding (the best representative and can be acknowledged as general or worldwide). The dilemma facing most of UNESCO WHS is the desire to construct a site to be more acceptable to tourists and global pressures. The processes of transforming the urbanization of WHS give a direct impact on the local identity, visual integrity, its setting and the people who live in these historic cities. The issues on urbanization were also being discussed and raised by delegates in Urban Sector Week 2011 at the World Bank Headquarters, Washington DC. These include urban setting (old and new development pressures); urban context (loss of tradition and continuity); limitation of acceptable changes between conservation areas (of historic cities) and development districts; inconsistency in scientific assessment of conserving urban areas; and the urban values.

The Outstanding Universal Values (OUV) of the sites is entangled with Historic Urban Landscape (HUL). UNESCO with concerning on the difficulties facing by the most heritage cities has organized an international conference in Vienna (Austria) to discuss on the impact of contemporary development and urban landscape heritage significance. The document of this conference is known as Vienna Memorandum, which was an integrated approach linking contemporary architecture, sustainable urban development and landscape integrity based on existing historic patterns, building stocks and site context. In this paper, landscape has been classified and described in cultural terms as a cultural environment that evolves with nature. A cultural landscape is defined as a combination of nature and man-made works (ICOMOS, 2008) by emphasizing on the structural and harmonious interaction between man and their environment.

2. Literature Review

2.1. Historic Urban Landscape (HUL)

The concept of historic urban landscapes contributes to the process of linking the tangible and intangible heritage components and assessment of our understanding of the towns or urban areas (ICOMOS, 2008). In October 2005, at the 15th General Assembly of State Parties to the Convention Concerning the Protection of the World Cultural and Natural Heritage defined Historic Urban Landscapes (HUL) as an ensemble of any group of buildings, structures and open spaces in their natural and ecological context, including archaeological and paleontological sites constituting human settlements in an urban environment over relevant period of time, the cohesion and value of which are recognized from the archaeological, architectural, prehistoric, historic, scientific, aesthetic, socio-cultural or ecological point of view. However, UNESCO (2011) defined the HUL as an urban area with historic layers of cultural and natural values and attributes in the broader context with its geographical setting. The urban context includes site topography, geomorphology, hydrology and natural features, built environment (historic and contemporary), infrastructures, garden and open spaces, land use pattern and spatial organization, perceptions and visual relationships, urban elements and structures, social and cultural practices and values, economic processes and the intangible elements of diversity and identity. The elements of HUL include land uses and patterns, spatial organization, visual relationship, topography and soil, vegetation and all elements of the technical infrastructure including small scale object and details of construction (Vienna Memorandum, 2005). These elements will establish the basic role of the city or urban area or place as an instrument for communal growth and development. The importance of HUL as conservation framework is by understanding the significance of urban world heritage sites and preserving its quality of human environment. A landscape approach in HUL is to identify, conserve, manage and value of historic areas within its' context by considering the setting, social and cultural values, interrelationship of physical forms, spatial organization, connection and natural features. HUL also depicts

cultural activity for human, social and economic development and tools to manage physical and social transformation. These factors will ensure that the contemporary interventions are harmoniously blended with heritage of historic setting. HUL also shall be considered as an integration of elements of architecture, urban element and integrity of inherited landscape.

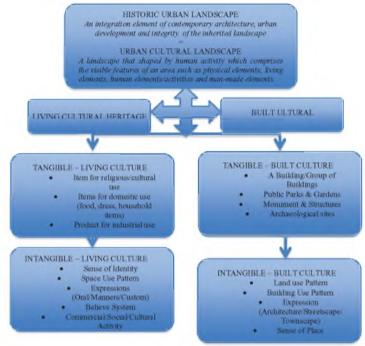


Fig. 1: Historic Urban Landscape Elements; Source: Vienna Memorandum, (2005)

2.2. Landscape and Character

European Landscape Convention (2000) in Article 1 defined landscape as a formal expression of the relationships between the individual or a society with a topographically defined territory, the appearance of place (the result of actions over time), natural and human factors. In this research, landscape is defined as a composition of man-made spaces with its significant characteristics and land features, functioning and evolving to serve for the community (adapted from Jackson, 1986 and Mann 1993). The perceptions from the people turn the space into the concept of landscape (Swanwick, 2002). Landscape is the result of different interaction between components of the environment such as natural (that influence by geology, soils, climate, flora and fauna) and cultural (historical and current impact of land use, settlement, enclosure and other human interventions), which perceived by people.

