

Historic Streetscape Characterization: Exploring the Evolution of Street in the Malay Royal Town

Wan Norisma Wan Ismail, Nor Haslina Ja'afar, Nor Zalina Harun

Abstract: *Towns have historically been organized around their streets. Streets is the city's major public forum and its pattern is a major element of urban design. Streets in royal town often radiated from the nucleus of the town, which was usually the seat of political power or places of worship such as mosque or some structure of commercial or cultural significance such as the royal palace. The aim of this paper is to study the past and the present urban environment through a review of its traditional street within a historic royal town of Kuala Kangsar, Perak. It highlights the role of streets from the pre-colonial era to the present state. It also traces the transformation of physical elements which was influenced by the street pattern during the period of rapid urbanization as well as during colonial times in this heritage district. The study concludes that the role of traditional street in the Malay royal town that is rich with an intriguing mix of architectural styles is likely to have a significant impact on the overall appeal of a town. The morphological study shows that the evolution within the urban frame is influenced by the functions of the town and the geographical setting such as rivers. While the physical transformation reveals that street pattern and movement, buildings and architectural features, landscape character and natural elements and activities around the streets of royal town are associated with the character of towns built by the colonial rulers which manifests historic streetscapes with distinctive identities and characters. The outcome of this paper could be innovatively applied to contemporary municipalities where present-day planners should learn from urban heritage which greatly emphasizes the street as a public space.*

Index Terms: character, royal, street, town

I. INTRODUCTION

People observe the town while moving through path, and along these paths the other environmental elements are arranged and related [1]. Street is one example of path. Path is one of the physical components that are classified under five main elements of the city images namely paths, edges, districts, nodes and landmarks. Streets record and determine the history of city form, more than any other element of the urban infrastructure [2].

Revised Manuscript Received on April 07, 2019.

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For centuries streets have contributed to defining social, cultural, economic and political functions of a town. Streets in traditional town are the best example in determining the form and function of a town and its community because streets are the most distinctive element to mark the transformation of a place, from a village to a town, from a town to a city or from an old town to a historic royal heritage town. When Athens, as one of the oldest cities in the world, was chosen to be the capital of Greece in 1832, city planning related to street design is the most important drivers of its transformation into a capital city. Street character which involves street forms, length and width were designed in a way that the main symbol of Athens was linked to the Royal Palace. The Royal Palace stand at the peak of a triangle as a symbolic merger of the geometric apex and the apex of state power. From the balcony of the palace, the king was able to see the entire city scene under his colony [3]. This is an ordinary scenario for most royal capital around the world and Kuala Kangsar is no exception. The royal palace and its strategic location are considered one of the most significant elements of the royal town. The interaction of local community with the past and the present, with all physical elements surrounding it produces an urban dynamism and creates an identity of place. Its historic urban environment is a relic of past events that encompasses not only the physical urban fabric, but an understanding of the spatial morphology and social dimension.

Mehta stated that in the infrastructure of a town, physical element of the street is the most essential element that forms the history and civilization of a place [4]. Therefore, this paper aims to review the past and the present urban environment of a traditional street within a historic royal town of Kuala Kangsar, Perak. It highlights the role of streets from the ancient era to the present state. It also traces the transformation of physical elements which was influenced by the street pattern during the period of rapid urbanization as well as during colonial times in this heritage district. Physical elemental aspects have been selected as the scope of the study because based on Ja'afar [5], Bashri & Shuhana [6] Shuhana [7], physical elements have a significant impact on the character of the streets as well as creating sense of place. Thus, the scope of the study will review the street character of Kuala Kangsar from the perspective of the significant physical components namely building, landscape and street pattern.



