

Streets of Royal Town: Exploring the Physical Character of Traditional Street in the Malay Royal Town

Wan Norisma Wan Ismail*

Department of Architecture, Faculty of Engineering and Built Environment, Universiti Sains Islam Malaysia

Nor Haslina Ja'afar

2Centre of Architecture and Built Environment Innovative (SeRAMBI), Programme Architecture, Secretariat of Identity of National Architecture, Faculty of Engineering and Built Environment, Universiti Kebangsaan, Malaysia

Nor Zalina Harun

Institute of the Malay World and Civilization, Universiti Kebangsaan, Malaysia

Abstract

Fabric of a town is an accumulation of historical scenes. Historic towns are regarded as a treasured inheritance. Royal towns in Malaysia is significant to unique heritage identity. Streets in royal town are significant urban elements that indicates the characteristics and attributes of a setting that define their physical and functional aspects. The aim of this study is to analyze the physical components and qualities that influenced the street aspect of the royal town in Kuala Kangsar. It discusses the background of the town, literature review on traditional street characteristics and analyzing physical elements as attributes in revealing physical qualities that ultimately form a unique and distinctive street character in the royal town. The research employed mixed methods, of combining qualitative and quantitative analysis to strengthen the conclusions and heightened its knowledge and validity. This paper will share its findings based on research's pilot study through questionnaire, observation, interviews and historical document analysis. The royal heritage town was analyzed to illustrate the objectives and all attributes were cross-investigated to determine what are the essential physical elements that have contributed to these qualities. The study concludes that attractiveness, visibility, human scale, enclosure, permeability, legibility and special activities are the significant physical qualities that shaped the character of streets in the royal town. Each physical quality is manifested by the physical elements that becomes the catalyst in creating a successful path.

Keywords: Royal town; Kuala Kangsar; Street; Perak.



CC BY: [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/)

1. Introduction

The built environment is fundamentally physical. All towns including the royal towns are made up of buildings and streets - otherwise we would not call them as town (Kropf, 1996). All towns are unavoidably historical because they have been built over a particular period of time. In the infrastructure of a town, physical factor of the street is the most fundamental element that forms the history and civilization of a place (Mehta, 2013). Streets are one of the primary elements in the hierarchy of components as a tool in the analysis of towns (Cannigia and Maffei, 1979). Character is a matter of differences whereby things that give a town its character are the things that make it different from others, distinct and unique. The distinctive combination of various physical features that constitute the character of town and streets gives the place its identity. Both character and identity are, in a sense, two names for the same thing (Kropf, 1996). Physical elemental aspects have a compelling quality on the aspect of the streets as well as construct sense of place. According to Ahmad and Sulaiman (2012), there are four essential elements that make up an environment in the urban design field especially behavioral, physical, social and psychological. This study however, will focus on physical aspects because the findings of the investigation by Nor (2014), Musaab and Rawia (2017) and concluded that streets are the main things that are intently relevant to the nature of place thus creating a successful street. Nor (2014) states that three physical components that affect the quality of streets are landscapes, street, buildings, and patterns.