The definition of landscape character is *a distinct recognizable pattern of elements which consistently occurs in a landscape* (Countryside Agency and Scottish Natural Heritage, 1999). The words relating to landscape character (Shuhana et al., 2011) shall be concluded as follows:

- Character is a distinct, recognizable and consistent pattern of elements in the landscape that makes a landscape different from others.
- Characteristic is the elements or combination elements, which makes a particular contribution to distinctive character of the landscape.
- Elements are individual components, which define the landscape.

- Features are particularly prominent or distinguishable elements.
- Characterisation is the process of identifying areas character, classifying and mapping them and describing their character.

3. Methodology

3.1. Case Study

George Town and Malacca were formally inscribed as a UNESCO World Heritage Site on 7th of July 2008 as "Historic Cities of the Straits of Malacca". George Town was the first British port town which has a unique architectural and cultural townscape without parallel anywhere in east and Southeast Asia (UNESCO, 2008). This heritage site is the oldest British colonial town in South East Asia which represents an early development from British period at the end of 18th C. The heritage site is enclosed by Light Street, Beach Street, Chulia Street and Jalan Kapitan Keling. These streets had defined the main commercial district of the city. The case study areas cover a core zone area of 109.38 hectares. Therefore, the buffer zone covers an area of 150.04 hectares (57.84% of a historic area) which is enclosed by the sea, Jalan Prangin to the southwest corner and Jalan Transfer to the northwest corner.



Fig. 2 . The map of case study, George Town World Heritage Site

3.2. The Method

This paper dealt with the data collection procedures, which covers a literature review of secondary data in the archive department, museum, public library and local authority. A content analysis is done to examine the secondary information such as history records, structure plans, vision and regulation, policies, issues, statistics and trend of development of George Town World Heritage Site. The content analysis is derived from statements, annotations and descriptions that were gathered from government publications (e.g. National Heritage Act, National Urbanization Policy, George Town Management Plan, George Town Local Plan and Special Area Plan), local media articles, UNESCO World Heritage Convention, Charters, English Heritage Trust's articles, related reports, journals and studies of the case study and development proposal from Majlis Perbandaran Pulau Pinang, Think City Sdn. Bhd. (a Special Project Vehicle) established by Khazanah Nasional Berhad to implement and manage the George Town Grants Programme), reports from George Town WHS's Office and Penang Heritage Trust. The supplementary information from internet related to the conservation and legislation of World Heritage Site and case study are also included. Besides, the site visual observations have been adopted as a tool to describe and explain the historic character of the case study. The exercise will define the distinctive historical character of George Town World Heritage Site, identifies the elements of

character and how the history of this place is expressed in its plans and topography, archaeological potential areas and in its architectural and landscape character.

The characterisation of the historic urban landscape is structured with four strands, which are historical character and identity; landscape and open space; heritage and townscape; block pattern and movement. The strands have been adapted from (a) By Design: Urban Design In The Planning System Towards Better Practice (2000), (b) Urban Design Compendium: English Partnerships and The Housing Corporation (2007) and (c) Towards an Urban Renaissance: Urban Task Force (1999).