II. LITERATURE REVIEW – THE MALAY ROYAL TOWNS IN MALAYSIA

Malay Royal Towns in Malaysia - Royal towns are the cities or towns where the official residences of the rulers are located. The concept of royal town is a unique identity inherited from the previous Malay sultanates that used to be established across the Malay Archipelago. A royal town is defined as a town or city that has high value of historical and cultural significance. It shows strong relationship between the growth of the community and the development of the urban landscape, especially in terms of the built elements. The identity of a royal town is based on the presence of old palaces and royal administrative districts, which are the key aspects that form the identity of the town [8] [9]. Nine of the states of Malaysia are constitutionally headed by traditional Malay rulers while the *Yang Di-Pertuan Agong* is the monarch and head of state of Malaysia. It was during the British administration of Malaya that the royal capitals was established. Selangor, Perak, Negeri Sembilan and Pahang had their British advisors in the Federated Malay States. This is when the royal towns were established separated from the British government administration so that the Malay ruler could have their own town as a symbol of their recognition of the Malay ruler with regards to Islam and Malay customs. The royal towns were Kuala Kangsar in Perak, Jugra in Selangor, Seri Menanti in Negeri Sembilan dan Pekan in Pahang. While the royal towns in the Unfederated Malay States are Kuala Perlis in Perlis, Alor Setar in Kedah, Pasir Pelangi in Johor, Kuala Terengganu in Terengganu and Kota Bharu in Kelantan. All nine of these royal town still exist despite several states namely Perlis, Kedah, Selangor and Johor have moved from the existing royal town to a new administrative town of Arau, Anak Bukit, Klang and Muar [10].

Kuala Kangsar as the Royal Town of Perak - Royal town is very significant with the history of the sultanate and the lineage of his descendants. We cannot deny the significant role of the sultans who are the main factor in the existence of these royal capitals in Malaysia including Perak itself. Perak is one of the 13 states of the Federation of Malaysia. It is the second largest state in peninsular West Malaysia. Perak in Malay means 'silver'. Ironically, the 'silver state' is renowned for tin. The Arabic honorific, Darul Ridzuan stands for the *Abode of Grace* [12]. The glorious point of Perak's history began after the establishment of a sultanate system. Historically, the Sultanate of Perak was concentrated on the Perak River coast, in the district of Kuala Kangsar. A variety of folklore verbally narrates the founding of the Perak government. Kuala Kangsar is one of the nine districts in the State of Perak. According to hereditary legend, the name Kuala Kangsar was derived from the Kangsar tree which grows along the Kangsar River banks. Other legendary sources narrated that explorers had called the district *Kuala Kurang Sa*, short for *Kuala Kurang Seratus* (one short of a hundred) as 99 tributaries flow into the Perak river [10]. Qualla Kungsa (Kuala Kangsar) as written by McNair in his book *Perak and the Malays* in 1878, which stands on the noble Perak river, is almost unrivalled in the peninsula for its loveliness and the charm

of its surroundings. It is the seat of the Sultan and ranks high as a Malay educational center [11]. Since no government departments or special bodies have official records documenting the exact date of Kuala Kangsar town gazette as the Royal Capital of Perak, therefore there are contradiction over that date in some writings. Samsudin N.A et al. [8] mentioned that the overall idea of what is a 'royal town' has not clearly been recorded and its existence in Malaysian town was not so much promoted and unclearly defined locally. According to Lubis et al. [12], under the fourth Perak British Resident Hugh Low, Kuala Kangsar was made to be the royal town of Perak in 1877. While Selamat & Othman [10] findings shows that Kuala Kangsar was declared as a royal town by Sultan Idris Shah I in 1887.

The idea behind a royal town was to concentrate the Perak royals in one place so that the colonial rulers could help an eye on them. Royal town are where the official residences of the state rulers are situated although in some states the royal town is different from the administrative capital. Since ancient times, the seat of Perak Sultan moved with the Sultan wherever he might choose to live along the Perak river. It is not surprising why the royal palace (and majority of other royal towns) are located on the edge of the Perak River and stood magnificently at the peak of Bukit Chandan, the hierarchy of the District of Kuala Kangsar. As this study focuses on physical aspects, the aspects of building, landscapes and street pattern can be seen in the history of the Perak Sultanate's history, such as royal palaces, royal mosques, royal museums, carvings, handicrafts, parks, and special paths to the palace can still be seen but in a different environment as a result of physical changes that occur in parallel with current developments. It is thus evident that the remains of old historical heritage have a close relationship with human civilization, tradition, culture and the development of certain geographical areas. The style of administration of the constitutional monarchy system from ancient times to this day has proven to have a clear impact on the social, physical and economic aspects of the Perak people.