2. Case Study - Royal Town of Kuala Kangsar, Perak

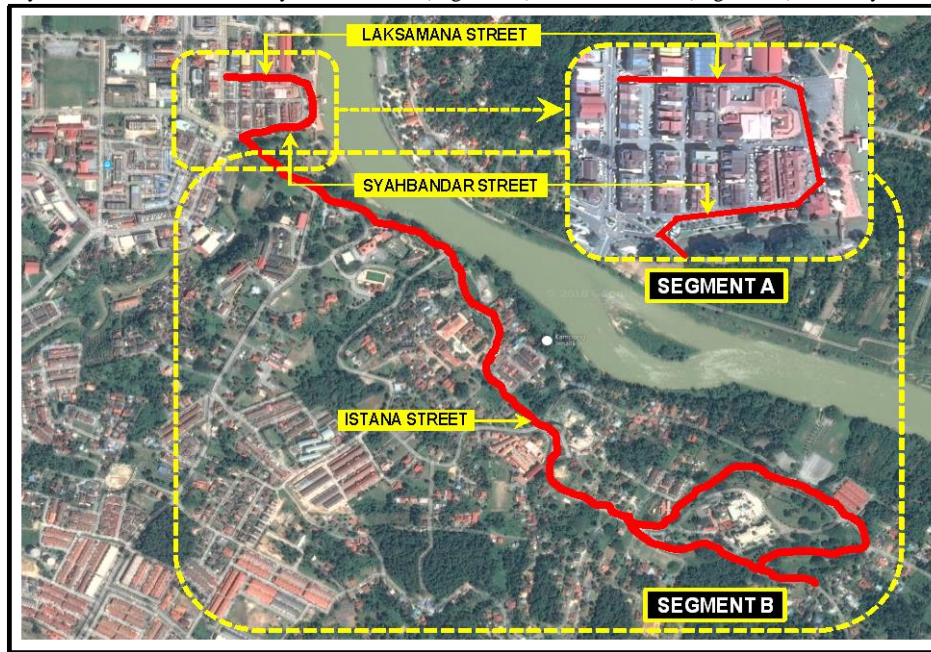
Malaysia has several royal towns that have been officially and unofficially gazetted. Royal town is very significant with the history of the sultanate who are the main factor in the existence of these royal towns. It was during the British administration of Malaya that the royal towns were established so that the Malay ruler could have their own town as a symbol of recognition with regards to Islam and Malay customs. According to PLAN Malaysia, there are five towns which have been listed as royal towns in Malaysia namely Kuala Kangsar Perak, Arau Perlis, Klang Selangor, Seri Menanti Negeri Sembilan and Pekan Pahang. Other towns such as Anak Bukit Kedah, Muar Johor, Kuala Terengganu and Kota Bharu Kelantan are also known as royal towns, but no official records were found. The character of all towns including these royal towns are historical, regardless of how short the history, due to the characteristics it has - its identity - are the result of the process of its formation - its history (Kropf, 1996). Its

*Corresponding Author

physical elements primarily the streets and buildings that make up a town are a documentation of its creation besides traces past activity. There are some disparities in views on the date of Kuala Kangsar being appointed as the royal town. Research by found that Kuala Kangsar was made to be the royal town of Perak in 1877 while findings shows that Kuala Kangsar was declared as a royal town by Sultan Idris Shah I in 1887.

However, the justification of why the town was chosen as a case study was based on previous research that KualaKangsar is the oldest historic royal town in Malaysia which has never changed its location as compared to other royal towns. Emphasized that the first rule is to ‘think of streets as public space’ so it can be planned and designed to serve communities, enhance economic and social engagement and ease mobility. Hence based on this theory, Laksamana Street, Syahbandar Street (Segment A) and Istana Street (Segment B) has been chosen as the scope of the study in view of its location and its strategic role as public spaces (Figure 1)

Fig-1. Scope of study covers Laksamana Street, SyahbandarStreet (Segment A) and Istana Street (Segment B) in the royal town of Kuala Kangsar