3.2.1. Historical Character and Identity

The inscription of George Town as UNESCO WHS is based on the statement of Outstanding Universal Value (OUV), which represents three criteria:- (i) to represent exceptional examples of multicultural trading town in East and Southeast Asia - exchanges of Malay, Chinese, Indian and European cultures; (ii) a living testimony to the multicultural heritage and tradition of Asia - the coexistence of both tangible and tangible, in particular the different of religious buildings; and (iii) reflection of cultural elements from Malay Archipelago, India, China and Europe - create a unique architecture, culture and townscape without parallel anywhere in the East and Southeast Asia. George Town, formerly known as Tanjung Penaga was named after Penaga tree (Calophyllum inophyllum). Historically, this native tree grew abundance in the coastal area of George Town. The tree has been extinct. In conjunction of inscription of George Town as UNESCO World Heritage Site, the authority took an initative and planted the trees at Esplanade field in year 2008. This historic commercial town and port city were laid out by Francis Light between Light Street, Beach Street, Malabar Street (be called as Chulia Street) and Pit Street (Jalan Masjid Kapitan Keling). The concept of George Town's development (informal gridiron layout inherited from secondary towns of Roman city's planning) by the British had contributed a significant impact to the formation of urban patterns and transport access (Hassan, 2009). The immigration and influences of Asia and Europe has created a multicultural identity, introduces tangible and intangible heritage with different ethnic groups of community, religious diversity, shop houses and religious buildings.

Historically, the cultural practice and preferences of different ethnic group created an impact toward development of George Town WHS. The siting of buildings and its locations are not clearly demarcated but was centred on certain streets such as European colonial quarters at close to Fort Cornwallis (safety purposes), administrative buildings clustered around St. George's Church at Farquhar Street and Pengkalan Weld; Chinese Town (China Street, Muntri Street, Chulia Street and King Street) surrounded by kongsi temples; muslims or chulias (South Indian Muslim) population clustered at Acheen Street, Pitt Street (Jalan Masjid Kapitan Keling) and Armenian Street; Indian Hindus at Lebuh Queen.



Fig. 3: The plan shows the gridiron system for city's planning and development. A gridiron is for town planning designed system, which started during Ancient Romans. They set out their conquered land into a new "*castrum*". Typically, it started out with center point and established two main roads, *Cardo* and *Decumanus* which served as two main streets, expanding into grid design. In George Town WHS, the area has been established by two main roads, a *Cardo* (North South) which is Weld Quay (Pengkalan Weld) and *Decumanus* (East West) which is the Light Street (Lebuh Light).

3.2.2. Landscape and Open Space

The landscape expresses the significance of the history and depicts the intangible aspects of the urban's cultural landscape. The most dominant landscape elements in George Town are the water bodies where the city is located by the sea, i.e. the Straits of Malacca. There are many matured trees can be seen at Jalan Masjid Kapitan Keling, Esplanade and Padang Kota Lama. The trees planted at Esplanade and Padang Kota portrays a unique character of the place and creates a green pocket field within the area. Trancik (1986) stated that the trees and plants can provide the physical identity and act as a boundary of the place.

The Padang and Esplanade are the significant historic elements that portray the landscape character of George Town WHS. Padang Kota Lama and Esplanade are the historical colonial open spaces in George Town. The "padang" served as a football field, cricket and other sports, while the Esplanade became an area for evening strolling during the colonial era (Shuhana, 2011; Khoo and Wade, 2003; Gardner, Sidisunthom and Lai, 2011) and associated with the Fort Cornwallis, which is adjacent to the colonial government buildings (Shuhana, 2011). Burke and Ewan (1999) stated that open space contributes the quality of life to the people. The activities occur at Padang Kota and Esplanade significantly contributes to the visual and sensory experience of George Town's townscape (Shuhana, 2011). These historical areas act as tourist attractions, recreational areas, public ceremonial field, landmarks, nodes and local gathering areas. The Speakers' Square (Dataran Pidato) was established by local authority at the corner of Esplanade/Padang Kota on 4th May 2010. This is the first open air public Speakers' Square in Malaysia. The public is allowed to debate and discuss on any subject. The activities restricted at this area only.



Fig. 4: The existing green spaces in George Town World Heritage Site; Source: George Town Special Area Plan, (2011).



Fig. 5. Small scale elements or designed ornaments are important components in the town. The decoration makes this historic city becomes more attractive and adds value to the character of the place. The moderate designs of these elements blend harmoniously with the historic urban landscape of George Town WHS.