III. THE ROLE OF STREET AS URBAN PUBLIC SPACE: JALAN LAKSAMANA, JALAN SHAHBANDAR AND JALAN ISTANA, KUALA KANGSAR PERAK

There are several main streets around Kuala Kangsar town. These include Jalan Taiping (Protocol Road), Jalan Tun Razak, Jalan Chulan Road, Jalan Kangsar, Jalan Daeng Selili, Jalan Laksamana, Jalan Shahbandar, Jalan Istana (Special Road) and many more. Technically, these streets are considered as main streets and collector streets based on the width of the street which are 66 feet and 50 feet (Figure 1.0) There is a significant difference between road and street. A street is different form a road and therefore must have a spatial atmosphere appropriate to its function and perception of the community [13]. According to Ja'afar [5], street focuses on pedestrians through slower user movements. It is usually a public way which have buildings on either side.

Whereas, road refers to engineering applications to solve high traffic flow problems. It is more focused on the needs of motor vehicles.

As noted by UNHabitat [3], the first rule is to ‘think of streets as public space’. Once streets are recognized as public spaces, they can be planned and designed to serve communities and continue to ease mobility to enhance economic and social engagement. Hence based on this theory, Jalan Laksamana, Jalan Shahbandar (better known as ‘Medan Lembah’- Zone A) and Jalan Istana (Zone B) has been chosen as the scope of the study in view of its location and its strategic role as a public arena. Urban renewal in the ‘Medan Lembah’ area emphasizes streets as the fabric soul of social and urban life. Various categories of interesting and historic buildings and royal landscapes located along these streets making it an intriguing domestic and foreign attraction while enjoying the view of the Perak River which is parallel to the pedestrian path. With this, streets are recognized as public spaces that reflects its identity and character.

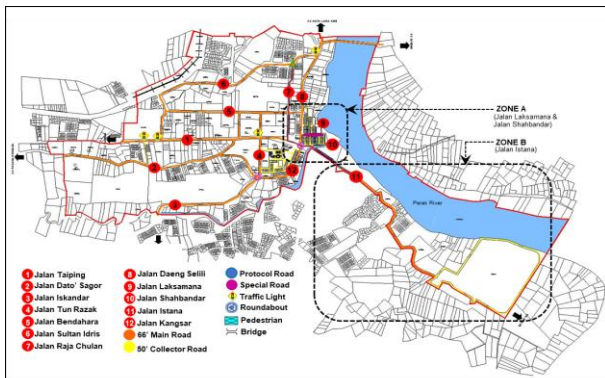


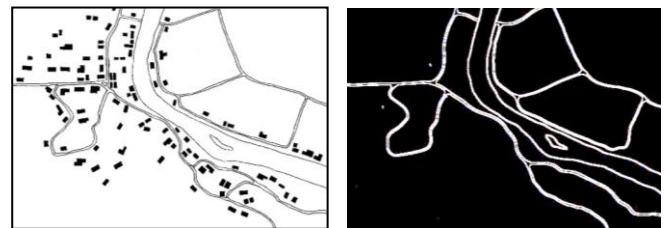
Fig. 1 Plan of Kuala Kangsar town. Zone A and B indicate the scope of study involving Jalan Laksamana, Jalan Shahbandar dan Jalan Istana focusing on street as public spaces (Source: Kuala Kangsar Municipal Council)