Source: google map

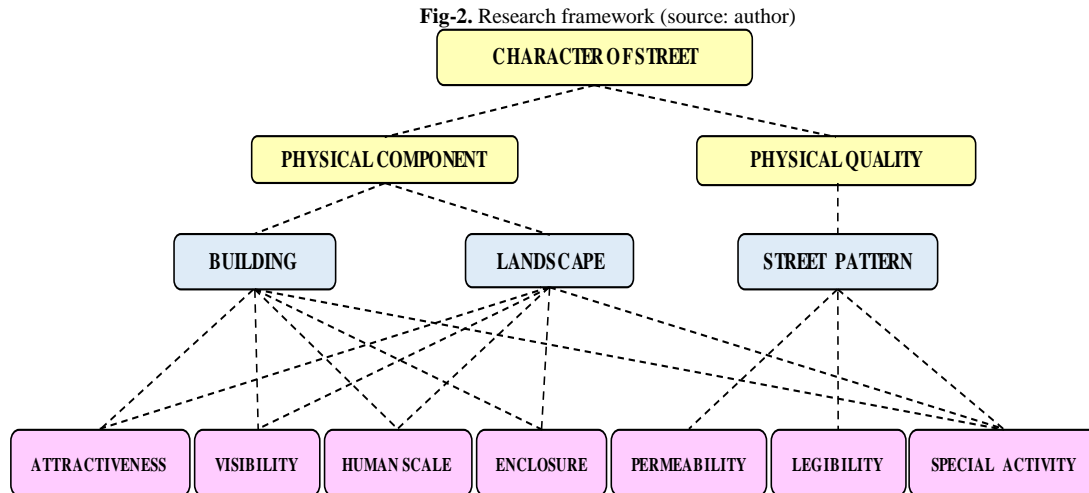
3. Methodology

This paper will share its findings based on research’s pilot study through questionnaire surveys, interviews, observations of the physical environment of the street and historical document analysis. This study employed the mixed methods approach including qualitative and quantitative method in data collection and analysis that has been derived from the research questions and the research objectives. The overall goal of mixed methods research is to expand and strengthen the study’s conclusions and heightened its knowledge and validity. Qualitative survey consisted of field observation which includes visual observation and activity mapping, in-depth interviews which involves key informant and streets users and historical documents analysis. Visual survey consists of photographic record and sketches during the field observation. Whereas quantitative data were collected via questionnaire. This study adapts both structured and open-ended questionnaire to identify the most significant elements that influenced the characteristics of traditional street in the royal town. Finally, the triangulation process will identify aspects of a phenomenon (elements and qualities of street character) more accurately by approaching it from different vantage points using various methods and techniques.

4. Research Framework

Study shows that streets are connections between spaces and places, as well as being spaces themselves. Streets constitute the majority of the town’s public realm. Streets or paths are the main things that are intimately relevant to the aspects of a place (Nor, 2014); (Musaab and Rawia, 2017). Good street layout is very influential in generating an achievement street. Studies by Nor (2014) and Musaab and Rawia (2017) concluded that street is branched into two types of characteristics - physical appearance and function. Musaab’s study reveals that street attributes such as vitality, diversity, transaction, accessibility, legibility, distinctiveness, comfort, safety and security are characteristics that contribute in influencing sense of place. According to Norhafizah (2015), and Carmona (2003) the physical design of a street includes buildings, landscapes, climate and aesthetic quality. While Catanese (1979) emphasizes that physical element is one of the fundamental components that forms a town and it includes buildings, parks and streets. Based on literature review, street’s physical arrival assign to landscapes, buildings, condition of view, street arrangement, location, street structure, parking, street widths, street network arrangements development patterns, and sensory (Nor, 2014); (Appleyard, 1980; Moughtin, 2006). While street’s objective assign to the action that occur around it because, movement add to the victory of the street thus initiate the atmosphere of the place (Nor, 2014). Therefore, this investigation will analyze the physical element based on both attitude of appearance and

function. Based on theories by previous researchers, the framework (Figure 2) summarizes the main physical elements and qualities of street character driven from the research in correlation to the aspects of street design which will be used in evaluating and analyzing the research case study in the royal town.