3.2.3. Heritage and Townscape

George Town was awarded the WHS based on its cultural townscape comprising of old colonial buildings within the city (George Town has the highest number of pre-war buildings and shophouses compared to any other urban centres in Southeast Asia). The buildings had functioned as a multi ethnic place for cultural and trading exchange between East and West along the Malacca Straits for the past 500 years. Lynch (1960) stated that people's reaction to the urban environment is the result of their perception and memory of the particular city. Townscape refers to the totality of the material/tangible cultural heritage site and elements of urban settlement (Shuhana, 2011). Historically, George Town was built on a swampy land and became a British colony in 1867 (Majlis Perbandaran Pulau Pinang, 2011). The British administration was introduced with the setting up of The Public Department Works. The area occupied with canalised streams and rivers, hospitals, police stations, establishment of multicultural architectural forms, reclamation exercise, and roads, ports where its multicultural trading area contributed towards the cultural tangible and intangible heritage of this historic city.



Fig. 6 : Propham Map 1798 (left) shows the early development of George Town; Source : Muzium Negara Malaysia

The map depicted the population segregation in George Town such as Light Street occupied by merchants from East India Company; inner trading area for variety ethnic backgrounds; Eurasian from Kedah settled at Lebuh Bishop & Lebuh Gereja and Indians occupying Lebuh Gereja. Penang Master Plan (1964) by A.M.Munro (right) shows the establishment of zoning system with new development on high density population growth. "As a rough guide, with central area gross densities of 100-120 persons per acre and minimum ancillary standards, housing development would require to be in the form of:- 10% houses (at 60 habitable rooms per acre) and 90% flats (at 150 habitable rooms per acre)-Source : Munro Master Plan , page 179". This plan was never implemented and became guidelines for the Penang Master plan, 1970.

3.2.4. Block Pattern and Movement

Khoo (1997) identified that the character of the case study was influenced by two aspects: (a) Rent Act Control (1948) that was applied to all pre-war buildings which provided cheap housing and commercial space for the locals. The tenants carried out the traditional trading activities, religious tradition and lifestyle in the city within the prime commercial area; (b) The decline of port activities affected the entreport trade activities which was the backbone of Penang's commercial centre. Each trade was embodied in specific cultural form and portrays the segregation of streets' activities and character where the Eurasian settled in Bishop and Church Street, the Chinese in China Street and the Indian Muslims in Chulia Street.

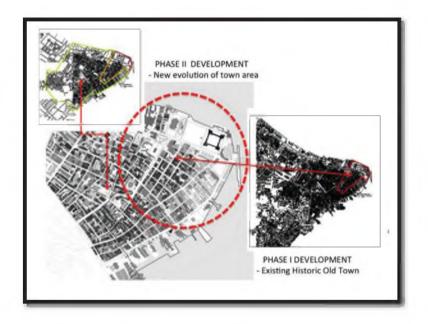


Fig. 7: The Evolution of town area, George Town World Heritage Site. This place has been properly planned and designed from beginning of its development. The 'divide and rule' concept had enabled the British government to rule George Town without facing the racial issues and immigrants problems (Hassan, 2009); Source : George Town Special Area Plan (2011) and Universiti Sains Malaysia.