IV. MORPHOLOGICAL STUDY: THE EVOLUTION OF URBAN SETTING

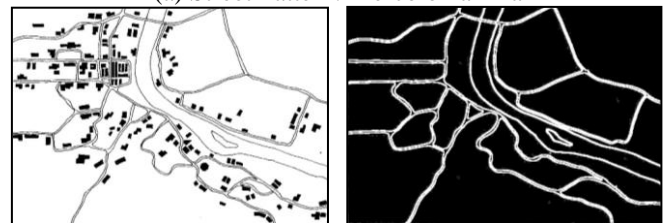
The knowledge of the history of the royal town helps in understanding its historic streetscape characters and gives meaning to the townscape. The art of relationship that forms the townscape is the result of the accumulation of buildings, streets and other physical elements from different periods; from the early beginnings on the town until present time. It is important to study the morphological form of the town to understand its origins, growth and function that shape the town as well as establishing its identity through its spatial pattern [13]. Land uses, building structures, plot pattern and street pattern are four important elements in morphological study by Carmona et al. [14]. In this study, morphology analysis shown in the solid and void and street pattern map is a form, shape, plan, structure and functions which the fabric has evolved over time.

Solid and void map and a street pattern map of the Kuala Kangsar town (Figure 2.0) was developed according to three phases of period namely pre-colonial, the colonial, and then the post-colonial periods based on historical data such as old maps, old photographs and other archival records from

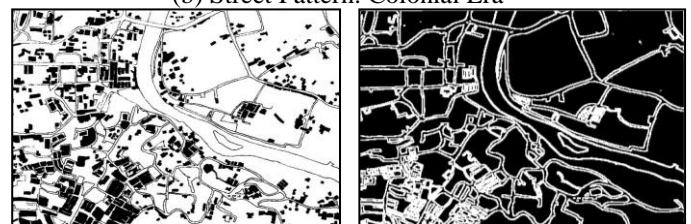
various sources. Looking at the pre-clonial period, the character of the town is much influenced by the functions of the town as the Royal capital of Perak and the geographical setting. The existence of the Perak River played a vital role in shaping the town and its streetscape character. Old town centres along Jalan Laksamana and Jalan Shahbandar are located nearer to the river for easy access since the river is the main transportation route during at that time. Hence, this accounted for the random pattern, irregularities and curving nature of the town form during the pre-colonial period. During colonial period, the town size began to spread in an irregular manner.



(a) Solid and Void: Pre-colonial Era
(a) Street Pattern: Pre-colonial Era



(b) Solid and Void: Colonial Era
(b) Street Pattern: Colonial Era



(c) Solid and Void: Post-colonial Era
(c) Street Pattern: Post-colonial Era

Fig. 2 The urban fabric showing solid and void and street pattern network of Kuala Kangsar town is much influenced by the river configuration

The solid and void analysis displays a loose built form and scattered development emerged in between the streets. Structures are more concentrated in the south of the river where the town nucleus and elements of nodes, landmarks and main activities are located. While the morphological map of the street pattern shows that streets were constructed parallel to the river and then spread perpendicular to the main street. The town will spread following the grids of the earlier street thus creating many cross junctions. The post-colonial periods witnessed a vast development of the town where the urban pattern began to take a more defined planning and shape. Referring to solid and void, the town was divided into two by the Perak River however, both are connected by the Sultan Abdul Jalil Bridge. While street

pattern was more defined with the main road (protocol road) becoming the major spine with minor street branching from it. The street pattern is also influenced by the existence of various categories of architecturally significant heritage buildings having distinct quality surrounding the town creating a series of prominent linkages. This resulted in many interesting public arena and views being created in the streetscape.

V. DISCUSSION - PHYSICAL TRANSFORMATION INFLUENCED BY THE STREET PATTERN

A. Street Pattern

Street pattern are the most essential elements in forming an urban image [15] while street network is the main determinant of movement pattern and flows [13]. Streets and the streetscape are important in defining the character of urban areas because people in urban areas live on streets and regularly pass through them in everyday life. Therefore, a sense of place can be achieved through good street design by perceiving the spatial form which are defined by the frontages as a positive form [16]. The irregular street pattern of Kuala Kangsar (Figure 2.0) produces interesting spaces between buildings and add a sense of mystery to the overall heritage townscape. This irregular layout produces more interesting pattern because of the variety offered while the various sizes of streets have influenced the pattern of urban form because they created on the spaces between buildings [13]. Figure 3.0 and 4.0 basically indicate that structure of the town which derived from the street pattern of Zone A and B contributes significantly to the identity of the royal town. Priority sequences for types of movement patterns in public spaces within the study area are preceded by pedestrians, motorcyclists, private vehicles and lastly public transport users. In this study, the movement pattern on the street permeability is related to the quality of connectivity and its linkages.