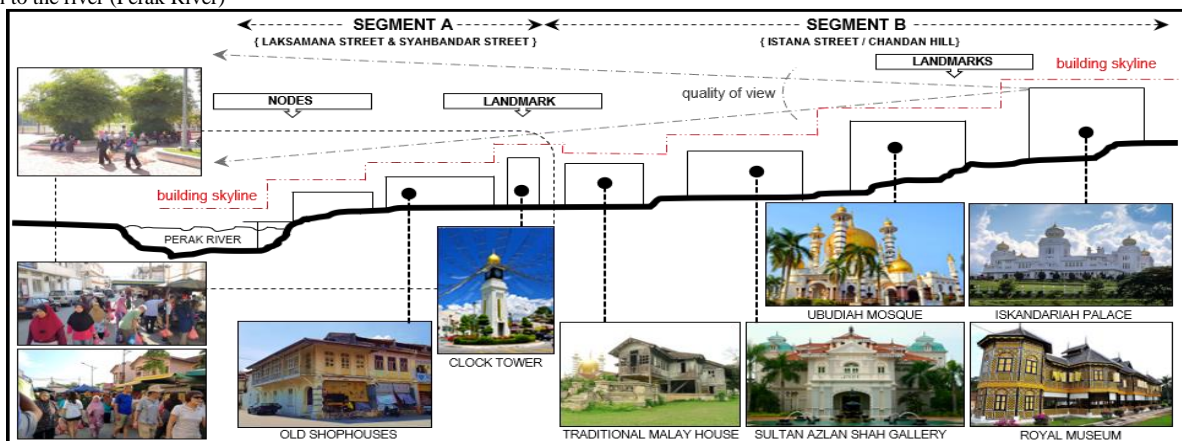
5. Findings and Discussion

Based on the pilot study which includes a questionnaire, observations and interviews with local people, the following qualities described how the physical elements have influenced and played a significant role in shaping the character of streets in the royal town of Kuala Kangsar.

5.1. Attractiveness

With reference to the theoretical framework of the study, the physical elements that create the quality of attractiveness for the streets in the royal town of Kuala Kangsar involved two components - building and landscape. Analysis concludes that most users find these paths attractive due to several contributing factors. For building components, the presence of heritage buildings with interesting details and ornamentation such as Iskandariah Palace, Ubudiah Mosque, Royal Museum and Sultan Azlan Shah Gallery create an attractive sense of place. The presence of various types of civic buildings concentrated along Jalan Istana in Segment A such as palaces, mosques, galleries and museums thus contributing to the attractiveness and unique atmosphere of the royal town. These civic use buildings have distinctive identities and characters and help to make the street recognizable. Apart from that, the setting of the town in relation to its topography and geographical location is an important criterion affecting the profile of the town (Shamsuddin, 2011). The royal town which sits by the Perak River with most of the distinctive buildings located along the Chandan Hill (Segment B) evoke a strong image of the historic royal townscape. The attractiveness of the skyline is visibly seen by observing the rhythm of the line and the way it responds to the undulating landform (Figure 3). According to Shamsuddin, a skyline that tends to be in harmony with the landform will heightened the impact of the towns profile from far. Key buildings that gives signature to the skyline also act as a landmark to the town. This geographical setting which positions the town in relation to the land form, landscapes, water bodies and topography constitutes as the widest level of identity (Tugnutt and Robertson, 1987).

Fig-3. The profile of Kuala Kangsar town with a distinct skyline and responding sensitively to the topography from the hilltop (Bukit Chandan) down to the river (Perak River)



Source: google and author

5.2. Visibility

The physical elements that create the quality of visibility involved two components namely building and landscape. For building component, among the elements that make up the variables to measure the physical quality are location of buildings, types, function, age, size, height, condition, building setback, façade design, architectural design, building opening, building signage and quality of view. While for landscape components, the elements that make up the visible quality can be evaluated in two aspects - soft landscape and hard landscape. Components of hard landscape include location of the landscape, category of landscape, geographical factor and water element. Whereas for soft landscape, the elements that affect this quality are street pavement, pedestrian walkways and street furniture. The analysis concludes that almost all users could visibly identify these streets based on several factors involving building component and landscape. Most users found that visibility on these streets become increasingly clear due to the magnificent size and shape of the buildings, the presence of the prominent vertical elements as well as the existence of heritage buildings such as the Iskandariah Palace, Ubudiah Mosque and the Sultan Azlan Shah Gallery. Besides that, the difference in landscape design between Segment A and B also contributes to the quality of visibility. Landscapes along the Istana Street are more visible due to its distinctive design (royal yellow flowers) as well as a series of royal palm trees as the official landscape theme and image of the royal town.

5.3. Human Scale

Principles of good human scale must be a natural part of the urban fabric in order to invite people to walk (Gehl, 2013). Analysis found that human scale in segment A was contributed by several factors such as the medium size buildings and the presence of buildings with moderate height such as the double-storey old and new shop houses, the bazaar and the food court. Keeping the dimensions and design of outdoor spaces in harmony with the human scale is vital for users to feel welcome and comfortable. For landscape, the presence of a moderate height and shady flowering plants such as the Frangipani and the bushy bamboo trees located along the waterfront played an important role of providing shade to the public. Meanwhile hard landscape elements such as pergola play an important a role in providing comfort by protecting them from the heat and rain. Hence, elements with a scale adapted to the senses and potential of human being is very important to reinforce pedestrianism.