Table 8: The chronological development of George Town World Heritage Site

Year	Pattern and Movement Description		
1780-1790	Development centered at George Town's seafront - International port for traders all over the world.		
	Fort Cornwallis was built.		
	Earliest streets – Light Street, Beach Street & Pit Street		
	Main transportation was waterways.		
1791-1800	Lebuh Acheh known as Perkampungan Melayu Lebuh Acheh was built. The settlements for malay traders from Sumatera and Muslim immigration from Arab & India. The earliest Malay settlement in Penang (Khoo, 1997)		
1801-1810	1 st Malay mosque, Acheen Street Mosque (masjid Melayu Lebuh Acheh) with malay settlement, shops, madrasah (Islamic school) and trading office.		
	Population growth increased to 10,000 with 300 was European.		
	Town development concept, Gridiron.		
	Settlements, shops and shophouses were built along King Street		
	Development of ground/land transportation - streets/ roads were built		
1811-1820	The development was slow – additional shops and private buildings along Lebuh King, Lebuh Light and Lebuh Acheh.		
	Acheen Mosque and Fort Cornwallis as nodes, central point, landmark of the town – the most significant elements in the town.		
1821-1830	Depicted clearly interesting geometrical development design.		
	Development of roads/streets toward the main roads.		
1831-1840	No significant development		
	The development spreading outside the town center (George Town)		
1841-1850	The development expended towards southern of George Town – grid iron system/concept development		
	New roads built – Lebuh Pantai, Lebuh Chulia, Lebuh Pinang		
1851-1890	Urban expansion towards south of George Town – displayed grid iron concept		
	Main roads as backbone of the town which are supported by secondary roads/streets – Lebuh Pantai, Lebuh Chulia and Lebuh Pinang		
	Building of government/administrative office and Esplanades/Padang		
1901-1990's	The development continued – parallel to gridiron concept.		
	New buildings were built at Lebuh Campbell, Lebuh Cintra, Lebuh Caravon, Lebuh Kimberly, Jalan Kuala Kangsar, Jalan Tali Pintal.		
	Kapitan Keling Mosque was built by Indian muslim community – became significant features		
	Uniformity in design and dense development along the roads/streets.		
	Irregular form of isolated buildings between the spaces within the main roads.		
	Water edge as important element during this era.		
	Urban expansion – expanded towards Ayer Itam		
	Good road system and transportation system growth rapidly.		
	Dewan Sri Pinang (1972), KOMTAR (1974)-became a new node with government office, shopping centre and also landmark, Shangri La Hotel (1984), other commercial buildings/areas.		

2000-Current	The abolishment of Rent Act Control – people start to move out from the town and left the buildings dilapidated - 2000
	The conservation zones reduced in size from 193 hectare core heritage zone to 99 hectares; 249 hectare buffer zone reduced to 89 hectares in year 2005.
	Inscribed as UNESCO World Heritage Site (WHS) in year 2008.
	George Town risks losing its place on WHS List due to four projects contravened height restriction rules imposed by UNESCO – in year 2008.
	Setting up of World Heritage Office – in year 2009.

4. Result and Discussion

4.1. The Elements That Influence the Interpretation and Presentation of Historic Urban Landscape

4.1.1. Tangible Elements

4.1.1.1. Architecture

The case study has more than 4,000 old buildings including shops and terrace houses, bungalows, villas, government offices, commercial buildings, churches, mosques, Chinese and Hindu temples, godowns and offices, water villages, residential blocks and monuments. These heritage buildings have been protected under major federal laws. Shuhana (2011) stated that buildings are very prominent in the physical environment and important to the identity of towns and cities.

Table 9: The categories of buildings and sites in George Town WHS

Category	Number of Buildings & Sites	Notes
Category 1	93	Monuments of Exceptional interest
		Buildings and monuments declared as ancient and gazette d formerly under the Antiquities Act 1976 (National Heritage Act, 2005)
		Buildings registered under National heritage Act (2005) as National Heritage
		The buildings and sites are located at Core Zone (69 out of 93 numbers)
Category II	4048	The buildings of special interest that warrant very effort being made to preserve them
		The most prominent category which makes up the majority of buildings in George Town WHS. Equal distribution within core zone and buffer zone.
Infill Development	585	An existing empty land or temporary structure where compatible re-development is permitted.
		The infill sites have been identified which corresponds to 14.49 hectare of land areas, located mainly at waterfront between Beach Street and Weld Quay.
Replacement	713	The existing buildings without any significant value where sensitive re- development is permitted.
TOTAL	5439	



Fig 10 : George Town Heritage Shophouses - the photos show the sample of historical shophouses style with distinctive character, architectural and finishing features that represent different periods of development. The buildings style laid at George Town WHS are :- (i) Early Penang; (ii) Southern Chinese Eclectic; (iii) Straits Eclectic; (iv) Art Deco; (v) Modernism; (vi) Post Modernism; (vii) Chinese Temple; (viii) Mosque; (ix) Godown/Utilitarian; (x) Wooden Structures /Old Architectural Styles; and (xi) Others (Non-Architectural Style). Since 1969, the water villages' residents *(right photos)*, have been given permission by the State Government, a "Temporary Occupation License" to occupy these water villages (Majlis Perbandaran Pulau Pinang, 2011). A Historical George Town's waterfront (right photos), clan jetties (Weld Quay) have physically survived from threats of urbanization and development, but their social-cultural composition has been transformed and will eventually disappear. These historical clan jetties have become a low income urban community settlements rather than a historic waterfront legacy lineage (clan) identity and communal site of floating dwellings (water villages). Currently, the clan jetties become living historic tourist attraction and homestay.