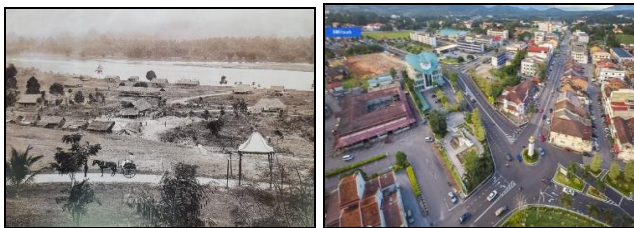


Fig. 3 There are many significant changes in the context of street pattern from 1897 (left) around the main street of Kuala Kangsar town in line with the present urban development (Source: Lubis et al. 2010)

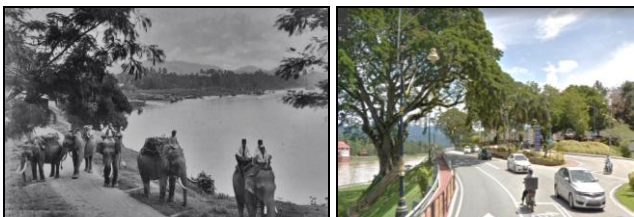


Fig. 4 Changes to the street pattern network is not significantly different except for the modern medium of transport and basic infrastructure facilities that are complete today (Source: Lubis et al. 2010 and author)

B. Buildings and Architectural Features

Buildings are the most dominant element that make up the townscape and have a significant role in influencing the town and its character [13]. Buildings and streets are two essential elements that have a significant impact on the image of a town and these buildings affected the street character through its appearance and function [5] [17] [18]. Physical form and appearance are the main characteristics of the physical environment especially buildings which are distinctive and easily recalled [19]. When the location of the building is related to major streets, among the attributes relating to physical form of a building are size, height, age, shape, color, texture, skyline, surface, design, material, condition, façade, signs, openness, enclosure and territorial definition [13]. Due to the colorful development from the Perak Sultanate and the colonial system, the architecture of the buildings reflects the historical aspects of the colonial and post-colonial era. Royal palace precedes the top list of factors contributing to the physical character of a royal town.

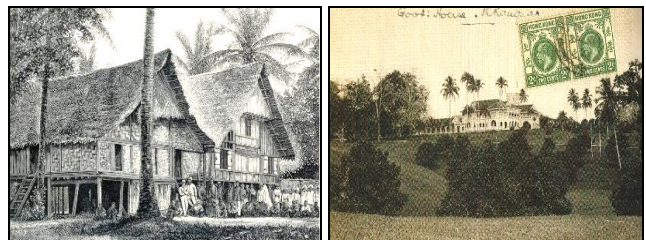


Fig. 5 First traditional royal residence of Princess of Perak (Inche Maida) at Qualla Kungsa and the first Residency at Kuala Kangsar erected in 1876 on the same site of Inche Maida’s house (Source: J.F.A. McNair, 1878 and Lubis et al. 2010)

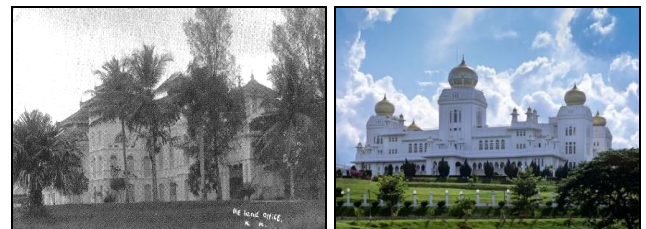


Fig. 6 The Astana Negara was demolished in 1930 to make way for the new Istana Iskandariah (completed in 1933) is located at the highest peak of Bukit Chandan on the left bank of Sungai Perak (Source: Lubis et al. 2010)