5.4. Permeability

Permeability refers to the extent to which an environment allows people a choice of routes through and within it. Visual permeability enables street users to see the routes through an environment whilst physical permeability allows street users to move through an environment (Carmona M. *et al.*, 2012). This study involved two types of permeability namely permeability interface between public and private spaces and permeability of public spaces. For public permeability, most street users arrive in both segments A and B by private vehicles such as motorcycles and cars. Only a small number of street users are walking while almost no one uses public services like bus or taxi to arrive to this area. To move from one place to another within the same segment, the analysis found that majority are likely to walk on foot due to the narrow street width, the presence of interconnected pedestrian paths, short cuts, the proximity junction close to each other (because of short building blocks) as well as secure sidewalk paths (pedestrian route segregated from vehicle routes). As stated by, a well-connected street network has many short-link and numerous intersections that increases connectivity, decreases travel distances, increases route options and travel modes and allowing more direct travel between destinations, thereby creating amore permeable and accessible public spaces. While for public-private permeability, the interface is largely a visual concern. Analysis shows that there are certain areas which the public are not allowed to enter due to the significant function and architectural style of the building itself (residence on the upper level of a shop house), the presence of elements that indicate the function of the building (such as curtains in residential unit) and outdoor activities that depicts it as a private area (sweeping the lawn, watering the plants). Therefore, both interfaces are important in achieving physical and visual permeability which includes the search for small blocks, avoiding segregated paths and hierarchical layouts.

5.5. Legibility

Legibility and connectivity of streets and paths support ease of movement and accessibility to street users. It is a place that has a clear image and how easily people can understand its layout. The study for this quality is based on Lynch's theory which summarized the physical form of city image into five elements: paths, edges, districts, nodes and landmarks. Analysis involving both segments in the context of legibility shows that most street users do not get lost or face any difficulties reaching these streets. Among the main reasons are due to the presence of high vertical elements that can be identified as landmarks from a distance such as the clock tower (for Segment A) and the minarets of the Ubudiah Mosque, the existence of buildings with prominent architectural styles such as the Iskandariah Mosque and the Royal Museum (Segment B) as well as focal places filled with activities as nodes such as the night market and Sunday market. Observation shows that minarets of the Iskandariah Palace and the Ubudiah Mosque that stand tall above Chandan Hill act as a landmark and reference point in contributing towards a legible image of a place and enrich the urban scene. The soft landscape component such as water element that refers to the Perak River is also a major contributor to this quality as it becomes the point of reference to reach this area. These elements form a legible environment where landmarks and pathways are easily identifiable.

5.6. Enclosure

Streets with a strong sense-of-enclosure has strong physical character. The continuity of a street wall and the height-to-width ratio determine the sense of spatial enclosure within the street, while its width determines how the surrounding architecture is seen (Carmona M. *et al.*, 2012). In narrow streets along Segment A, vertical features such as the Kuala Kangsar clock tower becomes more prominent while projections from the old colonial shop houses are exaggerated and its eye-level details are more visible. The winding and irregular street frontages of Laksamana Street and Syahbandar Street enhance the sense-of-enclosure and provide constant changing perspectives for the mobile observer. This is in line with Gordon (1961), Sitte (1889) and Nor (2014) findings that narrow streets provide an enclosed and confining atmosphere that creates an intimate impression to street users. Wider street along Segment B allows a more comfortable viewing distance - which is from a distance of about twice its height (Iskandariah Palace, Perak Royal Museum and Sultan Azlan Shah Gallery). Visual observation found that sense-of-enclosure was also contributed by soft landscape elements in the form of a continuous large tree line that was harmonized with various royal landscape designs along the Istana Street. The ratio of street width to the height of some old shady rain trees along the street has a direct influence on the sense of enclosure which makes the streetscape more attractive.