4.1.1.2. Skyline

Skyline is derived from the viewpoint of cultural landscape (Sirisrisak, 2007) where Collins Cobuild English Dictionary defined it as *"the line or shape that is formed where the sky meets buildings or lands"*. The height control is important to ensure the visual legibility of the important landmarks and continuity of the roofscape. The skyline is the line created by different outlines of man-made structures and can be viewed from far (Shuhana, 2011). In order to tackle the issue of safeguarding the historic skyline, UNESCO Regional Conference of World Heritage List (2007) states that maintaining the current differential height regulations for new constructions within and around the city is important in order to conserve or preserve the unique characteristics of the area. The hills and straits had become topographical features that depict the strong character of George Town.



Fig.11: The terracotta roofscape is an important element that represents historic urban landscape of George Town. The roofscape is attached to the temples and shophouses with inner courtyards, gables, hip-roofed bungalows minarets and domes.

4.1.1.3. Urban Spaces/Circulation Patterns

Nasar (1979) in Shuhana (2011) stated that the streets and its streetscape elements are important in defining the character of urban areas. The qualities of urban space convey a significant impact to the townscape and influencing the identity of the place. Historically, there are eight zones during colonial era of development planning: (1) British Administration and Settlements; (2) Indian Hindu Settlement; (3) Fort and Financial Area; (4) Indian Muslim Settlement; (5) Malay Settlement; (6) Chinese Settlement (East); (7) Chinese Settlement (North); (8) Commercial Area and Market Place (Hassan, 2009). The significant historic buildings with unique architecture are the most valued assets for George Town WHS. These rows of building enclosed the areas and create the urban spaces which divided are into few significant streets/spaces and the names of the streets names depict the historical significance of the area. Each of the streets portrays the existence of community with different historical background such as Acheh Street, Farquhar Street, Armenian Street and Pitt Street (Jalan Masjid Kapitan Keling) for Muslim/Indian Muslim Community, Bishop Street, Church Street and Buckingham Street convey Christianity, Little India denotes for India community and China Street replication of Chinese community.

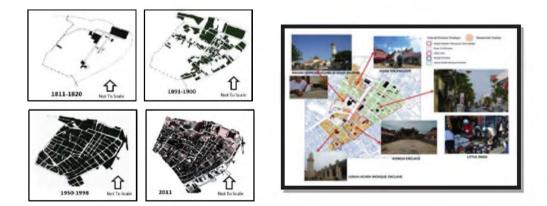


Fig. 12: Transformation of George Town World Heritage Site 1811-2011 (left maps). The first public building acquired by East India Company in 1803, known as Gedung Acheh located at the corner of Beach and Acheen Street. The buildings in George Town were originally built by bricks and the first generation was modest in stature and generally similar to that found in the Straits Settlements. The distribution of cultural and residential enclaves on the right map shows the establishment of historical Malay town and Acheen Street Mosque with the influence and wealth of Achenese Prince, Tengku Syed Hussin. This area became the first reference of a malay township that existed in Penang. Jalan Masjid Kapitan Keling (formerly known as Pitt Street) was reserved for religious zones. The street accommodates St. George's Church (1818); the Goddess of Mercy Temple (1800); Kapitan Keling Mosque (1800); the Khoo Kongsi (1851); the Acheen Mosque (1808) and the Mariamman Temple (1833). The Kongsi enclave begun with Cheah Kongsi (1828) and then the Yeoh, the Khoo, the Lim and the Tan moved to this area, which formed the "Five Great Lineage".; Source: George Town Special Area Plan, (2011).