Fig. 7 Ubudiah Mosque which was completed in 1917 is located beside the Royal Mausoleum on Bukit Chandan overlooking the Perak River (Source: Lubis et al. 2010)

Apart from the palaces, traditional Malay kampongs, traditional Malay forts, royal mosque and traditional market are among other characteristics that form a traditional royal town [8] [20]. This is not unusual for Kuala Kangsar, as the National Heritage Department has gazette nineteen buildings from various categories under the list of Heritage Buildings and National Heritage Buildings. Meanwhile, seven other heritage buildings have been included in the Kuala Kangsar 2020 Local Plan waiting to be gazetted [21]. Among the prominent buildings located along the streets of Zone A and B that influenced the street character of this royal town are the old colonial shophouses, the clock tower, Istana Iskandariah, Istana Kenangan, Sultan Azlan Shah Gallery, Ubudiah Mosque and many more. The juxtaposition between the attributes derived from the building elements towards the streets promote social interaction that made streets play their full function as an important public urban space and a major contributor to shaping street character. However, the relatively slow transformation of building features reflects the evolution of this city's development that is not overwhelming (Figure 5.0, 6.0 and 7.0). The simplicity of the new buildings along the street showed adherence to the guidelines of the authorities so as not to exceed the height and the uniqueness of the royal palace.

C. Landscape Character and Natural Elements

History proves that the landscape forms influences development where it can be used as a factor that unifies the whole urban form and becomes the dominant element in urban composition [17]. Revealing the history of this royal town's landscape witnessed the first rubber tree planted in Malaysia by an English botanist Henry Nicholas Ridley in 1877. Meanwhile the waters of Sungai Perak, which flow through the town has become one of the attractions for its activities and tourism industry thus creating a sense of place through its relationship between people and its atmosphere. Both soft and hard landscapes and natural and man-made landscape greatly influence the townscape character due to the sensory experience that they contribute to the townscape. Among the physical attributes for the landscape elements are color, form, texture, details and scent. While shades and its suitability to support intended activities are among its functional qualities.



Fig. 8 Photo taken from the same location showing idyllic Malayan landscape along the Astana Road (former name of Jalan Istana) dan the current environment (Source: Lubis et al. 2010, author)



Fig. 9 The atmosphere of the surrounding landscape in 1936 along Jalan Istana in Bukit Chandan which has no significant physical changes at present (Source: Lubis et al. 2010, Kuala Kangsar Public Library)

In the context of this royal town of Kuala Kangsar, matured trees that surround the landscape around Jalan Istana especially around the Istana Kenangan and Istana Iskandariah plays a significant role in the town's morphological development besides forming a classic identity to the townscape of the historic town. The transformations of landscape designs throughout the streets at Zone A and B are not very apparent (Figure 8.0 and 9.0). This insignificant evolution is believed to prevent the disappearance of the original character of the town. However, there are many physical improvements on the hard and soft landscapes elements such as the official royal trees and flowers, royal gateway, official signages, official street furniture designs, quality tactile and royal artifacts or products as landmark that symbolize the identity of the constitutional monarchy of the Malay sultanate of Perak.

D. The Activity Setting

Activity and space are two elements of the urban design principles that are interconnected. Activity is behavior response through social, cultural, economic and weather aspects of their environment. Its presence will create a specific function or activity through the location and character of place which will contribute to physical qualities such as accessibility, legibility, distinctiveness and quality of view of the town [5] [13] [22]. The existence of special function and activities along the streets of Jalan Laksamana, Jalan Shahbandar and Jalan Istana highlights the attraction of the place and able to give a strong memory to the observer. Among the special activities associated with the Sultanate are the Sultan's Coronation Day, Sultan's Birthday, Royal Wedding, Royal Funeral, Water Sports Event and many more (Figure 10.0 and 11.0)

Royal-heritage based products such as *labu sayong* (pitcher-making), gold thread embroidery, *keris* (royal blade) and the craft industry which began from colonial era also become the hub of commercial activities in this area.