5.7. Special Activities

A good street should be used by different types of people for different activities. Activity involves the physical qualities of a place whereby the impact of activities is most significant through the activity setting due to the variety of visual qualities of the town and sensory experienced encountered (Shamsuddin, 2011). Analysis shows that the most memorable and dominant activities on these streets are related to royal events such as the Sultan's Coronation Day, the Sultan's Birthday or the day of the Sultan's funeral. During the royal ceremonial, the whole ambiance along Segment A and B is bombarded with a strong sense of royal color and culturally enriching events. Apart from that, recreational activities such as water sports and weekly activities such as night markets and Sunday markets also contribute to the special activities that increases responsive nature of the street to the users as well as creating places of excitement and vibrant atmosphere in this royal town. The presence of these activities attracts other complementary activities to occur thus increases a high degree of visibility and sense of vitality.

6. Conclusion

The royal heritage town of Kuala Kangsar was analyzed to illustrate the objectives and the most significant components were cross-investigated to determine what are the essential physical elements that have contributed to these qualities. The study concludes that there are seven significant physical qualities that shaped the character of streets in the royal town namely attractiveness, visibility, human scale, enclosure, permeability, legibility and special activities. Each physical quality is manifested by the physical elements that becomes the catalyst in creating a distinctive street character. These elements and qualities act as a guiding principle in designing a new environment that includes historical fabric forming part of the ensemble while retaining the unique features of the historic royal town. That view, in turn, provide better understanding of how the character of royal town in general and more effective tools for architects and urban designers as a firm basis for character assessment and the elements that encapsulate it. However, what is being discussed in this paper is based on pilot study where the process needs to be validated through a more conclusive questionnaire survey and detailed observations. An explicit analysis and a more critical research findings are needed to obtain a conclusive study.

Acknowledgements

This work was supported in part by Universiti Kebangsaan Malaysia (UKM) under Grant Nos. FRGS/1/2015/SSI11/UKM/02/2

References

- Ahmad, B. and Sulaiman (2012). National seminar on sustainable urban design for livable cities, Sudlic 2012, 23 may 2012. In sustainable cities by design, Breaking the silos.
- Appleyard (1980). Livable Streets, Protected Neighborhoods? *The ANNALS of the American Academy of Political and Social Science*, 451(1): 106–17.
- Cannigia, G. and Maffei, G. L. (1979). *Composizione architettonica e tipologia edilizia. Letturedell'edilizia di base*. Marsilio editori: Venice.
- Carmona (2003). *Public Places, Urban Spaces, The Dimensions of Urban Design*. Architectural Press. 312.
- Carmona, M., Heath, T., Oc, T. and Tiesdell, S. (2012). *Public places-urban spaces*. Routledge:
- Catanese, A. J. (1979). Information for planning. *The Practice of Local Government Planning*:
- Gehl, J. (2013). *Cities for people*. Island Press.
- Gordon, C. (1961). The concise townscape. 1(Dec.):
- Kropf, K. (1996). Urban tissue and the character of towns. *Urban Design International*, 1(3): 247-63.
- Mehta (2013). A review of The Street, A quintessential social public space. *Journal of the American Planning Association*, 80(2): 191.
- Moughtin (2006). *Urban Design, Green Dimensions*. Routledge.
- Musaab and Rawia (2017). Reviewing on street attributes in influencing sense of place and place attachment. *Int. J. of Adv. Res.*, 5(2): 356-65.

- Nor, H. a. (2014). Karakterfizikal jalan tradisional, Kajian kes di melaka Malaysia. 325.
- Norhafizah (2015). What makes people use the street? Towards a liveable urban environment in Kuala Lumpur city centre. *Procedia - Social and Behavioral Sciences*, 170: 624-32.
- Shamsuddin, S. (2011). *Townscape revisited, Unravelling the character of the historic townscape in Malaysia*. Penerbit UTM Press. 176.
- Sitte, C. (1889). The art of building cities, City building according to its artistic principles.
- Tugnutt, A. and Robertson, M. (1987). Making townscape, A contextual approach to building in an urban setting. (November): 26.