4.1.1.4. View/Scenery

The townscape qualities of George Town World Heritage Sites and its splendid setting can be appreciated from a variety of levels and distances, to panoramas and local vistas. The scenery is an important element of the Historic Urban Landscape. This element (views and scenery) represents the history and geographical background of George Town. Historically, George Town WHS has a significant sea-facing orientation waterfront but has been off-limit to the public with development of a private hotel, marina and buildings where the visual and physical access is blocked. The accessible water edges for the public are only at Esplanade/Padang Kota, Ferry Terminal and Clan jetties. The waterfront has typical port character with warehouses, godown, retail and trading buildings associated with water or port activities. Fort Cornwallis, the historical fort located nearby Esplanade (an open field, 'padang') is the most important landmark in the city. The area provides an open view with splendid scenery to the sea.



Fig. 13: The map (left) shows the important landmarks (historical buildings structures and minarets) and nodes which become the way finding elements for George Town World Heritage Site. The right map illustrates the street level views of the case study that frame the important vistas and focal points.



Fig. 14: Sea View – the significant element that contributes to the character of George Town's townscape. The hills and the Straits remains the strong topographical element that portrays the identity of George Town. Long Vistas – the prominent landmark of George Town (outside of the case study), which becomes a node of the area (left). Local Vista – Acheen Street Mosque, the significant religious buildings and elements in the area (right).

4.1.2. Intangible Elements

George Town as a trading port has brought a large number of traders from the northern region of Sumatera, Malay Peninsula, India, China and Arab. This phenomenon has created a multicultural dimension that unites the people from various cultural backgrounds (Majlis Perbandaran Pulau Pinang, 2011). Intermarriage between immigrants and local people has resulted in a cultural hybrid (i.e. Jawi Peranakan, Baba Nyonya, and Indian Muslim), multicultural architectural design, interior furnishing, dress, foods and other elements that reflect the lifestyle of local people.

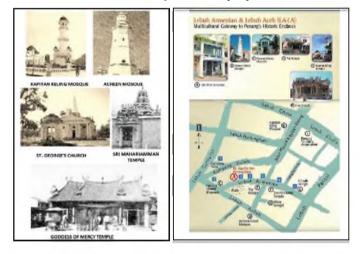


Fig.15. Street of Harmony - differences in ethnicity where no clear boundaries are demarcated on the streets and intersections.



Fig. 16. Economic nodes refer to the locations that perform a function of economic significance with cultural differences. Campbell Market Street was famous for shopping during the 50s till early 70s for selling household items. Currently, Chowrasta's morning market is also a popular place in George Town. The market starts at 6.30 am till 12.00pm every day.

5. Conclusion

The significance of the world heritage site lies in its ability to retain the authenticity of its heritage value and the uniqueness of its townscape character. As the landscape elements are significant aspects that constitute the townscape, it is imperative that the landscape elements be protected in order to preserve the character of the area. The protection of the urban landscape elements will help to sustain the character of the UNESCO's World Heritage Sites. This is done by identifying the heritage physical elements that are created by human interactions with their environment and also helps to define the character of a community (local) as well as reflecting its past. The townscape identity and character have a double dimension which is: (a) personal (as individual level) of which the characteristic is inherent to the individual's perception, representation or interpretation of space; (b) social, where the spaces are shared by individuals, groups, family and community. The meaning of the place is also decided by the community. Landscape is seldom present in a practical management planning system especially in Malaysia. In order to have a more effective conservation of historic towns and areas, historic urban landscape should become an integral part of the coherent policies of economic and social development and of urban and regional planning actions at every level. ICOMOS (1987) stated that the qualities of the historic character of the town or urban area and all those tangible and intangible elements which express the character should be preserved in order to sustain the value of the world heritage sites by its people.

Acknowledgements

We would like to thank Universiti Teknologi Malaysia for funding this research.