These activities usually occur around ‘Medan Lembah’ (Zone A) especially at the open squares, jetty point and the bazaar. Street users are attracted to these nodes due to the distinctive physical character and concentration of human activities. The presence of nodes which radiated through these festive celebrations activities that is rich in royal Malay customs creates an element of attractiveness to encourage the presence of the public on the street and give sense of life in the town.



Fig. 10 Keris making, golden thread embroidery and pitcher-making are Kuala Kangsar handmade royal heritage-based products and activities scattered along Jalan Istana symbolize the image of the royalty (Source: Lubis et al. 2010)

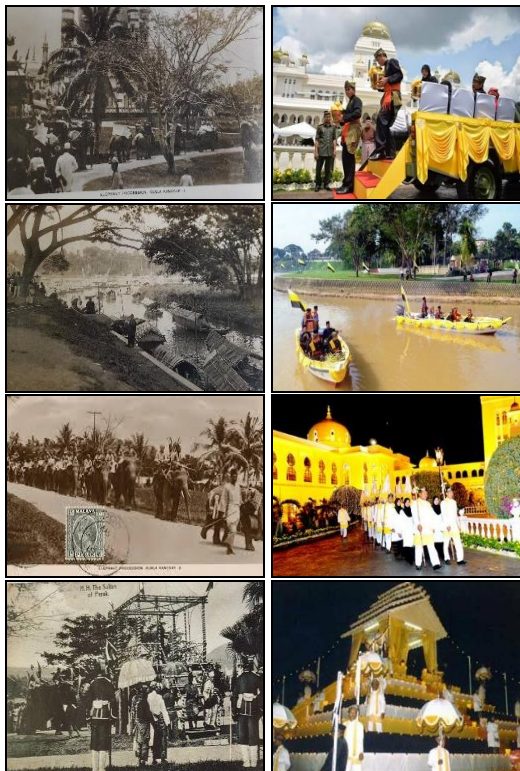


Fig. 11 Special activities during the Sultan of Perak's Coronation Ceremony, Birthday of the Sultan and other royal occasions happening along Jalan Laksamana, Jalan Shahbandar dan Jalan Istana (Source: Lubis et al. 2010, Kuala Kangsar Public Library)

VI. LESSON FROM THE PAST

The traditional towns, streets and all physical elements of Kuala Kangsar are generally put together far better than new ones because they have certain essential qualities like recognizable street patterns and complexity within order. This is in line with the opinion of Tibbalds [23] that traditional towns have a richness, intricacy and user-friendly quality that has evolved from years, even centuries of adaptation.

The study concludes that the traditional street that is rich with an intriguing mix of architectural styles and rich built heritage could be innovatively applied to contemporary municipalities where present-day planners should learn from urban heritage. To prevent the loss of street character and reflects a good street design hierarchy, requires enrichment of sensory experience through assortment of physical elements such as intricate details of a building or colors and aroma of the landscapes. With regards to physical relics of the historic royal town, it is important to ‘own’ the historic town as an entity rather than the individual building because it represent ownership to the local people to be valued as a meaningful entity in the evolution and history of its urban design. Meanwhile, the evolving culture of the street in present times is very crucial because previous research highlighted a worrying trend in the design of modern streets in Malaysia where the nature of urban development had reduced the role that the street plays as an important public urban space. The urge for designers, planners and policy makers to examine and learn from traditional streets that have different street cultures are strongly encouraged. This can be done by solving the paradox between the need for narrow, winding streets to maximize shade, and wide, straight streets to facilitate the movement of pedestrians and permeability. Successful street helped redefine the street character as an important public space rather than as a mere channel for movement.

ACKNOWLEDGMENT

This work was supported by Universiti Kebangsaan Malaysia (UKM) under Grant Nos. FRGS/1/2015/SS111/UKM/02/2

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