References

Brunetta, G and Voghera, A (2008). Evaluating landscape For Shared Values : Tools, Principles & Methods. *Landscape Research* Vol 33 No 1. 71-87, February 2008

- Burke, J and Ewan, J. (1999). Sonoran Preserve Master Plan For The Phoenix Sonoran Dessert. City of Phoenix Parks, Recreational Library Department : Arizona
- Department of Environmental (2000). By Design : Urban Design In Planning Systems Towards Better Practice. Dept. of Environmental, Transport & Region : London
- Countryside Agency & Scottish Natural heritage, Interim landscape Character Assessment Guidance (1999)
- Dyson-Bruce, L. (2003). Historic Landscape Assessment : The East of England Experience paper Product to GIS Delivery. *Journal* of GIS In Archaeology Volume 1 (April 2003) ESRI : New York.
- European Landscape Convention (2000). Explanatory Report ETS No :176. Council of Europe : Italy
- Gardner, S, Sidisunthorn, P & May, E. L (2011). The Heritage trees of Penang. Areca Books : Penang.
- Garnham, H.L. (1985). Maintaining The Spirit of Place : A Process For The Preservation Of Town Character. Arizona : PDA Publishers
- Hassan, A.S (2009). The British Colonial Divide and Rule Concept In Inner City Of George Town, Penang. Its Influence To Irregular Layout Of The Transport Access. *International Journal of Transportation*. Springer Science & Business Media LLC. Vol 36, No. 3, pp 309-324.
- Jackson, J.B. (1986). The Vernacular Landscape in Penny-Rowsell, E.C. and Lowenthal, D. Landscape Meaning and Values. Allen and Unwin : London. Pg. 65-79.
- ICOMOS (2008). ICOMOS' Observations On The Information Document by the World Heritage Centre on the Development of a revised UNESCO Recommendation on The Conservation of Historic Urban Landscapes, February 2008 ICOMOS, Paris.
- Jokiletho, J (2010). Notes On Definition And Safeguarding of HUL. Cities & Times 4 (3) : 4
- Khoo, S.N. (1993). Streets of George Town, Penang. Janus Print & Resources : Penang
- Khoo, S.N. & Wade, M (2003). Penang : Postcard Collection 1899 -1933s. Janus Print & Resources : Penang
- Mann, W.A. (1993). Landscape Architecture : An Illustrated History In Timelines, Site Plans & Biography. New York : John Wiley and Sons, Inc
- Majlis Perbandaran Pulau Pinang (2011). George Town Special Area Plan. MPPP : Penang
- Riksantikvaren (2010). Sustainable Historic Towns : A Handbook about DIVE Urban Heritage Analysis. Norway : Postboks
- Rippon, S (2011). Tool Kit : A Methodology For Assessing Historic Landscape Character Our Wetland Heritage : An Intergrated Approach Towards Managing Coastal Landscape.
- Shuhana, S (2011). Townscape Revisited : Unravelling The Character of Historic Townscape In Malaysia. Johor : Penerbit UTM Press
- Sirisrisak, T & Akagawa, N (2007). Cultural Landscape In The World Heritage List : Understanding on The Gap and categorization. City & Time 2(3) : 2
- Swanwick, C and Land Use Consultants. (2002). Landscape Character Assessment. Guidance For England & Scotland. Cheltenham & Edinburgh : The Countryside Agency & Scottish Natural Heritage
- The Secretary of The Interior's : Guidelines For The Treatment of Cultural Landscapes (1995). National Park Service, US Department of Interior. Federal Register Vol. 60 No 133
- The World Heritage Centre, The State parties of World Heritage Convention, The World Heritage Committee, The Advisory Meetings at Jerusalem (June 2006), Saint Petersburg, Russian federation (January 2007), Olinda Brazil (November 2007), Unesco Headquaters (September 2006 & November 2008) on Historic Urban Landscape Initiative (HUL).

United Kingdom's Task Force (1999). Towards An Urban Renaissance : Urban Task Force. United Kingdom's Task Force : London Urban Design Compendium (2007). Urban Design Principles. 2nd Edition. English Partnerships : London

- Vienna Memorandum (2005). UNESCO, Vienna Memorandum on World Heritage & Contemporary Architecture Managing Historic Urban Landscape, World Heritage Centre Paris, 20th May 2005.
- World Heritage Centre (2003). Cultural Landscapes : The Challenges of Conservation Paris, Unesco World Heritage Paper 7
 World Heritage Centre (2003). Operational Guidelines For The Implementation of The World Heritage Convention Revised edition 2005, Paris (WHC 05/2, 2 February 2005).